

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/08/2022

Reviewed on 06/08/2022

## 1 Identification

- **Product identifier**
- **Trade name:** Conductive Silver 187
- **Article number:** 12684-15
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids 3

Substances and mixtures which, in contact with water, emit flammable gases 1

H226 Flammable liquid and vapor.

H260 In contact with water releases flammable gases, which may ignite spontaneously.



GHS08 Health hazard

Carcinogenicity 2

Specific Target Organ Toxicity - Repeated Exposure 2

H351 Suspected of causing cancer.

H373 May cause damage to the hearing organs through prolonged or repeated exposure.



GHS07

Skin Irritation 2

Eye Irritation 2A

Sensitization - Skin 1

Specific Target Organ Toxicity - Single Exposure 3

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS07



GHS08

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US

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**Trade name: Conductive Silver 187**

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· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*4-chloro-alpha,alpha,alpha-trifluorotoluene  
Acetone, Reagent Grade  
ethylbenzene*

· **Hazard statements**

*Flammable liquid and vapor.  
In contact with water releases flammable gases, which may ignite spontaneously.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.  
Suspected of causing cancer.  
May cause drowsiness or dizziness.  
May cause damage to the hearing organs through prolonged or repeated exposure.*

· **Precautionary statements**

*Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Do not allow contact with water.  
Handle under inert gas. Protect from moisture.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Wash thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
IF exposed or concerned: Get medical advice/attention.  
Call a poison center/doctor if you feel unwell.  
Specific treatment (see on this label).  
Get medical advice/attention if you feel unwell.  
Take off contaminated clothing and wash it before reuse.  
If skin irritation or rash occurs: Get medical advice/attention.  
Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.  
If eye irritation persists: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
In case of fire: Use CO2, sand, extinguishing powder to extinguish.  
Store in a dry place. Store in a closed container.  
Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*

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Trade name: **Conductive Silver 187**

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 2  
Fire = 4  
Reactivity = 2

The substance demonstrates unusual reactivity with water.

- **HMIS-ratings (scale 0 - 4)**



Health = 2  
Fire = 4  
Reactivity = 2

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

67-64-1	Acetone, Reagent Grade	>10-≤25%
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	>10-≤25%
100-41-4	ethylbenzene	≤2.5%

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

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## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

7440-22-4	silver	0.3 mg/m <sup>3</sup>
67-64-1	Acetone, Reagent Grade	200 ppm
100-41-4	ethylbenzene	33 ppm

- **PAC-2:**

7440-22-4	silver	170 mg/m <sup>3</sup>
67-64-1	Acetone, Reagent Grade	3200* ppm
100-41-4	ethylbenzene	1100* ppm

- **PAC-3:**

7440-22-4	silver	990 mg/m <sup>3</sup>
67-64-1	Acetone, Reagent Grade	5700* ppm
100-41-4	ethylbenzene	1800* ppm

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.

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Protect from heat.

Protect against electrostatic charges.

· **Conditions for safe storage, including any incompatibilities**· **Storage:**· **Requirements to be met by storerooms and receptacles:** No special requirements.· **Information about storage in one common storage facility:** Not required.· **Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.· **Control parameters**· **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

### 67-64-1 Acetone, Reagent Grade

PEL Long-term value: 2400 mg/m<sup>3</sup>, 1000 ppmREL Long-term value: 590 mg/m<sup>3</sup>, 250 ppm

TLV Short-term value: 500 ppm

Long-term value: 250 ppm

A4, BEI

### 100-41-4 ethylbenzene

PEL Long-term value: 435 mg/m<sup>3</sup>, 100 ppmREL Short-term value: 545 mg/m<sup>3</sup>, 125 ppmLong-term value: 435 mg/m<sup>3</sup>, 100 ppm

TLV Long-term value: 20 NIC-20 ppm

BEI, A3, NIC: OTO, BEI, A3

· **Ingredients with biological limit values:**

### 67-64-1 Acetone, Reagent Grade

BEI 25 mg/L

Medium: urine

Time: end of shift

Parameter: Acetone (nonspecific)

### 100-41-4 ethylbenzene

BEI 0.15 g/g creatinine

Medium: urine

Time: end of shift at end of workweek

Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)

· **Additional information:** The lists that were valid during the creation were used as basis.· **Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

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Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Safety glasses



Tightly sealed goggles

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Silver-colored
<b>Odor:</b>	Characteristic
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	56 °C (132.8 °F)

· **Flash point:** -16 °C (3.2 °F)

· **Flammability (solid, gaseous):** Not flammable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Spontaneously flammable in air.

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· <b>Danger of explosion:</b>	<i>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</i>
· <b>Explosion limits:</b>	
<b>Lower:</b>	<i>Not determined.</i>
<b>Upper:</b>	<i>Not determined.</i>
· <b>Vapor pressure at 20 °C (68 °F):</b>	<i>245.3 hPa (184 mm Hg)</i>
· <b>Density at 20 °C (68 °F):</b>	<i>1.618 g/cm<sup>3</sup> (13.50221 lbs/gal)</i>
· <b>Relative density</b>	<i>Not determined.</i>
· <b>Vapor density</b>	<i>Not determined.</i>
· <b>Evaporation rate</b>	<i>Not determined.</i>
· <b>Solubility in / Miscibility with Water:</b>	<i>Fully miscible.</i>
· <b>Partition coefficient (n-octanol/water):</b>	<i>Not determined.</i>
· <b>Viscosity:</b>	
<b>Dynamic at 20 °C (68 °F):</b>	<i>25 mPas</i>
<b>Kinematic:</b>	<i>Not determined.</i>
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	<i>22.8 %</i>
<b>VOC content:</b>	<i>1.09 %</i>
	<i>31.7 g/l / 0.26 lb/gal</i>
· <b>Solids content:</b>	<i>0.0 %</i>
· <b>Other information</b>	<i>No further relevant information available.</i>

## 10 Stability and reactivity

- **Reactivity** *No further relevant information available.*
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *Contact with water releases flammable gases.*
- **Conditions to avoid** *No further relevant information available.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

## 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity:**
  - **Primary irritant effect:**
  - **on the skin:** *Irritant to skin and mucous membranes.*
  - **on the eye:** *Irritating effect.*
  - **Sensitization:** *Sensitization possible through skin contact.*
  - **Additional toxicological information:**
- The product shows the following dangers according to internally approved calculation methods for preparations:*
- Harmful*
- Irritant*

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· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	2B
100-41-4	ethylbenzene	2B

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

· **Toxicity**· **Aquatic toxicity:** No further relevant information available.· **Persistence and degradability** No further relevant information available.· **Behavior in environmental systems:**· **Bioaccumulative potential** No further relevant information available.· **Mobility in soil** No further relevant information available.· **Ecotoxicological effects:**· **Remark:** Toxic for fish· **Additional ecological information:**· **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

· **Waste treatment methods**· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**· **Recommendation:** Disposal must be made according to official regulations.· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

· **UN-Number**· **DOT, ADR, IMDG, IATA** UNI263· **UN proper shipping name**· **DOT** Paint· **ADR** 1263 PAINT, ENVIRONMENTALLY HAZARDOUS

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· <b>IMDG, IATA</b>	<i>PAINT</i>
· <b>Transport hazard class(es)</b>	
· <b>DOT</b>	
	
· <b>Class</b>	<i>3 Flammable liquids</i>
· <b>Label</b>	<i>3</i>
· <b>ADR</b>	
 	
· <b>Class</b>	<i>3 Flammable liquids</i>
· <b>Label</b>	<i>3</i>
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	<i>3 Flammable liquids</i>
· <b>Label</b>	<i>3</i>
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	<i>II</i>
· <b>Environmental hazards:</b>	
· <b>Special marking (ADR):</b>	<i>Symbol (fish and tree)</i>
· <b>Special precautions for user</b>	<i>Warning: Flammable liquids</i>
· <b>Hazard identification number (Kemler code):</b>	<i>33</i>
· <b>EMS Number:</b>	<i>F-E,S-E</i>
· <b>Segregation groups</b>	<i>Liquid halogenated hydrocarbons</i>
· <b>Stowage Category</b>	<i>B</i>
· <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	<i>Not applicable.</i>
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	<i>On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L</i>
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	<i>Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</i>
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	<i>1L</i>

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Reviewed on 06/08/2022

Trade name: **Conductive Silver 187**

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· **Exempted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 1263 PAINT, 3, II, ENVIRONMENTALLY HAZARDOUS

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

No further relevant information available.

· **Sara**· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

7440-22-4 silver

100-41-4 ethylbenzene

· **TSCA (Toxic Substances Control Act):**

7440-22-4 silver

ACTIVE

67-64-1 Acetone, Reagent Grade

ACTIVE

98-56-6 4-chloro-alpha,alpha,alpha-trifluorotoluene

ACTIVE

100-41-4 ethylbenzene

ACTIVE

· **Hazardous Air Pollutants**

100-41-4 ethylbenzene

· **Proposition 65**· **Chemicals known to cause cancer:**

98-56-6 4-chloro-alpha,alpha,alpha-trifluorotoluene

100-41-4 ethylbenzene

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**· **EPA (Environmental Protection Agency)**

7440-22-4 silver

D

67-64-1 Acetone, Reagent Grade

I

100-41-4 ethylbenzene

D

· **TLV (Threshold Limit Value)**

67-64-1 Acetone, Reagent Grade

A4

100-41-4 ethylbenzene

A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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Trade name: **Conductive Silver 187**

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· **Hazard pictograms**

GHS02    GHS07    GHS08

· **Signal word** *Danger*· **Hazard-determining components of labeling:***4-chloro-alpha,alpha,alpha-trifluorotoluene**Acetone, Reagent Grade**ethylbenzene*· **Hazard statements***Flammable liquid and vapor.**In contact with water releases flammable gases, which may ignite spontaneously.**Causes skin irritation.**Causes serious eye irritation.**May cause an allergic skin reaction.**Suspected of causing cancer.**May cause drowsiness or dizziness.**May cause damage to the hearing organs through prolonged or repeated exposure.*· **Precautionary statements***Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Do not allow contact with water.**Handle under inert gas. Protect from moisture.**Ground/bond container and receiving equipment.**Use explosion-proof electrical/ventilating/lighting/equipment.**Use only non-sparking tools.**Take precautionary measures against static discharge.**Do not breathe dust/fume/gas/mist/vapors/spray.**Wash thoroughly after handling.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing must not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**IF INHALED: Remove person to fresh air and keep comfortable for breathing.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Call a poison center/doctor if you feel unwell.**Specific treatment (see on this label).**Get medical advice/attention if you feel unwell.**Take off contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.**If eye irritation persists: Get medical advice/attention.**Wash contaminated clothing before reuse.**In case of fire: Use CO2, extinguishing powder to extinguish.**Store in a dry place. Store in a closed container.**Store in a well-ventilated place. Keep container tightly closed.**Store in a well-ventilated place. Keep cool.**Store locked up.*

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**Trade name: Conductive Silver 187**

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Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Contact:**

· **Date of preparation / last revision** 06/08/2022 / -

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety **Health**

**TLV: Threshold Limit Value**

**PEL: Permissible Exposure Limit**

**REL: Recommended Exposure Limit**

**BEI: Biological Exposure Limit**

**Flammable Liquids 3: Flammable liquids – Category 3**

**Substances and mixtures which, in contact with water, emit flammable gases 1: Substances and mixtures which in contact with water emit flammable gases – Category 1**

**Skin Irritation 2: Skin corrosion/irritation – Category 2**

**Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A**

**Sensitization - Skin 1: Skin sensitisation – Category 1**

**Carcinogenicity 2: Carcinogenicity – Category 2**

**Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3**

**Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2**

US

# Safety Data Sheet

## according to WHS Regulations

Printing date 08.06.2022

Revision: 08.06.2022

### 1 Identification

- **Product identifier**
- **Trade name:** Conductive Silver 187
- **Article number:** 12684-15
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [sgkcck@aol.com](mailto:sgkcck@aol.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- ProSciTech Pty Ltd  
11 Carlton Street, Kirwan QLD 4817 Australia  
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Website: [ems.proscitech.com](http://ems.proscitech.com)
- Emgrid Australia Pty. Ltd.  
P.O. Box 118  
The Patch VIC 3792  
Australia  
Tel: 03 9752 1785  
Fax: 03 9752 1784  
Website: [www.emgrid.com.au](http://www.emgrid.com.au)
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS02 flame

Flam. Liq. 3      H226 Flammable liquid and vapour.  
Water-react. 1      H260 In contact with water releases flammable gases which may ignite spontaneously.



GHS08 health hazard

Carc. 2      H351 Suspected of causing cancer.  
STOT RE 2      H373 May cause damage to the hearing organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2      H315 Causes skin irritation.

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## Safety Data Sheet according to WHS Regulations

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**Trade name: Conductive Silver 187**

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Eye Irritation 2A H319 Causes serious eye irritation.  
 Skin Sens. 1 H317 May cause an allergic skin reaction.  
 STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**

- **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

- **Hazard pictograms**



GHS02    GHS07    GHS08

- **Signal word** Danger

- **Hazard-determining components of labelling:**

4-chloro-alpha,alpha,alpha-trifluorotoluene  
 Acetone, Reagent Grade  
 ethylbenzene

- **Hazard statements**

Flammable liquid and vapour.  
 In contact with water releases flammable gases which may ignite spontaneously.  
 Causes skin irritation.  
 Causes serious eye irritation.  
 May cause an allergic skin reaction.  
 Suspected of causing cancer.  
 May cause drowsiness or dizziness.  
 May cause damage to the hearing organs through prolonged or repeated exposure.

- **Precautionary statements**

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
 Keep away from any possible contact with water, because of violent reaction and possible flash fire.  
 Handle and store contents under inert gas. Protect from moisture.  
 Ground/bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/lighting equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Do not breathe dust/fume/gas/mist/vapours/spray.  
 Wash thoroughly after handling.  
 Use only outdoors or in a well-ventilated area.  
 Contaminated work clothing should not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 IF exposed or concerned: Get medical advice/attention.  
 Call a POISON CENTER/doctor if you feel unwell.  
 Specific treatment (see on this label).  
 Get medical advice/attention if you feel unwell.  
 Take off contaminated clothing and wash it before reuse.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

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# Safety Data Sheet

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*If eye irritation persists: Get medical advice/attention.*

*Wash contaminated clothing before reuse.*

*In case of fire: Use CO<sub>2</sub>, sand, extinguishing powder for extinction.*

*Store in a dry place. Store in a closed container.*

*Store in a well-ventilated place. Keep container tightly closed.*

*Store in a well-ventilated place. Keep cool.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition and Information on Ingredients

- **Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

67-64-1	Acetone, Reagent Grade	>10-≤25%
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	>10-≤25%
100-41-4	ethylbenzene	≤2.5%

- **SVHC**

67-64-1	Acetone, Reagent Grade
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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4 First Aid Measures

- **Description of first aid measures**
- **General information:**  
*Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.*
- **After inhalation:**  
*Supply fresh air and to be sure call for a doctor.*  
*In case of unconsciousness place patient stably in side position for transportation.*
- **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact:**  
*Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*
- **After swallowing:** *If symptoms persist consult doctor.*
- **Information for doctor:**  
· **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*  
· **Indication of any immediate medical attention and special treatment needed**  
*No further relevant information available.*

### 5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
*CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*
- **For safety reasons unsuitable extinguishing agents:** *Water*
- **Special hazards arising from the substance or mixture** *No further relevant information available.*

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## Safety Data Sheet according to WHS Regulations

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Trade name: **Conductive Silver 187**

(Contd. of page 3)

- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect from heat.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**67-64-1 Acetone, Reagent Grade**

WES	Short-term value: 2375 mg/m <sup>3</sup> , 1000 ppm
	Long-term value: 1185 mg/m <sup>3</sup> , 500 ppm

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**100-41-4 ethylbenzene**

WES	Short-term value: 543 mg/m <sup>3</sup> , 125 ppm Long-term value: 434 mg/m <sup>3</sup> , 100 ppm
-----	-------------------------------------------------------------------------------------------------------

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**  
Safety glasses



Tightly sealed goggles

### 9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Liquid
Colour:	Silver-coloured
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

Melting point/freezing point:	Undetermined.
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<b>Initial boiling point and boiling range:</b> 56 °C	
· <b>Flash point:</b>	-16 °C
· <b>Flammability (solid, gas):</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto-ignition temperature:</b>	Spontaneously flammable in air.
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	245.3 hPa
· <b>Density at 20 °C:</b>	1.618 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic at 20 °C:</b>	25 mPas
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	22.8 %
<b>VOC (EC)</b>	22.83 %
<b>Solids content:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Contact with water releases flammable gases.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.

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## Safety Data Sheet according to WHS Regulations

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Trade name: **Conductive Silver 187**

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- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Harmful  
Irritant
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Carc. 2

### 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

- |                                  |                                       |
|----------------------------------|---------------------------------------|
| · <b>UN-Number</b>               |                                       |
| · <b>ADG, IMDG, IATA</b>         | UNI263                                |
| · <b>UN proper shipping name</b> |                                       |
| · <b>ADG</b>                     | 1263 PAINT, ENVIRONMENTALLY HAZARDOUS |
| · <b>IMDG, IATA</b>              | PAINT                                 |

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# Safety Data Sheet

according to WHS Regulations

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Trade name: *Conductive Silver 187*

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· **Transport hazard class(es)**· **ADG**· **Class**

3 Flammable liquids.

· **Label**

3

· **IMDG, IATA**· **Class**

3 Flammable liquids.

· **Label**

3

· **Packing group**· **ADG, IMDG, IATA**

II

· **Environmental hazards:**· **Special marking (ADG):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Flammable liquids.

· **Hazard identification number (Kemler code):**

33

· **EMS Number:**

F-E,S-E

· **Segregation groups**

Liquid halogenated hydrocarbons

· **Stowage Category**

B

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **ADG**· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **Transport category**

2

· **Tunnel restriction code**

D/E

· **IMDG**· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 1263 PAINT, 3, II, ENVIRONMENTALLY HAZARDOUS

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# Safety Data Sheet

## according to WHS Regulations

Printing date 08.06.2022

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Trade name: **Conductive Silver 187**

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### 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Industrial Chemicals**

7440-22-4	silver
67-64-1	Acetone, Reagent Grade
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene
100-41-4	ethylbenzene

· **Standard for the Uniform Scheduling of Medicines and Poisons**

7440-22-4	silver	S2
67-64-1	Acetone, Reagent Grade	S5

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02    GHS07    GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**

4-chloro-alpha,alpha,alpha-trifluorotoluene

Acetone, Reagent Grade

ethylbenzene

· **Hazard statements**

Flammable liquid and vapour.

In contact with water releases flammable gases which may ignite spontaneously.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing cancer.

May cause drowsiness or dizziness.

May cause damage to the hearing organs through prolonged or repeated exposure.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Keep away from any possible contact with water, because of violent reaction and possible flash fire.

Handle and store contents under inert gas. Protect from moisture.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

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## Safety Data Sheet according to WHS Regulations

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**Trade name: Conductive Silver 187**

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*IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.*

*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

*IF exposed or concerned: Get medical advice/attention.*

*Call a POISON CENTER/doctor if you feel unwell.*

*Specific treatment (see on this label).*

*Get medical advice/attention if you feel unwell.*

*Take off contaminated clothing and wash it before reuse.*

*If skin irritation or rash occurs: Get medical advice/attention.*

*Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.*

*If eye irritation persists: Get medical advice/attention.*

*Wash contaminated clothing before reuse.*

*In case of fire: Use CO<sub>2</sub>, sand, extinguishing powder for extinction.*

*Store in a dry place. Store in a closed container.*

*Store in a well-ventilated place. Keep container tightly closed.*

*Store in a well-ventilated place. Keep cool.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **Seveso category**

*O2 Substances and mixtures which in contact with water emit flammable gases*

*E2 Hazardous to the Aquatic Environment*

*P5c FLAMMABLE LIQUIDS*

- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

- **National regulations:**

- **Other regulations, limitations and prohibitive regulations**

- **Substances of very high concern (SVHC) according to REACH, Article 57**

67-64-1	Acetone, Reagent Grade
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- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Contact:**

- **Abbreviations and acronyms:**

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*VOC: Volatile Organic Compounds (USA, EU)*

*PBT: Persistent, Bioaccumulative and Toxic*

*SVHC: Substances of Very High Concern*

*vPvB: very Persistent and very Bioaccumulative*

*Flam. Liq. 3: Flammable liquids – Category 3*

*Water-react. 1: Substances and mixtures which in contact with water emit flammable gases – Category 1*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A*

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**Safety Data Sheet**  
according to WHS Regulations

Printing date 08.06.2022

Revision: 08.06.2022

**Trade name: Conductive Silver 187***Skin Sens. 1: Skin sensitisation – Category 1**Carc. 2: Carcinogenicity – Category 2**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2*

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AU

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 06/08/2022

Reviewed on 06/08/2022

### 1 Identification

- **Product identifier**
- **Trade name:** Conductive Silver 187
- **Article number:** 12684-15
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: sgkcck@aol.com  
 www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

### 2 Hazard identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 3

H226 Flammable liquid and vapour.

Substances and Mixtures Which, in Contact with Water, Emit Flammable Gases - Category 1

H260 In contact with water releases flammable gases which may ignite spontaneously.



GHS08 Health hazard

Carcinogenicity - Category 2

H351 Suspected of causing cancer.

Specific Target Organ Toxicity - Repeated Exposure - Category 2

H373 May cause damage to the hearing organs through prolonged or repeated exposure.



GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure - Category 3

H336 May cause drowsiness or dizziness.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)



# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 06/08/2022

Reviewed on 06/08/2022

Trade name: **Conductive Silver 187**

(Contd. of page 1)

· **Hazard pictograms**

GHS02   GHS07   GHS08

· **Signal word** *Danger*· **Hazard-determining components of labeling:***4-chloro-alpha,alpha,alpha-trifluorotoluene**Acetone, Reagent Grade**ethylbenzene*· **Hazard statements***Flammable liquid and vapour.**In contact with water releases flammable gases which may ignite spontaneously.**Causes skin irritation.**Causes serious eye irritation.**May cause an allergic skin reaction.**Suspected of causing cancer.**May cause drowsiness or dizziness.**May cause damage to the hearing organs through prolonged or repeated exposure.*· **Precautionary statements***Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**Do not allow contact with water.**Handle and store contents under inert gas. Protect from moisture.**Ground and bond container and receiving equipment.**Use explosion-proof [electrical/ventilating/lighting] equipment.**Use non-sparking tools.**Take actions to prevent static discharges.**Do not breathe dust/fume/gas/mist/vapours/spray.**Wash thoroughly after handling.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing should not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**IF ON SKIN: Brush off loose particles from skin. Immerse in cool water.**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**IF INHALED: Remove person to fresh air and keep comfortable for breathing.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Call a poison center/doctor if you feel unwell.**Specific treatment (see on this label).**Get medical advice/attention if you feel unwell.**Take off contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.**In case of fire: Use CO2, sand, extinguishing powder to extinguish.**Store in a dry place. Store in a closed container.**Store in a well-ventilated place. Keep container tightly closed.**Store in a well-ventilated place. Keep cool.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*

(Contd. on page 3)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 06/08/2022

Reviewed on 06/08/2022

Trade name: **Conductive Silver 187**

(Contd. of page 2)

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 2  
Fire = 4  
Reactivity = 2

The substance demonstrates unusual reactivity with water.

- **HMIS-ratings (scale 0 - 4)**



Health = 2  
Fire = 4  
Reactivity = 2

### 3 Composition/Information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

67-64-1	Acetone, Reagent Grade	10-30% w/w *
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	10-30% w/w *
100-41-4	ethylbenzene	0.5-1.5% w/w *

\* Actual concentration ranges are withheld as a trade secret.

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.

(Contd. on page 4)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 06/08/2022

Reviewed on 06/08/2022

Trade name: **Conductive Silver 187**

(Contd. of page 3)

- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect from heat.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

**67-64-1 Acetone, Reagent Grade**

EL STEL: 500 ppm  
TWA: 250 ppm

EV STEL: 750 ppm  
TWA: 500 ppm

**100-41-4 ethylbenzene**

EL TWA: 20 ppm  
IARC 2B

EV STEL: 540 mg/m<sup>3</sup>, 125 ppm  
TWA: 435 mg/m<sup>3</sup>, 100 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**

Safety glasses



Tightly sealed goggles

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# Safety Data Sheet

## according to HPR, Schedule 1

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Reviewed on 06/08/2022

Trade name: *Conductive Silver 187*

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### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Color:</b>	Silver-colored
· <b>Odor:</b>	Characteristic
· <b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	56 °C

· **Flash point:** -16 °C

· **Flammability (solid, gaseous):** Not flammable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Spontaneously flammable in air.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· **Vapor pressure at 20 °C:** 245.3 hPa

· <b>Density at 20 °C:</b>	1.618 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.

· **Solubility in / Miscibility with**

· **Water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· <b>Dynamic at 20 °C:</b>	25 mPas
· <b>Kinematic:</b>	Not determined.

· **Solvent content:**

· **Organic solvents:** 22.8 %

· **Solids content:** 0.0 %

· **Other information** No further relevant information available.

### 10 Stability and reactivity

· **Reactivity** No further relevant information available.

· **Chemical stability**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions** Contact with water releases flammable gases.

· **Conditions to avoid** No further relevant information available.

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## according to HPR, Schedule 1

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Trade name: **Conductive Silver 187**

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- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

98-56-6	4-chloro-alpha,alpha-trifluorotoluene	2B
100-41-4	ethylbenzene	2B

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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Trade name: *Conductive Silver 187*

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

· **UN-Number**  
 · **DOT/TDG, ADR, IMDG, IATA** UNI263

· **UN proper shipping name**  
 · **DOT/TDG** Paint  
 · **ADR** 1263 PAINT, ENVIRONMENTALLY HAZARDOUS  
 · **IMDG, IATA** PAINT

· **Transport hazard class(es)**  
 · **DOT/TDG (Transport dangerous goods):**



· **Class** 3 Flammable liquids  
 · **Label** 3

· **ADR**



· **Class** 3 Flammable liquids  
 · **Label** 3

· **IMDG, IATA**



· **Class** 3 Flammable liquids  
 · **Label** 3

· **Packing group**  
 · **DOT/TDG, ADR, IMDG, IATA** II

· **Environmental hazards:**  
 · **Special marking (ADR):** Symbol (fish and tree)

· **Special precautions for user** Warning: Flammable liquids  
 · **Hazard identification number (Kemler code):** 33  
 · **EMS Number:** F-E, S-E  
 · **Segregation groups** Liquid halogenated hydrocarbons  
 · **Stowage Category** B

· **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

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Trade name: **Conductive Silver 187**

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· **Transport/Additional information:**

· **DOT/TDG**

· **Quantity limitations**

On passenger aircraft/rail: 5 L

On cargo aircraft only: 60 L

· **ADR**

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **IMDG**

· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 1263 PAINT, 3, II, ENVIRONMENTALLY HAZARDOUS

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

7440-22-4 silver

100-41-4 ethylbenzene

· **TSCA (Toxic Substances Control Act):**

7440-22-4 silver

ACTIVE

67-64-1 Acetone, Reagent Grade

ACTIVE

98-56-6 4-chloro-alpha,alpha,alpha-trifluorotoluene

ACTIVE

100-41-4 ethylbenzene

ACTIVE

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

7440-22-4 silver

67-64-1 Acetone, Reagent Grade

98-56-6 4-chloro-alpha,alpha,alpha-trifluorotoluene

100-41-4 ethylbenzene

· **Canadian Non-Domestic Substances List (NDSL)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

100-41-4 ethylbenzene

· **Canadian Ingredient Disclosure list (limit 1%)**

7440-22-4 silver

67-64-1 Acetone, Reagent Grade

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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## Safety Data Sheet according to HPR, Schedule 1

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Trade name: **Conductive Silver 187**

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· **Hazard pictograms**

GHS02   GHS07   GHS08

· **Signal word** *Danger*· **Hazard-determining components of labeling:***4-chloro-alpha,alpha,alpha-trifluorotoluene**Acetone, Reagent Grade**ethylbenzene*· **Hazard statements***Flammable liquid and vapour.**In contact with water releases flammable gases which may ignite spontaneously.**Causes skin irritation.**Causes serious eye irritation.**May cause an allergic skin reaction.**Suspected of causing cancer.**May cause drowsiness or dizziness.**May cause damage to the hearing organs through prolonged or repeated exposure.*· **Precautionary statements***Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**Do not allow contact with water.**Handle and store contents under inert gas. Protect from moisture.**Ground and bond container and receiving equipment.**Use explosion-proof [electrical/ventilating/lighting] equipment.**Use non-sparking tools.**Take actions to prevent static discharges.**Do not breathe dust/fume/gas/mist/vapours/spray.**Wash thoroughly after handling.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing should not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**IF ON SKIN: Brush off loose particles from skin. Immerse in cool water.**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**IF INHALED: Remove person to fresh air and keep comfortable for breathing.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Call a poison center/doctor if you feel unwell.**Specific treatment (see on this label).**Get medical advice/attention if you feel unwell.**Take off contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.**In case of fire: Use CO2, sand, extinguishing powder to extinguish.**Store in a dry place. Store in a closed container.**Store in a well-ventilated place. Keep container tightly closed.**Store in a well-ventilated place. Keep cool.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*

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Printing date 06/08/2022

Reviewed on 06/08/2022

**Trade name: Conductive Silver 187**

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· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Contact:**
- **Date of the latest revision of the safety data sheet** 06/08/2022 / -
- **Abbreviations and acronyms:**
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative

CA

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.06.2022

Revision: 08.06.2022

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Conductive Silver 187
- **Article number:** 12684-15
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



flame

Flam. Liq. 3      H226 Flammable liquid and vapour.  
Water-react. 1      H260 In contact with water releases flammable gases which may ignite spontaneously.



environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Skin Irrit. 2      H315 Causes skin irritation.  
Eye Irrit. 2      H319 Causes serious eye irritation.  
Skin Sens. 1      H317 May cause an allergic skin reaction.  
STOT SE 3      H336 May cause drowsiness or dizziness.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.

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Printing date 08.06.2022

Revision: 08.06.2022

Trade name: **Conductive Silver 187**

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· **Hazard pictograms**· **Signal word** *Danger*· **Hazard-determining components of labelling:***Acetone, Reagent Grade*· **Hazard statements***H226 Flammable liquid and vapour.**H260 In contact with water releases flammable gases which may ignite spontaneously.**H315 Causes skin irritation.**H319 Causes serious eye irritation.**H317 May cause an allergic skin reaction.**H336 May cause drowsiness or dizziness.**H411 Toxic to aquatic life with long lasting effects.*· **Precautionary statements***P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**P223 Do not allow contact with water.**P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Additional information:***Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.*· **2.3 Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

CAS: 67-64-1 EINECS: 200-662-2	Acetone, Reagent Grade ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H336	>10-≤25%
CAS: 98-56-6 EINECS: 202-681-1	4-chloro-alpha,alpha,alpha-trifluorotoluene ⚠ Flam. Liq. 3, H226; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	>10-≤25%
CAS: 100-41-4 EINECS: 202-849-4	ethylbenzene ⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332	≤2.5%

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· **SVHC**

67-64-1 Acetone, Reagent Grade

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### · 4.1 Description of first aid measures

#### · **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

#### · **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

#### · **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

#### · **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

#### · **After swallowing:** If symptoms persist consult doctor.

### · 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

### · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## SECTION 5: Firefighting measures

### · 5.1 Extinguishing media

#### · **Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

#### · **For safety reasons unsuitable extinguishing agents:** Water

### · 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

### · 5.3 Advice for firefighters

#### · **Protective equipment:** Mouth respiratory protective device.

## SECTION 6: Accidental release measures

### · 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

### · 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

### · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

### · 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## SECTION 7: Handling and storage

### · 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.

### · Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.  
Protect from heat.  
Protect against electrostatic charges.

### · 7.2 Conditions for safe storage, including any incompatibilities

#### · Storage:

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Not required.

#### · Further information about storage conditions:

Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.

· 7.3 **Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

### · 8.1 Control parameters

· **Additional information about design of technical facilities:** No further data; see item 7.

#### · Ingredients with limit values that require monitoring at the workplace:

##### 67-64-1 Acetone, Reagent Grade

WEL	Short-term value: 3620 mg/m <sup>3</sup> , 1500 ppm
	Long-term value: 1210 mg/m <sup>3</sup> , 500 ppm

##### 100-41-4 ethylbenzene

WEL	Short-term value: 552 mg/m <sup>3</sup> , 125 ppm
	Long-term value: 441 mg/m <sup>3</sup> , 100 ppm
	Sk

· **Additional information:** The lists valid during the making were used as basis.

### · 8.2 Exposure controls

#### · Personal protective equipment:

#### · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

#### · Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

#### · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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*Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*

- **Material of gloves**

*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*

- **Penetration time of glove material**

*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

- **Eye protection:**

*Safety glasses*



*Tightly sealed goggles*

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Silver-coloured
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	56 °C

- **Flash point:** -16 °C

- **Flammability (solid, gas):** Not applicable.

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Spontaneously flammable in air.

- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

- **Vapour pressure at 20 °C:** 245.3 hPa

<b>Density at 20 °C:</b>	1.618 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.

- **Solubility in / Miscibility with water:**

*Fully miscible.*

- **Partition coefficient: n-octanol/water:** Not determined.

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· <b>Viscosity:</b>	
<b>Dynamic at 20 °C:</b>	25 mPas
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	22.8 %
<b>VOC (EC)</b>	22.83 %
<b>Solids content:</b>	0.0 %
· <b>9.2 Other information</b>	No further relevant information available.

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Contact with water releases flammable gases.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation**  
May cause an allergic skin reaction.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

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Trade name: **Conductive Silver 187**




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- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

- |                                                                                                                                            |                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                | UN1263                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul> | 1263 PAINT, ENVIRONMENTALLY HAZARDOUS<br>PAINT                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR</b></li> </ul>                           | <div style="display: flex; align-items: center; gap: 10px;">   </div> |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>                                                   | 3 Flammable liquids.<br>3                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>                                                                      | <div style="display: flex; align-items: center; gap: 10px;">  </div>                                                                                     |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>                                                   | 3 Flammable liquids.<br>3                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                            | II                                                                                                                                                                                                                                          |

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**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 08.06.2022

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· <b>14.5 Environmental hazards:</b>	
· <b>Special marking (ADR):</b>	Symbol (fish and tree)
· <b>14.6 Special precautions for user</b>	Warning: Flammable liquids.
· <b>Hazard identification number (Kemler code):</b>	33
· <b>EMS Number:</b>	F-E,S-E
· <b>Segregation groups</b>	Liquid halogenated hydrocarbons
· <b>Stowage Category</b>	B
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	D/E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1263 PAINT, 3, II, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**  
O2 Substances and mixtures which in contact with water emit flammable gases  
E2 Hazardous to the Aquatic Environment  
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

67-64-1 Acetone, Reagent Grade

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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**Safety data sheet**  
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**· Relevant phrases**

- H225 Highly flammable liquid and vapour.*
- H226 Flammable liquid and vapour.*
- H302 Harmful if swallowed.*
- H304 May be fatal if swallowed and enters airways.*
- H315 Causes skin irritation.*
- H319 Causes serious eye irritation.*
- H332 Harmful if inhaled.*
- H336 May cause drowsiness or dizziness.*
- H373 May cause damage to organs through prolonged or repeated exposure.*

**· Abbreviations and acronyms:**

- ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*
- IMDG: International Maritime Code for Dangerous Goods*
- IATA: International Air Transport Association*
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals*
- EINECS: European Inventory of Existing Commercial Chemical Substances*
- ELINCS: European List of Notified Chemical Substances*
- CAS: Chemical Abstracts Service (division of the American Chemical Society)*
- VOC: Volatile Organic Compounds (USA, EU)*
- PBT: Persistent, Bioaccumulative and Toxic*
- SVHC: Substances of Very High Concern*
- vPvB: very Persistent and very Bioaccumulative*
- Flam. Liq. 2: Flammable liquids – Category 2*
- Flam. Liq. 3: Flammable liquids – Category 3*
- Water-react. 1: Substances and mixtures which in contact with water emit flammable gases – Category 1*
- Acute Tox. 4: Acute toxicity – Category 4*
- Skin Irrit. 2: Skin corrosion/irritation – Category 2*
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*
- Skin Sens. 1: Skin sensitisation – Category 1*
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2*
- Asp. Tox. 1: Aspiration hazard – Category 1*
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

GB

# 化学品安全技术说明书

## 根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2022.06.08

在 2022.06.08 审核

### 1 化学品及企业标识

- 产品识别者
- 化学品中文(英文)名称, 化学品俗名或商品名: Conductive Silver 187
- 商品编号: 12684-15
- 相应纯物质或者混合物的相关下位用途及禁止用途 无相关详细资料。
- 物质或混合物的用途 实验室化学物
- 安全技术说明书内供应商详细信息
- 企业名称:  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- 可获取更多资料的部门: Product safety department
- 紧急联系电话号码:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 危险性概述

#### · 紧急情况概述:

银色的, 液体, 易燃液体和蒸气。 遇水放出可自燃的易燃气体。 吸入可能有害。 造成皮肤刺激。 造成严重眼刺激。 可能导致皮肤过敏反应。 可引起昏睡或眩晕。 对水生生物有毒并具有长期持续影响。

#### · GHS危险性类别



火焰

易燃液体 第3类

H226 易燃液体和蒸气

遇水放出易燃气体的物质 第1类

H260 遇水放出可自燃的易燃气体



环境

对水环境的危害(慢性) 第2类

H411 对水生生物有毒并具有长期持续影响



皮肤腐蚀/刺激 第2类

H315 造成皮肤刺激

严重眼损伤/眼刺激 类别2A

H319 造成严重眼刺激

敏化(皮肤) 第1类

H317 可能导致皮肤过敏反应

特定靶器官系统毒性(单次接触) 第3类

H336 可引起昏睡或眩晕

急性毒性(吸入) 第5类

H333 吸入可能有害

#### · 标签要素

- GHS卷标元素 本产品根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

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CN

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化学品中文(英文)名称, 化学品俗名或商品名: Conductive Silver 187

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## · 象形图



GHS02 GHS07 GHS09

## · 警示词 危险

## · 标签上辨别危险的成份:

乙基苯 (≤2.5 %)

## · 危险性说明

易燃液体和蒸气

遇水放出可自燃的易燃气体

吸入可能有害

造成皮肤刺激

造成严重眼刺激

可能导致皮肤过敏反应

可引起昏睡或眩晕

对水生生物有毒并具有长期持续影响

## · 防范说明

## · 预防措施

远离热源/火花/明火/热表面。禁止吸烟

不得与水接触

## · 事故响应

如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴

如进入眼睛:用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出,取出隐形眼镜。继续冲洗

## · 安全储存

存放处须加锁

## · 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

## · 其他有害性

· PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果

· PBT(残留性、生物浓缩性、毒性物质) 不适用的

· vPvB(高残留性、高生物浓缩性物质): 不适用的

## 3 成分/组成信息

## · 混合物

· 描述: 由以下含有无害添加剂的成分组成的混合物

## · 危险的成分:

67-64-1	二甲基酮 Acetone, Reagent Grade	>10-≤25%
	易燃液体 第2类, H225;  急性毒性(经口) 第4类, H302; 严重眼睛损伤/眼睛刺激性 第2类, H319; 特定靶器官系统毒性(单次接触) 第3类, H336; 急性毒性(吸入) 第5类, H333	

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98-56-6	对氯三氟甲苯 4-chloro-alpha,alpha,alpha-trifluorotoluene ⚠ 易燃液体 第3类, H226; ⚠ 皮肤腐蚀/刺激 第2类, H315; 严重眼损伤/眼刺激 类别2A, H319	>10-≤25%
100-41-4	乙基苯 ethylbenzene ⚠ 易燃液体 第2类, H225; ⚠ 特定靶器官系统毒性(重复接触) 第2类, H373; 吸入危险 第1类, H304; ⚠ 急性毒性(吸入) 第4类, H332; 急性毒性(经口) 第5类, H303	≤2.5%

### 4 急救措施

- **应急措施要领**
- **总说明:** 中毒的症状可能会在几个小时以后才出现;因此在发生事故之后起码要有 48 小时的医疗观察。
- **吸入:**  
供给新鲜空气并且确保会叫医生。  
万一病人不清醒时,请让病人侧躺以便移动。
- **皮肤接触:** 马上用水和肥皂进行彻底的冲洗。
- **眼睛接触:** 张开眼睛在流水下冲洗数分钟。如果症状仍然持续,请咨询医生。
- **食入:** 如果症状仍然持续,请咨询医生。
- **给医生的资料:**
- **最重要的急慢性症状及其影响** 无相关详细资料。
- **需要及时的医疗处理及特别处理的症状** 无相关详细资料。

### 5 消防措施

- **灭火方法**
- **灭火的方法和灭火剂:** 二氧化碳 (CO<sub>2</sub>)、灭火粉末或洒水。使用洒水或抗酒精泡沫灭火剂扑灭较大的火种。
- **为了安全,不适当的灭火剂会:** 水
- **特别危险性** 无相关详细资料。
- **特殊灭火方法**
- **消防人员特殊的防护装备:** 口腔呼吸保护装置。

### 6 泄漏应急处理

- **保护措施** 带上保护仪器。让未受到保护的人们远离。
- **环境保护措施:**  
如果渗入了水源或污水系统,请通知有关当局。  
用大量的水进行稀释。  
切勿让其进入下水道/水面或地下水。
- **密封及净化方法和材料:**  
吸收液体粘合原料 (沙粒、硅藻土、酸性粘合剂、通用粘合剂、锯屑)。  
根据第 13 条条弃置受污染物。  
确保有足够的通风装置。  
切勿用水或水溶清洁剂来冲清。
- **参照其他部分**  
有关安全处理的资料请参阅第 7 节。  
有关个人防护装备的资料请参阅第 8 节。  
有关弃置的资料请参阅第 13 节。

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## 7 操作处置与储存

- **操作处置**
- **储存**  
确保工作间有良好的通风/排气装置。  
防止气溶胶的形成。
- **有关火灾及防止爆炸的资料:**  
远离火源一切勿吸烟。  
防热。  
防静电。
- **混合危险性等安全储存条件**
- **储存:**
- **储存库和容器须要达到的要求:** 没有特别的要求。
- **有关使用一个普通的储存设施来储存的资料:** 不需要。
- **有关储存条件的更多资料:**  
将容器密封。  
储存密封的贮藏器内,并放在阴凉、干爽的位置。  
免受接触热力和直接受阳光照射。
- **具体的最终用户** 无相关详细资料。

## 8 接触控制和个体防护

- **工程控制方法:** 没有进一步数据;见第 7 项。
- **控制变数**

### · 在工作场需要监控的限值成分

#### 67-64-1 二甲基酮

OEL (CN)	PC-STEL: 450 mg/m <sup>3</sup> PC-TWA: 300 mg/m <sup>3</sup>
PEL (TW)	PC-TWA: 475 mg/m <sup>3</sup> , 200 ppm

#### 100-41-4 乙基苯

OEL (CN)	PC-STEL: 150 mg/m <sup>3</sup> PC-TWA: 100 mg/m <sup>3</sup> G2B
PEL (TW)	PC-TWA: 434 mg/m <sup>3</sup> , 100 ppm

### · 具有生物学极限值的成分

#### 67-64-1 二甲基酮

OEL-B (CN)	50 mg/L 测试材料: 尿 采样时间: 工作班末 生物监测指标: 丙酮
------------	------------------------------------------------

#### 100-41-4 乙基苯

OEL-B (CN)	0.8 g/g Cr 测试材料: 尿 采样时间: 工作班末 生物监测指标: 苯乙醇酸加苯乙醛酸
------------	----------------------------------------------------------

- **额外的资料:** 制作期间有效的清单将作为基础来使用。

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CN

# 化学品安全技术说明书

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## · 泄漏控制

## · 个人防护设备:

## · 一般保护和卫生措施:

远离食品、饮料和饲料。

立即除去所有的不洁的和被污染的衣服。

在休息之前和工作完毕后请清洗双手。

避免和眼睛及皮肤接触。

## · 呼吸系统防护:

如果曾短暂接触或在低污染的情况下

请使用呼吸过滤装置

如果曾深入或较长时间接触,请使用独立的呼吸保护装置。

## · 手防护:



保护手套

手套的物料必须是不渗透性的,且能抵抗该产品/物质/添加剂。

基于缺乏测试,对于产品/制剂/化学混合物,并不会提供手套材料的建议

选择手套材料时,请注意材料的渗透时间,渗滤率和降解参数

## · 手套材料

选择合适的手套不单取决于材料,亦取决于质量特征,以及来自哪一间生产厂家,

因为该产品是由很多材料配制而成,手套材料的抵抗力并不可预计,所以,必须在使用之前进行检查

## · 渗入手套材料的时间 请向劳保手套生产厂家获取准确的破裂时间并观察实际的破裂时间

## · 眼睛防护:

安全眼镜



密封的护目镜

## 9 理化特性

## · 有关基本物理及化学特性的信息

## · 一般说明

## · 外观:

形状: 液体

颜色: 银色的

· 气味: 有特性的

· 嗅觉阈限: 未决定。

· pH值: 未决定。

## · 条件的更改

熔点: 未确定的

沸点/初沸点和沸程: 56 °C

· 闪点: -16 °C

· 可燃性(固体、气体): 不适用的

· 分解温度: 未决定。

· 自燃温度: 在空气中是自发点燃的。

· 爆炸的危险性: 该产品并非爆炸性的然而有可能形成可爆炸性的空气/蒸汽混合物

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(在 5 页继续)

· 爆炸极限:	
较低:	未决定.
较高:	未决定.
· 蒸气压 在 20 °C:	245.3 hPa
· 密度 在 20 °C:	1.618 g/cm <sup>3</sup>
· 相对密度	未决定.
· 蒸气密度	未决定.
· 蒸发速率	未决定.
· 溶解性	
水:	完全可拌和的
· n-辛醇/水分配系数:	未决定.
· 黏性:	
动态 在 20 °C:	25 mPas
运动学的:	未决定.
· 溶剂成份:	
有机溶剂:	22.8 %
固体成份:	0.0 %
· 其他信息	无相关详细资料。

## 10 稳定性和反应性

- 反应性 无相关详细资料。
- 稳定性
- 热分解/要避免的情况: 如果遵照规格使用则不会分解。
- 有害反应可能性 和水接触时释放可燃气体。
- 应避免的条件 无相关详细资料。
- 不相容的物质: 无相关详细资料。
- 危险的分解产物: 未知有危险的分解产品。

## 11 毒理学信息

- 对毒性学影响的信息
  - 急性毒性:
  - 主要的刺激性影响:
  - 皮肤: 刺激皮肤和粘膜。
  - 在眼睛上面: 刺激的影响。
  - 致敏作用: 通过皮肤接触可能造成敏化作用。
  - 更多毒物的资料:
- 根据有关配制的一般欧盟分类指南的计算方法(刊印在最新版本),该产品显示以下的危险:
- 有害的
  - 刺激性的

## 12 生态学信息

- 生态毒性
- 水生毒性: 无相关详细资料。

(在 7 页继续)

# 化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2022.06.08

在 2022.06.08 审核

化学品中文(英文)名称, 化学品俗名或商品名: Conductive Silver 187



(在 6 页继续)

- 持久性和降解性 无相关详细资料。
- 环境系统习性:
- 潜在的生物累积性 无相关详细资料。
- 土壤内移动性 无相关详细资料。
- 生态毒性的影响:
- 备注: 对鱼类有毒
- 额外的生态学资料:
- 总括注解:  
水危害级别 2 (德国规例) (通过名单进行自我评估): 对水是危害的  
不要让该产品接触地下水、水道或污水系统。  
即使是小量的产品渗入地下也会对饮用水造成危险。  
对水体中的鱼和浮游生物也有毒害。  
对水中的有机物有毒。
- PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果
- PBT(残留性、生物浓缩性、毒性物质) 不适用的
- vPvB(高残留性、高生物浓缩性物质): 不适用的
- 其他副作用 无相关详细资料。

## 13 废弃处置

- 废弃处置方法
- 建议: 不能将该产品和家居垃圾一起丢弃. 不要让该产品接触污水系统.
- 受污染的容器和包装:
- 建议: 必须根据官方的规章来丢弃.
- 建议的清洗剂: 如有必要请使用水及清洁剂进行清洁.

## 14 运输信息

- |                                                                                     |                 |
|-------------------------------------------------------------------------------------|-----------------|
| ·联合国危险货物编号(UN号)                                                                     | UN1263          |
| ·ADR, IMDG, IATA                                                                    |                 |
| ·UN适当装船名                                                                            | 1263 涂料, u[环境有害 |
| ·ADR                                                                                | PAINT           |
| ·IMDG, IATA                                                                         |                 |
| ·运输危险等级                                                                             |                 |
| ·ADR                                                                                |                 |
|  |                 |
| ·级别                                                                                 | 3 易燃液体          |
| ·标签                                                                                 | 3               |
| ·IMDG, IATA                                                                         |                 |
|  |                 |
| ·Class                                                                              | 3 易燃液体          |

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# 化学品安全技术说明书

## 根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2022.06.08

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化学品中文(英文)名称, 化学品俗名或商品名: Conductive Silver 187

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· Label	3
· 包装组别 · ADR, IMDG, IATA	II
· 环境危害 · 特别 标记 (ADR):	象 征 符 号 ( 鱼 和 树 )
· 用户 特别 预防 措施 · 危险 编码: · EMS 号 码: · Segregation groups · Stowage Category	警 告: 易 燃 液 体 33 F-E,S-E Liquid halogenated hydrocarbons B
· MARPOL73/78(针对船舶引起的海洋污染预防协约)附件书2及根据IBC Code(国际装船货物编码)的大量运送	不 适 用 的
· 运输/额外的资料:	
· ADR · Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "标准规定":	UN 1263 涂 料, 3, II, 对 环 境 有 害

### 15 法规信息

- 对相应纯物质或者混合物的安全、保健及环境法规/法律 无相关详细资料。
- 危险化学品安全管理条例

· 危险化学品目录	
67-64-1	二 甲 基 酮
98-56-6	对 氯 三 氟 甲 苯
100-41-4	乙 基 苯

- 化学品首次进口及有毒化学品进出口环境管理规定
- 新化学物质环境管理办法

· 中国现有化学物质名录	
7440-22-4	银
67-64-1	二 甲 基 酮
98-56-6	对 氯 三 氟 甲 苯
100-41-4	乙 基 苯

- GHS卷标元素 本产品根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

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# 化学品安全技术说明书

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(在 8 页继续)

## · 象形图



GHS02 GHS07 GHS09

## · 警示词 危险

## · 标签上辨别危险的成份:

乙基苯 (≤2.5 %)

## · 危险性说明

易燃液体和蒸气

遇水放出可自燃的易燃气体

吸入可能有害

造成皮肤刺激

造成严重眼刺激

可能导致皮肤过敏反应

可引起昏睡或眩晕

对水生生物有毒并具有长期持续影响

## · 防范说明

## · 预防措施

远离热源/火花/明火/热表面。禁止吸烟

不得与水接触

## · 事故响应

如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴

如进入眼睛:用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出,取出隐形眼镜。继续冲洗

## · 安全储存

存放处须加锁

## · 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

## · 化学物质安全性评价: 尚未进行化学物质安全性评价

## 16 其他信息

该资料是基于我们目前的知识

然而,这并不构成对任何特定产品特性的担保并且不建立一个法律上有效的合同关系。

## · 联络:

## · 缩写:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: 持久性生物累积性有毒物质

vPvB: very Persistent and very Bioaccumulative

易燃液体 第2类: Flammable liquids – Category 2

易燃液体 第3类: Flammable liquids – Category 3

遇水放出易燃气体的物质 第1类: Substances and mixtures which in contact with water emit flammable gases – Category 1

急性毒性(经口) 第4类: Acute toxicity – Category 4

急性毒性(吸入) 第5类: Acute toxicity – Category 5

皮肤腐蚀/刺激 第2类: Skin corrosion/irritation – Category 2

严重眼睛损伤/眼睛刺激性 第2类: Serious eye damage/eye irritation – Category 2

严重眼睛损伤/眼刺激 类别2A: Serious eye damage/eye irritation – Category 2A

敏化(皮肤) 第1类: Skin sensitisation – Category 1

特定靶器官系统毒性(单次接触) 第3类: Specific target organ toxicity (single exposure) – Category 3

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# 化学品安全技术说明书

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化学品中文(英文)名称, 化学品俗名或商品名: Conductive Silver 187

特定靶器官系统毒性(重复接触) 第2类: Specific target organ toxicity (repeated exposure) – Category 2

(在 9 页继续)

吸入危险 第1类: Aspiration hazard – Category 1

对水环境的危害(慢性) 第2类: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

CN

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 08.06.2022

Herziening van: 08.06.2022

## RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

- **1.1 Productidentificatie**
- **Handelsnaam:** Conductive Silver 187
- **Artikelnummer:** 12684-15
- **UFI:** YDP0-60MW-900T-J1QF
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**  
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- Aurion  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## RUBRIEK 2: Identificatie van de gevaren

- **2.1 Indeling van de stof of het mengsel**
- **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**



GHS02 vlam

Flam. Liq. 3 H226 Ontvlambare vloeistof en damp.

Water-react. 1 H260 In contact met water komen ontvlambare gassen vrij die spontaan kunnen ontbranden.



GHS09 milieu

Aquatic Chronic 2 H411 Giftig voor in het water levende organismen, met langdurige gevolgen.



GHS07

Skin Irrit. 2 H315 Veroorzaakt huidirritatie.

Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.

Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.

STOT SE 3 H336 Kan slaperigheid of duizeligheid veroorzaken.

(Vervolg op blz. 2)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

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**Handelsnaam: Conductive Silver 187**

(Vervolg van blz. 1)

- **2.2 Etiketteringselementen**
- **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008**  
Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.
- **Gevarenpictogrammen**



GHS02 GHS07 GHS09

- **Signaalwoord** Gevaar
- **Gevaaraanduidende componenten voor de etikettering:**  
aceton
- **Gevenaanduidingen**  
H226 Ontvlambare vloeistof en damp.  
H260 In contact met water komen ontvlambare gassen vrij die spontaan kunnen ontbranden.  
H315 Veroorzaakt huidirritatie.  
H319 Veroorzaakt ernstige oogirritatie.  
H317 Kan een allergische huidreactie veroorzaken.  
H336 Kan slaperigheid of duizeligheid veroorzaken.  
H411 Giftig voor in het water levende organismen, met langdurige gevolgen.

- **Veiligheidsaanbevelingen**  
P210 Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken.  
P223 Contact met water vermijden.  
P303+P361+P353 BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken. Huid met water afspoelen [of afdouchen].  
P305+P351+P338 BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.  
P405 Achter slot bewaren.  
P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

- **Aanvullende gegevens:**  
Produkt bevat: Precursoren voor explosieven die moeten worden gemeld. Aanbieden, binnenbrengen, bezit en gebruik volgens Verordening (EU) 2019/1148, Artikel 9.

- **2.3 Andere gevaren**
- **Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.

### RUBRIEK 3: Samenstelling en informatie over de bestanddelen

- **3.2 Chemische karakterisering: Mengsels**
- **Beschrijving:** Mengsel van na elkaar aangevoerde stoffen met ongevaarlijke bijmengingen.

- **Gevaarlijke inhoudstoffen:**

CAS: 67-64-1	aceton	>10-≤25%
EINECS: 200-662-2	⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H336	

(Vervolg op blz. 3)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 08.06.2022

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**Handelsnaam: Conductive Silver 187**

CAS: 98-56-6	4-chloor-alpha-alpha-alpha-trifluortolueen	(Vervolg van blz. 2) >10-≤25%
EINECS: 202-681-1	⚠ Flam. Liq. 3, H226; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 100-41-4	ethylbenzeen	≤2,5%
EINECS: 202-849-4	⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332	

### · SVHC

67-64-1 aceton

### · Aanvullende gegevens:

De woordelijke inhoud van de opgegeven aanwijzingen inzake de mogelijke gevaren is te vinden in hoofdstuk 16.

## RUBRIEK 4: Eerstehulpmaatregelen

### · 4.1 Beschrijving van de eerstehulpmaatregelen

#### · Algemene informatie:

Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.

#### · Na het inademen:

Veel verse lucht toedienen en voor alle zekerheid een arts raadplegen.

Bij bewusteloosheid ligging en vervoer in stabiele zijligging.

#### · Na huidcontact: Onmiddellijk met water en zeep afwassen en goed naspoelen.

#### · Na oogcontact:

De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.

#### · Na inslikken: Als de klachten niet minderen, een arts raadplegen

### · 4.2 Belangrijkste acute en uitgestelde symptomen en effecten

Geen verdere relevante informatie verkrijgbaar.

### · 4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling

Geen verdere relevante informatie verkrijgbaar.

## RUBRIEK 5: Brandbestrijdingsmaatregelen

### · 5.1 Blusmiddelen

#### · Geschikte blusmiddelen:

CO<sub>2</sub>, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.

#### · Blusmiddelen die uit veiligheidsoogpunt niet geschikt zijn: Water

### · 5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt

Geen verdere relevante informatie verkrijgbaar.

### · 5.3 Advies voor brandweertieners

#### · Speciale beschermende kleding: Ademhalingstoestel aantrekken.

## RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

### · 6.1 Persoonlijke voorzorgsmaatregelen, beschermingsmiddelen en noodprocedures

Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.

### · 6.2 Milieuvoorzorgsmaatregelen:

Bij indringen in afvalwater of riolering moet de bevoegde instantie gewaarschuwd worden.

Met veel water verdunnen.

Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.

### · 6.3 InsluTINGS- en reinigingsmethoden en -materiaal:

Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.

(Vervolg op blz. 4)



# Veiligheidsinformatieblad

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(Vervolg van blz. 3)

- Besmet materiaal zoals afval volgens punt 13 verwijderen.
- Voor voldoende ventilatie zorgen.
- Niet met water of waterachtige reinigingsmiddelen wegspoelen.
- **6.4 Verwijzing naar andere rubrieken**
- Informatie inzake veilig gebruik - zie hoofdstuk 7.
- Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
- Informatie inzake berging - zie hoofdstuk 13.

### RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**
- Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.
- Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:**
- Onststekingsbronnen op afstand houden - niet roken.
- Beschermen tegen hitte.
- Maatregelen treffen tegen ontlading van statische elektriciteit.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:**
- Tanks ondoordringbaar gesloten houden.
- Koel en droog bewaren in goed gesloten vaten.
- Tegen hitte en directe zonnestralen beschermen.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **8.1 Controleparameters**
- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.

- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**

#### 67-64-1 aceton

WGW	Korte termijn waarde: 2420 mg/m <sup>3</sup> , 1000 ppm
	Lange termijn waarde: 1210 mg/m <sup>3</sup> , 500 ppm

#### 100-41-4 ethylbenzeen

WGW	Korte termijn waarde: 430 mg/m <sup>3</sup> , 98 ppm
	Lange termijn waarde: 215 mg/m <sup>3</sup> , 49 ppm

- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**
- Verwijderd houden van eet- en drinkwaren.
- Verontreinigde kleding onmiddellijk uittrekken.
- Vóór de pauze en aan het einde van werktijd handen wassen.
- Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:**
- Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingsstoestel gebruiken.

(Vervolg op blz. 5)

# Veiligheidsinformatieblad

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**Handelsnaam: Conductive Silver 187**

(Vervolg van blz. 4)

**· Handbescherming:**

Veiligheidshandschoenen

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.  
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.

Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.

**· Handschoenmateriaal**

De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant. Aangezien het product uit meerdere stoffen is samengesteld, is de duurzaamheid van de handschoenmaterialen niet vooraf berekenbaar en moet derhalve vóór het gebruik worden getest.

**· Doordringingstijd van het handschoenmateriaal**

De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

**· Oogbescherming:**

Veiligheidsbril



Nauw aansluitende veiligheidsbril

### RUBRIEK 9: Fysische en chemische eigenschappen

**· 9.1 Informatie over fysische en chemische basiseigenschappen****· Algemene gegevens****· Voorkomen:**

<b>Vorm:</b>	Vloeistof
<b>Kleur:</b>	Zilverkleurig
<b>Geur:</b>	Karakteristiek
<b>Geurdrempelwaarde:</b>	Niet bepaald.

**· pH-waarde:** Niet bepaald.

**· Toestandsverandering**

<b>Smelt-/vriespunt:</b>	Niet bepaald.
<b>Beginkookpunt en kooktraject:</b>	56 °C

**· Vlampunt:** -16 °C

**· Ontvlambaarheid (vast, gas):** Niet bruikbaar.

**· Ontledingstemperatuur:** Niet bepaald.

**· Zelfontbrandingstemperatuur:** Spontaan ontvlambaar in lucht.

**· Ontploffingseigenschappen:** Het produkt is niet ontploffingsgevaarlijk, maar de vorming van ontploffingsgevaarlijke damp-/luchtmengsels is mogelijk.

**· Ontploffingsgrenzen:**

<b>Onderste:</b>	Niet bepaald.
<b>Bovenste:</b>	Niet bepaald.

**· Dampspanning bij 20 °C:** 245,3 hPa

(Vervolg op blz. 6)

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 08.06.2022

Herziening van: 08.06.2022

**Handelsnaam: Conductive Silver 187**

(Vervolg van blz. 5)

· <b>Dichtheid bij 20 °C:</b>	1,618 g/cm <sup>3</sup>
· <b>Relatieve dichtheid</b>	Niet bepaald.
· <b>Dampdichtheid</b>	Niet bepaald.
· <b>Verdampingssnelheid</b>	Niet bepaald.
· <b>Oplosbaarheid in/mengbaarheid met Water:</b>	Volledig mengbaar.
· <b>Verdelingscoëfficiënt: n-octanol/water:</b>	Niet bepaald.
· <b>Viscositeit</b>	
<b>Dynamisch bij 20 °C:</b>	25 mPas
<b>Kinematisch:</b>	Niet bepaald.
· <b>Oplosmiddelgehalte:</b>	
<b>Organisch oplosmiddel:</b>	22,8 %
<b>VOC (EG)</b>	22,83 %
<b>Gehalte aan vaste bestanddelen:</b>	0,0 %
· <b>9.2 Overige informatie</b>	Geen verdere relevante informatie verkrijgbaar.

## RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit** Geen verdere relevante informatie verkrijgbaar.
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **10.3 Mogelijke gevaarlijke reacties** Contact met water maakt brandbare gassen vrij.
- **10.4 Te vermijden omstandigheden** Geen verdere relevante informatie verkrijgbaar.
- **10.5 Chemisch op elkaar inwerkende materialen:** Geen verdere relevante informatie verkrijgbaar.
- **10.6 Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsproducten bekend.

## RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**  
Veroorzaakt huidirritatie.
- **Ernstig oogletsel/oogirritatie**  
Veroorzaakt ernstige oogirritatie.
- **Sensibilisatie van de luchtwegen/de huid**  
Kan een allergische huidreactie veroorzaken.
- **Aanvullende toxicologische informatie:**
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Kankerverwekkendheid** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling**  
Kan slaperigheid of duizeligheid veroorzaken.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

(Vervolg op blz. 7)

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· **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.


### RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Ecotoxische effecten:**
- **Opmerking:** Giftig voor vissen.
- **Verdere ecologische informatie:**
- **Algemene informatie:**  
*Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioaccumulerend vermogen/ toxiciteit of persistentie)*  
*Gevaar voor water klasse 2 (D) (Zelfclassificatie): gevaar voor water*  
*Niet lozen in grondwater, in oppervlaktewater of in riolering.*  
*Gevaar voor drinkwater zelfs bij uitlopen van geringe hoeveelheden in de ondergrond.*  
*In oppervlaktewater ook giftig voor vissen en plankton.*  
*giftig voor in het water levende organismen*
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terechtkomen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.
- **Aanbevolen reinigingsmiddel:** Water, eventueel met toevoeging van reinigingsmiddelen.

### RUBRIEK 14: Informatie met betrekking tot het vervoer

- **14.1 VN-nummer**
- **ADR, IMDG, IATA** UN1263
- **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**
- **ADR** 1263 VERF, MILIEUGEVAARLIJK
- **IMDG, IATA** PAINT
- **14.3 Transportgevarenklasse(n)**
- **ADR**
- 
- **klasse** 3 Brandbare vloeistoffen

(Vervolg op blz. 8)

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· <b>Etiket</b>	3
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	3 Brandbare vloeistoffen
· <b>Label</b>	3
· <b>14.4 Verpakkingsgroep:</b> · <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Milieugevaren:</b> · <b>Bijzondere kenmerking (ADR):</b>	Symbool (vis en boom)
· <b>14.6 Bijzondere voorzorgen voor de gebruiker</b> · <b>Gevaarsidentificatienummer (Kemler-getal):</b> · <b>EMS-nummer:</b> · <b>Segregation groups</b> · <b>Stowage Category</b>	Waarschuwing: Brandbare vloeistoffen 33 F-E,S-E Liquid halogenated hydrocarbons B
· <b>14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code</b>	Niet bruikbaar.
· <b>Transport/verdere gegevens:</b>	
· <b>ADR</b> · <b>Beperkte hoeveelheden (LQ)</b> · <b>Uitgezonderde hoeveelheden (EQ)</b>	1L Code: E2 Grootste netto hoeveelheid per binnenverpakking: 30 ml Grootste netto hoeveelheid per buitenverpakking: 500 ml
· <b>Vervoerscategorie</b> · <b>Tunnelbeperkingscode</b>	2 D/E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>VN "Model Regulation":</b>	UN 1263 VERF, 3, II, MILIEUGEVAARLIJK

## RUBRIEK 15: Regelgeving

### · 15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel

#### · SZW-lijst van kankerverwekkende stoffen

geen der bestanddelen staat op de lijst.

#### · SZW-lijst van mutagene stoffen

geen der bestanddelen staat op de lijst.

#### · NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid

geen der bestanddelen staat op de lijst.

#### · NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling

geen der bestanddelen staat op de lijst.

(Vervolg op blz. 9)

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· <b>NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding</b>
------------------------------------------------------------------------------------------

geen der bestanddelen staat op de lijst.
------------------------------------------

· <b>Lijst Zeer Zorgwekkende Stoffen (ZZS)</b>
------------------------------------------------

geen der bestanddelen staat op de lijst.
------------------------------------------

- **Richtlijn 2012/18/EU**

- **Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I** geen der bestanddelen staat op de lijst.

- **Seveso-categorie**

- O2 Stoffen en mengsels die in contact met water ontvlambare gassen ontwikkelen

- E2 Gevaar voor het aquatisch milieu

- P5c ONTVLAMBARE VLOEISTOFFEN

- **Drempelwaarde (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen 100 t**

- **Drempelwaarde (ton) voor toepassing van voorschriften voor hogedrempelinrichtingen 500 t**

- **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 3, 40

· <b>Richtlijn 2011/65/EU betreffende beperking van het gebruik van bepaalde gevaarlijke stoffen in elektrische en elektronische apparatuur - Bijlage II</b>
--------------------------------------------------------------------------------------------------------------------------------------------------------------

geen der bestanddelen staat op de lijst.
------------------------------------------

- **VERORDENING (EU) 2019/1148**

· <b>Bijlage I - PRECURSOREN VOOR EXPLOSIEVEN WAARVOOR EEN BEPERKING GELDT (Bovengrenswaarde ten behoeve van vergunningverlening op grond van artikel 5, lid 3)</b>
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geen der bestanddelen staat op de lijst.
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· <b>Bijlage II - PRECURSOREN VOOR EXPLOSIEVEN DIE MOETEN WORDEN GEMELD</b>
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67-64-I	aceton
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· <b>Verordening (EG) nr. 273/2004 inzake drugsprecursoren</b>
----------------------------------------------------------------

67-64-I	aceton	3
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· <b>Verordening (EG) Nr. 111/2005 houdende voorschriften voor het toezicht op de handel tussen de Gemeenschap en derde landen in drugsprecursoren</b>
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67-64-I	aceton	3
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- **Nationale voorschriften:**

- **Gevaarklasse v. water:**

- Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioaccumulerend vermogen/ toxiciteit of persistentie)

- **Aanvullende voorschriften, beperkingen en verbodsverordeningen**

· <b>Zeer zorgwekkende stoffen (SVHC) volgens REACH, artikel 57</b>
---------------------------------------------------------------------

67-64-I	aceton
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- **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

### RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkteigenschappen en vestigen geen contractuele rechtsbetrekking.

- **Relevante zinnen**

- H225 Licht ontvlambare vloeistof en damp.

- H226 Ontvlambare vloeistof en damp.

- H302 Schadelijk bij inslikken.

- H304 Kan dodelijk zijn als de stof bij inslikken in de luchtwegen terechtkomt.

- H315 Veroorzaakt huidirritatie.

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*H319 Veroorzaakt ernstige oogirritatie.**H332 Schadelijk bij inademing.**H336 Kan slaperigheid of duizeligheid veroorzaken.**H373 Kan schade aan organen veroorzaken bij langdurige of herhaalde blootstelling.***Afkortingen en acroniemen:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Ontvlambare vloeistoffen – Categorie 2**Flam. Liq. 3: Ontvlambare vloeistoffen – Categorie 3**Water-react. 1: Stoffen en mengsels die in contact met water ontvlambare gassen ontwikkelen – Categorie 1**Acute Tox. 4: Acute toxiciteit – Categorie 4**Skin Irrit. 2: Huidcorrosie/-irritatie – Categorie 2**Eye Irrit. 2: Ernstig oogletsel/oogirritatie – Categorie 2**Skin Sens. 1: Sensibilisatie van de huid – Categorie 1**STOT SE 3: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 3**STOT RE 2: Specifieke doelorgaantoxiciteit bij herhaalde blootstelling – Categorie 2**Asp. Tox. 1: Aspiratiegevaar – Categorie 1**Aquatic Chronic 2: Gevaar voor het aquatisch milieu - aquatisch gevaar op lange termijn – Categorie 2*

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 08.06.2022

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### RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise

- **1.1 Identificateur de produit**
- **Nom du produit:** Conductive Silver 187
- **Code du produit:** 12684-15
- **UFI:** YDP0-60MW-900T-J1QF
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**  
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkceck@aol.com  
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### RUBRIQUE 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS02 flamme

Flam. Liq. 3      H226 Liquide et vapeurs inflammables.  
Water-react. 1      H260 Dégage au contact de l'eau des gaz inflammables qui peuvent s'enflammer spontanément.



GHS09 environnement

Aquatic Chronic 2 H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.



GHS07

Skin Irrit. 2      H315 Provoque une irritation cutanée.  
Eye Irrit. 2      H319 Provoque une sévère irritation des yeux.  
Skin Sens. 1      H317 Peut provoquer une allergie cutanée.  
STOT SE 3      H336 Peut provoquer somnolence ou vertiges.

- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** Le produit est classifié et étiqueté selon le règlement CLP.

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Nom du produit: **Conductive Silver 187**

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· **Pictogrammes de danger**

GHS02 GHS07 GHS09

· **Mention d'avertissement** Danger· **Composants dangereux déterminants pour l'étiquetage:**

acétone

· **Mentions de danger**

H226 Liquide et vapeurs inflammables.

H260 Dégage au contact de l'eau des gaz inflammables qui peuvent s'enflammer spontanément.

H315 Provoque une irritation cutanée.

H319 Provoque une sévère irritation des yeux.

H317 Peut provoquer une allergie cutanée.

H336 Peut provoquer somnolence ou vertiges.

H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.

· **Conseils de prudence**

P210 Tenir à l'écart de la chaleur, des surfaces chaudes, des étincelles, des flammes nues et de toute autre source d'inflammation. Ne pas fumer.

P223 Éviter tout contact avec l'eau.

P303+P361+P353 EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): Enlever immédiatement tous les vêtements contaminés. Rincer la peau à l'eau [ou se doucher].

P305+P351+P338 EN CAS DE CONTACT AVEC LES YEUX: Rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.

P405 Garder sous clef.

P501 Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

· **Indications complémentaires:**

Le produit contient: Précurseurs d'explosifs devant faire l'objet d'un signalement. Mise à disposition, introduction, détention et utilisation selon règlement (UE) 2019/1148, article 9.

· **2.3 Autres dangers**· **Résultats des évaluations PBT et vPvB**· **PBT:** Non applicable.· **vPvB:** Non applicable.

### RUBRIQUE 3: Composition/informations sur les composants

· **3.2 Caractérisation chimique: Mélanges**· **Description:** Mélange des substances mentionnées à la suite avec des additifs non dangereux.· **Composants dangereux:**

CAS: 67-64-1 EINECS: 200-662-2	acétone ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H336	>10-≤25%
CAS: 98-56-6 EINECS: 202-681-1	4-chloro-alpha,alpha,alpha-trifluorotoluène ⚠ Flam. Liq. 3, H226; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	>10-≤25%
CAS: 100-41-4 EINECS: 202-849-4	éthylbenzène ⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332	≤2,5%

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· **SVHC**

67-64-1 | acétone

· **Indications complémentaires:** Pour le libellé des phrases de risque citées, se référer au chapitre 16.

### RUBRIQUE 4: Premiers secours

· **4.1 Description des premiers secours**· **Remarques générales:**

Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.

· **Après inhalation:**

Donner de l'air frais en abondance et consulter un médecin pour plus de sécurité.

En cas d'inconscience, coucher et transporter la personne en position latérale stable.

· **Après contact avec la peau:** Laver immédiatement à l'eau et au savon et bien rincer.· **Après contact avec les yeux:**

Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.

· **Après ingestion:** Si les troubles persistent, consulter un médecin.· **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.· **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**

Pas d'autres informations importantes disponibles.

### RUBRIQUE 5: Mesures de lutte contre l'incendie

· **5.1 Moyens d'extinction**· **Moyens d'extinction:**

CO<sub>2</sub>, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.

· **Produits extincteurs déconseillés pour des raisons de sécurité:** Eau· **5.2 Dangers particuliers résultant de la substance ou du mélange**

Pas d'autres informations importantes disponibles.

· **5.3 Conseils aux pompiers**· **Équipement spécial de sécurité:** Porter un appareil de protection respiratoire.

### RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

· **6.1 Précautions individuelles, équipement de protection et procédures d'urgence**

Porter un équipement de sécurité. Eloigner les personnes non protégées.

· **6.2 Précautions pour la protection de l'environnement:**

En cas de pénétration dans les eaux ou les égouts, avertir les autorités compétentes.

Diluer avec beaucoup d'eau.

Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.

· **6.3 Méthodes et matériel de confinement et de nettoyage:**

Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).

Évacuer les matériaux contaminés en tant que déchets conformément au point 13.

Assurer une aération suffisante.

Ne pas rincer à l'eau ou aux produits nettoyants aqueux.

· **6.4 Référence à d'autres rubriques**

Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.

Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.

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Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

### RUBRIQUE 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**  
Veiller à une bonne ventilation/aspiration du poste de travail.  
Eviter la formation d'aérosols.
- **Préventions des incendies et des explosions:**  
Tenir à l'abri des sources d'inflammation - ne pas fumer.  
Tenir à l'abri de la chaleur.  
Prendre des mesures contre les charges électrostatiques.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**  
Tenir les emballages hermétiquement fermés.  
Stocker au frais et au sec dans des fûts bien fermés.  
Protéger de la forte chaleur et du rayonnement direct du soleil.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

### RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

- **8.1 Paramètres de contrôle**
- **Indications complémentaires pour l'agencement des installations techniques:**  
Sans autre indication, voir point 7.

- **Composants présentant des valeurs-seuil à surveiller par poste de travail:**

#### 67-64-1 acétone

VLEP	Valeur momentanée: 2420 mg/m <sup>3</sup> , 1000 ppm Valeur à long terme: 1210 mg/m <sup>3</sup> , 500 ppm
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#### 100-41-4 éthylbenzène

VLEP	Valeur momentanée: 442 mg/m <sup>3</sup> , 100 ppm Valeur à long terme: 88,4 mg/m <sup>3</sup> , 20 ppm risque de pénétration percutanée
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- **Remarques supplémentaires:**  
Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.
- **8.2 Contrôles de l'exposition**
- **Equipement de protection individuel:**
- **Mesures générales de protection et d'hygiène:**  
Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.  
Retirer immédiatement les vêtements souillés ou humectés.  
Se laver les mains avant les pauses et en fin de travail.  
Eviter tout contact avec les yeux et avec la peau.
- **Protection respiratoire:**  
En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.

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· **Protection des mains:**



Gants de protection

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.  
À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.

Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.

· **Matériau des gants**

Le choix de gants appropriés dépend non seulement du matériau, mais aussi d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre. Puisque le produit représente une préparation composée de plusieurs substances, la résistance des matériaux des gants ne peut pas être calculée à l'avance et doit, alors, être contrôlée avant l'utilisation.

· **Temps de pénétration du matériau des gants**

Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

· **Protection des yeux:**

Lunettes de protection



Lunettes de protection hermétiques

### RUBRIQUE 9: Propriétés physiques et chimiques

· **9.1 Informations sur les propriétés physiques et chimiques essentielles**

· **Indications générales**

· **Aspect:**

<b>Forme:</b>	Liquide
<b>Couleur:</b>	Argenté
<b>Odeur:</b>	Caractéristique
<b>Seuil olfactif:</b>	Non déterminé.

· **valeur du pH:** Non déterminé.

· **Changement d'état**

<b>Point de fusion/point de congélation:</b>	Non déterminé.
<b>Point initial d'ébullition et intervalle d'ébullition:</b>	56 °C

· **Point d'éclair** -16 °C

· **Inflammabilité (solide, gaz):** Non applicable.

· **Température de décomposition:** Non déterminé.

· **Température d'auto-inflammabilité:** Spontanément inflammable à l'air.

· **Propriétés explosives:** Le produit n'est pas explosif; toutefois, des mélanges explosifs vapeur-air peuvent se former.

· **Limites d'explosion:**

<b>Inférieure:</b>	Non déterminé.
<b>Supérieure:</b>	Non déterminé.

· **Pression de vapeur à 20 °C:** 245,3 hPa

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· <b>Densité à 20 °C:</b>	1,618 g/cm <sup>3</sup>
· <b>Densité relative</b>	Non déterminé.
· <b>Densité de vapeur:</b>	Non déterminé.
· <b>Taux d'évaporation:</b>	Non déterminé.
· <b>Solubilité dans/miscibilité avec l'eau:</b>	Entièrement miscible
· <b>Coefficient de partage: n-octanol/eau:</b>	Non déterminé.
· <b>Viscosité:</b>	
<b>Dynamique à 20 °C:</b>	25 mPas
<b>Cinématique:</b>	Non déterminé.
· <b>Teneur en solvants:</b>	
<b>Solvants organiques:</b>	22,8 %
<b>VOC (CE)</b>	22,83 %
<b>Teneur en substances solides:</b>	0,0 %
· <b>9.2 Autres informations</b>	Pas d'autres informations importantes disponibles.

### RUBRIQUE 10: Stabilité et réactivité

- **10.1 Réactivité** Pas d'autres informations importantes disponibles.
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.
- **10.3 Possibilité de réactions dangereuses** Un contact avec l'eau provoque la libération de gaz combustibles.
- **10.4 Conditions à éviter** Pas d'autres informations importantes disponibles.
- **10.5 Matières incompatibles:** Pas d'autres informations importantes disponibles.
- **10.6 Produits de décomposition dangereux:** Pas de produits de décomposition dangereux connus

### RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**  
Provoque une irritation cutanée.
- **Lésions oculaires graves/irritation oculaire**  
Provoque une sévère irritation des yeux.
- **Sensibilisation respiratoire ou cutanée**  
Peut provoquer une allergie cutanée.
- **Indications toxicologiques complémentaires:**
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagénicité sur les cellules germinales**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Cancérogénicité** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité pour la reproduction**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition unique**  
Peut provoquer somnolence ou vertiges.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

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· **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.



### RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Effets écotoxiques:**
- **Remarque:** Toxique chez les poissons.
- **Autres indications écologiques:**
- **Indications générales:**  
*Catégorie de pollution des eaux 2 (D) (Classification propre): polluant*  
*Ne pas laisser pénétrer dans la nappe phréatique, les eaux ou les canalisations.*  
*Danger pour l'eau potable dès fuite d'une petite quantité dans le sous-sol.*  
*Dans les eaux, également toxique pour les poissons et le plancton.*  
*Toxique pour les organismes aquatiques.*
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

### RUBRIQUE 13: Considérations relatives à l'élimination

- **13.1 Méthodes de traitement des déchets**
- **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.
- **Emballages non nettoyés:**
- **Recommandation:** Evacuation conformément aux prescriptions légales.
- **Produit de nettoyage recommandé:** Eau, éventuellement avec des produits de nettoyage

### RUBRIQUE 14: Informations relatives au transport

- |                                                                                                                                                                 |                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>14.1 Numéro ONU</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                                    | <p>UN1263</p>                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>· <b>14.2 Désignation officielle de transport de l'ONU</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul> | <p>1263 PEINTURES, DANGEREUX POUR<br/>L'ENVIRONNEMENT</p> <p>PAINT</p>                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>· <b>14.3 Classe(s) de danger pour le transport</b></li> <li>· <b>ADR</b></li> </ul>                                     | <div style="display: flex; align-items: center; justify-content: center;">   </div> |
| <ul style="list-style-type: none"> <li>· <b>Classe</b></li> </ul>                                                                                               | <p>3 Liquides inflammables.</p>                                                                                                                                                                                                                           |

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· <b>Étiquette</b>	3
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	3 Liquides inflammables.
· <b>Label</b>	3
· <b>14.4 Groupe d'emballage</b>	
· <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Dangers pour l'environnement:</b>	
· <b>Marquage spécial (ADR):</b>	Signe conventionnel (poisson et arbre)
· <b>14.6 Précautions particulières à prendre par l'utilisateur</b>	Attention: Liquides inflammables.
· <b>Numéro d'identification du danger (Indice Kemler):</b>	33
· <b>No EMS:</b>	F-E,S-E
· <b>Segregation groups</b>	Liquid halogenated hydrocarbons
· <b>Stowage Category</b>	B
· <b>14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC</b>	Non applicable.
· <b>Indications complémentaires de transport:</b>	
· <b>ADR</b>	
· <b>Quantités limitées (LQ)</b>	1L
· <b>Quantités exceptées (EQ)</b>	Code: E2 Quantité maximale nette par emballage intérieur: 30 ml Quantité maximale nette par emballage extérieur: 500 ml
· <b>Catégorie de transport</b>	2
· <b>Code de restriction en tunnels</b>	D/E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>"Règlement type" de l'ONU:</b>	UN 1263 PEINTURES, 3, II, DANGEREUX POUR L'ENVIRONNEMENT

### RUBRIQUE 15: Informations relatives à la réglementation

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
- **Directive 2012/18/UE**
- **Substances dangereuses désignées - ANNEXE I** Aucun des composants n'est compris.
- **Catégorie SEVESO**
- *O2 Substances et mélanges qui, au contact de l'eau, dégagent des gaz inflammables*
- *E2 Danger pour l'environnement aquatique*
- *P5c LIQUIDES INFLAMMABLES*

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- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas 100 t**
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut 500 t**
- **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII Conditions de limitation: 3, 40**

· **Directive 2011/65/UE relative à la limitation de l'utilisation de certaines substances dangereuses dans les équipements électriques et électroniques – Annexe II**

Aucun des composants n'est compris.

· **RÈGLEMENT (UE) 2019/1148**

· **Annexe I - PRÉCURSEURS D'EXPLOSIFS FAISANT L'OBJET DE RESTRICTIONS (Valeur limite maximale aux fins de l'octroi d'une licence en vertu de l'article 5, paragraphe 3)**

Aucun des composants n'est compris.

· **Annexe II - PRÉCURSEURS D'EXPLOSIFS DEVANT FAIRE L'OBJET D'UN SIGNALLEMENT**

67-64-I | acétone

· **Règlement (CE) n° 273/2004 relatif aux précurseurs de drogues**

67-64-I | acétone

3

· **Règlement (CE) n° 111/2005 fixant des règles pour la surveillance du commerce des précurseurs des drogues entre la Communauté et les pays tiers**

67-64-I | acétone

3

· **Prescriptions nationales:**

· **Autres prescriptions, restrictions et règlements d'interdiction**

· **Substances extrêmement préoccupantes (SVHC) selon REACH, article 57**

67-64-I | acétone

· **15.2 Évaluation de la sécurité chimique: Une évaluation de la sécurité chimique n'a pas été réalisée.**

### RUBRIQUE 16: Autres informations

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

· **Phrases importantes**

H225 Liquide et vapeurs très inflammables.

H226 Liquide et vapeurs inflammables.

H302 Nocif en cas d'ingestion.

H304 Peut être mortel en cas d'ingestion et de pénétration dans les voies respiratoires.

H315 Provoque une irritation cutanée.

H319 Provoque une sévère irritation des yeux.

H332 Nocif par inhalation.

H336 Peut provoquer somnolence ou vertiges.

H373 Risque présumé d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.

· **Acronymes et abréviations:**

ADR: Accord relatif au transport international des marchandises dangereuses par route

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Liquides inflammables – Catégorie 2

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*Flam. Liq. 3: Liquides inflammables – Catégorie 3**Water-react. 1: Substances et mélanges qui, au contact de l'eau, dégagent des gaz inflammables – Catégorie 1**Acute Tox. 4: Toxicité aiguë – Catégorie 4**Skin Irrit. 2: Corrosion cutanée/irritation cutanée – Catégorie 2**Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2**Skin Sens. 1: Sensibilisation cutanée – Catégorie 1**STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3**STOT RE 2: Toxicité spécifique pour certains organes cibles (exposition répétée) – Catégorie 2**Asp. Tox. 1: Danger par aspiration – Catégorie 1**Aquatic Chronic 2: Dangers pour le milieu aquatique- toxicité à long terme pour le milieu aquatique – Catégorie 2*

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# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 08.06.2022

überarbeitet am: 08.06.2022

### ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

- **1.1 Produktidentifikator**
- **Handelsname:** Conductive Silver 187
- **Artikelnummer:** 12684-15
- **UFI:** YDP0-60MW-900T-J1QF
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**  
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com  
  
Science Services GmbH  
Unterhachinger Str. 75  
81737 München Germany  
  
Tel: +49(0)89 18 93 668-0  
safety@scienceservices.de  
  
Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org  
Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h
- **Auskunftgebender Bereich:** Product safety department
- **1.4 Notrufnummer:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### ABSCHNITT 2: Mögliche Gefahren

- **2.1 Einstufung des Stoffs oder Gemischs**
- **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS02 Flamme

Flam. Liq. 3

H226 Flüssigkeit und Dampf entzündbar.

Water-react. 1

H260 In Berührung mit Wasser entstehen entzündbare Gase, die sich spontan entzünden können.



GHS09 Umwelt

Aquatic Chronic 2 H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.



GHS07

(Fortsetzung auf Seite 2)

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Skin Irrit. 2      H315 Verursacht Hautreizungen.  
 Eye Irrit. 2      H319 Verursacht schwere Augenreizung.  
 Skin Sens. 1      H317 Kann allergische Hautreaktionen verursachen.  
 STOT SE 3      H336 Kann Schläfrigkeit und Benommenheit verursachen.

### · 2.2 Kennzeichnungselemente

#### · Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008

Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

#### · Gefahrenpiktogramme



GHS02    GHS07    GHS09

#### · Signalwort Gefahr

#### · Gefahrbestimmende Komponenten zur Etikettierung:

Aceton

#### · Gefahrenhinweise

H226 Flüssigkeit und Dampf entzündbar.

H260 In Berührung mit Wasser entstehen entzündbare Gase, die sich spontan entzünden können.

H315 Verursacht Hautreizungen.

H319 Verursacht schwere Augenreizung.

H317 Kann allergische Hautreaktionen verursachen.

H336 Kann Schläfrigkeit und Benommenheit verursachen.

H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.

#### · Sicherheitshinweise

P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen und anderen Zündquellen fernhalten. Nicht rauchen.

P223 Keinen Kontakt mit Wasser zulassen.

P303+P361+P353 BEI BERÜHRUNG MIT DER HAUT (oder dem Haar): Alle kontaminierten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen [oder duschen].

P305+P351+P338 BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.

P405 Unter Verschluss aufbewahren.

P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.

#### · Zusätzliche Angaben:

Das Produkt enthält: Meldepflichtige Ausgangsstoffe für Explosivstoffe. Bereitstellung, Verbringung, Besitz und Verwendung gemäß Verordnung (EU) 2019/1148, Artikel 9.

#### · 2.3 Sonstige Gefahren

##### · Ergebnisse der PBT- und vPvB-Beurteilung

· **PBT:** Nicht anwendbar.

· **vPvB:** Nicht anwendbar.

## ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

### · 3.2 Chemische Charakterisierung: Gemische

· **Beschreibung:** Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.

#### · Gefährliche Inhaltsstoffe:

CAS: 67-64-1	Aceton	>10-≤25%
EINECS: 200-662-2	⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	

(Fortsetzung auf Seite 3)

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CAS: 98-56-6 EINECS: 202-681-1	4-Chlorbenzotrifluorid ⚠ Flam. Liq. 3, H226; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	>10-≤25%
CAS: 100-41-4 EINECS: 202-849-4	Ethylbenzol ⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332	≤2,5%

· **SVHC**

67-64-1 Aceton

· **Zusätzliche Hinweise:** Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

### ABSCHNITT 4: Erste-Hilfe-Maßnahmen

· **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**· **Allgemeine Hinweise:**

Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.

· **Nach Einatmen:**

Reichlich Frischluftzufuhr und sicherheitshalber Arzt aufsuchen.

Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.

· **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.· **Nach Augenkontakt:**

Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.

· **Nach Verschlucken:** Bei anhaltenden Beschwerden Arzt konsultieren.· **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**

Keine weiteren relevanten Informationen verfügbar.

· **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**

Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

· **5.1 Löschmittel**· **Geeignete Löschmittel:**

CO<sub>2</sub>, Löschpulver oder Wassersprühstrahl. Größeren Brand mit Wassersprühstrahl oder alkoholbeständigem Schaum bekämpfen.

· **Aus Sicherheitsgründen ungeeignete Löschmittel:** Wasser· **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**

Keine weiteren relevanten Informationen verfügbar.

· **5.3 Hinweise für die Brandbekämpfung**· **Besondere Schutzausrüstung:** Atemschutzgerät anlegen.

### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

· **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**  
Schutzausrüstung tragen. Ungeschützte Personen fernhalten.· **6.2 Umweltschutzmaßnahmen:**

Bei Eindringen in Gewässer oder Kanalisation zuständige Behörden benachrichtigen.

Mit viel Wasser verdünnen.

Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.

· **6.3 Methoden und Material für Rückhaltung und Reinigung:**

Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.

(Fortsetzung auf Seite 4)

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- Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.  
 Für ausreichende Lüftung sorgen.  
 Nicht mit Wasser oder wässrigen Reinigungsmitteln wegspülen.
- **6.4 Verweis auf andere Abschnitte**
  - Informationen zur sicheren Handhabung siehe Abschnitt 7.
  - Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.
  - Informationen zur Entsorgung siehe Abschnitt 13.

### ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**  
 Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.  
 Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:**  
 Zündquellen fernhalten - nicht rauchen.  
 Vor Hitze schützen.  
 Maßnahmen gegen elektrostatische Aufladung treffen.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:**  
 Behälter dicht geschlossen halten.  
 In gut verschlossenen Gebinden kühl und trocken lagern.  
 Vor Hitze und direkter Sonnenbestrahlung schützen.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):**  
 Stoffe oder Gemische, die bei Berührung mit Wasser entzündbare Gase abgeben
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- **8.1 Zu überwachende Parameter**
- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.

**Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:**
**67-64-1 Aceton**

AGW	Langzeitwert: 1200 mg/m <sup>3</sup> , 500 ml/m <sup>3</sup> 2(I);AGS, DFG, EU, Y
-----	--------------------------------------------------------------------------------------

**100-41-4 Ethylbenzol**

AGW	Langzeitwert: 88 mg/m <sup>3</sup> , 20 ml/m <sup>3</sup> 2(II);DFG, H, Y, EU
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**Bestandteile mit biologischen Grenzwerten:**
**67-64-1 Aceton**

BGW	80 mg/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Aceton
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**100-41-4 Ethylbenzol**

BGW	250 mg/g Kreatinin
	Untersuchungsmaterial: Urin
	Probennahmezeitpunkt: Expositionsende bzw. Schichtende
	Parameter: Mandelsäure plus Phenoxyglyxylsäure

- **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.
- **8.2 Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung:**
- **Allgemeine Schutz- und Hygienemaßnahmen:**  
*Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.  
 Beschmutzte, getränkte Kleidung sofort ausziehen.  
 Vor den Pausen und bei Arbeitsende Hände waschen.  
 Berührung mit den Augen und der Haut vermeiden.*
- **Atenschutz:**  
*Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition unluftunabhängiges Atemschutzgerät verwenden.*
- **Handschutz:**



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden. Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

- **Handschuhmaterial**  
*Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialien nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.*
- **Durchdringungszeit des Handschuhmaterials**  
*Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.*
- **Augenschutz:**  
 Schutzbrille



Dichtschließende Schutzbrille

### ABSCHNITT 9: Physikalische und chemische Eigenschaften

- **9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**
- **Allgemeine Angaben**
- **Aussehen:**

<b>Form:</b>	Flüssigkeit
<b>Farbe:</b>	Silberfarben
<b>Geruch:</b>	Charakteristisch
<b>Geruchsschwelle:</b>	Nicht bestimmt.

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· <b>pH-Wert:</b>	Nicht bestimmt.
· <b>Zustandsänderung</b> <b>Schmelzpunkt/Gefrierpunkt:</b> <b>Siedebeginn und Siedebereich:</b>	Nicht bestimmt. 56 °C
· <b>Flammpunkt:</b>	-16 °C
· <b>Entzündbarkeit (fest, gasförmig):</b>	Nicht anwendbar.
· <b>Zersetzungstemperatur:</b>	Nicht bestimmt.
· <b>Selbstentzündungstemperatur:</b>	Selbstentzündlich an der Luft.
· <b>Explosive Eigenschaften:</b>	Das Produkt ist nicht explosionsgefährlich, jedoch ist die Bildung explosionsgefährlicher Dampf-/Luftgemische möglich.
· <b>Explosionsgrenzen:</b> <b>Untere:</b> <b>Obere:</b>	Nicht bestimmt. Nicht bestimmt.
· <b>Dampfdruck bei 20 °C:</b>	245,3 hPa
· <b>Dichte bei 20 °C:</b> · <b>Relative Dichte</b> · <b>Dampfdichte</b> · <b>Verdampfungsgeschwindigkeit</b>	1,618 g/cm <sup>3</sup> Nicht bestimmt. Nicht bestimmt. Nicht bestimmt.
· <b>Löslichkeit in / Mischbarkeit mit Wasser:</b>	Vollständig mischbar.
· <b>Verteilungskoeffizient: n-Octanol/Wasser:</b>	Nicht bestimmt.
· <b>Viskosität:</b> <b>Dynamisch bei 20 °C:</b> <b>Kinematisch:</b>	25 mPas Nicht bestimmt.
· <b>Lösemittelgehalt:</b> <b>Organische Lösemittel:</b> <b>VOC (EU)</b>	22,8 % 22,83 %
<b>Festkörpergehalt:</b>	0,0 %
· <b>9.2 Sonstige Angaben</b>	Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

- **10.1 Reaktivität** Keine weiteren relevanten Informationen verfügbar.
- **10.2 Chemische Stabilität**
- **Thermische Zersetzung / zu vermeidende Bedingungen:**  
Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- **10.3 Möglichkeit gefährlicher Reaktionen** Kontakt mit Wasser setzt brennbare Gase frei.
- **10.4 Zu vermeidende Bedingungen** Keine weiteren relevanten Informationen verfügbar.
- **10.5 Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **10.6 Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

DE

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### ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut**  
Verursacht Hautreizungen.
- **Schwere Augenschädigung/-reizung**  
Verursacht schwere Augenreizung.
- **Sensibilisierung der Atemwege/Haut**  
Kann allergische Hautreaktionen verursachen.
- **Zusätzliche toxikologische Hinweise:**
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**  
Kann Schläfrigkeit und Benommenheit verursachen.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**  
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

### ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Ökotoxische Wirkungen:**
- **Bemerkung:** Giftig für Fische.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**  
Wassergefährdungsklasse 2 (Selbsteinstufung): deutlich wassergefährdend  
Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.  
Trinkwassergefährdung bereits beim Auslaufen geringer Mengen in den Untergrund.  
In Gewässern auch giftig für Fische und Plankton.  
giftig für Wasserorganismen
- **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

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· **Empfohlenes Reinigungsmittel:** Wasser, gegebenenfalls mit Zusatz von Reinigungsmitteln.

### ABSCHNITT 14: Angaben zum Transport

· **14.1 UN-Nummer**  
· **ADR, IMDG, IATA**

UNI263

· **14.2 Ordnungsgemäße UN-Versandbezeichnung**

· **ADR**  
· **IMDG, IATA**

1263 FARBE, UMWELTGEFÄHRDEND  
PAINT· **14.3 Transportgefahrenklassen**· **ADR**

· **Klasse**  
· **Gefahrzettel**

3 Entzündbare flüssige Stoffe  
3· **IMDG, IATA**

· **Class**  
· **Label**

3 Entzündbare flüssige Stoffe  
3· **14.4 Verpackungsgruppe**· **ADR, IMDG, IATA**

II

· **14.5 Umweltgefahren:**· **Besondere Kennzeichnung (ADR):**

Symbol (Fisch und Baum)

· **14.6 Besondere Vorsichtsmaßnahmen für den Verwender**

Achtung: Entzündbare flüssige Stoffe

· **Nummer zur Kennzeichnung der Gefahr (Kemler-Zahl):**

33

· **EMS-Nummer:**

F-E, S-E

· **Segregation groups**

Liquid halogenated hydrocarbons

· **Stowage Category**

B

· **14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code** Nicht anwendbar.· **Transport/weitere Angaben:**· **ADR**· **Begrenzte Menge (LQ)**

1L

· **Freigestellte Mengen (EQ)**

Code: E2

Höchste Nettomenge je Innenverpackung: 30 ml

Höchste Nettomenge je Außenverpackung: 500 ml

· **Beförderungskategorie**

2

· **Tunnelbeschränkungscode**

D/E

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· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	IL
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1263 FARBE, 3, II, UMWELTGEFÄHRDEND

### ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
- **Richtlinie 2012/18/EU**
- **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Keiner der Inhaltsstoffe ist enthalten.
- **Seveso-Kategorie**  
O2 Stoffe und Gemische, die bei Berührung mit Wasser entzündbare Gase entwickeln  
E2 Gewässergefährdend  
P5c ENTZÜNDBARE FLÜSSIGKEITEN
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse 100 t**
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse 500 t**
- **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 3, 40

· **Richtlinie 2011/65/EU zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten – Anhang II**

Keiner der Inhaltsstoffe ist enthalten.

· **VERORDNUNG (EU) 2019/1148**

· **Anhang I - BESCHRÄNKTE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE (Oberer Konzentrationsgrenzwert für eine Genehmigung nach Artikel 5 Absatz 3)**

Keiner der Inhaltsstoffe ist enthalten.

· **Anhang II - MELDEPFLICHTIGE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE**

67-64-I Aceton

· **Verordnung (EG) Nr. 273/2004 betreffend Drogenausgangsstoffe**

67-64-I Aceton

3

· **Verordnung (EG) Nr. 111/2005 zur Festlegung von Vorschriften für die Überwachung des Handels mit Drogenaustauschstoffen zwischen der Gemeinschaft und Drittländern**

67-64-I Aceton

3

· **Nationale Vorschriften:**

· **Technische Anleitung Luft:**

Klasse	Anteil in %
NK	22,8

· **Wassergefährdungsklasse: WGK 2 (Selbsteinstufung):** deutlich wassergefährdend.

· **Sonstige Vorschriften, Beschränkungen und Verbotverordnungen**

· **Besonders besorgniserregende Stoffe (SVHC) gemäß REACH, Artikel 57**

67-64-I Aceton

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· **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

### ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

· **Relevante Sätze**

H225 Flüssigkeit und Dampf leicht entzündbar.

H226 Flüssigkeit und Dampf entzündbar.

H302 Gesundheitsschädlich bei Verschlucken.

H304 Kann bei Verschlucken und Eindringen in die Atemwege tödlich sein.

H315 Verursacht Hautreizungen.

H319 Verursacht schwere Augenreizung.

H332 Gesundheitsschädlich bei Einatmen.

H336 Kann Schläfrigkeit und Benommenheit verursachen.

H373 Kann die Organe schädigen bei längerer oder wiederholter Exposition.

· **Abkürzungen und Akronyme:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Entzündbare Flüssigkeiten – Kategorie 2

Flam. Liq. 3: Entzündbare Flüssigkeiten – Kategorie 3

Water-react. 1: Stoffe und Gemische, die in Berührung mit Wasser entzündbare Gase entwickeln – Kategorie 1

Acute Tox. 4: Akute Toxizität – Kategorie 4

Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2

Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2

Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1

STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3

STOT RE 2: Spezifische Zielorgan-Toxizität (wiederholte Exposition) – Kategorie 2

Asp. Tox. 1: Aspirationsgefahr – Kategorie 1

Aquatic Chronic 2: Gewässergefährdend - langfristig gewässergefährdend – Kategorie 2

**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 08.06.2022

Revisione: 08.06.2022

**SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa**

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** Conductive Silver 187

· **Articolo numero:** 12684-15

· **UFI:** YDP0-60MW-900T-J1QF

· **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**  
Non sono disponibili altre informazioni.

· **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio

· **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**

· **Produttore/fornitore:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkceck@aol.com

www.emsdiasum.com

Societa Italiana Chimici

Via Rio Nell Ellba 140

00138 Rome, Italy

Tel: 39 06 8800211

Fax: 39 30 06 8815313

Web: www.sichim.com

· **Informazioni fornite da:** Product safety department

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

**SEZIONE 2: Identificazione dei pericoli**

· **2.1 Classificazione della sostanza o della miscela**

· **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS02 fiamma

Flam. Liq. 3      H226 Liquido e vapori infiammabili.

Water-react. 1      H260 A contatto con l'acqua libera gas infiammabili che possono infiammarsi spontaneamente.



GHS09 ambiente

Aquatic Chronic 2      H411 Tossico per gli organismi acquatici con effetti di lunga durata.



GHS07

Skin Irrit. 2      H315 Provoca irritazione cutanea.

Eye Irrit. 2      H319 Provoca grave irritazione oculare.

Skin Sens. 1      H317 Può provocare una reazione allergica cutanea.

STOT SE 3      H336 Può provocare sonnolenza o vertigini.

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## Scheda di dati di sicurezza ai sensi del regolamento 1907/2006/CE, Articolo 31

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**Denominazione commerciale: Conductive Silver 187**

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**2.2 Elementi dell'etichetta**
**Etichettatura secondo il regolamento (CE) n. 1272/2008**

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

**Pittogrammi di pericolo**


GHS02    GHS07    GHS09

**Avvertenza Pericolo**
**Componenti pericolosi che ne determinano l'etichettatura:**

acetone

**Indicazioni di pericolo**

H226 Liquido e vapori infiammabili.

H260 A contatto con l'acqua libera gas infiammabili che possono infiammarsi spontaneamente.

H315 Provoca irritazione cutanea.

H319 Provoca grave irritazione oculare.

H317 Può provocare una reazione allergica cutanea.

H336 Può provocare sonnolenza o vertigini.

H411 Tossico per gli organismi acquatici con effetti di lunga durata.

**Consigli di prudenza**

P210 Tenere lontano da fonti di calore, superfici riscaldate, scintille, fiamme e altre fonti di innesco. Vietato fumare.

P223 Evitare qualunque contatto con l'acqua.

P303+P361+P353 IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliersi di dosso immediatamente tutti gli indumenti contaminati. Sciacquare la pelle [o fare una doccia].

P305+P351+P338 IN CASO DI CONTATTO CON GLI OCCHI: sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.

P405 Conservare sotto chiave.

P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.

**Ulteriori dati:**

Il prodotto contiene: Precursori di esplosivi soggetti a segnalazione. Messa a disposizione, introduzione, detenzione e uso ai sensi del regolamento (UE) 2019/1148, articolo 9.

**2.3 Altri pericoli**
**Risultati della valutazione PBT e vPvB**

**PBT:** Non applicabile.

**vPvB:** Non applicabile.

### SEZIONE 3: Composizione/informazioni sugli ingredienti

**3.2 Caratteristiche chimiche: Miscela**

**Descrizione:** Miscela delle seguenti sostanze con additivi non pericolosi.

**Sostanze pericolose:**

CAS: 67-64-1	acetone	>10-≤25%
EINECS: 200-662-2		

(continua a pagina 3)

## Scheda di dati di sicurezza ai sensi del regolamento 1907/2006/CE, Articolo 31

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CAS: 98-56-6 EINECS: 202-681-1	4-cloro-alpha-alpha-alpha-trifluorotoluene ⚠ Flam. Liq. 3, H226; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	>10-≤25%
CAS: 100-41-4 EINECS: 202-849-4	etilbenzene ⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332	≤2,5%

· **SVHC**

67-64-1 acetone

· **Ulteriori indicazioni:** Il testo dell'avvertenza dei pericoli citati può essere appreso dal capitolo 16**SEZIONE 4: Misure di primo soccorso**· **4.1 Descrizione delle misure di primo soccorso**· **Indicazioni generali:**

I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.

· **Inalazione:**

Portare il soggetto in zona molto ben areata e per sicurezza consultare un medico.

Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.

· **Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.· **Contatto con gli occhi:**

Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte. Se persiste il dolore consultare il medico.

· **Ingestione:** Se il dolore persiste consultare il medico.· **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.· **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**

Non sono disponibili altre informazioni.

**SEZIONE 5: Misure antincendio**· **5.1 Mezzi di estinzione**· **Mezzi di estinzione idonei:**

CO<sub>2</sub>, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.

· **Mezzi di estinzione inadatti per motivi di sicurezza:** Acqua· **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.· **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**· **Mezzi protettivi specifici:** Indossare il respiratore.**SEZIONE 6: Misure in caso di rilascio accidentale**· **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza**

Indossare equipaggiamento protettivo. Allontanare le persone non equipaggiate.

· **6.2 Precauzioni ambientali:**

In caso di infiltrazione nei corpi d'acqua o nelle fognature avvertire le autorità competenti.

Diluire abbondantemente con acqua.

Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.

· **6.3 Metodi e materiali per il contenimento e per la bonifica:**

Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).

Smaltimento del materiale contaminato conformemente al punto 13.

Provvedere ad una sufficiente areazione.

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Non dilavare con acqua o detersivi liquidi.

**6.4 Riferimento ad altre sezioni**

Per informazioni relative ad una manipolazione sicura, vedere capitolo 7.

Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.

Per informazioni relative allo smaltimento vedere Capitolo 13.

**SEZIONE 7: Manipolazione e immagazzinamento****7.1 Precauzioni per la manipolazione sicura**

Accurata ventilazione/aspirazione nei luoghi di lavoro.

Evitare la formazione di aerosol.

**Indicazioni in caso di incendio ed esplosione:**

Tenere lontano da fonti di calore, non fumare.

Proteggere dal calore.

Adottare provvedimenti contro cariche elettrostatiche.

**7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità****Stoccaggio:****Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.**Indicazioni sullo stoccaggio misto:** Non necessario.**Ulteriori indicazioni relative alle condizioni di immagazzinamento:**

Mantenere i recipienti ermeticamente chiusi.

Conservare in luogo fresco e asciutto in fusti ben chiusi.

Proteggere dal calore e dai raggi diretti del sole.

**7.3 Usi finali particolari** Non sono disponibili altre informazioni.**SEZIONE 8: Controllo dell'esposizione/protezione individuale****8.1 Parametri di controllo****Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.**Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:****67-64-1 acetone**

TWA	Valore a breve termine: 1781 mg/m <sup>3</sup> , (750) ppm Valore a lungo termine: 1187 mg/m <sup>3</sup> , (500) ppm A4, IBE
-----	-------------------------------------------------------------------------------------------------------------------------------------

VL	Valore a lungo termine: 1210 mg/m <sup>3</sup> , 500 ppm
----	----------------------------------------------------------

**100-41-4 etilbenzene**

TWA	Valore a lungo termine: 87 mg/m <sup>3</sup> , 20 ppm A3, IBE
-----	------------------------------------------------------------------

VL	Valore a breve termine: 884 mg/m <sup>3</sup> , 200 ppm Valore a lungo termine: 442 mg/m <sup>3</sup> , 100 ppm Cute
----	----------------------------------------------------------------------------------------------------------------------------

**Componenti con valori limite biologici:****67-64-1 acetone**

IBE	50 mg/l Campioni: urine Momento del prelievo: a fine turno Indicatore biologico: acetone
-----	---------------------------------------------------------------------------------------------------

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**100-41-4 etilbenzene**

<b>IBE</b>	0,7 g/g creatinina Campioni: urine Momento del prelievo: f.t.f.s.l Indicatore biologico: acido mandelico + acido fenilglicosilico
-	Campioni: aria di fine espirazione Momento del prelievo: non critico Indicatore biologico: etilbenzene

· **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.

· **8.2 Controlli dell'esposizione**

· **Mezzi protettivi individuali:**

· **Norme generali protettive e di igiene del lavoro:**

- Tenere lontano da cibo, bevande e foraggi.
- Togliere immediatamente gli abiti contaminati.
- Lavarsi le mani prima dell'intervallo o a lavoro terminato.
- Evitare il contatto con gli occhi e la pelle.

· **Maschera protettiva:**

Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.

· **Guanti protettivi:**



Guanti protettivi

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.

A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.

Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

· **Materiale dei guanti**

La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell'impiego

· **Tempo di permeazione del materiale dei guanti**

Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.

· **Occhiali protettivi:**

Occhiali protettivi



Occhiali protettivi a tenuta

## SEZIONE 9: Proprietà fisiche e chimiche

· **9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali**

· **Indicazioni generali**

· **Aspetto:**

**Forma:** Liquido

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· <b>Colore:</b>	Color argento
· <b>Odore:</b>	Caratteristico
· <b>Soglia olfattiva:</b>	Non definito.
· <b>valori di pH:</b>	Non definito.
· <b>Cambiamento di stato</b>	
· <b>Punto di fusione/punto di congelamento:</b>	Non definito.
· <b>Punto di ebollizione iniziale e intervallo di ebollizione:</b>	56 °C
· <b>Punto di infiammabilità:</b>	-16 °C
· <b>Infiammabilità (solidi, gas):</b>	Non applicabile.
· <b>Temperatura di decomposizione:</b>	Non definito.
· <b>Temperatura di autoaccensione:</b>	Spontaneamente infiammabile all'aria.
· <b>Proprietà esplosive:</b>	Prodotto non è esplosivo, è tuttavia possibile la formazione di miscele di vapori/aria esplosive.
· <b>Limiti di infiammabilità:</b>	
· <b>Inferiore:</b>	Non definito.
· <b>Superiore:</b>	Non definito.
· <b>Tensione di vapore a 20 °C:</b>	245,3 hPa
· <b>Densità a 20 °C:</b>	1,618 g/cm <sup>3</sup>
· <b>Densità relativa</b>	Non definito.
· <b>Densità di vapore:</b>	Non definito.
· <b>Velocità di evaporazione</b>	Non definito.
· <b>Solubilità in/Miscibilità con acqua:</b>	Completamente miscibile.
· <b>Coefficiente di ripartizione: n-ottanolo/acqua:</b>	Non definito.
· <b>Viscosità:</b>	
· <b>Dinamica a 20 °C:</b>	25 mPas
· <b>Cinematica:</b>	Non definito.
· <b>Tenore del solvente:</b>	
· <b>Solventi organici:</b>	22,8 %
· <b>VOC (CE)</b>	22,83 %
· <b>Contenuto solido:</b>	0,0 %
· <b>9.2 Altre informazioni</b>	Non sono disponibili altre informazioni.

### SEZIONE 10: Stabilità e reattività

- **10.1 Reattività** Non sono disponibili altre informazioni.
- **10.2 Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **10.3 Possibilità di reazioni pericolose** Il contatto con acqua libera gas infiammabili.
- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.

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· **10.6 Prodotti di decomposizione pericolosi:** *Non sono noti prodotti di decomposizione pericolosi.*

### **SEZIONE 11: Informazioni tossicologiche**

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta** *Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.*
- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**  
*Provoca irritazione cutanea.*
- **Lesioni oculari gravi/irritazioni oculari gravi**  
*Provoca grave irritazione oculare.*
- **Sensibilizzazione respiratoria o cutanea**  
*Può provocare una reazione allergica cutanea.*
- **Ulteriori dati tossicologici:**
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**  
*Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.*
- **Cancerogenicità** *Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.*
- **Tossicità per la riproduzione** *Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.*
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**  
*Può provocare sonnolenza o vertigini.*
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**  
*Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.*
- **Pericolo in caso di aspirazione** *Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.*

### **SEZIONE 12: Informazioni ecologiche**

- **12.1 Tossicità**
- **Tossicità acquatica:** *Non sono disponibili altre informazioni.*
- **12.2 Persistenza e degradabilità** *Non sono disponibili altre informazioni.*
- **12.3 Potenziale di bioaccumulo** *Non sono disponibili altre informazioni.*
- **12.4 Mobilità nel suolo** *Non sono disponibili altre informazioni.*
- **Effetti tossici per l'ambiente:**
- **Osservazioni:** *Tossico per i pesci.*
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**  
*Pericolosità per le acque classe 2 (D) (Autoclassificazione): pericoloso*  
*Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature.*  
*Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di piccole quantità di prodotto.*  
*Tossico per pesci e plancton.*  
*tossico per gli organismi acquatici*
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** *Non applicabile.*
- **vPvB:** *Non applicabile.*
- **12.6 Altri effetti avversi** *Non sono disponibili altre informazioni.*

### **SEZIONE 13: Considerazioni sullo smaltimento**

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** *Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.*

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- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.
- **Detergente consigliato:** Acqua eventualmente con l'aggiunta di detersivi.

### SEZIONE 14: Informazioni sul trasporto

- **14.1 Numero ONU**
- **ADR, IMDG, IATA**

UN1263

- **14.2 Nome di spedizione dell'ONU**
- **ADR**
- **IMDG, IATA**

1263 PITTURE, PERICOLOSO PER L'AMBIENTE  
PAINT

- **14.3 Classi di pericolo connesso al trasporto**
- **ADR**



- **Classe**
- **Etichetta**

3 Liquidi infiammabili  
3

- **IMDG, IATA**



- **Class**
- **Label**

3 Liquidi infiammabili  
3

- **14.4 Gruppo di imballaggio**
- **ADR, IMDG, IATA**

II

- **14.5 Pericoli per l'ambiente:**
- **Marcatura speciali (ADR):**

Simbolo (pesce e albero)

- **14.6 Precauzioni speciali per gli utilizzatori**
- **N° identificazione pericolo (Numero Kemler):**
- **Numero EMS:**
- **Segregation groups**
- **Stowage Category**

Attenzione: Liquidi infiammabili  
33  
F-E, S-E  
Liquid halogenated hydrocarbons  
B

- **14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC**

Non applicabile.

- **Trasporto/ulteriori indicazioni:**

- **ADR**
- **Quantità limitate (LQ)**
- **Quantità esenti (EQ)**
- **Categoria di trasporto**
- **Codice di restrizione in galleria**

1L  
Codice: E2  
Quantità massima netta per imballaggio interno: 30 ml  
Quantità massima netta per imballaggio esterno: 500 ml  
2  
D/E

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· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1263 PITTURE, 3, II, PERICOLOSO PER L'AMBIENTE

### SEZIONE 15: Informazioni sulla regolamentazione

· **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**

· **Direttiva 2012/18/UE**

· **Sostanze pericolose specificate - ALLEGATO I** Nessuno dei componenti è contenuto.

· **Categoria Seveso**

O2 Sostanze e miscele che, a contatto con l'acqua, liberano gas infiammabili, categoria 1

E2 Pericoloso per l'ambiente acquatico

P5c LIQUIDI INFIAMMABILI

· **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 100 t**

· **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 500 t**

· **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3, 40

· **Direttiva 2011/65/UE sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche - Allegato II**

Nessuno dei componenti è contenuto.

· **REGOLAMENTO (UE) 2019/1148**

· **Allegato I - PRECURSORI DI ESPLOSIVI SOGGETTI A RESTRIZIONI (Valore limite superiore ai fini della concessione di licenze a norma dell'articolo 5, paragrafo 3)**

Nessuno dei componenti è contenuto.

· **Allegato II - PRECURSORI DI ESPLOSIVI SOGGETTI A SEGNALE**

67-64-I acetone

· **Regolamento (CE) n. 273/2004 relativo ai precursori di droghe**

67-64-I acetone

3

· **Regolamento (CE) N. 111/2005 recante norme per il controllo del commercio dei precursori di droghe tra la Comunità e i paesi terzi**

67-64-I acetone

3

· **Disposizioni nazionali:**

· **Istruzione tecnica aria:**

Classe	quota in %
NC	22,8

· **Ulteriori disposizioni, limitazioni e decreti proibitivi**

· **Sostanze estremamente preoccupanti (SVHC) ai sensi della regolamento REACH, articolo 57**

67-64-I acetone

· **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

IT

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**Scheda di dati di sicurezza**  
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### **SEZIONE 16: Altre informazioni**

*I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.*

· **Frasi rilevanti**

*H225 Liquido e vapori facilmente infiammabili.*

*H226 Liquido e vapori infiammabili.*

*H302 Nocivo se ingerito.*

*H304 Può essere letale in caso di ingestione e di penetrazione nelle vie respiratorie.*

*H315 Provoca irritazione cutanea.*

*H319 Provoca grave irritazione oculare.*

*H332 Nocivo se inalato.*

*H336 Può provocare sonnolenza o vertigini.*

*H373 Può provocare danni agli organi in caso di esposizione prolungata o ripetuta.*

· **Abbreviazioni e acronimi:**

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*VOC: Volatile Organic Compounds (USA, EU)*

*PBT: Persistent, Bioaccumulative and Toxic*

*SVHC: Substances of Very High Concern*

*vPvB: very Persistent and very Bioaccumulative*

*Flam. Liq. 2: Liquidi infiammabili – Categoria 2*

*Flam. Liq. 3: Liquidi infiammabili – Categoria 3*

*Water-react. 1: Sostanze e miscele che, a contatto con l'acqua, sviluppano gas infiammabili – Categoria 1*

*Acute Tox. 4: Tossicità acuta – Categoria 4*

*Skin Irrit. 2: Corrosione/irritazione della pelle – Categoria 2*

*Eye Irrit. 2: Gravi lesioni oculari/irritazione oculare – Categoria 2*

*Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1*

*STOT SE 3: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 3*

*STOT RE 2: Tossicità specifica per organi bersaglio (esposizione ripetuta) – Categoria 2*

*Asp. Tox. 1: Pericolo in caso di aspirazione – Categoria 1*

*Aquatic Chronic 2: Pericoloso per l'ambiente acquatico - pericolo a lungo termine per l'ambiente acquatico – Categoria 2*

# 安全データシート

## JIS Z 7253:2019 による

印刷日: 2022.06.08

バージョン番号: 1

改訂日: 2022.06.08

### 項目 1: 化学品及び会社情報

- ・製品識別子
- ・化学品の名称 Conductive Silver 187
- ・製品コード 12684-15
- ・該当純物質または混合物の関連特定用途及び使用禁止用途 追加的な関連情報は得られていません。
- ・推奨用途 実験用化学物質
- ・安全データシートの供給元の詳細情報
- ・供給者の会社名称,住所及び電話番号  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkck@aol.com  
www.emsdiasum.com
- ・その他の情報問い合わせ先: Product safety department
- ・緊急連絡電話番号  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 項目 2: 危険有害性の要約

#### ・化学品のGHS分類



火炎

引火性液体 区分3

H226 引火性液体及び蒸気

水反応可燃性化学品 区分1

H260 水に触れると自然発火す

るおそれのある可燃性又は引火性ガスを発生



環境

水生環境有害性(慢性毒性) 区分2

H411 長期継続的影響によって水生生物に毒性



皮膚腐食性/刺激性 区分2

H315 皮膚刺激

重篤な眼の損傷性/眼刺激性 区分2A

H319 強い眼刺激

感作性(皮膚) 区分1

H317 アレルギー性皮膚反応を起こすおそれ

特定標的臓器有害性(単回暴露) 区分3 H336 眠気又はめまいのおそれ

#### ・GHSラベル要素(絵表示又はシンボル,注意喚起語,危険有害性情報及び注意書き)

#### ・GHSラベル要素

本製品はGHS(化学品の分類および表示に関する世界調和システム)により分類及び表示されています。

#### ・絵表示



GHS02



GHS07



GHS09

(2ページに続く)

# 安全データシート

## JIS Z 7253:2019 による

印刷日: 2022.06.08

バージョン番号: 1

改訂日: 2022.06.08

### 化学品の名称 Conductive Silver 187

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- ・注意喚起語 危険
- ・危険と定められた成分をラベル表示:  
エチルベンゼン
- ・危険有害性情報  
引火性液体及び蒸気  
水に触れると自然発火するおそれのある可燃性又は引火性ガスを発生  
皮膚刺激  
強い眼刺激  
アレルギー性皮膚反応を起こすおそれ  
眠気又はめまいのおそれ  
長期継続的影響によって水生生物に毒性
- ・注意書き  
熱/火花/裸火/高温のもののような着火源から遠ざけること。ー禁煙。  
水と接触させないこと。  
皮膚(または髪)に付着した場合: 直ちに汚染された衣類をすべて脱ぐこと。皮膚を流水/シャワーで洗うこと。  
眼に入った場合: 水で数分間注意深く洗うこと。次にコンタクトレンズを着用していて容易に外せる場合は外すこと。その後も洗浄を続けること。  
施錠して保管すること。  
現地/地域/国/国際規定に従い内容物・容器の露出
- ・GHS分類に関係しない又はGHSで扱われない他の危険有害性
- ・PBT(残留性、生物濃縮性、毒性物質)及びvPvB(高残留性、高生物濃縮性物質)アセスメント
- ・PBT(残留性、生物濃縮性、毒性物質): 情報なし
- ・vPvB(高残留性、高生物濃縮性物質): 情報なし

### 項目 3: 組成及び成分情報

- ・化学物質・混合物の区別: 混合物
- ・説明: 危険のない混ぜ合わせかたをした以下成分からなる混合物

#### 危険な含有成分:

67-64-1	アセトン ⚠引火性液体 区分2, H225; ⚠急性毒性(経口) 区分4, H302; 重篤な眼の損傷性/眼刺激性 区分2, H319; 特定標的臓器有害性(単回暴露) 区分3, H336	>10-≤25%
98-56-6	p-クロロ-α,α,α-トリフルオロトルエン ⚠引火性液体 区分3, H226; ⚠皮膚腐食性/刺激性 区分2, H315; 重篤な眼の損傷性/眼刺激性 区分2A, H319	>10-≤25%
100-41-4	エチルベンゼン ⚠引火性液体 区分2, H225; ⚠特定標的臓器有害性(反復暴露) 区分2, H373; 吸引性呼吸器有害性 区分1, H304; ⚠急性毒性(吸入) 区分4, H332	≤2.5%

### 項目 4: 応急措置

- ・応急手当処置に関する説明
- ・一般情報:  
中毒症状は時間がかなり経過した後に現れる場合もあるため、事故後最低 4 8 時間は医師の監視のもとで過ごすこと
- ・吸入した場合  
外気を十分に送り込み、安全のため医師を呼ぶ  
意識不明の場合には安定させた状態で横向きに寝かせ、移送する
- ・皮膚に付着した場合 即刻石鹸と水で洗い、よくすすぐ
- ・眼に入った場合 瞼を開けたまま、流水で何分間か眼をすすぎ、状態がよくなる場合には医者に相談する
- ・飲み込んだ場合 状態が好転しない場合には医師に相談する

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- 急性症状及び遅発性症状の最も重要な徴候症状 追加的な関連情報は得られていません。
- 何らかの即時医療処置及び特別治療の必要性を示す兆候 追加的な関連情報は得られていません。

### 項目 5: 火災時の措置

- 消火剤
- 適切な消火剤 CO<sub>2</sub>, 消火粉末剤あるいは水放射。火が大きい場合には水放射もしくは耐アルコール性泡を使用
- 使ってはならない消火剤 水
- 本化学物質または混合物から発生する特別な危険性 追加的な関連情報は得られていません。
- 消火活動を行う者の特別な保護具及び予防措置
- 特別な保護装備: 呼吸保護マスクを着用

### 項目 6: 漏出時の措置

- 人体に対する注意事項, 保護具及び緊急時措置 防護服を着用。防護服を着用していない人は近づけない
- 環境に対する注意事項
  - 河川、下水処理施設に流れ込んだ場合には関係当局に連絡する
  - 大量の水で薄める
  - 下水処理施設、地上水あるいは地下水に達しないようにする
- 封じ込め及び浄化の方法及び機材
  - 液体吸収材 (砂、珪藻土、酸結合剤、ユニバーサル結合剤、おがくず) で吸収する
  - 13 項に下がい汚染材は廃棄物として処理する
  - 十分な換気を心がける
  - 水もしくは液体洗剤で洗い流さない
- 他のセクションへの言及
  - 安全な取り扱い方に関しては 7 項を参照
  - 人の保護装備の情報に関しては 8 項を参照
  - 廃棄処分に関しては 13 項参照

### 項目 7: 取扱い及び保管上の注意

- 取扱い
  - 作業場では十分な換気、埃を吸い取るよう心がける
  - エアゾールの発生を防ぐ
- 火災および爆発防止に関する注意事項:
  - 発火元は遠ざける。禁煙
  - 高温から保護する
  - 静電荷を防ぐ措置をほどこす
- 混融危険性を含めた安全貯蔵条件
- 保管
  - 保管スペースおよび容器に関する要求事項: 特別な要求事項なし
  - 同じ場所に保管する際の注意事項: 必要ない
  - 保管条件に関するその他の注意事項:
    - 容器は密閉した状態に保つ
    - よく密閉した樽の中で涼しく乾燥した場所に保管する
    - 熱および直射日光は避ける
- 特定の最終用途 追加的な関連情報は得られていません。

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### 項目 8: ばく露防止及び保護措置

#### ・許容濃度等

##### ・作業場において限界値の監視を要する成分:

###### 67-64-1 アセトン

OEL | 長期値: 475 mg/m<sup>3</sup>, 200 ppm

###### 100-41-4 エチルベンゼン

OEL | 長期値: 87 mg/m<sup>3</sup>, 20 ppm

##### ・生物学的許容値を持つ原料:

###### 67-64-1 アセトン

OEL-B | 40 mg/l  
 試料: urine  
 試料採取時期: Within 2h prior to end of shift  
 物質: Acetone

##### ・追加注意事項: 生成時に有効なリストがもとなっている

#### ・設備対策

##### ・技術設備の形体に関する追加注意事項: その他の申し立てなし、7 項参照

#### ・保護具

##### ・一般防止措置および衛生措置:

食物、飲み物、飼料からは遠ざける  
 汚れのしみ込んだ衣類は即刻脱ぐ  
 休憩の前、作業終了後には手を洗う  
 眼に入らないよう、また皮膚に接触しないよう注意する

##### ・呼吸保護器具:

短時間  
 もしくは負担が小さい場合には呼吸フィルター付装置を、集中的にあるいは長時間触れる場合には、酸素ボンベ付き呼吸保護装置を使用すること

##### ・手の保護:



保護手袋

手袋の材質は物質/材料/調合剤に対して耐性であり、成分を通すことがあってはならない  
 テストをおこなっていないため、物質/調合剤/化合物を取り扱う際の手袋の材質として勧められるものはない  
 浸透時間、透過性および劣化の点を留意しながら手袋の材質を選択する

##### ・手袋材

適当な手袋は材質だけではなく、その他の品質によっても変わり、各メーカーによって異なる。調合する際の物質は複数の成分から生成されるため、手袋材の耐久性は予想できない。このため使用前には必ずチェックしなければならない

##### ・手袋材の浸透時間 正確な浸透時間については保護手袋メーカーに問い合わせ、それを遵守すること

##### ・眼の保護:

保護めがね



密閉式保護めがね

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### 項目 9: 物理的及び化学的性質

<ul style="list-style-type: none"> <li>基本的な物理及び化学特性に関する情報</li> <li>一般指示事項</li> </ul>	
<ul style="list-style-type: none"> <li>物理状態</li> <li>色</li> <li>臭い</li> <li>嗅覚閾値</li> <li>融点／凝固点(混合物の場合は,記載省略可)</li> <li>沸点又は初留点及び沸点範囲</li> <li>可燃性</li> <li>爆発下限界及び爆発上限界／可燃限界</li> <li>下限:</li> <li>上限:</li> <li>引火点</li> <li>分解温度</li> <li>pH</li> <li>粘性:</li> <li>動粘性率</li> <li>力学的 約 20 °C:</li> <li>溶解度(混合物の場合は,記載省略可)</li> <li>水:</li> <li>n-</li> <li>オクタノール／水分配係数(log値)(混合物の場合は,記載省略可)</li> <li>蒸気圧 約 20 °C</li> <li>密度及び／又は相対密度</li> <li>密度 約 20 °C:</li> <li>相対的密度</li> <li>蒸気密度</li> </ul>	<ul style="list-style-type: none"> <li>液状</li> <li>シルバー色</li> <li>特徴的</li> <li>決まっていない.</li> <li>決まっていない</li> <li>56 °C</li> <li>情報なし</li> <li>決まっていない.</li> <li>決まっていない.</li> <li>-16 °C</li> <li>決まっていない.</li> <li>決まっていない.</li> <li>決まっていない.</li> <li>25 mPas</li> <li>完全に混合できる</li> <li>決まっていない.</li> <li>245.3 hPa</li> <li>1.618 g/cm<sup>3</sup></li> <li>決まっていない.</li> <li>決まっていない.</li> </ul>
<ul style="list-style-type: none"> <li>その他のデータ</li> </ul>	
<ul style="list-style-type: none"> <li>外観</li> <li>形:</li> <li>健康および環境保護ならびに安全に関する重要な指示事項</li> <li>自然発火点</li> <li>爆発の危険:</li> <li>溶剤含有量:</li> <li>有機溶剤:</li> <li>固形物含有量:</li> <li>状態の変化</li> <li>気化速度</li> </ul>	<ul style="list-style-type: none"> <li>液体</li> <li>空気中で自然発火の危険</li> <li>プロダクトは爆発する危険はない。ただし爆発する危険のある蒸気と空気の混合物を形成する可能性はある</li> <li>22.8 %</li> <li>0.0 %</li> <li>決まっていない.</li> </ul>

### 項目 10: 安定性及び反応性

- 反応性 追加的な関連情報は得られていません。
- 化学的安定性
- 熱分解/回避すべき条件: 規定どおりの使用では分解しない
- 危険有害反応可能性 水と接触すると燃焼性ガスが発生する
- 避けるべき条件 追加的な関連情報は得られていません。
- 混触危険物質 追加的な関連情報は得られていません。

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・危険有害な分解生成物 危険な分解プロダクトはない

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### 項目 11: 有害性情報

- ・毒性学的影響に関する情報
- ・皮膚腐食性／刺激性 皮膚刺激
- ・眼に対する重篤な損傷性／眼刺激性 強い眼刺激
- ・呼吸器感受性又は皮膚感受性 アレルギー性皮膚反応を起こすおそれ
- ・特定標的臓器毒性(単回ばく露) 眠気又はめまいのおそれ
- ・誤えん有害性 追加的な関連情報は得られていません。

### 項目 12: 環境影響情報

- ・毒性
- ・水生生物に対する毒性: 追加的な関連情報は得られていません。
- ・残留性・分解性 追加的な関連情報は得られていません。
- ・生態蓄積性 追加的な関連情報は得られていません。
- ・土壌中の移動性 追加的な関連情報は得られていません。
- ・PBT(残留性、生物濃縮性、毒性物質)及びvPvB(高残留性、高生物濃縮性物質)アセスメント
- ・PBT(残留性、生物濃縮性、毒性物質): 情報なし
- ・vPvB(高残留性、高生物濃縮性物質): 情報なし
- ・オゾン層への有害性 追加的な関連情報は得られていません。
- ・他の副作用
- ・注: 魚類に対して毒性が高い
- ・その他のエコロジーに関する注意事項:
- ・一般注意事項:  
水への危険度分類 2 (ドイツの規定) (自己査定): 水に対する危険性あり  
地下水、河川あるいは下水設備に流してはならない  
地下に少量流れ込んでも飲料水を汚染する  
水域においては魚やプランクトンにも毒性がある  
水生生物にとり毒性が高い

### 項目 13: 廃棄上の注意

- ・化学品(残余廃棄物) , 当該化学品が付着している汚染容器及び包装の安全で , かつ , 環境上望ましい廃棄,又はリサイクルに関する情報
- ・勧告: 家庭ごみとはいっしょに処分できない。下水処理施設に流してはならない
- ・洗浄されていないパッケージ:  
・勧告: 関係当局の規則に従って処分する
- ・推薦する洗剤: 水、場合に応じて洗剤も使って

### 項目 14: 輸送上の注意

- |                  |                                       |
|------------------|---------------------------------------|
| ・国連番号            |                                       |
| ・ADR, IMDG, IATA | UN1263                                |
| ・品名(国連輸送名)       |                                       |
| ・ADR             | 1263 PAINT, ENVIRONMENTALLY HAZARDOUS |
| ・IMDG, IATA      | PAINT                                 |

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・国連分類(輸送における危険有害性クラス)

・ADR



・分類 3 可燃性液体成分  
 ・危険物ラベル 3

・IMDG, IATA



・Class 3 可燃性液体成分  
 ・Label 3

・容器等級

・ADR, IMDG, IATA II

・環境危険:

・特別マーキング (ADR): シンボル (魚やツリー)

・ユーザー用特別予防措置

警告: 可燃性液体成分

・ケムラー符号:

33

・EMS (電子メールサービスナンバー) 番号:

F-E,S-E

・Segregation groups

Liquid halogenated hydrocarbons

・Stowage Category

B

・MARPOL73/78附属書II及びIBCコードによるばら積み  
 輸送される液体物質

情報なし

・輸送/その他の説明:

・ADR

・Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

・IMDG

・Limited quantities (LQ)

1L

・Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

・UN "模範規制:

UN 1263 PAINT, 3, II, ENVIRONMENTALLY  
 HAZARDOUS

### 項目 15: 適用法令

・該当法令の名称及びその法令に基づく規制に関する情報 追加的な関連情報は得られていません。

・化審法

・既存化学物質

7440-22-4 銀

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67-64-1	アセトン	2-542
98-56-6	p-クロロ- $\alpha,\alpha,\alpha$ -トリフルオロトルエン	3-53
100-41-4	エチルベンゼン	3-28, 3-60

#### ・特定化学物質

内容成分はリストアップされていない

#### ・監視化学物質、旧第二種監視化学物質、旧第三種監視化学物質

100-41-4	エチルベンゼン	旧第二
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#### ・優先評価化学物質

67-64-1	アセトン
100-41-4	エチルベンゼン

#### ・白物質

内容成分はリストアップされていない

#### ・既存化学物質安全性点検結果(分解性・蓄積性)

67-64-1	アセトン
100-41-4	エチルベンゼン

#### ・既存化学物質安全性点検結果(毒性)

内容成分はリストアップされていない

#### ・PRTR 制度 - 第一種指定化学物質

7440-22-4	銀	1-82
100-41-4	エチルベンゼン	1-53

#### ・PRTR 制度 - 特定第一種指定化学物質

内容成分はリストアップされていない

#### ・PRTR 制度 - 第二種指定化学物質

内容成分はリストアップされていない

#### ・毒物及び劇物取締法:劇物

内容成分はリストアップされていない

#### ・毒物及び劇物取締法:有機シアン化合物から除かれるもの

内容成分はリストアップされていない

#### ・毒物及び劇物取締法:毒物

内容成分はリストアップされていない

#### ・毒物及び劇物取締法:特定毒物

内容成分はリストアップされていない

#### ・労働安全衛生法

#### ・危険物

#### ・爆発性の物(施行令別表第1第1号)

内容成分はリストアップされていない

#### ・発火性の物(施行令別表第1第2号)

内容成分はリストアップされていない

#### ・酸化性の物(施行令別表第1第3号)

内容成分はリストアップされていない

#### ・引火性の物(施行令別表第1第4号)

67-64-1	アセトン
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#### ・可燃性のガス(施行令別表第1第5号)

内容成分はリストアップされていない

#### ・特定化学物質等

##### ・第一類物質

内容成分はリストアップされていない

##### ・第二類物質

100-41-4 エチルベンゼン

##### ・第三類物質

内容成分はリストアップされていない

#### ・名称等を通知すべき有害物(別表第9)

7440-22-4	銀	137
67-64-1	アセトン	17
100-41-4	エチルベンゼン	70

#### ・製造許可物質

内容成分はリストアップされていない

#### ・鉛中毒予防規則(施行令別表第4)

内容成分はリストアップされていない

#### ・四アルキル鉛中毒予防規則(施行令別表第5)

内容成分はリストアップされていない

#### ・有機溶剤中毒予防規則第(施行令別表第6の2)

##### ・第一種有機溶剤等

内容成分はリストアップされていない

##### ・第二種有機溶剤等

67-64-1 アセトン

##### ・第三種有機溶剤等

内容成分はリストアップされていない

#### ・強い変異原性が認められた化学物質

内容成分はリストアップされていない

#### ・消防法

67-64-1 アセトン

100-41-4 エチルベンゼン

#### ・海洋汚染防止法

67-64-1 アセトン

100-41-4 エチルベンゼン

#### ・特定物質等の規制等によるオゾン層の保護に関する法律

##### ・特定物質代替物質

内容成分はリストアップされていない

##### ・特定物質

内容成分はリストアップされていない

#### ・大気汚染防止法

100-41-4 エチルベンゼン

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# 安全データシート

## JIS Z 7253:2019 による

印刷日: 2022.06.08

バージョン番号: 1

改訂日: 2022.06.08

### 化学品の名称 Conductive Silver 187

(9ページの続き)

#### ・水質汚濁防止法

##### ・有害物質

内容成分はリストアップされていない

##### ・指定物質

内容成分はリストアップされていない

#### ・GHS ラベル要素

本製品はGHS(化学品の分類および表示に関する世界調和システム)により分類及び表示されています。

#### ・絵表示



GHS02 GHS07 GHS09

#### ・注意喚起語 危険

#### ・危険と定められた成分をラベル表示:

エチルベンゼン

#### ・危険有害性情報

引火性液体及び蒸気

水に触れると自然発火するおそれのある可燃性又は引火性ガスを発生

皮膚刺激

強い眼刺激

アレルギー性皮膚反応を起こすおそれ

眠気又はめまいのおそれ

長期継続的影響によって水生生物に毒性

#### ・注意書き

熱/火花/裸火/高温のもののような着火源から遠ざけること。ー禁煙。

水と接触させないこと。

皮膚(または髪)に付着した場合: 直ちに汚染された衣類をすべて脱ぐこと。皮膚を流水/シャワーで洗うこと。

眼に入った場合: 水で数分間注意深く洗うこと。次にコンタクトレンズを着用していて容易に外せ

る場合は外すこと。その後も洗浄を続けること。

施錠して保管すること。

現地/地域/国/国際規定に従い内容物・容器の露出

#### ・化学物質の安全性評価: 化学物質安全性評価が遂行されていない

## 項目 16: その他の情報

この情報は現在の我々の認識に基づいている。ただし、プロダクトの特性を保証するものではなく、また契約において法的根拠にはならない

#### ・縮約と二文字語:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

引火性液体 区分2: Flammable liquids – Category 2

引火性液体 区分3: Flammable liquids – Category 3

水反応可燃性化学品 区分1: Substances and mixtures which in contact with water emit flammable gases – Category 1

急性毒性(経口) 区分4: Acute toxicity – Category 4

皮膚腐食性/刺激性 区分2: Skin corrosion/irritation – Category 2

重篤な眼の損傷性/眼刺激性 区分2: Serious eye damage/eye irritation – Category 2

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### 化学品の名称 Conductive Silver 187

(10ページの続き)

重篤な眼の損傷性/眼刺激性 区分2A: Serious eye damage/eye irritation – Category 2A

感作性(皮膚) 区分1: Skin sensitisation – Category 1

特定標的臓器有害性(単回暴露) 区分3: Specific target organ toxicity (single exposure) – Category 3

特定標的臓器有害性(反復暴露) 区分2: Specific target organ toxicity (repeated exposure) – Category 2

吸引性呼吸器有害性 区分1: Aspiration hazard – Category 1

水生環境有害性(慢性毒性) 区分2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

JP



# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.06.08

개정: 2022.06.08

## 1 화학제품과 회사에 관한 정보

- 제품 식별자
- 제품명: **Conductive Silver 187**
- 상품번호: 12684-15
- 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도
- 제품의 권고 용도와 사용상의 제한: Conductive Silver 187
- 제품의 권고 용도와 사용상의 제한: 실험실 화학품
- 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
- 제조자/수입자/유통업자 정보:  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- Samchang Commercial Co., Ltd.  
Yeo Eui Do  
PO Box 1110  
Seoul, Korea  
Tel: 82 2 703 3040  
Fax: 82 2 717 3298

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- Daedok Science, Co. Ltd.  
34141 E10 Korea Advanced Institute of Science  
Guseong-Dong, Yuseong-gu, Daejeon,  
Korea  
Phone: 82 42 710 2091  
Fax: 82 42 367 0005  
Website: www.labsmro.com
- 추가적인 정보 획득 가능: Product safety department
- 비상연락 전화번호:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 유해성·위험성

- 순물질 또는 혼합물의 분류



화염

인화성 액체 – 구분3

H226 인화성 액체 및 증기

물반응성 물질 및 혼합물 – 구분1

H260 물과 접촉 시 자연발화 가능성이 있는 인화성 가스를 발생시킴



환경

수생환경 유해성 - 만성 – 구분2

H411 장기적인 영향에 의해 수생생물에게 유독함



(2 쪽에계속)

# 물질안전보건자료 GHS에 따라

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개정: 2022.06.08

**제품명: Conductive Silver 187**

(1 쪽부터 계속)

- 피부 부식성/피부 자극성 – 구분2      H315 피부에 자극을 일으킴
- 심한 눈 손상성/눈 자극성 – 구분 2      H319 눈에 심한 자극을 일으킴
- 피부 과민성은 – 구분1                      H317 알레르기성 피부 반응을 일으킬 수 있음
- 특정표적장기 독성 - 1회 노출- 구분3      H336 졸음 또는 현기증을 일으킬 수 있음

- **라벨표기 요소**
- **GHS 라벨 요소** 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
- **GHS 그림문자**



- **신호어 위험**
- **상표상에 명확히 위험성이 표시된 성분:**

ethylbenzene

- **유해·위험문구**
- 인화성 액체 및 증기
- 물과 접촉 시 자연발화 가능성이 있는 인화성 가스를 발생시킴
- 피부에 자극을 일으킴
- 눈에 심한 자극을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 졸음 또는 현기증을 일으킬 수 있음
- 장기적인 영향에 의해 수생생물에게 유독함

- **예방조치문구**
- 열·스파크·화염·고열로부터 멀리하십시오 - 금연
- 격렬한 반응 및 화재의 가능성이 있으므로 물과 접촉하지 않게 하십시오.
- 피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나 제거하십시오. 피부를 물로 씻으십시오/샤워하십시오 .
- 눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으십시오.
- 밀봉하여 저장하십시오.
- (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.

- **기타 유해성**
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.

### 3 구성성분의 명칭 및 함유량

- **화 학 적 특 성:** 혼합물
- **설 명:** 무해한 첨 가 물 이 함유된 아래에 열 거 된 물 질 로 만 들 어 진 혼 합 물.

· **위 험 요 소:**

67-64-1	Acetone, Reagent Grade ⚠ 인화성 액체 – 구분2, H225; ⚠ 급성 독성 - 경구 – 구분4, H302; 심한 눈 손상성/눈 자극성 – 구분 2, H319; 특정표적장기 독성 - 1회 노출- 구분3, H336	>10-≤25%
98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene ⚠ 인화성 액체 – 구분3, H226; ⚠ 피부 부식성/피부 자극성 – 구분2, H315; 심한 눈 손상성/눈 자극성 – 구분 2, H319	>10-≤25%
100-41-4	ethylbenzene ⚠ 인화성 액체 – 구분2, H225; ⚠ 특정표적장기 독성 - 반복 노출 – 구분2, H373; 흡인 유해성 – 구분1, H304; ⚠ 급성 독성 - 흡입 – 구분4, H332	≤2.5%

KR

(3 쪽에 계속)

# 물질안전보건자료

## GHS에 따라

인쇄일자: 2022.06.08

개정: 2022.06.08

제품명: Conductive Silver 187

(2 쪽부터계속)

### 4 응급조치 요령

- 응급조치요령 내용
- 일반적 정보:
  - 중독 증상은 몇 시간이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간동안은 의료진의 관찰을 받아야 한다.
- 흡입했을 때:
  - 신선한 공기를 쐬고 나서 반드시 의료진의 도움을 구한다.
  - 환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.
- 피부에 접촉했을 때: 즉시물과비누로씻고잘행군다.
- 눈에 들어갔을 때: 흐르는 물에 눈을 몇분동안 씻어내고나서, 증상이 지속될 경우에는 의사와 상담한다
- 먹었을 때: 증상이 지속될 경우에는 의사와 상담한다.
- 기타 의사의 주의사항:
  - 가장 중요한 급·만성 증상 및 영향 추가적인 정보가 존재하지 않습니다.
  - 즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후 추가적인 정보가 존재하지 않습니다.

### 5 폭발·화재시 대처방법

- 소화제
- 적절한 소화제:
  - 이산화탄소, 진화용 석회가루 또는 물방사를 사용하고, 더 큰 화재는 물을 분사하거나 알코올이 함유된 거품으로 끈다.
- 부적절한 소화제: 물
- 본 화학물질이나 혼합물에서 발생하는 특별 유해성 추가적인 정보가 존재하지 않습니다.
- 소방관에 대한 권고사항
- 화재 진압 시 착용할 보호구 및 예방조치: 호흡보호장비설치.

### 6 누출 사고 시 대처방법

- 개인적 예방조치, 보호장비 및 응급처치 절차 안전장비 착용하고, 무방비의 사람은 격리시킨다.
- 환경 관련 예방조치:
  - 하천이나하수로유입되었을경우해당관청에보고한다.
  - 많은 물로 희석시킨다.
  - 하수도망/해수면위의물/지하수로도달하지않게한다.
- 밀폐 및 정화 방법과 소재:
  - 액체가 혼합된 물질(모래, 규조토, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.
  - 항목 13에 따라 오염된 물질을 쓰레기로 처분한다.
  - 충분한 환기가 되도록 한다.
  - 물이나 묽은 세척제로 씻어 내지 마십시오
- 타 섹션 참조
  - 안전 관리에 대한 정보는 제7 장을 참고하십시오.
  - 개인 보호 장비에 대한 정보는 제8 장을 참고하십시오.
  - 쓰레기 처리에 대한 정보는 제13 장을 참고하십시오.

### 7 취급 및 저장방법

- 취급:
  - 안전 취급을 위한 예방조치
    - 작업장에서는통풍이잘되고/습기제거가잘되게주의한다.
    - 연무질이형성되는것을피한다.

(4 쪽에계속)

# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.06.08

개정: 2022.06.08

**제품명: Conductive Silver 187**

(3 쪽부터계속)

- **화재 및 폭발 사고 예방대책에 관한 정보:**  
 발 화 요소는 멀 리 둔 다-금 연.  
 열로부터보호한다.  
 정 전 기 의 충 전 으로부터 보호한다.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 특 별 한 요구사항이 없음.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필 요없음
- **보 관 조 건 에 관 한 추가적인 정보:**  
 용기를새지않게밀폐한채보관한다.  
 밀폐된 용기속에 서 늘 하 고 건 조 하 게 보 관 한 다.  
 열이나직사광선으로부터보호한다.
- **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

## 8 노출방지 및 개인보호구

- **첨단시설 디자인에 대한 추가정보:** 더 이 상 의 자료는 없음. 항 목 7 을 참고하시 오.
- **통제 변수**

· **화학물질의 노출기준, 생물학적 노출기준 등:**

### 67-64-1 Acetone, Reagent Grade

OELV (KR)	단기간의값: 750 ppm 장기간의값: 500 ppm
IOELV (EU)	장기간의값: 1210 mg/m <sup>3</sup> , 500 ppm
PEL (US)	장기간의값: 2400 mg/m <sup>3</sup> , 1000 ppm
REL (US)	장기간의값: 590 mg/m <sup>3</sup> , 250 ppm
TLV (US)	단기간의값: 500 ppm 장기간의값: 250 ppm A4, BEI

### 100-41-4 ethylbenzene

OELV (KR)	단기간의값: 125 ppm 장기간의값: 100 ppm 발암성 2
IOELV (EU)	단기간의값: 884 mg/m <sup>3</sup> , 200 ppm 장기간의값: 442 mg/m <sup>3</sup> , 100 ppm Skin
PEL (US)	장기간의값: 435 mg/m <sup>3</sup> , 100 ppm
REL (US)	단기간의값: 545 mg/m <sup>3</sup> , 125 ppm 장기간의값: 435 mg/m <sup>3</sup> , 100 ppm
TLV (US)	장기간의값: 20 NIC-20 ppm BEI, A3, NIC: OTO, BEI, A3

· **생물학적 허용값을 갖는 원료:**

### 67-64-1 Acetone, Reagent Grade

BEI (US)	25 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
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(5 쪽에계속)

# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.06.08

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**제품명: Conductive Silver 187**

(4 쪽부터계속)

**100-41-4 ethylbenzene**

BEI (US)	0.15 g/g creatinine
	Medium: urine
	Time: end of shift at end of workweek
	Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)

- **추 가 정보:** 제 조 할 당시에 유 효 한 목 록을 기 초로 사 용했 다.
- **노출 통제**
- **개인 보호구**
- **일반적보호조치및위생조치:**  
 식 료 품, 음 료 수와 사 료 로 부 터 멀 리 떨 어 뜨 려 놓 는 다.  
 더 러 워 지 거 나 음 료 수 가 문 은 옷 은 즉 시 탈 의한 다.  
 휴 식 전 이 나 작 업 이 끝 날 때 마 다 손 을 씻 는 다.  
 눈 과 피 부와 의 접 촉 은 피 한 다.
- **호흡기 보호:**  
 단 시 간 또 는 경 미 한 오 염 의 경 우 에 는 호 흡 여 과 기 를 사 용 한 다. 심 각 한 또 는 장 기 간 노 출 시 에 는 호 흡 보 호 장 비 를 사 용 한 다.
- **손 보호:**



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.  
 테 슷 를 하 지 않 았 기 때 문 에 제 품 / 조 제 / 화 학 혼 합 물 에 적 합 한 장 갑 재 질 에 대 한 추 천 이 없 다.  
 투 과 시 간, 침 투 율 과 저 하 를 고 려 해 서 장 갑 재 료 를 선 택 한 다.

- **장갑의재료**  
 적 합 한 장 갑 의 선 정 은 재 질 차 이 뿐 아 니 라 품 질 기 준 의 차 이 도 고 려 하 여 이 루 어 져 야 하 고 제 조 업 종 에 따 라 서 도 다 르 게 선 정 되 어 야 한 다 .  
 제 품 은 다 양 한 재 료 로 부 터 의 조 제 로 이 루 어 지 는 것 이 기 때 문 에 , 장 갑 재 질 의 안 정 성 은 사 전 에 예 측 되 어 질 수 있 는 것 이 아 니 고 ,  
 반 드 시 사 용 전 에 (그 안전성이) 체 크 되 어 져 야 한 다.
- **장 갑 재 료 의 투 과 시 간** 정 확 한 관 통 시 간 은 보 호 장 갑 제 조 자 에 의 하 여 인 지 되 고, 준 수 되 어 야 한 다.
- **눈 보호:**  
 보 호 안 경



꼭조이는보안경

## 9 물리화학적 특성

- **기본 물리 및 화학적 특성에 대한 정보**
- **일반정보**
- **외형**  
 물 리 적 상 태: 액체  
 색: 은색
- **냄새:** 특색있는
- **후각역치** 알맞지않다.
- **pH:** 알맞지않다.
- **상태변화**  
 녹는점/어는점: 맞지않는

(6 쪽에계속)

# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.06.08

개정: 2022.06.08

**제품명: Conductive Silver 187**

(5 쪽부터 계속)

초기 끓는점과 끓는점 범위:	56 °C
· 인화점:	-16 °C
· 인화성(고체, 기체):	해당사항 없음.
· 분해 온도:	알맞지 않다.
· 자기점화:	공기중에서 자연발화하는
· 폭발위험:	이제 품은 폭발위험성이 없지만, 폭발가능성이 있는 증기화합물/공기화합물의 형성가능성이 있다.
· 인화 또는 폭발 범위의 상한/하한	
아래로:	알맞지 않다.
위로:	알맞지 않다.
· 증기압 의 경우 20 °C:	245.3 hPa
· 밀도 의 경우 20 °C:	1.618 g/cm <sup>3</sup>
· 비중:	알맞지 않다.
· 증기밀도:	알맞지 않다.
· 증발 속도:	알맞지 않다.
· 용해도:	
물:	완전히 혼합할 수 있는
· n 옥탄올/물 분배계수:	알맞지 않다.
· 점도:	
역학적 의 경우 20 °C:	25 mPas
동점성:	알맞지 않다.
· 용매내용물	
유기용매:	22.8 %
VOC (EU)	22.83 %
· 고체의 함량:	0.0 %
· 기타 정보	추가적인 정보가 존재하지 않습니다.

## 10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에 따라 사용할 경우 해체는 없다
- 유해반응 가능성 물과 접촉 시 인화성 가스가 방출된다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성 있는 분해물들은 알려지지 않았다.

## 11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:
- 일차적 자극 효과:
- 피부 부식성 또는 자극성: 피부와 점막을 자극한다.
- 심한 눈 손상 또는 자극성: 자극

(7 쪽에 계속)

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(6 쪽부터 계속)

- **감각화:** 피부접촉을 통하여 감각화가 가능하다.
- **추가적인 독성에 관한 정보:**  
이 제품은 유럽 공동체의 공동 분류 원칙의 합법적인 절차에 근거하여 최근에 발효된 원고에서 아래 위험들의 사전 준비에 대하여 제시하고 있다.  
건강에 해로운  
자극적인

## 12 환경에 미치는 영향

- **독성**
- **수생독성:** 추가적인 정보가 존재하지 않습니다.
- **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.
- **환경 시스템에서의 행동:**
- **생물농축 잠재성** 추가적인 정보가 존재하지 않습니다.
- **토양내 이동성** 추가적인 정보가 존재하지 않습니다.
- **생태독성:**
- **의견:** 어류에 독이 됨
- **추가적인 생태학 정보:**
- **일반 특징:**  
수질오염등급 2 (자체등급분류): 수질오염이 된 지하수나, 하천으로 또는 하수도망에도 달하지 않게 한다.  
지하수로 경미한 양이 유입되었을 경우 엔이미식수오염 상태이다.  
하천에서는 역시 물고기나 플랑크톤에게는 독성이 있다.  
물속의 유기체에 독이 되는 것
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.
- **기타 부작용** 추가적인 정보가 존재하지 않습니다.

## 13 폐기시 주의사항

- **폐기물 처리 방법**
- **권고:** 생활쓰레기와 함께 처리되어서는 안 된다. 하수도망으로 유입되어서는 안 된다.
- **비위생적 포장:**
- **권고:** 당국의 지침에 입각한 쓰레기 처리.
- **추천 세정제:** 경우에 따라서 세제가 첨가된 물

## 14 운송에 필요한 정보

· 유엔 번호	UN1263
· ADR, IMDG, IATA	
· UN 적정 선적명	1263 PAINT, ENVIRONMENTALLY HAZARDOUS
· ADR	PAINT
· IMDG, IATA	

(8 쪽에 계속)

## 물질안전보건자료 GHS에 따라

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개정: 2022.06.08

**제품명: Conductive Silver 187**

(7 쪽부터계속)

· 교통 위험 클래스

· ADR



· 등급: 3 발화성용액  
· 위험물 라벨: 3

· IMDG, IATA



· Class: 3 발화성용액  
· Label: 3

· 용기등급: II  
· ADR, IMDG, IATA

· 환경적 유해물질: 심벌 (물고기와 나무)  
· 특수 마킹 (ADR):

· 이용자 특별 예방조치: 경고: 발화성용액  
· 위험 코드: 33  
· EMS-번호: F-E,S-E  
· Segregation groups: Liquid halogenated hydrocarbons  
· Stowage Category: B

· MARPOL73/78(선박으로부터의 해양오염방지협약)  
부속서2 및 IBC Code(국제선적화물코드)에 따른  
벌크(bulk) 운송: 해당사항 없음.

· 운 송/추가 정보:

· ADR  
· 한정 수량 (LQ): 1L  
· Excepted quantities (EQ): Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml  
· 운송 구분: 2  
· 터널 제한 코드: D/E

· IMDG  
· Limited quantities (LQ): 1L  
· Excepted quantities (EQ): Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

· UN "모범 규제": UN 1263 PAINT, 3, II, ENVIRONMENTALLY HAZARDOUS

KR

(9 쪽에계속)



물질안전보건자료  
GHS에 따라

인쇄일자: 2022.06.08

개정: 2022.06.08

제품명: **Conductive Silver 187**

(8 쪽부터계속)

**15 법적 규제현황**

· 산업안전보건법에 의한 규제:

· 제조 등 금지물질:

어떠한내용물도목록화되어있지않다

· 허가대상물질:

어떠한내용물도목록화되어있지않다

· 관리대상유해물질:

7440-22-4 silver

67-64-1 Acetone, Reagent Grade

100-41-4 ethylbenzene

· 작업환경측정 대상 유해인자

7440-22-4 silver

1B14

67-64-1 Acetone, Reagent Grade

1A55

100-41-4 ethylbenzene

1A61

· 특수건강진단 대상 유해인자

67-64-1 Acetone, Reagent Grade

1A55

100-41-4 ethylbenzene

1A?

· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률 추가적인 정보가 존재하지 않습니다.

· **Korean Existing Chemical Inventory**

7440-22-4 silver

KE-31261

67-64-1 Acetone, Reagent Grade

KE-29367

98-56-6 4-chloro-alpha,alpha,alpha-trifluorotoluene

KE-05928

100-41-4 ethylbenzene

KE-13532

· 화학물질관리법

· 사고대비물질

어떠한내용물도목록화되어있지않다

· 금지물질

어떠한내용물도목록화되어있지않다

· 제한물질

어떠한내용물도목록화되어있지않다

· 유독물질

어떠한내용물도목록화되어있지않다

· 허가물질

어떠한내용물도목록화되어있지않다

· 위험물안전관리법 (위험물 및 지정수량) 제 4: 200 리터

· 등록 또는 신고 면제대상 화학물질

어떠한내용물도목록화되어있지않다

· ‘21년까지 등록하여야 할 암, 돌연변이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 기존화학물질

어떠한내용물도목록화되어있지않다

· 중점관리물질의 지정

· 표1 중점관리물질(제2조 관련)

어떠한내용물도목록화되어있지않다

(10 쪽에계속)

# 물질안전보건자료 GHS에 따라

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**· 표2 증점관리물질(제2조 관련)**

어떠한내용물도목록화되어있지않다

· **GHS 라벨 요소** 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· **GHS 그림문자**



GHS02    GHS07    GHS09

· **신호어 위험**

· **상표상에명확히위험성이표시된성분:**

ethylbenzene

· **유해·위험문구**

인화성 액체 및 증기

물과 접촉 시 자연발화 가능성이 있는 인화성 가스를 발생시킴

피부에 자극을 일으킴

눈에 심한 자극을 일으킴

알레르기성 피부 반응을 일으킬 수 있음

췌음 또는 현기증을 일으킬 수 있음

장기적인 영향에 의해 수생생물에게 유독함

· **예방조치문구**

열·스파크·화염·고열로부터 멀리하시오 - 금연

격렬한 반응 및 화재의 가능성이 있으므로 물과 접촉하지 않게 하시오.

피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나 제거하시오. 피부를 물로 씻으시오/샤워하시오 .

눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하시오. 계속 씻으시오.

밀봉하여 저장하시오.

(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하시오.

· **화학물질 안전성 평가:** 화학물질 안전성 평가가 수행되지 않음

## 16 그 밖의 참고사항

이 보고는 우리 지식에 대한 오늘날의 상태에 대하여 평가하고 있다

하지만 이 보고서는 생산 특성에 관한 보증은 기술하지 않았으며 계약적인 법률 관계에 기반을 두고 있지 않다

· **담당자:**

· **최초 작성일자:** 2022.06.08

· **개정 횟수 및 최종 개정일자:** 1 / 2022.06.08

· **약어와 두문자어:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

# Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 08.06.2022

revidert den: 08.06.2022

## Avsnitt 1: Identifikasjon av stoffet/stoffblandingen og av selskapet/foretaket

- **1.1 Produktidentifikator**
- **Handelsnavn:** Conductive Silver 187
- **Artikkelnummer:** 12684-15
- **UFI:** YDP0-60MW-900T-J1QF
- **1.2 Relevante identifiserte bruksområder for stoffet eller stoffblandingen og bruk som frarådes**  
Ikke noe mer relevant informasjon tilgjengelig.
- **Bruk av stoffet/ tilberedning** laboratoriekjemikalier
- **1.3 Opplysninger om leverandøren av sikkerhetsdatabladet**
- **Produsent/leverandør:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkceck@aol.com  
www.emsdiasum.com
- **Avdeling for nærmere informasjon:** Product safety department
- **1.4 Nødtelefonnummer**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## Avsnitt 2: Fareidentifikasjon

- **2.1 Klassifisering av stoffet eller stoffblandingen**
- **Klassifisering i henhold til EC-forskrift nr.1272/2008**



GHS02 Flamme

Flam. Liq. 3      H226 Brannfarlig væske og damp.  
Water-react. 1      H260 Ved kontakt med vann utvikles brannfarlige gasser som kan selvantenne.



GHS09 Miljø

Aquatic Chronic 2 H411 Giftig, med langtidsvirkning, for liv i vann.



GHS07

Skin Irrit. 2      H315 Irriterer huden.  
Eye Irrit. 2      H319 Gir alvorlig øyeirritasjon.  
Skin Sens. 1      H317 Kan utløse en allergisk hudreaksjon.  
STOT SE 3      H336 Kan forårsake dødsighet eller svimmelhet.

- **2.2 Merkingselementer**
- **Merking iht. bestemmelse (EC) Nr. 1272/2008**  
Produktet er klassifisert og merket i henhold til CLP-forordningen.

(fortsatt på side 2)

NO

# Sikkerhetsdatablad

## iflg. forordning (EF) nr. 1907/2006, Artikkel 31

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revidert den: 08.06.2022

**Handelsnavn: Conductive Silver 187**

(fortsatt fra side 1)

**· Farepiktogrammer**

GHS02 GHS07 GHS09

**· Varselord Fare****· Farebestemmende komponenter ved etikettering:**

aceton

**· Faresetninger**

H226 Brannfarlig væske og damp.

H260 Ved kontakt med vann utvikles brannfarlige gasser som kan selvantenne.

H315 Irriterer huden.

H319 Gir alvorlig øyeirritasjon.

H317 Kan utløse en allergisk hudreaksjon.

H336 Kan forårsake døsighet eller svimmelhet.

H411 Giftig, med langtidsvirkning, for liv i vann.

**· Sikkerhetssetninger**

P210 Holdes vekk fra varme, varme overflater, gnister, åpen ild og andre antenningskilder. Røyking forbudt.

P223 Unngå kontakt med vann.

P303+P361+P353 VED HUDKONTAKT (eller håret): Tilsølte klær må fjernes straks. Skyll [eller dusj] huden med vann.

P305+P351+P338 VED KONTAKT MED ØYNENE: Skyll forsiktig med vann i flere minutter. Fjern eventuelle kontaktlinser dersom dette enkelt lar seg gjøre. Fortsett skyllingen.

P405 Oppbevares innelåst.

P501 Innholdet / emballasjen skal avhendes i henhold til de lokale / regionale / nasjonale / internasjonale forskrifter.

**· Ytterligere informasjon:**

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.

**· 2.3 Andre farer****· Resultater av PBT- og vPvB-vurdering**· **PBT:** Ikke brukbar.· **vPvB:** Ikke brukbar.

### Avsnitt 3: Sammensetning/opplysninger om bestanddeler

**· 3.2 Kjemisk karakterisering: Stoffblandinger**· **Beskrivelse:** Blanding av nedenstående oppførte stoffer med ufarlige tilsetninger.**· Farlige innholdsstoffer:**

CAS: 67-64-1 EINECS: 200-662-2	aceton ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H336	>10-≤25%
CAS: 98-56-6 EINECS: 202-681-1	4-chloro-alpha,alpha,alpha-trifluorotoluene ⚠ Flam. Liq. 3, H226; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	>10-≤25%
CAS: 100-41-4 EINECS: 202-849-4	etylbenzen ⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332	≤2,5%

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· **SVHC**

67-64-1 | aceton

· **Ytterligere informasjoner:** Teksten til de fareangivelsene som er inkludert her, kan konsulteres i kapittel 16.

### Avsnitt 4: Førstehjelpstiltak

#### · 4.1 Beskrivelse av førstehjelpstiltak

##### · **Generelle informasjoner:**

Forgiftningssymptomer kan også oppstå etter mange timer. Personer må derfor ha legetilsyn i minst 48 timer etter en ulykke.

##### · **Etter innånding:**

Rikelig frisklufttilførsel, søk legehjelp for sikkerhets skyld.

Ved bevisstløshet lagring og transport i stabil sidestilling.

##### · **Etter hudkontakt:** Vask straks med vann og sepe og skylld godt etterpå.

##### · **Etter øyekontakt:**

Skyll øynene med åpne øyenlokk i flere minutter under rennende vann. Ved fortsatt besvær tilkall lege.

##### · **Etter svelging:** Ved fortsatt besvær må lege konsulteres.

#### · 4.2 De viktigste symptomene og virkningene, både akutte og forsinkede

Ikke noe mer relevant informasjon tilgjengelig.

#### · 4.3 Angivelse av om umiddelbar legehjelp og spesialbehandling er nødvendig

Ikke noe mer relevant informasjon tilgjengelig.

### Avsnitt 5: Brannsløkkingstiltak

#### · 5.1 Sløkkingsmidler

##### · **Egnede slukningsmidler:**

CO<sub>2</sub>, slukningspulver eller vann i spredt stråle. Større branner bekjempes med vann i spredt stråle eller med skum som er motstandsdyktig mot alkohol.

##### · **Av sikkerhetsgrunner ikke egnede slukningsmidler:** Vann

#### · 5.2 Særlige farer knyttet til stoffet eller stoffblandingen

Ikke noe mer relevant informasjon tilgjengelig.

#### · 5.3 Råd til brannmannskaper

##### · **Spesielt verneutstyr:** Ta på egnet åndedrettsbeskyttelse.

### Avsnitt 6: Tiltak ved utilsiktede utslipp

#### · 6.1 Personlige forsiktighetsregler, personlig verneutstyr og nødrutiner

Ta på beskyttelsesdrakt. Hold ubeskyttede personer borte.

#### · 6.2 Forsiktighetsregler med hensyn til miljø

Ansvarlige myndigheter varsles hvis produktet er kommet ned i vassdrag eller kloakk.

Fortynn med rikelig med vann.

La ikke produktet komme ned i kloakk/overflatevann/grunnvann.

#### · 6.3 Metoder og materialer for oppsamling og rensing

Ta opp stoffet med væskebindende materiale (sand, kiselgur, syrebindemiddel, universalbindemiddel, sagflis).

Bortskaff kontaminert materiale som avfall i.h.t. punkt 13.

Sørg for tilstrekkelig ventilasjon.

Skyll ikke bort med vann eller med vannholdige rengjøringsmidler.

#### · 6.4 Henvisning til andre avsnitt

Informasjoner om sikker håndtering, se kapittel 7.

Informasjoner om personlig beskyttelsesutstyr, se kapittel 8.

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Informasjoner om bortskaffelse/deponering, se kapittel 13.

### Avsnitt 7: Håndtering og lagring

- **7.1 Forsiktighetsregler for sikker håndtering**  
Sørg for god ventilasjon/avsugning på arbeidsplassen.  
Unngå aerosoldannelse.
- **Henvisninger om brann- og eksplosjonsvern:**  
Bruk av åpen ild forbudt - røyking forbudt.  
Beskytt mot varme.  
Gjør tiltak mot elektrostatisk oppladning.
- **7.2 Vilkår for sikker lagring, herunder eventuelle uforenligheter**
- **Lagring:**
- **Krav til lagerrom og beholdere:** Ingen spesielle krav.
- **Informasjoner om felles lagring:** Ikke nødvendig.
- **Ytterligere informasjoner om lagervilkårene:**  
Hold beholderne tett tillukket.  
Lagres kjølig og tørt i godt tillukkede beholdere.  
Beskyttes mot varme og direkte solpåvirkning.
- **7.3 Særlig(e) sluttanvendelse(r)** Ikke noe mer relevant informasjon tilgjengelig.

### Avsnitt 8: Eksponeringskontroll / personlig verneutstyr

- **8.1 Kontrollparametere**
- **Ytterligere informasjoner om utforming av tekniske anlegg:** Ingen ytterligere informasjoner, se punkt 7.

· **Komponenter med grenseverdier for arbeidsplass som må overholdes:**

#### 67-64-1 aceton

AG Langtidsverdi: 295 mg/m<sup>3</sup>, 125 ppm  
E

#### 100-41-4 etylbenzen

AG Langtidsverdi: 20 mg/m<sup>3</sup>, 5 ppm  
H K E

- **Ytterligere informasjoner:** Basis: listene som var gyldige ved oppstillingen.

#### 8.2 Eksponeringskontroll

##### Personlig verneutstyr:

##### Generelle verne- og hygienetiltak:

- Holdes adskilt fra næringsmidler, drikkevarer og fødevarer.
- Fjern omgående forurensede, gjennomvåtede klær.
- Vask hendene før arbeidspauser og ved arbeidets slutt.
- Unngå berøring med øyne og hud.

##### Åndedrettsvern:

Ved korttidig eller liten belastning åndedrettsfilterapparat; ved intensiv eller lengre utsetting: bruk omluft-uavhengig åndedrettsbeskyttelsesapparat.

##### Håndvern:



Beskyttelseshansker

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Hanskematerialet må være ugjennomtrengelig og bestandig overfor produktet /stoffet /blandingen.

På grunn av manglende tester kan det ikke gis noen anbefaling om hanskemateriale for produktet / tilberedningsprosessen/kjemikalieblandingen.

Hanskematerialet velges under hensyntagen til holdbarhetstid, gjennomtrengelighet og degradering.

- **hanskemateriale**

Valget av egnet hanske er ikke bare avhengig av materiale, men også av andre kvalitetskjenner og er forskjellig fra produsent til produsent. Da produktet representerer en sammensetning av flere stoffer, kan holdbarheten av hanskematerialet ikke forhåndsberegnes, og denne må testes før bruk.

- **gjennomtrengingstid for hanskemateriale**

Den nøyaktige holdbarhetstiden må bringes på det rene hos hanskeprodusenten og overholdes.

- **Øyevern:**

Vernebrille



Tettsittende vernebrille

### Avsnitt 9: Fysiske og kjemiske egenskaper

- **9.1 Opplysninger om grunnleggende fysiske og kjemiske egenskaper**

- **alminnelige opplysninger**

- **Utseende:**

· **Form:** Væske

· **Farge:** Sølvfarget

· **Lukt:** Karakteristisk

· **Lukterskel:** Ikke bestemt.

· **pH-verdi:** Ikke bestemt.

- **Tilstandsendring**

· **Smeltepunkt/frysepunkt:** Ikke bestemt.

· **Startkokepunkt og kokeområde:** 56 °C

· **Flammepunkt:** -16 °C

· **Antennelighet (fast stoff, gass):** Ikke brukbar.

· **Nedbrytingstemperatur:** Ikke bestemt.

· **Selvantennelsestemperatur:** Selvantennelig i luft

· **Eksplorative egenskaper:** Produktet er ikke eksplosjonsfarlig. Dannelse av eksplosjonsfarlige damp-/luftblandinger er dog mulig.

- **Ekspljosjonsgrenser:**

· **Nedre:** Ikke bestemt.

· **Øvre:** Ikke bestemt.

· **Damptrykk ved 20 °C:** 245,3 hPa

· **Tetthet ved 20 °C:** 1,618 g/cm<sup>3</sup>

· **Relativ tetthet:** Ikke bestemt.

· **Damptetthet:** Ikke bestemt.

· **Fordampingshastighet:** Ikke bestemt.

· **Løslighet i / blandbarhet med vann:**

Fullstendig blandbar.

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- |                                                 |                                                 |
|-------------------------------------------------|-------------------------------------------------|
| · <b>Fordelingskoeffisient; n-oktanol/vann:</b> | Ikke bestemt.                                   |
| · <b>Viskositet:</b>                            |                                                 |
| <b>Dynamisk ved 20 °C:</b>                      | 25 mPas                                         |
| <b>Kinematisk:</b>                              | Ikke bestemt.                                   |
| · <b>Løsningsmiddelandel:</b>                   |                                                 |
| <b>Organiske løsningsmidler:</b>                | 22,8 %                                          |
| <b>VOC (EF)</b>                                 | 22,83 %                                         |
| <b>Andel faste stoffer:</b>                     | 0,0 %                                           |
| · <b>9.2 Andre opplysninger</b>                 | Ikke noe mer relevant informasjon tilgjengelig. |

### Avsnitt 10: Stabilitet og reaktivitet

- **10.1 Reaktivitet** Ikke noe mer relevant informasjon tilgjengelig.
- **10.2 Kjemisk stabilitet**
- **Termisk spaltning / vilkår som må unngås:** Ingen spaltning ved formålsriktig bruk.
- **10.3 Risiko for farlige reaksjoner** Kontakt med vann setter fri brennbare gasser.
- **10.4 Forhold som skal unngås** Ikke noe mer relevant informasjon tilgjengelig.
- **10.5 Uforenlige materialer** Ikke noe mer relevant informasjon tilgjengelig.
- **10.6 Farlige nedbrytingsprodukter** Ingen farlige spaltningsprodukter kjente.

### Avsnitt 11: Toksikologiske opplysninger

- **11.1 Opplysninger om toksikologiske virkninger**
- **Akutt giftighet** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Primær irritasjonsvirkning:**
- **Hudetsing/hudirritasjon**  
Irriterer huden.
- **Alvorlig øyeskade/øyeirritasjon**  
Gir alvorlig øyeirritasjon.
- **Sensibilisering ved innånding eller hudkontakt**  
Kan utløse en allergisk hudreaksjon.
- **Informasjon om følgende grupper med potensielle virkninger:**
- **CMR-virkninger (kreftfremkallende virkninger, arvestoffskadelige og reproduksjonsskadelige virkninger)**
- **Arvestoffskadelig virkning på kjønnseller** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Kreftframkallende egenskap** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Reproduksjonstoksicitet** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **STOT – enkelteksponering**  
Kan forårsake døsighet eller svimmelhet.
- **STOT – gjentatt eksponering** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Aspirasjonsfare** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.

### Avsnitt 12: Økologiske opplysninger

- **12.1 Giftighet**
- **Akvatisk toksisitet:** Ikke noe mer relevant informasjon tilgjengelig.
- **12.2 Persistens og nedbrytbarhet** Ikke noe mer relevant informasjon tilgjengelig.
- **12.3 Bioakkumuleringsevne** Ikke noe mer relevant informasjon tilgjengelig.
- **12.4 Mobilitet i jord** Ikke noe mer relevant informasjon tilgjengelig.

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- **Økotoksiske virkninger:**
- **Bemerkning:** giftig for fisk
- **Ytterligere økologiske informasjoner:**
- **Generelle informasjoner:**  
Vannfareklasse 2 (D) (Selvklassifisering): farlig for vann  
Ikke la stoffet komme ned i grunnvannet, i vassdrag eller i kloakker.  
Fare for drikkevann allerede ved utstrømning av små mengder i marken.  
I vassdrag også giftig for fisker og plankton.  
giftig for vannorganismer
- **12.5 Resultater av PBT- og vPvB-vurdering**
- **PBT:** Ikke brukbar.
- **vPvB:** Ikke brukbar.
- **12.6 Andre skadevirkninger** Ikke noe mer relevant informasjon tilgjengelig.

## Avsnitt 13: Sluttbehandling

- **13.1 Avfallsbehandlingsmetoder**
- **Anbefaling:** Må ikke bortskaftes sammen med husholdningsavfall. Må ikke komme ned i kloakk.
- **Ikke rengjort emballasje:**
- **Anbefaling:** Deponering i henhold til myndighetenes forskrifter.
- **Anbefalt rengjøringsmiddel:** Vann, eventuelt med tilsetning av rengjøringsmidler.

## Avsnitt 14: Transportopplysninger

- |                                                                                                                                                                         |                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| · <b>14.1 FN-nummer</b><br>· <b>ADR, IMDG, IATA</b>                                                                                                                     | UNI263                                   |
| · <b>14.2 FN-forsendelsesnavn</b><br>· <b>ADR</b><br>· <b>IMDG, IATA</b>                                                                                                | 1263 MALING, MILJØSKADELG STOFF<br>PAINT |
| · <b>14.3 Transportfareklasse(r)</b><br>· <b>ADR</b>                                                                                                                    |                                          |
|   |                                          |
| · <b>klasse</b><br>· <b>Fareseddel</b>                                                                                                                                  | 3 Brannfarlige væsker<br>3               |
| · <b>IMDG, IATA</b>                                                                                                                                                     |                                          |
|                                                                                      |                                          |
| · <b>Class</b><br>· <b>Label</b>                                                                                                                                        | 3 Brannfarlige væsker<br>3               |
| · <b>14.4 Emballasjegruppe</b><br>· <b>ADR, IMDG, IATA</b>                                                                                                              | II                                       |

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· 14.5 Miljøfarer	
· Spesielle merking (ADR):	Symbol (fisk og treet)
· 14.6 Særlige forsiktighetsregler ved bruk	Advarsel: Brannfarlige væsker
· Farenummer (Kemler-tall):	33
· EMS-nummer:	F-E, <u>S-E</u>
· Segregation groups	Liquid halogenated hydrocarbons
· Stowage Category	B
· 14.7 Bulktransport i henhold til vedlegg II til MARPOL 73/78 og IBC-regelverket	Ikke brukbar.
· Transport/ytterligere informasjoner:	
· ADR	
· Begrenset mengde (LQ)	1L
· Unntatte mengder (EQ)	Kode: E2
	Maksimal nettovekt per inneremballasje: 30 ml
	Maksimal nettovekt per ytteremballasje: 500 ml
· Transportkategori	2
· Tunnel restriksjonskode	D/E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1263 MALING, 3, II, MILJØSKADELG STOFF

### Avsnitt 15: Opplysninger om regelverk

- 15.1 Særlige bestemmelser / særskilt lovgivning om sikkerhet, helse og miljø for stoffet eller stoffblandingen
- Direktiv 2012/18/EU
- Spesifiserte farlige stoffer - VEDLEGG I ingen av innholdsstoffene er listet opp
- Seveso kategori
  - O2
  - E2
  - P5c
- Mengdegrense (i tonn) for anvendelsen av krav til virksomheter på lavere nivå 100 t
- Mengdegrense (i tonn) for anvendelsen av krav til virksomheter på høyere nivå 500 t
- Forordning (EF) nr. 1907/2006 VEDLEGG XVII Begrensninger: 3, 40

· Direktiv 2011/65/EF om begrensning av bruken av visse farlige stoffer i elektrisk og elektronisk utstyr - Vedlegg II

ingen av innholdsstoffene er listet opp

· Forordning (EF) nr. 273/2004 om utgangsstoffer for narkotika

67-64-I | aceton

3

· Forordning (EF) nr. 111/2005 om fastsettelse av regler for overvåking av handelen med utgangsstoffer for narkotika mel-lom Fellesskapet og tredjestater

67-64-I | aceton

3

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NO

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- **Nasjonale forskrifter:**
- **Andre forskrifter, restriksjoner og forbudsforordninger**
- **Stoffer som gir stor grunn til bekymring iflg. REACH, artikkel 57**

67-64-1 | aceton

- **15.2 Vurdering av kjemikaliesikkerhet** En kjemisk sikkerhetsvurdering er ikke utført.

### Avsnitt 16: Andre opplysninger

Opplysningene er basert på vårt kjennskap i dag. De utgjør dog ingen forsikring om produktegenskaper og er ikke grunnlag for noe kontraktsmessig rettsforhold.

- **Relevante satser**

H225 Meget brannfarlig væske og damp.

H226 Brannfarlig væske og damp.

H302 Farlig ved svelging.

H304 Kan være dødelig ved svelging om det kommer ned i luftveiene.

H315 Irriterer huden.

H319 Gir alvorlig øyeirritasjon.

H332 Farlig ved innånding.

H336 Kan forårsake døsighet eller svimmelhet.

H373 Kan forårsake organskader ved langvarig eller gjentatt eksponering.

- **Forkortelser og akronymer:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Brannfarlige væsker – Kategori 2

Flam. Liq. 3: Brannfarlige væsker – Kategori 3

Water-react. 1: Stoffer og stoffblandinger som ved kontakt med vann utvikler brannfarlige gasser – Kategori 1

Acute Tox. 4: Akutt giftighet – Kategori 4

Skin Irrit. 2: Hudetsing/hudirritasjon – Kategori 2

Eye Irrit. 2: Alvorlig øyeskade/øyeirritasjon – Kategori 2

Skin Sens. 1: Hudsensibilisering – Kategori 1

STOT SE 3: Giftvirkning på bestemte organer (enkelteksponering) – Kategori 3

STOT RE 2: Giftvirkning på bestemte organer (gjentatt eksponering) – Kategori 2

Asp. Tox. 1: Aspirasjonsfare – Kategori 1

Aquatic Chronic 2: Farlig for vannmiljøet - langsiktig fare for vannmiljøet – Kategori 2

**Ficha de dados de segurança**  
em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 08.06.2022

Revisão: 08.06.2022

### SECÇÃO 1: Identificação da substância/mistura e da sociedade/empresa

- **1.1 Identificador do produto**
- **Nome comercial:** Conductive Silver 187
- **Código do produto:** 12684-15
- **UFI:** YDP0-60MW-900T-J1QF
- **1.2 Utilizações identificadas relevantes da substância ou mistura e utilizações desaconselhadas**  
Não existe mais nenhuma informação relevante disponível.
- **Utilização da substância / da preparação** Químicos de laboratório
- **1.3 Identificação do fornecedor da ficha de dados de segurança**
- **Fabricante/fornecedor:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkceck@aol.com  
www.emsdiasum.com
- **Entidade para obtenção de informações adicionais:** Product safety department
- **1.4 Número de telefone de emergência:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECÇÃO 2: Identificação dos perigos

- **2.1 Classificação da substância ou mistura**
- **Classificação em conformidade com o Regulamento (CE) n.º 1272/2008**



GHS02 chama

Flam. Liq. 3      H226 Líquido e vapor inflamáveis.  
Water-react. 1      H260 Em contacto com a água liberta gases que se podem inflamar espontaneamente.



GHS09 ambiente

Aquatic Chronic 2 H411 Tóxico para os organismos aquáticos com efeitos duradouros.



GHS07

Skin Irrit. 2      H315 Provoca irritação cutânea.  
Eye Irrit. 2      H319 Provoca irritação ocular grave.  
Skin Sens. 1      H317 Pode provocar uma reacção alérgica cutânea.  
STOT SE 3      H336 Pode provocar sonolência ou vertigens.

- **2.2 Elementos do rótulo**
- **Rotulagem em conformidade com o Regulamento (CE) n.º 1272/2008**  
O produto classificou-se e está etiquetado em conformidade com o regulamento CLP.

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· **Pictogramas de perigo**

GHS02 GHS07 GHS09

· **Palavra-sinal Perigo**· **Componentes determinantes para os perigos constantes do rótulo:**

acetona

· **Advertências de perigo**

H226 Líquido e vapor inflamáveis.

H260 Em contacto com a água liberta gases que se podem inflamar espontaneamente.

H315 Provoca irritação cutânea.

H319 Provoca irritação ocular grave.

H317 Pode provocar uma reacção alérgica cutânea.

H336 Pode provocar sonolência ou vertigens.

H411 Tóxico para os organismos aquáticos com efeitos duradouros.

· **Recomendações de prudência**

P210 Manter afastado do calor, superfícies quentes, faíscas, chamas abertas e outras fontes de ignição. Não fumar.

P223 Não deixar entrar em contacto com a água.

P303+P361+P353 SE ENTRAR EM CONTACTO COM A PELE (ou o cabelo): Retirar imediatamente toda a roupa contaminada. Enxaguar a pele com água [ou tomar um duche].

P305+P351+P338 SE ENTRAR EM CONTACTO COM OS OLHOS: Enxaguar cuidadosamente com água durante vários minutos. Se usar lentes de contacto, retire-as, se tal lhe for possível. Continue a enxaguar.

P405 Armazenar em local fechado à chave.

P501 Eliminar o conteúdo/recipiente de acordo com a legislação local/regional/nacional/internacional.

· **Indicações adicionais:**

O produto contém: Precursores de explosivos passíveis de participação. Disponibilização, introdução, posse e utilização em conformidade com Regulamento (UE) 2019/1148, Artigo 9.º.

· **2.3 Outros perigos**· **Resultados da avaliação PBT e mPmB**· **PBT:** Não aplicável.· **mPmB:** Não aplicável.

## SECÇÃO 3: Composição/informação sobre os componentes

· **3.2 Caracterização química: Misturas**· **Descrição:** Mistura das seguintes substâncias com aditivos não perigosos.· **Substâncias perigosas:**

CAS: 67-64-1 EINECS: 200-662-2	acetona ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H336	>10-≤25%
CAS: 98-56-6 EINECS: 202-681-1	4-cloro-alpha-alpha-alpha-trifluorotolueno ⚠ Flam. Liq. 3, H226; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	>10-≤25%
CAS: 100-41-4 EINECS: 202-849-4	etilbenzeno ⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332	≤2,5%

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· **SVHC**

67-64-1 | acetona

· **Avisos adicionais:** O texto das indicações de perigo aqui incluído poderá ser consultado no capítulo 16.

### SECÇÃO 4: Medidas de primeiros socorros

· **4.1 Descrição das medidas de primeiros socorros**· **Indicações gerais:**

Os sintomas de envenenamento podem surgir apenas após várias horas, por isso é necessária vigilância médica pelo menos 48 horas após o acidente.

· **Em caso de inalação:**

Assegurar uma boa entrada de oxigénio e, por razões de segurança, procurar auxílio médico.

Se a vítima estiver inconsciente, posicioná-la e transportá-la com estabilidade, deitada lateralmente.

· **Em caso de contacto com a pele:** Lavar imediatamente com água e sabão e enxaguar abundantemente.· **Em caso de contacto com os olhos:**

Enxaguar os olhos durante alguns minutos sob água corrente, mantendo as pálpebras abertas. Em caso de persistência dos sintomas, consultar o médico.

· **Em caso de ingestão:** Se os sintomas persistirem, consultar o médico.· **4.2 Sintomas e efeitos mais importantes, tanto agudos como retardados**

Não existe mais nenhuma informação relevante disponível.

· **4.3 Indicações sobre cuidados médicos urgentes e tratamentos especiais necessários**

Não existe mais nenhuma informação relevante disponível.

### SECÇÃO 5: Medidas de combate a incêndios

· **5.1 Meios de extinção**· **Meios adequados de extinção:**

CO<sub>2</sub>, pó extintor ou jacto de água. Um incêndio de grandes dimensões deve ser combatido com jacto de água ou espuma resistente ao álcool.

· **Meios de extinção que não devem ser utilizados por razões de segurança:** Água· **5.2 Perigos especiais decorrentes da substância ou mistura**

Não existe mais nenhuma informação relevante disponível.

· **5.3 Recomendações para o pessoal de combate a incêndios**· **Equipamento especial de protecção:** Colocar máscara de respiração.

### SECÇÃO 6: Medidas a tomar em caso de fugas acidentais

· **6.1 Precauções individuais, equipamento de protecção e procedimentos de emergência**

Usar equipamento de protecção. Manter as pessoas desprotegidas afastadas.

· **6.2 Precauções a nível ambiental:**

Em caso de infiltrações nos leitos de água ou na canalização, comunicar aos serviços públicos competentes. Diluir em bastante água.

Evitar que penetre na canalização / águas superficiais / águas subterrâneas.

· **6.3 Métodos e materiais de confinamento e limpeza:**

Recolher com produtos que absorvam líquidos (areia, seixos, absorventes universais, serradura).

Eliminar residualmente as substâncias contaminadas como um resíduo segundo o Ponto 13.

Assegurar uma ventilação adequada.

Não limpar com água ou produtos de limpeza aquosos.

· **6.4 Remissão para outras secções**

Para informações sobre uma manipulação segura, ver o capítulo 7.

Para informações referentes ao equipamento de protecção individual, ver o capítulo 8.

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Para informações referentes à eliminação residual, ver o capítulo 13.

### SECÇÃO 7: Manuseamento e armazenagem

- **7.1 Precauções para um manuseamento seguro**  
Assegurar uma boa ventilação / exaustão no local de trabalho.  
Evitar a formação de aerossóis.
- **Precauções para prevenir incêndios e explosões:**  
Manter afastado de fontes de ignição - não fumar.  
Proteger do calor.  
Proteger contra descargas electrostáticas.
- **7.2 Condições de armazenagem segura, incluindo eventuais incompatibilidades**
- **Armazenagem:**
- **Requisitos para espaços ou contentores para armazenagem:** Sem requisitos especiais.
- **Avisos para armazenagem conjunta:** Não necessário.
- **Outros avisos sobre as condições de armazenagem:**  
Manter o recipiente hermeticamente fechado.  
Armazenar em recipientes bem fechados, em local fresco e seco.  
Proteger do calor e da radiação directa do sol.
- **7.3 Utilização(ões) final(is) específica(s)** Não existe mais nenhuma informação relevante disponível.

### SECÇÃO 8: Controlo da exposição/Protecção individual

- **8.1 Parâmetros de controlo**
- **Indicações adicionais para concepção de instalações técnicas:** Não existem outras informações, ver ponto 7.

· **Componentes cujo valor do limite de exposição no local de trabalho deve ser monitorizado:**

#### 67-64-1 acetona

VLE	Valor para exposição curta: (750) ppm Valor para exposição longa: (500) ppm (A4), IBE; (Irrit. ocular, TRS; SNC, Efeitos hematológ.)
-----	--------------------------------------------------------------------------------------------------------------------------------------------

#### 100-41-4 etilbenzeno

VLE	Valor para exposição longa: 20 ppm A3; IBE; Irrit. TRS; lesão dos rins, afeção auditiva
-----	--------------------------------------------------------------------------------------------

· **Componentes con valores-limite biológicos:**

#### 67-64-1 acetona

IBE	50 mg/L Amostra: urina Momento da amostragem: Fim do turno Indicador biológico: Acetona
-----	--------------------------------------------------------------------------------------------------

#### 100-41-4 etilbenzeno

IBE	0,7 g/g creatinina Amostra: urina Momento da amostragem: Fim do turno Indicador biológico: Soma do ácido mandélico e do ácido fenilglioxílico
-----	--------------------------------------------------------------------------------------------------------------------------------------------------------

· **Indicações adicionais:** Foram utilizadas como base as listas válidas à data da elaboração.

- **8.2 Controlo da exposição**
- **Equipamento de protecção individual:**
- **Medidas gerais de protecção e higiene:**  
Manter afastado de alimentos, bebidas e forragens.

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Despir imediatamente a roupa contaminada e embebida.

Lavar as mãos antes das pausas e no fim do trabalho.

Evitar o contacto com os olhos e com a pele.

· **Protecção respiratória:**

Utilizar uma máscara respiratória se a exposição for reduzida ou durante um curto espaço de tempo; se esta for mais prolongada ou mais intensa, utilizar uma máscara respiratória independente do ar ambiente.

· **Protecção das mãos:**



Luvas de protecção

O material das luvas tem de ser impermeável e resistente ao produto / à substância / preparação.

Uma vez que não foram realizados testes nesta área, não podemos recomendar um determinado tipo de material para as luvas que seja adequado para o produto / a preparação / a mistura de químicos.

Escolher o material das luvas tendo em consideração a durabilidade, a permeabilidade e a degradação.

· **Material das luvas**

A escolha das luvas mais adequadas não depende apenas do material, mas também de outras características qualitativas e varia de fabricante para fabricante. O facto de o produto ser composto por uma variedade de materiais leva a que não seja possível prever a duração dos mesmos e, conseqüentemente, das luvas, sendo assim necessário proceder a uma verificação antes da sua utilização.

· **Tempo de penetração no material das luvas**

Deve informar-se sobre a validade exacta das suas luvas junto do fabricante e respeitá-la.

· **Protecção dos olhos:**

Óculos de protecção



Óculos de protecção totalmente fechados

### SECÇÃO 9: Propriedades físico-químicas

· **9.1 Informações sobre propriedades físicas e químicas de base**

· **Informações gerais**

· **Aspetto:**

Forma:

Líquido

Cor:

Prateado

· **Odor:**

Característico

· **Limiar olfactivo:**

Não determinado.

· **valor pH:**

Não determinado.

· **Mudança do estado:**

Ponto de fusão/ponto de congelação:

Não determinado.

Ponto de ebulição inicial e intervalo de ebulição: 56 °C

· **Ponto de inflamação:**

-16 °C

· **Inflamabilidade (sólido, gás):**

Não aplicável.

· **Temperatura de decomposição:**

Não determinado.

· **Temperatura de autoignição:**

Esponaneamente inflamável ao ar.

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· <b>Propriedades explosivas:</b>	<i>O produto não é explosivo. Contudo, é possível a formação de misturas explosivas ar/vapor.</i>
· <b>Limites de explosão:</b> <b>Inferior:</b> <b>Superior:</b>	<i>Não determinado. Não determinado.</i>
· <b>Pressão de vapor em 20 °C:</b>	<i>245,3 hPa</i>
· <b>Densidade em 20 °C:</b> · <b>Densidade relativa</b> · <b>Densidade de vapor</b> · <b>Taxa de evaporação:</b>	<i>1,618 g/cm<sup>3</sup> Não determinado. Não determinado. Não determinado.</i>
· <b>Solubilidade em / miscibilidade com água:</b>	<i>Completamente misturável.</i>
· <b>Coefficiente de partição: n-octanol/água</b>	<i>Não determinado.</i>
· <b>Viscosidade:</b> <b>Dinâmico em 20 °C:</b> <b>Cinemático:</b>	<i>25 mPas Não determinado.</i>
· <b>Percentagem de solvente:</b> <b>Solventes orgânicos:</b> <b>VOC (UE)</b>	<i>22,8 % 22,83 %</i>
<b>Percentagem de substâncias sólidas:</b>	<i>0,0 %</i>
· <b>9.2 Outras informações</b>	<i>Não existe mais nenhuma informação relevante disponível.</i>

### **SECÇÃO 10: Estabilidade e reactividade**

- **10.1 Reactividade** Não existe mais nenhuma informação relevante disponível.
- **10.2 Estabilidade química**
- **Decomposição térmica / condições a evitar:** Não existe decomposição se usado de acordo com as especificações.
- **10.3 Possibilidade de reações perigosas** O contacto com a água provoca a libertação de gases inflamáveis.
- **10.4 Condições a evitar** Não existe mais nenhuma informação relevante disponível.
- **10.5 Materiais incompatíveis:** Não existe mais nenhuma informação relevante disponível.
- **10.6 Produtos de decomposição perigosos:** Não se conhecem produtos de decomposição perigosos.

### **SECÇÃO 11: Informação toxicológica**

- **11.1 Informações sobre os efeitos toxicológicos**
- **Toxicidade aguda** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Efeito de irritabilidade primário:**
- **Corrosão/irritação cutânea**  
*Provoca irritação cutânea.*
- **Lesões oculares graves/irritação ocular**  
*Provoca irritação ocular grave.*
- **Sensibilização respiratória ou cutânea**  
*Pode provocar uma reacção alérgica cutânea.*

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- **Avisos adicionais de toxicologia:**
- **Efeitos CMR (carcinogenicidade, mutagenicidade e efeitos tóxicos na reprodução)**
- **Mutagenicidade em células germinativas**  
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Carcinogenicidade** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade reprodutiva** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição única**  
Pode provocar sonolência ou vertigens.
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição repetida**  
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Perigo de aspiração** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

### SECÇÃO 12: Informação ecológica

- **12.1 Toxicidade**
- **Toxicidade aquática:** Não existe mais nenhuma informação relevante disponível.
- **12.2 Persistência e degradabilidade** Não existe mais nenhuma informação relevante disponível.
- **12.3 Potencial de bioacumulação** Não existe mais nenhuma informação relevante disponível.
- **12.4 Mobilidade no solo** Não existe mais nenhuma informação relevante disponível.
- **Efeitos ecotóxicos:**
- **Observação:** Tóxico para os peixes.
- **Outras indicações ecológicas:**
- **Indicações gerais:**  
Classe de perigo para a água 2 (D) (auto-classificação): perigoso para a água.  
Não deixar chegar às águas subterrâneas, aos cursos de água nem à canalização.  
Perigo de poluição da água potável mesmo se forem derramadas quantidades muito pequenas no subsolo.  
Tóxico nas águas para os peixes e para o plâncton.  
tóxico para os organismos aquáticos
- **12.5 Resultados da avaliação PBT e mPmB**
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.
- **12.6 Outros efeitos adversos** Não existe mais nenhuma informação relevante disponível.

### SECÇÃO 13: Considerações relativas à eliminação

- **13.1 Métodos de tratamento de resíduos**
- **Recomendação:** Não se pode eliminar juntamente com o lixo doméstico. Não permita que chegue à canalização.
- **Embalagens contaminadas:**
- **Recomendação:** Eliminação residual conforme o regulamento dos serviços públicos.
- **Meio de limpeza recomendado:** Água, eventualmente com adição de produtos de limpeza

### SECÇÃO 14: Informações relativas ao transporte

- |                                                       |                                       |
|-------------------------------------------------------|---------------------------------------|
| · <b>14.1 Número ONU</b>                              |                                       |
| · <b>ADR, IMDG, IATA</b>                              | UN1263                                |
| · <b>14.2 Designação oficial de transporte da ONU</b> |                                       |
| · <b>ADR</b>                                          | 1263 TINTAS, PERIGOSO PARA O AMBIENTE |
| · <b>IMDG, IATA</b>                                   | PAINT                                 |

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## · 14.3 Classes de perigo para efeitos de transporte

## · ADR



· Classe 3 Líquidos inflamáveis  
· Rótulo 3

## · IMDG, IATA



· Class 3 Líquidos inflamáveis  
· Label 3

## · 14.4 Grupo de embalagem

· ADR, IMDG, IATA II

## · 14.5 Perigos para o ambiente:

· Marcação especial (ADR): Símbolo convencional (peixes e árvore)

## · 14.6 Precauções especiais para o utilizador

Atenção: Líquidos inflamáveis  
· Número de identificação de perigo (Nº Kemler): 33  
· Nº EMS: F-E, S-E  
· Segregation groups Liquid halogenated hydrocarbons  
· Stowage Category B

## · 14.7 Transporte a granel em conformidade com o anexo II da Convenção MARPOL e o Código IBC Não aplicável.

## · Transporte/outras informações:

## · ADR

· Quantidades Limitadas (LQ) 1L  
· Quantidades exceptuadas (EQ) Código: E2  
Quantidade líquida máxima por embalagem interior: 30 ml  
Quantidade líquida máxima por embalagem exterior: 500 ml  
· Categoria de transporte 2  
· Código de restrição em túneis D/E

## · IMDG

· Limited quantities (LQ) 1L  
· Excepted quantities (EQ) Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

· UN "Model Regulation": UN 1263 TINTAS, 3, II, PERIGOSO PARA O AMBIENTE

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### SECÇÃO 15: Informação sobre regulamentação

· **15.1 Regulamentação/legislação específica para a substância ou mistura em matéria de saúde, segurança e ambiente**

· **Directiva 2012/18/UE**

· **Substâncias perigosas designadas - ANEXO I Nenhum dos componentes se encontra listado.**

· **Categoria “Seveso”**

O2 Substâncias ou misturas que, em contacto com a água, libertam gases inflamáveis

E2 Perigoso para o ambiente aquático

P5c LÍQUIDOS INFLAMÁVEIS

· **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível inferior 100 t**

· **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível superior 500 t**

· **Regulamento (CE) n.º 1907/2006 ANEXO XVII Condições de limitação: 3, 40**

· **Directiva 2011/65/UE relativa à restrição do uso de determinadas substâncias perigosas em equipamentos eléctricos e electrónicos - Anexo II**

Nenhum dos componentes se encontra listado.

· **REGULAMENTO (UE) 2019/1148**

· **Anexo I - PRECURSORES DE EXPLOSIVOS OBJETO DE RESTRIÇÕES (Valor-limite máximo para efeitos de licenciamento nos termos do artigo 5.o, n.o 3)**

Nenhum dos componentes se encontra listado.

· **Anexo II - PRECURSORES DE EXPLOSIVOS PASSÍVEIS DE PARTICIPAÇÃO**

67-64-I | acetona

· **Regulamento (CE) n.º 273/2004 relativo aos precursores de drogas**

67-64-I | acetona

3

· **Regulamento (CE) n.º 111/2005 que estabelece regras de controlo do comércio de precursores de drogas entre a Comunidade e países terceiros**

67-64-I | acetona

3

· **Disposições nacionais:**

· **outros regulamentos, restrições e decretos que proibem**

· **Substâncias que suscitam elevada preocupação (SVHC) em conformidade com REACH, artigo 57**

67-64-I | acetona

· **15.2 Avaliação da segurança química: Não foi realizada nenhuma Avaliação de Segurança Química.**

### SECÇÃO 16: Outras informações

As informações fornecidas baseiam-se no estado actual dos nossos conhecimentos, embora não representem uma garantia das propriedades do produto e não fundamentam uma relação contratual.

· **Frases relevantes**

H225 Líquido e vapor facilmente inflamáveis.

H226 Líquido e vapor inflamáveis.

H302 Nocivo por ingestão.

H304 Pode ser mortal por ingestão e penetração nas vias respiratórias.

H315 Provoca irritação cutânea.

H319 Provoca irritação ocular grave.

H332 Nocivo por inalação.

H336 Pode provocar sonolência ou vertigens.

H373 Pode afectar os órgãos após exposição prolongada ou repetida.

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**· Abreviaturas e acrónimos:**

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*VOC: Volatile Organic Compounds (USA, EU)*

*PBT: Persistent, Bioaccumulative and Toxic*

*SVHC: Substances of Very High Concern*

*vPvB: very Persistent and very Bioaccumulative*

*Flam. Liq. 2: Líquidos inflamáveis – Categoria 2*

*Flam. Liq. 3: Líquidos inflamáveis – Categoria 3*

*Water-react. 1: Substâncias e misturas que, em contacto com a água, libertam gases inflamáveis – Categoria 1*

*Acute Tox. 4: Toxicidade aguda – Categoria 4*

*Skin Irrit. 2: Corrosão/irritação cutânea – Categoria 2*

*Eye Irrit. 2: Lesões oculares graves/irritação ocular – Categoria 2*

*Skin Sens. 1: Sensibilização cutânea – Categoria 1*

*STOT SE 3: Toxicidade para órgãos-alvo específicos (exposição única) – Categoria 3*

*STOT RE 2: Toxicidade para órgãos-alvo específicos (exposição repetida) – Categoria 2*

*Asp. Tox. 1: Perigo de aspiração – Categoria 1*

*Aquatic Chronic 2: Perigoso para o ambiente aquático - perigo de longo prazo para o ambiente aquático – Categoria 2*

PT

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 08.06.2022

Revisión: 08.06.2022

### SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

#### · 1.1 Identificador del producto

· **Nombre comercial:** Conductive Silver 187

· **Número del artículo:** 12684-15

· **UFI:** YDP0-60MW-900T-J1QF

#### · 1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados

No existen más datos relevantes disponibles.

· **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio

#### · 1.3 Datos del proveedor de la ficha de datos de seguridad

##### · **Fabricante/distribuidor:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkceck@aol.com

www.emsdiasum.com

##### Aname

C/ Perez Galdos no. 2

28693 Quijorna

Madrid, Spain

Tel: +34.91.816.89.50

Fax: +34.91.816.85.94

email: ventas@aname.es

· **Área de información:** Product safety department

#### · 1.4 Teléfono de emergencia:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### SECCIÓN 2: Identificación de los peligros

#### · 2.1 Clasificación de la sustancia o de la mezcla

· **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS02 llama

Flam. Liq. 3 H226 Líquidos y vapores inflamables.

Water-react. 1 H260 En contacto con el agua desprende gases inflamables que pueden inflamarse espontáneamente.



GHS09 medio ambiente

Aquatic Chronic 2 H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.



GHS07

Skin Irrit. 2 H315 Provoca irritación cutánea.

Eye Irrit. 2 H319 Provoca irritación ocular grave.

Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.

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**Nombre comercial: Conductive Silver 187**

( se continua en página 1 )

STOT SE 3      H336 Puede provocar somnolencia o vértigo.

· **2.2 Elementos de la etiqueta**

· **Etiquetado con arreglo al Reglamento (CE) nº 1272/2008**

El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.

· **Pictogramas de peligro**



GHS02    GHS07    GHS09

· **Palabra de advertencia Peligro**

· **Componentes peligrosos a indicar en el etiquetaje:**

propanona

· **Indicaciones de peligro**

H226 Líquidos y vapores inflamables.

H260 En contacto con el agua desprende gases inflamables que pueden inflamarse espontáneamente.

H315 Provoca irritación cutánea.

H319 Provoca irritación ocular grave.

H317 Puede provocar una reacción alérgica en la piel.

H336 Puede provocar somnolencia o vértigo.

H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.

· **Consejos de prudencia**

P210      Mantener alejado del calor, de superficies calientes, de chispas, de llamas abiertas y de cualquier otra fuente de ignición. No fumar.

P223      Evitar el contacto con el agua.

P303+P361+P353 EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitar inmediatamente toda la ropa contaminada. Enjuagar la piel con agua [o ducharse].

P305+P351+P338 EN CASO DE CONTACTO CON LOS OJOS: Enjuagar con agua cuidadosamente durante varios minutos. Quitar las lentes de contacto cuando estén presentes y pueda hacerse con facilidad. Proseguir con el lavado.

P405      Guardar bajo llave.

P501      Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

· **Datos adicionales:**

El producto contiene: Precursores de explosivos notificables. Puesta a disposición, introducción, posesión y utilización según Reglamento (UE) 2019/1148, Artículo 9.

· **2.3 Otros peligros**

· **Resultados de la valoración PBT y mPmB**

· **PBT:** No aplicable.

· **mPmB:** No aplicable.

## SECCIÓN 3: Composición/información sobre los componentes

· **3.2 Caracterización química: Mezclas**

· **Descripción:** Mezcla formada por las sustancias especificadas a continuación con adiciones no peligrosas.

· **Componentes peligrosos:**

CAS: 67-64-1	propanona	>10-≤25%
EINECS: 200-662-2		

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Nombre comercial: **Conductive Silver 187**

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CAS: 98-56-6 EINECS: 202-681-1	4-cloro-alpha-alpha-alpha-trifluorotolueno ⚠ Flam. Liq. 3, H226; ⚠ Skin Irrit. 2, H315; ⚠ Eye Irrit. 2, H319	>10-≤25%
CAS: 100-41-4 EINECS: 202-849-4	etilbenceno ⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; ⚠ Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332	≤2,5%

· **SVHC**

67-64-1 propanona

· **Indicaciones adicionales:** El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

### SECCIÓN 4: Primeros auxilios

#### · 4.1 Descripción de los primeros auxilios

##### · Instrucciones generales:

Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.

##### · En caso de inhalación del producto:

Suministrar suficiente aire fresco y, para mayor seguridad, consultar el médico.

Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.

##### · En caso de contacto con la piel: Lavar inmediatamente con agua y jabón y enjuagar bien.

##### · En caso de con los ojos:

Limpiar los ojos abiertos durante varios minutos con agua corriente. En caso de trastornos persistentes consultar un médico.

##### · En caso de ingestión: Consultar un médico si los trastornos persisten.

#### · 4.2 Principales síntomas y efectos, agudos y retardados No existen más datos relevantes disponibles.

#### · 4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente

No existen más datos relevantes disponibles.

### SECCIÓN 5: Medidas de lucha contra incendios

#### · 5.1 Medios de extinción

##### · Sustancias extintoras apropiadas:

CO<sub>2</sub>, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al alcohol.

##### · Sustancias extintoras inapropiadas por razones de seguridad: Agua

#### · 5.2 Peligros específicos derivados de la sustancia o la mezcla No existen más datos relevantes disponibles.

#### · 5.3 Recomendaciones para el personal de lucha contra incendios

##### · Equipo especial de protección: Colocarse la protección respiratoria.

### SECCIÓN 6: Medidas en caso de vertido accidental

#### · 6.1 Precauciones personales, equipo de protección y procedimientos de emergencia

Llevar puesto equipo de protección. Mantener alejadas las personas sin protección.

#### · 6.2 Precauciones relativas al medio ambiente:

Al penetrar en las aguas o en el alcantarillado, avisar a las autoridades pertinentes.

Diluir con mucha agua.

Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.

#### · 6.3 Métodos y material de contención y de limpieza:

Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).

Desechar el material contaminado como vertido según ítem 13.

Asegurar suficiente ventilación.

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Nombre comercial: **Conductive Silver 187**

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No enjuagar con agua ni productos de limpieza acuosos.

### · 6.4 Referencia a otras secciones

Ver capítulo 7 para mayor información sobre una manipulación segura.

Ver capítulo 8 para mayor información sobre el equipo personal de protección.

Para mayor información sobre cómo desechar el producto, ver capítulo 13.

## SECCIÓN 7: Manipulación y almacenamiento

### · 7.1 Precauciones para una manipulación segura

Asegurar suficiente ventilación /aspiración en el puesto de trabajo.

Evitar la formación de aerosoles.

### · Prevención de incendios y explosiones:

Mantener alejadas las fuentes de encendido. No fumar.

Proteger del calor.

Tomar medidas contra las cargas electrostáticas.

### · 7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades

#### · Almacenamiento:

· **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.· **Normas en caso de un almacenamiento conjunto:** No es necesario.

#### · Indicaciones adicionales sobre las condiciones de almacenamiento:

Mantener el recipiente cerrado herméticamente.

Almacenarlo en envases bien cerrados en un lugar fresco y seco.

Proteger del calor y de la luz directa del sol.

· **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

## SECCIÓN 8: Controles de exposición/protección individual

### · 8.1 Parámetros de control

#### · Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:

Sin datos adicionales, ver punto 7.

#### · Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:

##### 67-64-1 propanona

LEP Valor de larga duración: 1210 mg/m<sup>3</sup>, 500 ppm  
VLB, VLI

##### 100-41-4 etilbenceno

LEP Valor de corta duración: 884 mg/m<sup>3</sup>, 200 ppm  
Valor de larga duración: 441 mg/m<sup>3</sup>, 100 ppm  
vía dérmica, VLB, VLI

#### · Componentes con valores límite biológicos:

##### 67-64-1 propanona

VLB 50 mg/l  
Muestra: orina  
Momento de Muestero: Final de la jornada laboral  
Indicador Biológico: Acetona

##### 100-41-4 etilbenceno

VLB 700 mg/g creatinina  
Muestra: orina  
Momento de Muestero: Final de la semana laboral  
Indicador Biológico: Suma del ácido mandélico y el ácido fenilgloxílico

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· **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.

· **8.2 Controles de la exposición**

· **Equipo de protección individual:**

· **Medidas generales de protección e higiene:**

Mantener alejado de alimentos, bebidas y alimentos para animales.

Quitarse de inmediato la ropa ensuciada o impregnada.

Lavarse las manos antes de las pausas y al final del trabajo.

Evitar el contacto con los ojos y la piel.

· **Protección respiratoria:**

Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.

· **Protección de manos:**



Guantes de protección

El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.

Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.

Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

· **Material de los guantes**

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

· **Tiempo de penetración del material de los guantes**

El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

· **Protección de ojos:**

Gafas de protección



Gafas de protección herméticas

## SECCIÓN 9: Propiedades físicas y químicas

· **9.1 Información sobre propiedades físicas y químicas básicas**

· **Datos generales**

· **Aspecto:**

**Forma:**

Líquido

**Color:**

Plateado

· **Olor:**

Característico

· **Umbral olfativo:**

No determinado.

· **valor pH:**

No determinado.

· **Cambio de estado**

**Punto de fusión/punto de congelación:**

Indeterminado.

**Punto inicial de ebullición e intervalo de ebullición:** 56 °C

· **Punto de inflamación:**

-16 °C

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· <b>Inflamabilidad (sólido, gas):</b>	<i>No aplicable.</i>
· <b>Temperatura de descomposición:</b>	<i>No determinado.</i>
· <b>Temperatura de auto-inflamación:</b>	<i>Se inflama espontáneamente en contacto con el aire.</i>
· <b>Propiedades explosivas:</b>	<i>El producto no es explosivo; sin embargo, pueden formarse mezclas explosivas de vapor / aire.</i>
· <b>Límites de explosión:</b> Inferior:	<i>No determinado.</i>
Superior:	<i>No determinado.</i>
· <b>Presión de vapor a 20 °C:</b>	<i>245,3 hPa</i>
· <b>Densidad a 20 °C:</b>	<i>1,618 g/cm<sup>3</sup></i>
· <b>Densidad relativa</b>	<i>No determinado.</i>
· <b>Densidad de vapor</b>	<i>No determinado.</i>
· <b>Tasa de evaporación:</b>	<i>No determinado.</i>
· <b>Solubilidad en / miscibilidad con agua:</b>	<i>Completamente mezclable.</i>
· <b>Coefficiente de reparto: n-octanol/agua:</b>	<i>No determinado.</i>
· <b>Viscosidad:</b> Dinámica a 20 °C:	<i>25 mPas</i>
Cinemática:	<i>No determinado.</i>
· <b>Concentración del disolvente:</b> Disolventes orgánicos:	<i>22,8 %</i>
VOC (CE)	<i>22,83 %</i>
· <b>Contenido de cuerpos sólidos:</b>	<i>0,0 %</i>
· <b>9.2 Otros datos</b>	<i>No existen más datos relevantes disponibles.</i>

### SECCIÓN 10: Estabilidad y reactividad

- **10.1 Reactividad** *No existen más datos relevantes disponibles.*
- **10.2 Estabilidad química**
- **Descomposición térmica / condiciones que deben evitarse:** *No se descompone al emplearse adecuadamente.*
- **10.3 Posibilidad de reacciones peligrosas** *Al entrar en contacto con agua se liberan gases inflamables.*
- **10.4 Condiciones que deben evitarse** *No existen más datos relevantes disponibles.*
- **10.5 Materiales incompatibles:** *No existen más datos relevantes disponibles.*
- **10.6 Productos de descomposición peligrosos:** *No se conocen productos de descomposición peligrosos.*

### SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda** *A la vista de los datos disponibles, no se cumplen los criterios de clasificación.*
- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**  
*Provoca irritación cutánea.*
- **Lesiones o irritación ocular graves**  
*Provoca irritación ocular grave.*

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- **Sensibilización respiratoria o cutánea**  
Puede provocar una reacción alérgica en la piel.
- **Indicaciones toxicológicas adicionales:**
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad para la reproducción** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición única**  
Puede provocar somnolencia o vértigo.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

### SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Efectos ecotóxicos:**
- **Observación:** Tóxico para peces.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**  
Nivel de riesgo para el agua 2 (autoclasiificación): peligroso para el agua  
No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.  
Una cantidad mínima vertida en el subsuelo ya representa un peligro para el agua potable.  
Vertido en aguas superficiales, también es tóxico para los peces y el plancton.  
tóxico para organismos acuáticos
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

### SECCIÓN 13: Consideraciones relativas a la eliminación

- **13.1 Métodos para el tratamiento de residuos**
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.
- **Producto de limpieza recomendado:** Agua, eventualmente añadiendo productos de limpieza.

### SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UNI263

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· **14.2 Designación oficial de transporte de las Naciones Unidas**  
 · **ADR** 1263 PINTURA, PELIGROSO PARA EL MEDIO AMBIENTE  
 · **IMDG, IATA** PAINT

· **14.3 Clase(s) de peligro para el transporte**· **ADR**

· **Clase** 3 Líquidos inflamables  
 · **Etiqueta** 3

· **IMDG, IATA**

· **Class** 3 Líquidos inflamables  
 · **Label** 3

· **14.4 Grupo de embalaje**· **ADR, IMDG, IATA** II· **14.5 Peligros para el medio ambiente:**· **Marcado especial (ADR):** Símbolo (pez y árbol)· **14.6 Precauciones particulares para los usuarios** Atención: Líquidos inflamables· **Número de identificación de peligro (Número Kemler):** 33· **Número EMS:** F-E,S-E· **Segregation groups** Liquid halogenated hydrocarbons· **Stowage Category** B· **14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC**

No aplicable.

· **Transporte/datos adicionales:**· **ADR**· **Cantidades limitadas (LQ)** 1L· **Cantidades exceptuadas (EQ)** Código: E2

Cantidad neta máxima por envase interior: 30 ml

Cantidad neta máxima por embalaje exterior: 500 ml

· **Categoría de transporte** 2· **Código de restricción del túnel** D/E· **IMDG**· **Limited quantities (LQ)** 1L· **Excepted quantities (EQ)** Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

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· **"Reglamentación Modelo" de la UNECE:** UN 1263 PINTURA, 3, II, PELIGROSO PARA EL MEDIO AMBIENTE

### SECCIÓN 15: Información reglamentaria

· **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**

· **Directiva 2012/18/UE**

· **Sustancias peligrosas nominadas - ANEXO I** ninguno de los componentes está incluido en una lista

· **Categoría Seveso**

O2 Sustancias y mezclas que, en contacto con el agua, desprenden gases inflamables

E2 Peligroso para el medio ambiente acuático

P5c LÍQUIDOS INFLAMABLES

· **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior 100 t**

· **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior 500 t**

· **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones: 3, 40**

· **Directiva 2011/65/UE sobre restricciones a la utilización de determinadas sustancias peligrosas en aparatos eléctricos y electrónicos - Anexo II**

ninguno de los componentes está incluido en una lista

· **REGLAMENTO (UE) 2019/1148**

· **Anexo I - PRECURSORES DE EXPLOSIVOS RESTRINGIDOS (Valor límite superior a efectos de la concesión de licencias con arreglo al artículo 5, apartado 3)**

ninguno de los componentes está incluido en una lista

· **Anexo II - PRECURSORES DE EXPLOSIVOS NOTIFICABLES**

67-64-I propanona

· **Reglamento (CE) no 273/2004 sobre precursores de drogas**

67-64-I propanona

3

· **Reglamento (CE) N o 111/2005 por el que establecen normas para la vigilancia del comercio de precursores de drogas entre la Comunidad y terceros países**

67-64-I propanona

3

· **Disposiciones nacionales:**

· **Demás disposiciones, limitaciones y decretos prohibitivos**

· **Sustancias altamente preocupantes (SVHC) según REACH, artículo 57**

67-64-I propanona

· **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

### SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

· **Frases relevantes**

H225 Líquido y vapores muy inflamables.

H226 Líquidos y vapores inflamables.

H302 Nocivo en caso de ingestión.

H304 Puede ser mortal en caso de ingestión y penetración en las vías respiratorias.

H315 Provoca irritación cutánea.

( se continua en página 10 )

**Ficha de datos de seguridad**  
según 1907/2006/CE, Artículo 31

fecha de impresión 08.06.2022

Revisión: 08.06.2022

**Nombre comercial: Conductive Silver 187**

( se continua en página 9 )

*H319 Provoca irritación ocular grave.**H332 Nocivo en caso de inhalación.**H336 Puede provocar somnolencia o vértigo.**H373 Puede provocar daños en los órganos tras exposiciones prolongadas o repetidas.***Abreviaturas y acrónimos:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Líquidos inflamables – Categoría 2**Flam. Liq. 3: Líquidos inflamables – Categoría 3**Water-react. 1: Sustancias y mezclas que, en contacto con el agua, desprenden gases inflamables – Categoría 1**Acute Tox. 4: Toxicidad aguda – Categoría 4**Skin Irrit. 2: Corrosión o irritación cutáneas – Categoría 2**Eye Irrit. 2: Lesiones oculares graves o irritación ocular – Categoría 2**Skin Sens. 1: Sensibilización cutánea – Categoría 1**STOT SE 3: Toxicidad específica en determinados órganos ( exposición única) – Categoría 3**STOT RE 2: Toxicidad específica en determinados órganos (exposiciones repetidas) – Categoría 2**Asp. Tox. 1: Peligro por aspiración – Categoría 1**Aquatic Chronic 2: Peligroso para el medio ambiente acuático - peligro acuático a largo plazo – Categoría 2*

## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.06.08

การปรับปรุงใหม่ : 2022.06.08

### 1 การบ่งชี้สารเดี่ยวหรือสารผสม และผู้ผลิต

- 1.1 ลักษณะเฉพาะของผลิตภัณฑ์
- ชื่อทางการค้า **Conductive Silver 187**
- เลขที่รายชื่อ 12684-15
- 1.2 สารหรือสารผสมที่เกี่ยวข้องที่ระบุให้ใช้และที่ไม่ควรให้ใช้ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- การประยุกต์ใช้สาร/ การทำ เคมีภัณฑ์ห้องทดลอง
- 1.3 รายละเอียดของผู้จัดหาข้อมูลด้านความปลอดภัย
- ผู้ผลิต/ ผู้จัดหา  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- ข้อมูลรายละเอียดเพิ่มเติมหาได้จาก Product safety department
- 1.4 หมายเลขโทรศัพท์ฉุกเฉิน:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 การบ่งชี้ความเป็นอันตราย

- 2.1 การจำแนกประเภทของสารหรือสารผสม
- การแบ่งประเภทตามข้อบังคับ (อีซี) เลขที่ 1272/2008



เปลวไฟ

Flam. Liq. 3      H226 ของเหลวและไอที่ไวไฟ  
Water-react. 1      H260 ในการสัมผัสกับน้ำจะปล่อยแก๊สไวไฟซึ่งอาจจุดติดไฟได้ด้วยตัวเอง



สิ่งแวดล้อม

Aquatic Chronic 2      H411 มีพิษต่อสิ่งมีชีวิตในน้ำพร้อมผลกระทบระยะยาว



Skin Irrit. 2      H315 เป็นสาเหตุให้เกิดการระคายเคืองผิวหนัง  
Eye Irrit. 2      H319 เป็นสาเหตุให้เกิดการระคายเคืองอย่างร้ายแรงที่ตา  
Skin Sens. 1      H317 อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้  
STOT SE 3      H336 อาจเป็นสาเหตุให้เชื่อมโยงซิมหรือน้ำมิดเวียนศีรษะ

- 2.2 องค์ประกอบของฉลาก
- ฉลากตามระเบียบ (EC) เลขที่ 1272/2008 ผลิตภัณฑ์ได้รับการจัดประเภทและติดฉลากตามข้อบังคับของ CLP
- ภาพสัญลักษณ์สิ่งที่เป็นอันตราย



GHS02



GHS07



GHS09

(ต่อที่หน้า 2)

TH





## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.06.08

การปรับปรุงใหม่ : 2022.06.08

### ชื่อทางการค้า Conductive Silver 187

(ต่อหน้า 2)

- หลังจากการกลืนเข้าไป: ถ้าอาการยังไม่บรรเทาให้ปรึกษาแพทย์
- 4.2 อาการสำคัญส่วนใหญ่และผลกระทบ ทั้งชนิดเฉียบพลันและค่อยๆ แสดงอาการ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 4.3 ข้อบ่งชี้ของอาการที่ต้องเข้ารับการรักษาจากแพทย์ทันทีและการบำบัดพิเศษที่จำเป็น ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

### 5 มาตรการผจญเพลิง

- 5.1 สารที่ใช้ดับเพลิง
- สารดับเพลิงที่เหมาะสม คาร์บอนไดออกไซด์สเปรย์ผงหรือน้ำดับเพลิงขนาดใหญ่ด้วยการฉีดน้ำหรือโฟมแอลกอฮอล์ที่ทนทาน
- สารดับเพลิงที่ไม่ควรใช้ด้วยเหตุผลด้านความปลอดภัย น้ำ
- 5.2 อันตรายเฉพาะอย่างที่เกิดจากสารหรือส่วนผสม ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 5.3 คำแนะนำสำหรับพนักงานดับเพลิง
- อุปกรณ์ป้องกันภัย อุปกรณ์ป้องกันซึ่งเหมาะสำหรับการหายใจทางปาก

### 6 มาตรการจัดการเมื่อมีการหกรั่วไหลของสาร

- 6.1 การป้องกันส่วนบุคคล อุปกรณ์ป้องกัน และขั้นตอนดำเนินการเมื่อเกิดกรณีฉุกเฉิน  
สวมอุปกรณ์ป้องกันภัยกันคนที่ไม่ใช้อุปกรณ์ป้องกันออกไป
- 6.2 การให้ความคุ้มครองสิ่งแวดล้อม:  
แจ้งผู้มีอำนาจที่เกี่ยวข้องในกรณีที่เกิดการไหลซึมเข้าสู่น้ำหรือระบบระบายน้ำ  
ทำให้เจือจางด้วยน้ำมากๆ  
อย่าปล่อยให้เข้าไปในท่อน้ำทิ้ง/ น้ำบนดินหรือใต้ดิน
- 6.3 วิธีดำเนินการและวัสดุสำหรับการบรรจุและการทำความสะอาด:  
ดูดซับด้วยวัสดุที่สามารถยึดของเหลวไว้ (ทรายไดอะโตไมท์ตัวยึดเกาะควรตัวยึดทั่วๆ ไปก็ใช้ได้)  
ทิ้งวัสดุที่ปนเปื้อนเป็นของเสียตามรายการในบัญชี 13  
ตรวจให้แน่ใจว่ามีการระบายอากาศที่ดีพอ  
อย่าฉีดด้วยน้ำหรือน้ำยาทำความสะอาดที่มีน้ำเป็นส่วนผสม
- 6.4 การอ้างอิงถึงส่วนอื่น  
ดูข้อมูลรายละเอียดเรื่องความปลอดภัยในการขนถ่ายจากส่วนที่ 7  
ดูข้อมูลรายละเอียดเรื่องอุปกรณ์ป้องกันส่วนบุคคลจากส่วนที่ 8  
ดูข้อมูลรายละเอียดเรื่องการจัดจากส่วนที่ 13

### 7 การขนถ่าย เคลื่อนย้าย ใช้งาน และเก็บรักษา

- 7.1 การป้องกันล่วงหน้าสำหรับการจัดการด้านความปลอดภัย  
ทำให้แน่ใจว่าสถานที่ทำงานมีการระบายอากาศ/ ปลอดภัยดี  
ป้องกันการเกิดละอองสารฟุ้ง
- ข้อมูลรายละเอียดเกี่ยวกับการป้องกันอัคคีภัยและการระเบิด  
ออกห่างจากแหล่งที่ติดไฟอย่างสูบบุหรี่  
ป้องกันให้พ้นจากความร้อน  
ป้องกันให้พ้นจากประกายไฟฟาสถิตย์
- 7.2 เสนอชี้ในการเก็บรักษาอย่างปลอดภัย, รวมถึงสิ่งที่เข้ากันไม่ได้ใดๆ
- การจัดเก็บ
- ข้อกำหนดที่ต้องปฏิบัติตามสำหรับห้องเก็บและภาชนะบรรจุ ไม่มีข้อกำหนดพิเศษ
- ข้อมูลรายละเอียดด้านการจัดเก็บในสถานที่จัดเก็บรวม ไม่ได้กำหนด
- ข้อมูลรายละเอียดเพิ่มด้านสภาพการจัดเก็บ  
เก็บโดยปิดผนึกอย่างแน่นหนา  
เก็บในที่เย็นสภาพแห้งในภาชนะบรรจุที่ปิดผนึกอย่างดี  
ป้องกันให้พ้นจากความร้อนและแสงแดดส่อง

(ต่อหน้า 4)

**แผนข้อมูลความปลอดภัย**  
**ตาม GHS**

วันที่พิมพ์ 2022.06.08

การปรับปรุงใหม่ : 2022.06.08

ชื่อทางการค้า **Conductive Silver 187**

(ต่อหน้า 3)

· 7.3 การระบุถึงการสิ้นสุดการใช้ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

## 8 การควบคุมการรับสัมผัสและการป้องกันส่วนบุคคล

- 8.1 การควบคุมตัวแปร
- ข้อมูลรายละเอียดเสริมสำหรับการออกแบ่งสิ่งอำนวยความสะดวกทางเทคนิค ไม่มีข้อมูลนอกเหนือจากนี้ดูรายการ 7

· ส่วนผสมพร้อมค่าขอบเขตที่ต้องเฝ้าดูในสถานที่ปฏิบัติงาน

### 67-64-1 อะซีโตน

PEL (US)	ค่าระยะยาว: 2400 mg/m <sup>3</sup> , 1000 ppm
REL (US)	ค่าระยะยาว: 590 mg/m <sup>3</sup> , 250 ppm
TLV (US)	ค่าระยะสั้น: 500 ppm ค่าระยะยาว: 250 ppm A4, BEI

### 100-41-4 ethylbenzene

PEL (US)	ค่าระยะยาว: 435 mg/m <sup>3</sup> , 100 ppm
REL (US)	ค่าระยะสั้น: 545 mg/m <sup>3</sup> , 125 ppm ค่าระยะยาว: 435 mg/m <sup>3</sup> , 100 ppm
TLV (US)	ค่าระยะยาว: 20 NIC-20 ppm BEI, A3, NIC: OTO, BEI, A3

· ส่วนประกอบต่างๆ ที่มีค่าขีดจำกัดทางชีวภาพ:

### 67-64-1 อะซีโตน

BEI (US)	25 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
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### 100-41-4 ethylbenzene

BEI (US)	0.15 g/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)
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· ข้อมูลรายละเอียดเสริม รายการถูกต้องระหว่างที่จัดทำโดยอาศัยการใช้งานเป็นหลัก

### 8.2 การควบคุมการสัมผัส

· อุปกรณ์ป้องกันส่วนบุคคล

· มาตรการการป้องกันและสุขอนามัยทั่วไป

เก็บให้ห่างจากสิ่งของที่เป็นอาหารเครื่องดื่มและอาหารสัตว์

ให้ถอดเสื้อผ้าที่เปื้อนและเจือปนออกทันที

ล้างมือก่อนที่จะหยุดพักและเมื่อสิ้นสุดเวลาทำงาน

หลีกเลี่ยงการสัมผัสถูกตาและผิวหนัง

· การป้องกันการสูดหายใจเข้าไป

ในกรณีที่อยู่เป็นเวลาสั้นหรืออากาศเป็นพิษระดับต่ำใช้หน้ากากกรองเพื่อช่วยหายใจในกรณีที่มีความเข้มข้นสูงหรืออยู่เป็นเวลานานให้ใช้เครื่องป้องกันที่มีอุปกรณ์ช่วยหายใจในตัว

· การป้องกันมือ



ถุงมือป้องกัน

วัสดุของถุงมือจะต้องไม่ให้อากาศผ่านเข้าออกและทนทานต่อผลิตภัณฑ์/ สาร/ การผลิต

เนื่องจากขาดการทดสอบจึงไม่มีคำแนะนำสำหรับวัสดุที่ใช้ทำถุงมือสำหรับผลิตภัณฑ์/ การผลิต/ ของผสมเคมี

(ต่อหน้า 5)

-TH

## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.06.08

การปรับปรุงใหม่ : 2022.06.08

### ชื่อทางการค้า Conductive Silver 187

(ต่อหน้า 4)

เลือกวัสดุสำหรับถุงมือโดยพิจารณาจากเวลาที่ใช้ในการซึมผ่านอัตราการแพร่และการเสื่อม

· **วัสดุที่ใช้ทำถุงมือ**

การเลือกใช้ถุงมือที่เหมาะสมไม่เพียงแต่ขึ้นอยู่กับวัสดุแต่ยังขึ้นกับมาตรฐานด้านคุณภาพและข้อแตกต่างระหว่างผู้ผลิตแต่ละแห่งโดยที่ผลิตภัณฑ์เตรียมมาจากสารหลายชนิดความทนทานของวัสดุถุงมือไม่สามารถที่จะคำนวณล่วงหน้าดังนั้นจึงต้องตรวจสอบกับการใช้งาน

· **เวลาที่ใช้ในการทะลุผ่านวัสดุที่ใช้ทำถุงมือ** ผู้ผลิตถุงมือป้องกันจะต้องทดสอบหาเวลาแน่นอนที่ใช้ในการทะลุผ่านและจะต้องมีการตรวจสอบติดตาม

· **การป้องกันตา**

แว่นนิรภัย



แว่นตาที่ขอบปิดสนิท

## 9 คุณสมบัติทางกายภาพและทางเคมี

· **9.1 ข้อมูลคุณสมบัติพื้นฐานทางกายภาพและเคมี**

· ข้อมูลรายละเอียดทั่วไป

· ลักษณะ :

· **รูปลักษณ์**

สี

ของเหลว

ทำเป็นสีเงิน

· กลิ่น

ลักษณะพิเศษ

· **เกณฑ์กลิ่น :**

ไม่ได้กำหนดไว้.

· **ค่า pH**

ไม่ได้กำหนดไว้.

· **การเปลี่ยนสภาวะ**

จุดหลอมเหลว/ ขอบเขตการหลอมละลาย

ไม่ได้กำหนด

จุดเดือด/ ขอบเขตการเดือด

56 °C

· **จุดวาบไฟ**

-16 °C

· **ความสามารถติดไฟ (ของแข็งแกส)**

ไม่สามารถใช้ได้

· **อุณหภูมิสลายตัว**

ไม่ได้กำหนดไว้.

· **การเผาไหม้ด้วยตัวเอง**

ติดไฟได้ด้วยตัวเองในอากาศ

· **อันตรายจากการระเบิด**

ผลิตภัณฑ์ไม่ได้เป็นสารระเบิดอย่างไรก็ตามอาจเป็นไปได้ที่การผสมของอากาศ /  
ไอจะทำให้เกิดการ

· **ขอบเขตการระเบิด**

· **ขั้นต่ำ**

ไม่ได้กำหนดไว้.

· **ขั้นสูง**

ไม่ได้กำหนดไว้.

· **ความดันไอ ที่ 20 °C**

245.3 hPa

· **ความหนาแน่น ที่ 20 °C**

1.618 g/cm<sup>3</sup>

· **ความหนาแน่นสัมพัทธ์**

ไม่ได้กำหนดไว้.

· **ความหนาแน่นของไอ**

ไม่ได้กำหนดไว้.

· **อัตราการระเหย**

ไม่ได้กำหนดไว้.

· **ความสามารถในการละลายใน**

ความสามารถผสมเป็นสารละลายเนื้อเดียวทุกส่วนผสมกับ  
น้ำ

/  
ผสมกันได้เต็มที่

· **สัมประสิทธิ์การแยกตัว (เอ็น-ออกทานอล/น้ำ)**

ไม่ได้กำหนดไว้.

· **ความหนืด**

(ไดนามิค) พลศาสตร์ ที่ 20 °C

25 mPas

(ต่อหน้า 6)

-TH-

## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.06.08

การปรับปรุงใหม่ : 2022.06.08

### ชื่อทางการค้า Conductive Silver 187

(ต่อหน้า 5)

(คิเนแมติก) จลนศาสตร์	ไม่ได้กำหนดไว้.
· ปริมาณส่วนประกอบตัวทำละลาย ตัวทำละลายอินทรีย์ VOC (EC)	22.8 % 22.83 %
ส่วนประกอบที่เป็นของแข็ง	0.0 %
· 9.2 ข้อมูลอื่นๆ	ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

### 10 ความเสถียรและการเกิดปฏิกิริยา

- 10.1 ปฏิกิริยาโต้ตอบ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.2 เสถียรภาพทางเคมี
- การสลายตัวด้วยความร้อน / เงื่อนไขที่ต้องหลีกเลี่ยง ไม่มีการสลายตัวถ้าใช้ตามรายละเอียดที่ระบุไว้
- 10.3 ความเป็นไปได้ของการเกิดปฏิกิริยาอันตราย การสัมผัสกับน้ำจะปล่อยแก๊สติดไฟ
- 10.4 เงื่อนไขเพื่อการหลีกเลี่ยง ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.5 วัสดุที่เข้ากันไม่ได้: ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.6 อันตรายจากการสลายตัวของผลิตภัณฑ์: ไม่มีสารจากการสลายตัวที่เป็นอันตรายที่รู้จัก

### 11 ข้อมูลด้านพิษวิทยา

- 11.1 ข้อมูลเกี่ยวกับผลกระทบทางพิษวิทยา
- ความเป็นพิษอย่างสาหัส: Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- อาการระคายเคืองเบื้องต้น
- บวมผิวหนัง  
เป็นสาเหตุให้เกิดการระคายเคืองผิวหนัง
- ที่ดวงตา  
เป็นสาเหตุให้เกิดการระคายเคืองอย่างร้ายแรงที่ตา
- การทำให้แพ้  
อาจเป็นสาเหตุให้ผิวหนังแสดงอาการแพ้
- ข้อมูลรายละเอียดเสริมเกี่ยวกับพิษวิทยา
- ผลกระทบ CMR (การทำให้เกิดมะเร็งการผ่าเหล่าและพิษต่อการสืบพันธุ์)
- การผ่าเหล่าในเซลล์สืบพันธุ์ Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- การกระตุ้นให้เกิดมะเร็ง Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- พิษต่อระบบสืบพันธุ์ Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- ความเป็นพิษต่ออวัยวะเป้าหมายเฉพาะ – การสัมผัสในครรภ์  
อาจเป็นสาเหตุให้เชื้อซิมหรือหน้ามิดเรียนตรีชะ
- ความเป็นพิษต่ออวัยวะเป้าหมายเฉพาะ – การสัมผัสฆ่าปลา Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- อันตรายต่อระบบหายใจ Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.

### 12 ข้อมูลด้านนิเวศวิทยา

- 12.1 ความเป็นพิษ
- ความเป็นพิษที่เกี่ยวข้องกับน้ำ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.2 การคงอยู่และการย่อยสลาย ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.3 การสะสมทางชีวภาพที่อาจเกิดขึ้น ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.4 การเปลี่ยนแปลงในดิน ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- ผลกระทบด้านพิษต่อระบบนิเวศน์
- ข้อสังเกต เป็นพิษสำหรับปลา

(ต่อหน้า 7)

-TH

## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.06.08

การปรับปรุงใหม่ : 2022.06.08

### ชื่อทางการค้า Conductive Silver 187




(ต่อหน้า 6)

- ข้อมูลรายละเอียดเสริมเกี่ยวกับนิเวศวิทยา
- **หมายเหตุทั่วไป**  
เป็นอันตรายต่อน้ำชั้น 2 (กฎข้อบังคับของเยอรมัน)(การประเมินค่าด้วยตัวเอง):เป็นอันตรายกับน้ำ  
อย่าปล่อยให้ผลิตภัณฑ์ไปถึงน้ำผิวดินเส้นทางน้ำหรือระบบระบายน้ำเสีย  
เป็นอันตรายต่อน้ำดื่มแม้จะร่วงลงในพื้นที่เป็นปริมาณน้อย  
เป็นพิษกับปลาและแพลงค์ตอนในผิวน้ำ  
มีพิษต่อสิ่งมีชีวิตในน้ำ
- **12.5 ผลของ PBT และการประเมิน vPvB**
- **PBT:** ไม่สามารถใช้ได้
- **vPvB:** ไม่สามารถใช้ได้
- **12.6 ผลข้างเคียงอื่นๆ** ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

### 13 ข้อพิจารณาในการกำจัด

- **13.1 วิธีการกำจัดของเสีย**
- **คำแนะนำ** ต้องไม่ทิ้งไปพร้อมกับขยะจากบ้านเรือนอย่าปล่อยให้ผลิตภัณฑ์เข้าสู่ระบบระบายน้ำเสีย
- **ภาชนะบรรจุที่ยังไม่ได้ล้างทำความสะอาด**
- **คำแนะนำ** การกำจัดจะต้องทำตามกฎระเบียบที่เป็นทางการ
- **สารทำความสะอาดที่แนะนำ** น้ำถ้าจำเป็นใช้คู่กับสารทำความสะอาด

### 14 ข้อมูลการขนส่ง

- **14.1 เลขที่ UN**
- **ADR, IMDG, IATA** UN1263
- **14.2 ชื่อการจัดส่งสินค้าที่เหมาะสมของ UN**
- **ADR** 1263 PAINT, ENVIRONMENTALLY HAZARDOUS
- **IMDG, IATA** PAINT
- **14.3 ชั้นเรียนอันตรายจากการขนส่ง**
- **ADR**
- 

- **ประเภท** 3 ของเหลวติดไฟได้
- **ฉลากที่เป็นอันตราย** 3
- **IMDG, IATA**
- 
- **Class** 3 ของเหลวติดไฟได้
- **Label** 3
- **14.4 กลุ่มของภาชนะบรรจุ**
- **ADR, IMDG, IATA** II
- **14.5 สิ่งที่เป็นอันตรายต่อสภาพแวดล้อม**
- **เฉพาะการติดฉลาก (ADR):** สัญลักษณ์ (ปลาและต้นไม้)

(ต่อหน้า 8)

**แผนข้อมูลความปลอดภัย**  
**ตาม GHS**

วันที่พิมพ์ 2022.06.08

การปรับปรุงใหม่ : 2022.06.08

**ชื่อทางการค้า Conductive Silver 187**

(ต่อหน้า 7)

- |                                    |                                 |
|------------------------------------|---------------------------------|
| · 14.6 การป้องกันพิเศษสำหรับผู้ใช้ | คำเตือน !: ของเหลวติดไฟได้      |
| · รหัสความอันตราย:                 | 33                              |
| · หมายเลข EMS                      | F-E,S-E                         |
| · Segregation groups               | Liquid halogenated hydrocarbons |
| · Stowage Category                 | B                               |

- |                                                                 |                 |
|-----------------------------------------------------------------|-----------------|
| · 14.7 การขนส่งขนาดใหญ่ตามภาคผนวก 2 ของ MARPOL73/78 และรหัส IBC | ไม่สามารถใช้ได้ |
|-----------------------------------------------------------------|-----------------|

## · การขนส่ง/ข้อมูลรายละเอียดเสริม

- |                            |                                                                                                                 |
|----------------------------|-----------------------------------------------------------------------------------------------------------------|
| · ADR                      |                                                                                                                 |
| · ปริมาณที่จำกัด (LQ)      | 1L                                                                                                              |
| · Excepted quantities (EQ) | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · หมวดหมู่การขนส่ง         | 2                                                                                                               |
| · รหัสควบคุมการผ่านอุโมงค์ | D/E                                                                                                             |

- |                            |                                                                                                                 |
|----------------------------|-----------------------------------------------------------------------------------------------------------------|
| · IMDG                     |                                                                                                                 |
| · Limited quantities (LQ)  | 1L                                                                                                              |
| · Excepted quantities (EQ) | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |

- |                            |                                                 |
|----------------------------|-------------------------------------------------|
| · “กฎระเบียบต้นแบบ” ของ UN | UN 1263 PAINT, 3, II, ENVIRONMENTALLY HAZARDOUS |
|----------------------------|-------------------------------------------------|

**15 ข้อมูลด้านกฎข้อบังคับ**

- 15.1 ความปลอดภัย สุขภาพและระเบียบ/กฎหมายสิ่งแวดล้อมโดยเฉพาะของสารหรือสารผสม ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- บัญชีรายชื่อวัตถุอันตราย

## · กรมวิชาการเกษตร

ไม่มีส่วนผสมใดอยู่ในรายการ

## · กรมประมง

ไม่มีส่วนผสมใดอยู่ในรายการ

## · กรมปศุสัตว์

ไม่มีส่วนผสมใดอยู่ในรายการ

## · อาหารและยา

ไม่มีส่วนผสมใดอยู่ในรายการ

## · กรมโรงงานอุตสาหกรรม

67-64-1 อะซีโตน

ชนิดที่ 3

## · กรมธุรกิจพลังงาน

ไม่มีส่วนผสมใดอยู่ในรายการ

## · ทำเนียบสารเคมีที่มีอยู่แล้วของประเทศไทย (กรมโรงงานอุตสาหกรรม)

67-64-1 อะซีโตน

98-56-6 4-chloro-alpha,alpha,alpha-trifluorotoluene

100-41-4 ethylbenzene

(ต่อหน้า 9)

TH

## แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.06.08

การปรับปรุงใหม่ : 2022.06.08

### ชื่อทางการค้า Conductive Silver 187

(ต่อหน้า 8)

· 15.2 การประเมินความปลอดภัยของสารเคมี: ไม่ได้ดำเนินการตามการประเมินความปลอดภัยของสารเคมี

### 16 ข้อมูลอื่นๆ

ข้อมูลรายละเอียดนี้ใช้ความรู้ปัจจุบันของเราเป็นหลักอย่างไรก็ตามข้อมูลนี้ไม่ใช่การรับประกันจากสถาบันต่อคุณสมบัติเฉพาะของผลิตภัณฑ์และไม่สามารถยืนยันการบังคับใช้ตามกฎหมายที่เกี่ยวข้องกับสัญญา

#### · วลีที่เกี่ยวข้องกับ

- H225 ของเหลวและไอที่ไวไฟสูง
- H226 ของเหลวและไอที่ไวไฟ
- H302 เป็นอันตรายหากกลืนเข้าไป
- H304 อาจเป็นอันตรายถึงชีวิตหากกลืนเข้าไปและเข้าไปในช่องลม
- H315 เป็นสาเหตุให้เกิดการระคายเคืองผิวหนัง
- H319 เป็นสาเหตุให้เกิดการระคายเคืองอย่างร้ายแรงที่ตา
- H332 ให้โทษหากสูดหายใจเข้า
- H336 อาจเป็นสาเหตุทำให้เวียนศีรษะหรือหน้ามืดเวียนศีรษะ
- H373 อาจเป็นสาเหตุทำให้อวัยวะเสียหายจากการสัมผัสเป็นเวลานานหรือซ้ำๆ

#### · คำย่อและชื่อย่อที่ผสมขึ้น

- ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 2: Flammable liquids – Category 2
- Flam. Liq. 3: Flammable liquids – Category 3
- Water-react. 1: Substances and mixtures which in contact with water emit flammable gases – Category 1
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
- Asp. Tox. 1: Aspiration hazard – Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

TH



**Güvenlik bilgi formu**  
**23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı, Değerlendirilmesi, İzni Ve Kisitlanması Hakkında Yönetmelik, Madde 27“ hükümlerine uygun düzenlenmiştir**

Baskı tarihi: 08.06.2022

Form No.: 12684-15

Yeniden düzenleme tarihi: 08.06.2022

### Bölüm 1: Maddenin/karışımın ve şirketin/dağıtıcının tanımı

- **1.1 Madde/Karışım kimliği**
- **Ticari adı: Conductive Silver 187**
- **Mal numarası: 12684-15**
- **UFI: YDP0-60MW-900T-J1QF**
- **1.2 Maddenin veya karışımın ilgili tanımlanmış kullanımları ve tavsiye edilmeyen kullanımları**  
Daha başka önemli bilgi mevcut değildir.
- **Maddenin Kullanımı / Hazırlanması** Laboratuvarında kullanılan kimyasal maddeler
- **1.3 Güvenlik bilgi formu sağlayıcısının detayları**
- **Üretici / Teslimatı yapan:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Güvenlik hakkında bilgiler veren kesim: Product safety department**
- **1.4 Acil telefon numarası**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### Bölüm 2: Zararların tanımı

- **2.1 Madde veya karışımın sınıflandırılması**
- **Düzenlemeye göre sınıflandırma (EC) No 1272/2008**



GHS02 Alev

Flam. Liq. 3 H226 Alevlenir sıvı ve buhar.

Water-react. 1 H260 Su ile temas ettiğinde kendiliğinden tutuşabilen alevlenir gazlar yayar.



GHS09 Çevre

Aquatic Chronic 2 H411 Sucul ortamda uzun süre kalıcı, toksik etki.



GHS07

Skin Irrit. 2 H315 Cilt tahrişine yol açar.

Eye Irrit. 2 H319 Ciddi göz tahrişine yol açar.

Skin Sens. 1 H317 Alerjik cilt reaksiyonlarına yol açabilir.

STOT SE 3 H336 Rehavete veya baş dönmesine yol açabilir.

- **2.2 Etiket bilgileri**
- **Yönetmelik (EC) No 1272/2008'e göre etiketleme**  
Ürün SEA yönetmeliğine göre sınıflandırılmış ve etiketlenmiştir.

(Devamı sayfa 2 'da)

**Güvenlik bilgi formu**  
**23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı, Değerlendirilmesi, İzni Ve Kisitlanması Hakkında Yönetmelik, Madde 27“ hükümlerine uygun düzenlenmiştir**

Baskı tarihi: 08.06.2022

Form No.: 12684-15

Yeniden düzenleme tarihi: 08.06.2022

**Ticari adı: Conductive Silver 187**

(Sayfa 1 'nin devamı)

**Zararlılık İşaretleri**

GHS02 GHS07 GHS09

**Uyarı Kelimesi Tehlike****Etiketlendirme için tehlikeyi belirleyici bileşenler:**

aseton

**Zararlılık İfadesi**

H226 Alevlenir sıvı ve buhar.

H260 Su ile temas ettiğinde kendiliğinden tutuşabilen alevlenir gazlar yayar.

H315 Cilt tahrişine yol açar.

H319 Ciddi göz tahrişine yol açar.

H317 Alerjik cilt reaksiyonlarına yol açabilir.

H336 Rehavete veya baş dönmesine yol açabilir.

H411 Sucul ortamda uzun süre kalıcı, toksik etki.

**Önlem İfadesi**

P210

Isıdan, sıcak yüzeylerden, kıvılcımdan, açık alevden ve diğer tutuşturucu kaynaklardan uzak tutun. Sigara içilmez.

P223

Su ile temasından kaçının.

P303+P361+P353 CİLT [veya saç] ÜZERİNDE İSE: Bütün kirlenmiş giysileri hemen çıkarın. Cildi su ile durulayın [veya duş alın].

P305+P351+P338 GÖZLERDE İSE: birkaç dakika su ile dikkatlice durulayın. Kontakt lens varsa ve kolaysa çıkartın. Durulamaya devam edin.

P405

Kilit altında saklayın.

P501

İçeriği/kabı yerel/bölgesel/ulusal/uluslararası mevzuata uygun şekilde bertaraf edin.

**Ek bilgiler:**

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.

**2.3 Diğer zararlar****PBT ve vPvB değerlendirmesi sonuçları****PBT:** Uygulanamaz.**vPvB:** Uygulanamaz.**Bölüm 3: Bileşimi/İçindekiler hakkında bilgi****3.2 Karışımlar****Tarifi:** Tehlikesiz katkılar ihtiva eden ve aşağıda belirtilen maddelerden oluşan karışım.**İhtiva ettiği tehlikeli maddeler:**

CAS: 67-64-1 EINECS: 200-662-2	aseton ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H336	%>10-≤25
CAS: 98-56-6 EINECS: 202-681-1	4-chloro-alpha,alpha,alpha-trifluorotoluene ⚠ Flam. Liq. 3, H226; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	%>10-≤25
CAS: 100-41-4 EINECS: 202-849-4	etilbenzen ⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H332	%≤2,5

(Devamı sayfa 3 'da)

**Güvenlik bilgi formu**  
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(Sayfa 2 'nin devamı)

· **SVHC**

67-64-1 aseton

· **Ek uyarılar:** belirtilmiş olan tehlike işaretlerinin metnini Bölüm 16'dan alınız**Bölüm 4: İlk yardım önlemleri**· **4.1 İlk yardım önlemlerinin tanıtımı**· **Genel uyarılar:**

Zehirlenme belirtileri birçok saat sonra başgösterebilir. Bu nedenle doktor kontrolü bir kazadan en az 48 saat sonrasına kadar sürdürülmelidir.

· **Teneffüs ettikten sonra:**

Bolca temiz hava alması sağlanarak her ihtimale karşı doktora başvurulmalıdır.

Baygınlık halinde yatırılması ve taşınması sabit yan pozisyonunda olmalıdır.

· **Cilde temas ettikten sonra:** Derhal su ve sabunla yıkayarak iyice durulayınız.· **Gözlere temas ettikten sonra:**

Gözleri, gözkapakları açık bir şekilde birkaç dakika süreyle akan suyun altına tutunuz. Şikâyetlerin devam etmesi halinde doktora başvurunuz.

· **Yuttuktan sonra:** Şikâyetlerin devamı halinde doktora başvurunuz.· **4.2 Akut ve sonradan görülen en önemli belirtiler ve etkiler** Daha başka önemli bilgi mevcut değildir.· **4.3 Acil tıbbi müdahale ve özel tedavi gereği için işaretler** Daha başka önemli bilgi mevcut değildir.**Bölüm 5: Yangınla mücadele önlemleri**· **5.1 Yangın söndürücüler**· **Elverişli söndürücü maddeler:**

CO<sub>2</sub>, söndürme tozu ya da püskürtme su. Daha büyük yangınlarla püskürtme su ve alkole mukavim köpükle mücadele ediniz.

· **Güvenlik açısından elverişli olmayan söndürücü maddeler:** Su· **5.2 Madde veya karışımdan kaynaklanan özel zararlar** Daha başka önemli bilgi mevcut değildir.· **5.3 Yangın söndürme ekipleri için tavsiyeler**· **Özel koruyucu teçhizat:** Nefes koruyucu alet takınız.**Bölüm 6: Kaza sonucu yayılma önlemleri**· **6.1 Kişisel önlemler, koruyucu ekipman ve acil müdahale planı**

Koruyucu teçhizat takınız. Korunmamış şahısları yaklaştırmayınız.

· **6.2 Çevresel önlemler**

Sulara ya da kanalizasyona karışması halinde yetkili resmi makamlara haber veriniz.

Bol suyla sulandırınız.

Kanalizasyona/Yüzeysel suya/Yeraltı suyuna karışmasını önleyiniz.

· **6.3 Kontrol altında tutma ve temizleme için yöntem ve malzemeler**

Sıvı bağlayıcı malzemeyle (Kum, diyatomit, asit bağlayıcı, genel bağlayıcı, un halinde testere talaşı) ile eminiz.

Zararlı madde karışmış malzemeyi çöp olarak madde 13 'e göre tasfiye ediniz.

Yeterli havalandırma sağlayınız.

Su ya da sulu temizlik maddeleriyle yıkamayınız.

· **6.4 Diğer bölümlere atıflar**

Güvenli kullanım ile ilgili bilgileri 7. bölümden alınız.

Kişisel koruyucu teçhizat ile ilgili bilgileri 8. bölümden alınız.

(Devamı sayfa 4 'da)

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Tasfiye ile ilgili bilgileri 13. bölümden alınız.

**Bölüm 7: Elleçleme ve depolama****7.1 Güvenli elleçleme için önlemler**

Çalışılan yerin iyi havalandırılması / havanın iyi emilmesini sağlayınız.  
 Aerosol (bir gazın içinde sis şeklinde dağılmış sıvı) oluşumunu önleyiniz.

**Yangın ve patlamadan korunmak için uyarılar:**

Tutuşturucu cisimlerden uzak tutunuz - sigara içmeyiniz.  
 Aşırı sıcaktan koruyunuz.  
 Elektrostatik dolmaya karşı önlemler alınız.

**7.2 Birlikte bulunmaması gereken maddeleri de içeren güvenli depolama koşulları****Depolama:**

**Depolarda ve kaplarda aranan özellikler:** Belirli şartlar aranmaz.

**Birarada depolama ile ilgili uyarılar:** Gerekli değil.

**Depolama şartları ile ilgili diğer bilgiler:**

Kabı sızdırmayacak şekilde kapalı tutunuz.  
 İyi kapatılmış kaplarda serin ve kuru bir şekilde muhafaza ediniz.  
 Sıcaktan ve güneş ışınlarından koruyunuz.

**7.3 Belirli son kullanımlar** Daha başka önemli bilgi mevcut değildir.**Bölüm 8: Maruz kalma kontrolü/kişisel korunma****8.1 Kontrol parametreleri**

**Teknik tesisatların şekillendirilmesi ile ilgili ek bilgiler:** Başka bilgi yoktur, madde 7 'den bakınız.

**Çalışma yeri ile ilgili, kontrol edilmesi gereken sınır değerleri olan bileşenler:****67-64-1 aseton**

MMSD (TR) Uzun zaman değeri: 1210 mg/m<sup>3</sup>, 500 ppm

IOELV (EU) Uzun zaman değeri: 1210 mg/m<sup>3</sup>, 500 ppm

**100-41-4 etilbenzen**

MMSD (TR) Kısa zaman değeri: 884 mg/m<sup>3</sup>, 200 ppm

Uzun zaman değeri: 442 mg/m<sup>3</sup>, 100 ppm

Deri

IOELV (EU) Kısa zaman değeri: 884 mg/m<sup>3</sup>, 200 ppm

Uzun zaman değeri: 442 mg/m<sup>3</sup>, 100 ppm

Skin

**Ek uyarılar:** Düzenlendiği tarihte geçerli listeler esas alınmıştır.

**8.2 Maruz kalma kontrolü****Kişisel koruyucu teçhizat:****Genel koruyucu ve sıhhi önlemler:**

Gıda maddelerinden, içeceklerden ve yem maddelerinden uzak tutunuz.

Kirlenmiş, sıvı bulaşmış giyim eşyalarını derhal çıkartınız.

Molalardan önce ve mesai sonunda ellerinizi yıkayınız.

Gözlerinize ve cildinize değmesinden kaçınınız.

**Nefes koruyucu önlemler:**

Kısa süreli ya da düşük ölçüde olumsuz tesir altında kalındığında nefes filtre aleti, yoğun bir şekilde ya da uzun süre etkisi altında kalındığında çevredeki havadan bağımsız olan nefes koruyucu cihaz kullanınız.

(Devamı sayfa 5 'da)

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**· Elleri koruyucu:**

Koruyucu eldivenler

Eldiven malzemesi ürün / malzeme / hazırlanan madde ile ilgili olarak geçirmez ve dayanıklı olmalıdır. Testlerin yapılmamış olması nedeni ile ürün / hazırlanmış madde / kimyasal karışım için lâzım olan eldiven imalatında kullanılması gereken malzeme ile ilgili herhangi bir tavsiye yapılamamaktadır. Eldiven imalatı için kullanılan malzemelerin seçiminde delinme sürelerinin, geçirgenlik oranlarının ve bozulmanın göz önüne alınması gereklidir.

**· Eldiven malzemesi**

Uygun eldivenin seçiminde yalnız imalat malzemesi değil, aynı zamanda diğer kalite özellikleri de dikkate alınmalıdır ve bunlar imalatçıdan imalatçıya değişiklik göstermektedir. Her ürün birçok malzemenin birleşiminden meydana geldiği için eldivenlerin dayanıklılığı önceden hesaplanamamaktadır ve dolayısı ile her eldiven kullanılmadan önce kontrole tabi tutulmalıdır.

**· Eldiven malzemesine nüfuz etme süresi**

Kesin delinme (aşınma) süresi eldiven imalatçısından öğrenilmeli ve bu sürelere riayet edilmelidir.

**· Gözleri koruyucu:**

Koruyucu gözlük



Kenarları tam kapatan koruyucu gözlük

**Bölüm 9: Fiziksel ve kimyasal özellikler****· 9.1 Temel fiziksel ve kimyasal özellikler hakkında bilgi****· Genel bilgiler****· Görünüm**

<b>Biçim:</b>	Sıvı
<b>Renk:</b>	Gümüş rengi
<b>Koku:</b>	Karakteristik
<b>Koku eşiği</b>	Belirli değil.

**· pH - değeri:** Belirli değil.**· Durum değişikliği**

<b>Erime noktası/donma noktası</b>	Belirlenmemiştir.
<b>İlk kaynama noktası ve kaynama aralığı</b>	56 °C

**· Parlama noktası** -16 °C**· Alevlenirlik (katt, gaz)** Uygulanamaz.**· Bozunma sıcaklığı** Belirli değil.**· Kendiliğinden tutuşma sıcaklığı** Havada kendiliğinden alevlenir.**· Patlayıcı özellikler** Ürünün patlama tehlikesi yoktur, ancak patlama tehlikesi olan Buhar/Hava karışımlarının oluşması mümkündür.**· Patlama sınırları:****Alt:** Belirli değil.

(Devamı sayfa 6 'da)

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· <b>Üst:</b>	Belirli değil.
· <b>Buhar basıncı 20 °C'de:</b>	245,3 hPa
· <b>Yoğunluk 20 °C'de:</b>	1,618 g/cm <sup>3</sup>
· <b>Bağıl yoğunluk</b>	Belirli değil.
· <b>Buhar yoğunluğu</b>	Belirli değil.
· <b>Buharlaştırma hızı</b>	Belirli değil.
· <b>Çözülme kabiliyeti / karışma kabiliyeti suyla:</b>	Tamamen karıştırılabilir niteliktedir.
· <b>Dağılım katsayısı: n-oktanol/su</b>	Belirli değil.
· <b>Akışkanlık</b>	
· <b>Dinamik 20 °C'de:</b>	25 mPas
· <b>Kinematik:</b>	Belirli değil.
· <b>Çözücü madde oranı:</b>	
· <b>Organik çözücü madde:</b>	%22,8
· <b>VOC (CE)</b>	22,83 %
· <b>Katı madde oranı:</b>	%0,0
· <b>9.2 Diğer bilgiler</b>	Daha başka önemli bilgi mevcut değildir.

**Bölüm 10: Kararlılık ve tepkime**

- **10.1 Tepkime** Daha başka önemli bilgi mevcut değildir.
- **10.2 Kimyasal kararlılık**
- **Termik ayrışma / kaçınılması gereken şartlar:** Usulüne uygun şekilde kullanıldığında ayrışma olmaz.
- **10.3 Zararlı reaksiyon olasılığı** Suyla temas yanıcı gazların çözülmesini sağlar.
- **10.4 Kaçınılması gereken durumlar** Daha başka önemli bilgi mevcut değildir.
- **10.5 Uyumsuz malzemeler** Daha başka önemli bilgi mevcut değildir.
- **10.6 Zararlı bozunma ürünleri** Ayrışmada oluşan tehlikeli ürünler duyulmamıştır.

**Bölüm 11: Toksikolojik bilgiler**

- **11.1 Toksikolojik etkiler hakkında bilgi**
- **Akut toksisite** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Asli tahriş edici etkisi:**
- **Cilt aşınması/tahrişi**  
Cilt tahrişine yol açar.
- **Ciddi göz hasarları/tahrişi**  
Ciddi göz tahrişine yol açar.
- **Solunum yolları veya cilt hassaslaşması**  
Alerjik cilt reaksiyonlarına yol açabilir.
- **Aşağıdaki grupların potansiyel etkilerine dair bilgiler:**
- **CMR-etkileri (kansere üretici, irsiyet değiştirici ve üremeyi tehdit edici etki)**
- **Eşey hücre mutajenitesi** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Kanserojenite** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Üreme sistemi toksisitesi** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.

(Devamı sayfa 7 'da)

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- **BHOT - tek maruz kalma**  
Rehavete veya baş dönmesine yol açabilir.
- **BHOT - tekrarlı maruz kalma** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Aspirasyon zararı** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.

**Bölüm 12: Ekolojik bilgiler**

- **12.1 Toksikite**
- **Su toksisitesi:** Daha başka önemli bilgi mevcut değildir.
- **12.2 Kalıcılık ve bozunabilirlik** Daha başka önemli bilgi mevcut değildir.
- **12.3 Biyobirikim potansiyeli** Daha başka önemli bilgi mevcut değildir.
- **12.4 Toprakta hareketlilik** Daha başka önemli bilgi mevcut değildir.
- **Ökotoksik etkileri:**
- **Not:** Balıklar için zehirli
- **Diğer ekolojik uyarılar:**
- **Genel uyarılar:**  
Suyu tehdit sınıfı 2 (): suyu tehdit edicidir  
Yeraltı suyuna, duran ve akan sulara ve kanalizasyona ulaşmasını önleyiniz.  
Cüzi miktarların bile yeraltına akması halinde içme suyunu tehdit eder.  
Duran ve akan sulara balıklar ve plankton için de zehirlidir.  
Suda yaşayan organizmalar için zehirlidir
- **12.5 PBT ve vPvB değerlendirmesinin sonuçları**
- **PBT:** Uygulanamaz.
- **vPvB:** Uygulanamaz.
- **12.6 Diğer olumsuz etkiler** Daha başka önemli bilgi mevcut değildir.

**Bölüm 13: Bertaraf etme bilgileri**

- **13.1 Atık işleme yöntemleri**
- **Tavsiye:** Ev çöpüyle beraber tasfiye edilmesi yasaktır. Kanalizasyona ulaşmasını önleyiniz.
- **Temizlenmemiş ambalajlar:**
- **Tavsiye:** Tasfiyesi resmi makamların yönetmeliklerine göre yapılır.
- **Tavsiye olunan temizlik maddesi:** Su, gerekirse temizlik maddeleri katmak suretiyle.

**Bölüm 14: Taşımacılık bilgisi**

- |                                         |                                 |
|-----------------------------------------|---------------------------------|
| · <b>14.1 UN Numarası</b>               |                                 |
| · <b>ADR, IMDG, IATA</b>                | UN1263                          |
| · <b>14.2 UN uygun taşımacılık ismi</b> |                                 |
| · <b>ADR</b>                            | 1263 BOYA, ÇEVRE İÇİN TEHLİKELİ |
| · <b>IMDG, IATA</b>                     | PAINT                           |

(Devamı sayfa 8'da)

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(Sayfa 7'nin devamı)

**· 14.3 Taşımacılık zararları****· ADR****· sınıfı**

3 Alevlenebilir sıvılar

**· Tehlike pusulası**

3

**· IMDG, IATA****· Class**

3 Alevlenebilir sıvılar

**· Label**

3

**· 14.4 Ambalaj grubu****· ADR, IMDG, IATA**

II

**· 14.5 Çevresel zararlar****· Etiketleme özel (ADR):**

Sembol (balık ve ağaç)

**· 14.6 Kullanıcılar için özel önlemler****· Tehlike Tanım No. (Kemler (tehlike) sayısı):**

Uyarı: Alevlenebilir sıvılar

33

**· EMS - numarası:**

F-E,S-E

**· Segregation groups**

Liquid halogenated hydrocarbons

**· Stowage Category**

B

**· 14.7 MARPOL 73/78 EK II ve IBC Koduna göre Toplu****Taşımacılık**

Uygulanamaz.

**· Nakliyat/diğer bilgiler:****· ADR****· Sınırlı Miktarlar**

1L

**· İstisnai miktarlar (EQ)**

Kod: E2

İç ambalaj başına maksimum net miktar: 30 ml

Dış ambalaj başına maksimum net miktar: 500 ml

**· Taşıma kategorisi**

2

**· Tünel kısıtlama kodu**

D/E

**· IMDG****· Limited quantities (LQ)**

1L

**· Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

**· UN "Model Düzenleme":**

UN 1263 BOYA, 3, II, ÇEVRE İÇİN TEHLİKELİ

TR

(Devamı sayfa 9'da)



**Güvenlik bilgi formu**  
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(Sayfa 8 'nin devamı)

**Bölüm 15: Mevzuat bilgisi**

- 15.1 Madde veya karışım için güvenlik, sağlık ve çevresel düzenlemeler/mevzuat
- 2012/18/EU sayılı Direktifi
- Adlandırılmış tehlikeli maddeler - EK-1 İçerdiği maddelerin hiçbiri listelenmemiştir.
- Kategori „Seveso“
  - O2
  - E2
  - P5c
- Tehlikeli maddelerin niteleyici miktarı (ton) - alt seviye 100 t
- Tehlikeli maddelerin niteleyici miktarı (ton) - üst seviye 500 t
- 1907/2006/EC sayılı Yönetmelik EK-XVII Conditions of restriction: 3, 40

· Elektrikli ve Elektronik Eşyalarda Bazı Zararlı Maddelerin Kullanımının Sınırlanmasına Dair Yönetmelik (2011/65/EU) - Ek-2

İçerdiği maddelerin hiçbiri listelenmemiştir.

· Yönetmelik (EC) No 273/2004

67-64-1 aseton

3

· Yönetmelik (EC) No 111/2005

67-64-1 aseton

3

· Ulusal hükümler:

· Diğer düzenlemeler, sınırlamalar ve yasaklayıcı düzenlemeler.

· Yüksek Önem Arz Eden Maddeler (SVHC) - REACH, Madde 57

67-64-1 aseton

· 15.2 Kimyasal güvenlik değerlendirmesi: Bir Kimyasal güvenlik değerlendirmesi yapılmamıştır.

**Bölüm 16: Diğer bilgiler**

Veriler bugünkü bilgi durumumuza istinat etmektedir, ancak ürün özellikleri ile ilgili teminat teşkil etmezler ve akdi bir hukuki ilişki tesis etmezler.

· **Önemli terkipleri**

H225 Kolay alevlenir sıvı ve buhar.

H226 Alevlenir sıvı ve buhar.

H302 Yutulması halinde zararlıdır.

H304 Solunum yoluna nüfuzu ve yutulması halinde öldürücüdür.

H315 Cilt tahrişine yol açar.

H319 Ciddi göz tahrişine yol açar.

H332 Solunması halinde zararlıdır.

H336 Rehavete veya baş dönmesine yol açabilir.

H373 Uzun süreli veya tekrarlı maruz kalma sonucu organlarda hasara yol açabilir.

· **Kısaltmalar ve:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

(Devamı sayfa 10 'da)

**Güvenlik bilgi formu**  
**23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı,**  
**Değerlendirilmesi, İzni Ve Kisitlanması Hakkında Yönetmelik,**  
**Madde 27“ hükümlerine uygun düzenlenmiştir**

Baskı tarihi: 08.06.2022

Form No.: 12684-15

Yeniden düzenleme tarihi: 08.06.2022

**Ticari adı: Conductive Silver 187**

(Sayfa 9 'nın devamı)

*PBT: Persistent, Bioaccumulative and Toxic*  
*SVHC: Substances of Very High Concern*  
*vPvB: very Persistent and very Bioaccumulative*  
*Flam. Liq. 2: Alevlenir sıvılar – Kategori 2*  
*Flam. Liq. 3: Alevlenir sıvılar – Kategori 3*  
*Water-react. 1: Su ile temas ettiğinde alevlenir gazlar çıkaran madde ve karışımlar – Kategori 1*  
*Acute Tox. 4: Akut toksisite – Kategori 4*  
*Skin Irrit. 2: Cilt aşınması/tahrişi – Kategori 2*  
*Eye Irrit. 2: Ciddi göz hasarı/göz tahrişi – Kategori 2*  
*Skin Sens. 1: Cilt hassaslaştırıcılığı – Kategori 1*  
*STOT SE 3: Belirli hedef organ toksisitesi (tek maruz kalma) – Kategori 3*  
*STOT RE 2: Belirli hedef organ toksisitesi (tekrarlı maruz kalma) – Kategori 2*  
*Asp. Tox. 1: Aspirasyon zararı – Kategori 1*  
*Aquatic Chronic 2: Sucul ortam için zararlı – uzun süreli (kronik) sucul zararlılık - Kategori 2*

TR