

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/09/2021

Reviewed on 12/09/2021

1 Identification

· **Product identifier**

· **Trade name:** DAVIDSON'S FIXATIVE, MODIFIED

· **Article number:** 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G

· **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

Flam. Liq. 1 H224 Extremely flammable liquid and vapor.



GHS06 Skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 Health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 1A H350 May cause cancer.



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Sens. 1 H317 May cause an allergic skin reaction.

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· **Label elements**

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

· **Hazard pictograms**



· **Signal word** *Danger*

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

formaldehyde

Ethyl alcohol

Acetic Acid Glacial

· **Hazard statements**

Extremely flammable liquid and vapor.

Harmful if swallowed.

Toxic in contact with skin or if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

· **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.

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 dusts or mists.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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 swallowed: Call a poison center/doctor if you feel unwell.

If swallowed: Rinse mouth. Do NOT induce vomiting.

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.

Immediately call a poison center/doctor.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off immediately all contaminated clothing and wash it before reuse.

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

In case of fire: Use CO₂, powder or water spray to extinguish.

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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· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **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:**

50-00-0	formaldehyde	>25-≤50%
64-17-5	Ethyl alcohol	>10-≤25%
64-19-7	Acetic Acid Glacial	>2.5-≤10%
67-56-1	Methyl Alcohol	≤2.5%

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

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

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation:**

Supply fresh air or oxygen; call for 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. Then consult a doctor.

· **After swallowing:**

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a 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:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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:**
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).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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:**

50-00-0	formaldehyde	0.90 ppm
64-17-5	Ethyl alcohol	1,800 ppm
64-19-7	Acetic Acid Glacial	5 ppm
67-56-1	Methyl Alcohol	530 ppm

- **PAC-2:**

50-00-0	formaldehyde	14 ppm
64-17-5	Ethyl alcohol	3300* ppm
64-19-7	Acetic Acid Glacial	35 ppm
67-56-1	Methyl Alcohol	2,100 ppm

- **PAC-3:**

50-00-0	formaldehyde	56 ppm
64-17-5	Ethyl alcohol	15000* ppm
64-19-7	Acetic Acid Glacial	250 ppm
67-56-1	Methyl Alcohol	7200* ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.

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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.

Keep respiratory protective device available.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

· **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:**

50-00-0 formaldehyde

PEL Short-term value: 2 ppm
Long-term value: 0.75 ppm
see 29 CFR 1910.1048(c)

REL Long-term value: 0.016 ppm
Ceiling limit value: 0.1* ppm
*15-min; See Pocket Guide App. A

TLV Short-term value: 0.3 ppm
Long-term value: 0.1 ppm
DSEN; RSEN, AI

64-17-5 Ethyl alcohol

PEL Long-term value: 1900 mg/m³, 1000 ppm

REL Long-term value: 1900 mg/m³, 1000 ppm

TLV Short-term value: 1000 ppm
A3

64-19-7 Acetic Acid Glacial

PEL Long-term value: 25 mg/m³, 10 ppm

REL Short-term value: 37 mg/m³, 15 ppm
Long-term value: 25 mg/m³, 10 ppm

TLV Short-term value: 15 ppm
Long-term value: 10 ppm

67-56-1 Methyl Alcohol

PEL Long-term value: 260 mg/m³, 200 ppm

REL Short-term value: 325 mg/m³, 250 ppm
Long-term value: 260 mg/m³, 200 ppm
Skin

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TLV	Short-term value: 250 ppm Long-term value: 200 ppm Skin; BEI
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· Ingredients with biological limit values:

67-56-1 Methyl Alcohol

BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
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· 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.
Store protective clothing separately.
Avoid contact with the eyes.
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:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Solution

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Color:	Clear
· Odor:	Alcohol-like
· Odor threshold:	Not determined.
· pH-value at 20 °C (68 °F):	2.5
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-21 °C (-5.8 °F)
· Flash point:	17 °C (62.6 °F)
· Flammability (solid, gaseous):	Not flammable.
· Ignition temperature:	300 °C (572 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	3.5 Vol %
Upper:	73 Vol %
· Vapor pressure at 20 °C (68 °F):	59 hPa (44.3 mm Hg)
· Density at 20 °C (68 °F):	0.9501 g/cm ³ (7.92858 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	57.8 %
Water:	42.3 %
VOC content:	57.75 %
	916.6 g/l / 7.65 lb/gal
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** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.

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· **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

50-00-0 formaldehyde

Oral	LD50	>200 mg/kg (rat)
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· **Primary irritant effect:**

· **on the skin:** Strong caustic effect on skin and mucous membranes.

· **on the eye:**

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

· **Sensitization:** Sensitization possible through skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic.

· **Carcinogenic categories**

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

50-00-0	formaldehyde	I
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64-17-5	Ethyl alcohol	I
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· **NTP (National Toxicology Program)**

50-00-0	formaldehyde	K
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· **OSHA-Ca (Occupational Safety Health Administration)**

50-00-0	formaldehyde	
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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.

· **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.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

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

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

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- **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

- | | |
|--|---|
| <ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA | <p style="margin-left: 20px;">UN1170</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG · IATA | <p style="margin-left: 20px;">Ethanol
1170 ETHANOL (ETHYL ALCOHOL)
ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT
ETHANOL</p> |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT | <div style="display: flex; align-items: center; gap: 10px;">  </div> <p style="margin-left: 20px;">3 Flammable liquids</p> |
| <ul style="list-style-type: none"> · Class · Label | <p style="margin-left: 20px;">3, 8</p> |
| <ul style="list-style-type: none"> · ADR | <div style="display: flex; align-items: center; gap: 10px;">  </div> <p style="margin-left: 20px;">3 Flammable liquids</p> |
| <ul style="list-style-type: none"> · Class · Label | <p style="margin-left: 20px;">3+8</p> |
| <ul style="list-style-type: none"> · IMDG | <div style="display: flex; align-items: center; gap: 10px;">  </div> <p style="margin-left: 20px;">3 Flammable liquids</p> |
| <ul style="list-style-type: none"> · Class | <p style="margin-left: 20px;">3 Flammable liquids</p> |

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· Label	3/8
· IATA	
	
· Class	3 Flammable liquids
· Label	3 (8)
· Packing group	
· DOT, ADR, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special precautions for user	Warning: Flammable liquids
· Hazard identification number (Kemler code):	368
· EMS Number:	F-E,S-C
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· Segregation Code	SG5 Segregation as for class 3 SG8 Stow "away from" class 4.1
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: Forbidden On cargo aircraft only: 2.5 L
· ADR	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1170 ETHANOL (ETHYL ALCOHOL), 3 (8), II

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

50-00-0 formaldehyde

· Section 313 (Specific toxic chemical listings):

50-00-0 formaldehyde

67-56-1 Methyl Alcohol

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

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· Hazardous Air Pollutants

50-00-0 formaldehyde

67-56-1 Methyl Alcohol

· Proposition 65
· Chemicals known to cause cancer:

50-00-0 formaldehyde

· 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:

64-17-5 Ethyl alcohol

67-56-1 Methyl Alcohol

· Carcinogenic categories
· EPA (Environmental Protection Agency)

50-00-0 formaldehyde

B1

· TLV (Threshold Limit Value)

50-00-0 formaldehyde

A2

64-17-5 Ethyl alcohol

A3

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

50-00-0 formaldehyde

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

· Hazard pictograms


GHS02 GHS05 GHS06 GHS07 GHS08

· Signal word *Danger*
· Hazard-determining components of labeling:
*formaldehyde**Ethyl alcohol**Acetic Acid Glacial*
· Hazard statements
*Extremely flammable liquid and vapor.**Harmful if swallowed.**Toxic in contact with skin or if inhaled.**Causes severe skin burns and eye damage.**May cause an allergic skin reaction.**Suspected of causing genetic defects.**May cause cancer.*
· 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.**Ground/bond container and receiving equipment.**Use explosion-proof electrical/ventilating/lighting/equipment.*

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Reviewed on 12/09/2021

Trade name: DAVIDSON'S FIXATIVE, MODIFIED

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Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Do not breathe dusts or mists.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 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 swallowed: Call a poison center/doctor if you feel unwell.
 If swallowed: Rinse mouth. Do NOT induce vomiting.
 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.
 Immediately call a poison center/doctor.
 IF exposed or concerned: Get medical advice/attention.
 Specific treatment (see on this label).
 Take off immediately all contaminated clothing and wash it before reuse.
 If skin irritation or rash occurs: Get medical advice/attention.
 In case of fire: Use CO₂, powder or water spray to extinguish.
 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.

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
 Exceptions can be made by the authorities in certain cases.

· **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** 12/09/2021 / -

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

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*REL: Recommended Exposure Limit**BEI: Biological Exposure Limit**Flam. Liq. 1: Flammable liquids – Category 1**Acute Tox. 4: Acute toxicity – Category 4**Acute Tox. 3: Acute toxicity – Category 3**Skin Corr. 1B: Skin corrosion/irritation – Category 1B**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Skin Sens. 1: Skin sensitisation – Category 1**Muta. 2: Germ cell mutagenicity – Category 2**Carc. 1A: Carcinogenicity – Category 1A*

US

Safety Data Sheet

according to WHS Regulations

Printing date 09.12.2021

Revision: 09.12.2021

1 Identification

- **Product identifier**
- **Trade name:** DAVIDSON'S FIXATIVE, MODIFIED
- **Article number:** 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G
- **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
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
- 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
- **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. 1 H224 Extremely flammable liquid and vapour.



GHS06 skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 1A H350 May cause cancer.

(Contd. on page 2)

Safety Data Sheet according to WHS Regulations

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Trade name: **DAVIDSON'S FIXATIVE, MODIFIED**

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GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Sens. 1 H317 May cause an allergic skin reaction.

· **Label elements**

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

· **Hazard pictograms**



GHS02



GHS05



GHS06



GHS07



GHS08

· **Signal word** Danger

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

formaldehyde

Ethyl alcohol

Acetic Acid Glacial

· **Hazard statements**

Extremely flammable liquid and vapour.

Harmful if swallowed.

Toxic in contact with skin.

Toxic if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

· **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.

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 dusts or mists.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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 SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

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- 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.*
- Immediately call a POISON CENTER/doctor.*
- IF exposed or concerned: Get medical advice/attention.*
- Specific treatment (see on this label).*
- Take off immediately all contaminated clothing and wash it before reuse.*
- If skin irritation or rash occurs: Get medical advice/attention.*
- In case of fire: Use CO₂, powder or water spray for extinction.*
- 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:**

50-00-0	formaldehyde	>25-≤50%
64-17-5	Ethyl alcohol	>10-≤25%
64-19-7	Acetic Acid Glacial	>2.5-≤10%
67-56-1	Methyl Alcohol	≤2.5%

- **SVHC**

64-17-5	Ethyl alcohol
67-56-1	Methyl Alcohol

- **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:**
 - Immediately remove any clothing soiled by the product.*
 - Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.*
 - Remove breathing equipment only after contaminated clothing have been completely removed.*
 - In case of irregular breathing or respiratory arrest provide artificial respiration.*
- **After inhalation:**
 - Supply fresh air or oxygen; call for 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. Then consult a doctor.*
- **After swallowing:**
 - Call for a doctor immediately.*
 - Drink plenty of water and provide fresh air. Call for a doctor immediately.*

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- **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:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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:**
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).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **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.

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· **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:**

50-00-0 formaldehyde

WES	Short-term value: 2.5 mg/m ³ , 2 ppm
	Long-term value: 1.2 mg/m ³ , 1 ppm
	Sen

64-17-5 Ethyl alcohol

WES	Long-term value: 1880 mg/m ³ , 1000 ppm
-----	--

64-19-7 Acetic Acid Glacial

WES	Short-term value: 37 mg/m ³ , 15 ppm
	Long-term value: 25 mg/m ³ , 10 ppm

67-56-1 Methyl Alcohol

WES	Short-term value: 328 mg/m ³ , 250 ppm
	Long-term value: 262 mg/m ³ , 200 ppm
	Sk

· **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.

Store protective clothing separately.

Avoid contact with the eyes.

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.

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· **Eye protection:**

Tightly sealed goggles

9 Physical and Chemical Properties

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

· Form:	Solution
· Colour:	Clear
· Odour:	Alcohol-like
· Odour threshold:	Not determined.

· **pH-value at 20 °C:** 2.5· **Change in condition**

· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	-21 °C

· **Flash point:** 17 °C· **Flammability (solid, gas):** Not applicable.· **Ignition temperature:** 300 °C· **Decomposition temperature:** Not determined.· **Auto-ignition temperature:** Product is not selfigniting.· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.· **Explosion limits:**

· Lower:	3.5 Vol %
· Upper:	73 Vol %

· **Vapour pressure at 20 °C:** 59 hPa

· Density at 20 °C:	0.9501 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.· **Partition coefficient: n-octanol/water:** Not determined.· **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· **Solvent content:**

· Organic solvents:	57.8 %
· Water:	42.3 %
· VOC (EC)	57.75 %

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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** No dangerous reactions known.
- **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**

· **LD/LC50 values relevant for classification:**

50-00-0 formaldehyde

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**
- **Skin corrosion/irritation** Strong caustic effect on skin and mucous membranes.
- **Serious eye damage/irritation**
Strong caustic effect.
Strong irritant with the danger of severe eye injury.
- **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:
Toxic
Harmful
Corrosive
Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Carcinogenic.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Muta. 2, Carc. 1A

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.

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- **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.
 Must not reach sewage water or drainage ditch undiluted or unneutralised.
 Danger to drinking water if even small quantities leak into the ground.*
- **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

- | | |
|--|--|
| <ul style="list-style-type: none"> · UN-Number · ADG, IMDG, IATA | <p style="margin: 0;">UNI170</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · ADG · IMDG · IATA | <p style="margin: 0;">1170 ETHANOL (ETHYL ALCOHOL)
 ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT
 ETHANOL</p> |
| <ul style="list-style-type: none"> · Transport hazard class(es) · ADG | <div style="display: flex; align-items: center; gap: 10px;"> </div> <p style="margin: 10px 0 0 0;">· Class 3 Flammable liquids.
 · Label 3+8</p> |
| <ul style="list-style-type: none"> · IMDG | <div style="display: flex; align-items: center; gap: 10px;"> </div> <p style="margin: 10px 0 0 0;">· Class 3 Flammable liquids.
 · Label 3/8</p> |

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· **IATA**

· **Class** 3 Flammable liquids.
 · **Label** 3 (8)

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

· **Environmental hazards:**
 · **Marine pollutant:** Symbol (fish and tree)

· **Special precautions for user** Warning: Flammable liquids.
 · **Hazard identification number (Kemler code):** 368
 · **EMS Number:** F-E,S-C
 · **Stowage Category** E
 · **Stowage Code** SW2 Clear of living quarters.
 · **Segregation Code** SG5 Segregation as for class 3
 SG8 Stow "away from" class 4.1

· **Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **ADG**
 · **Limited quantities (LQ)** 0
 · **Excepted quantities (EQ)** Code: E0
 Not permitted as Excepted Quantity
 · **Transport category** 1
 · **Tunnel restriction code** C/E

· **IMDG**
 · **Limited quantities (LQ)** 0
 · **Excepted quantities (EQ)** Code: E0
 Not permitted as Excepted Quantity

· **UN "Model Regulation":** UN 1170 ETHANOL (ETHYL ALCOHOL), 3 (8), II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **Australian Inventory of Industrial Chemicals**

All ingredients are listed.

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

50-00-0	formaldehyde	S2, S6, S10
64-19-7	Acetic Acid Glacial	S2, S5, S6
67-56-1	Methyl Alcohol	S5, S6

· **Australia: Priority Existing Chemicals**

50-00-0 formaldehyde

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

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· **Hazard pictograms**



· **Signal word** *Danger*

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

formaldehyde

Ethyl alcohol

Acetic Acid Glacial

· **Hazard statements**

Extremely flammable liquid and vapour.

Harmful if swallowed.

Toxic in contact with skin.

Toxic if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

· **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.

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 dusts or mists.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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 SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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.

Immediately call a POISON CENTER/doctor.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off immediately all contaminated clothing and wash it before reuse.

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

In case of fire: Use CO₂, powder or water spray for extinction.

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.*

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- **Seveso category**
P5a FLAMMABLE LIQUIDS
H2 ACUTE TOXIC
 - **Qualifying quantity (tonnes) for the application of lower-tier requirements** 10 t
 - **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50 t
 - **National regulations:**
 - **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
Exceptions can be made by the authorities in certain cases.
 - **Other regulations, limitations and prohibitive regulations**
- | | |
|--|----------------|
| · Substances of very high concern (SVHC) according to REACH, Article 57 | |
| 64-17-5 | Ethyl alcohol |
| 67-56-1 | Methyl Alcohol |
- **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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 1: Flammable liquids – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Muta. 2: Germ cell mutagenicity – Category 2
Carc. 1A: Carcinogenicity – Category 1A

AU

Safety Data Sheet

according to HPR, Schedule 1

Printing date 12/09/2021

Reviewed on 12/09/2021

1 Identification

· **Product identifier**

· **Trade name:** DAVIDSON'S FIXATIVE, MODIFIED

· **Article number:** 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G

· **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 1

H224 Extremely flammable liquid and vapour.



GHS06 Skull and crossbones

Acute Toxicity (Dermal) – Category 3 H311 Toxic in contact with skin.

Acute Toxicity (Inhalation) - Category 3 H331 Toxic if inhaled.



GHS08 Health hazard

Germ Cell Mutagenicity - Category 2 H341 Suspected of causing genetic defects.

Carcinogenicity - Category 1A H350 May cause cancer.



GHS05 Corrosion

Skin Corrosion - Category 1B

H314 Causes severe skin burns and eye damage.

Serious Eye Damage - Category 1

H318 Causes serious eye damage.



GHS07

Acute Toxicity (Oral) - Category 4

H302 Harmful if swallowed.

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

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according to HPR, Schedule 1

Printing date 12/09/2021

Reviewed on 12/09/2021

Trade name: DAVIDSON'S FIXATIVE, MODIFIED

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· **Label elements**

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

· **Hazard pictograms**



· **Signal word** *Danger*

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

formaldehyde

Ethyl alcohol

Acetic Acid Glacial

· **Hazard statements**

Extremely flammable liquid and vapour.

Harmful if swallowed.

Toxic in contact with skin or if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

· **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.

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.

Do not eat, drink or smoke when using this product.

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 swallowed: Call a poison center/doctor if you feel unwell.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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.

Immediately call a poison center/doctor.

IF exposed or concerned: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Specific measures (see on this label).

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

Wash contaminated clothing before reuse.

In case of fire: Use CO₂, powder or water spray to extinguish.

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: **DAVIDSON'S FIXATIVE, MODIFIED**

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



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

HEALTH	2	Health = 2
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

3 Composition/Information on ingredients

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

- **Dangerous components:**

50-00-0	formaldehyde	15-40% w/w *
64-17-5	Ethyl alcohol	10-30% w/w *
64-19-7	Acetic Acid Glacial	3-7% w/w *
67-56-1	Methyl Alcohol	0.1-1% w/w *

* Actual concentration ranges are withheld as a trade secret.

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for 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. Then consult a doctor.
- **After swallowing:**
Immediately call a doctor.
Drink copious amounts of water and provide fresh air. Immediately call a 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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according to HPR, Schedule 1

Printing date 12/09/2021

Reviewed on 12/09/2021

Trade name: DAVIDSON'S FIXATIVE, MODIFIED

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5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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:**
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).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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.
Open and handle receptacle with care.
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.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **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.

CA

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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:**

50-00-0 formaldehyde

EL	STEL: 0.3 ppm TWA: 0.1 ppm ACGIH A1; IARC 1; S(D), S(R)
EV	STEL: 1.0 ppm
Ceiling	1.5 ppm

64-17-5 Ethyl alcohol

EL	STEL: 1000 ppm
EV	TWA: 1,900 mg/m ³ , 1,000 ppm

64-19-7 Acetic Acid Glacial

EL	STEL: 15 ppm TWA: 10 ppm
EV	STEL: 37 mg/m ³ , 15 ppm TWA: 25 mg/m ³ , 10 ppm

67-56-1 Methyl Alcohol

EL	STEL: 250 ppm TWA: 200 ppm Skin
EV	STEL: 325 mg/m ³ , 250 ppm TWA: 260 mg/m ³ , 200 ppm Skin

· **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.
- Store protective clothing separately.
- Avoid contact with the eyes.
- 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

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- **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:**



Tightly sealed goggles

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: Solution

Color: Clear

- **Odor:** Alcohol-like

- **Odor threshold:** Not determined.

- **pH-value at 20 °C:** 2.5

- **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: -21 °C

- **Flash point:** 17 °C

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

- **Ignition temperature:** 300 °C

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

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

- **Explosion limits:**

Lower: 3.5 Vol %

Upper: 73 Vol %

- **Vapor pressure at 20 °C:** 59 hPa

- **Density at 20 °C:** 0.9501 g/cm³

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

Water: Fully miscible.

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

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· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	57.8 %
Water:	42.3 %
· 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** No dangerous reactions known.
- **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:**

· **LD/LC50 values that are relevant for classification:**

50-00-0 formaldehyde

Oral LD50 >200 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:**
Strong caustic effect.
Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic.

· **Carcinogenic categories**

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

50-00-0 formaldehyde

I

64-17-5 Ethyl alcohol

I

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· **NTP (National Toxicology Program)**

50-00-0 formaldehyde

K



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.
- **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.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even small quantities leak into the ground.
- **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/TDG, ADR, IMDG, IATA** UN1170
 - **UN proper shipping name**
 - **DOT/TDG** Ethanol
 - **ADR** 1170 ETHANOL (ETHYL ALCOHOL)
 - **IMDG** ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT
 - **IATA** ETHANOL
 - **Transport hazard class(es)**
 - **DOT/TDG (Transport dangerous goods):**
- 

- **Class** 3 Flammable liquids

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Trade name: **DAVIDSON'S FIXATIVE, MODIFIED**

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· **Label** 3, 8

· **ADR**



· **Class** 3 Flammable liquids
 · **Label** 3+8

· **IMDG**



· **Class** 3 Flammable liquids
 · **Label** 3/8

· **IATA**



· **Class** 3 Flammable liquids
 · **Label** 3 (8)

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

· **Environmental hazards:**
 · **Marine pollutant:** Symbol (fish and tree)

· **Special precautions for user** Warning: Flammable liquids
 · **Hazard identification number (Kemler code):** 368
 · **EMS Number:** F-E,S-C
 · **Stowage Category** E
 · **Stowage Code** SW2 Clear of living quarters.
 · **Segregation Code** SG5 Segregation as for class 3
 SG8 Stow "away from" class 4.1

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **DOT/TDG**
 · **Quantity limitations** On passenger aircraft/rail: Forbidden
 On cargo aircraft only: 2.5 L

· **ADR**
 · **Excepted quantities (EQ)** Code: E0
 Not permitted as Excepted Quantity

· **IMDG**
 · **Limited quantities (LQ)** 0
 · **Excepted quantities (EQ)** Code: E0
 Not permitted as Excepted Quantity

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UN "Model Regulation":	UN 1170 ETHANOL (ETHYL ALCOHOL), 3 (8), II
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15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

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

50-00-0	formaldehyde
---------	--------------

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

50-00-0	formaldehyde
---------	--------------

67-56-1	Methyl Alcohol
---------	----------------

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

All components have the value ACTIVE.	
---------------------------------------	--

· Canadian substance listings:	
---------------------------------------	--

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

All ingredients are listed.	
-----------------------------	--

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

None of the ingredients is listed.	
------------------------------------	--

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

50-00-0	formaldehyde
---------	--------------

64-17-5	Ethyl alcohol
---------	---------------

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

64-19-7	Acetic Acid Glacial
---------	---------------------

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



GHS02 GHS05 GHS06 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

formaldehyde

Ethyl alcohol

Acetic Acid Glacial

· Hazard statements

Extremely flammable liquid and vapour.
--

Harmful if swallowed.

Toxic in contact with skin or if inhaled.

Causes severe skin burns and eye damage.
--

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

· Precautionary statements

Obtain special instructions before use.

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

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Trade name: DAVIDSON'S FIXATIVE, MODIFIED

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Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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.

Do not eat, drink or smoke when using this product.

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 swallowed: Call a poison center/doctor if you feel unwell.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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.

Immediately call a poison center/doctor.

IF exposed or concerned: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Specific measures (see on this label).

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

Wash contaminated clothing before reuse.

In case of fire: Use CO₂, powder or water spray to extinguish.

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.

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

· **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** 12/09/2021 / -

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

Printing date 09.12.2021

Revision: 09.12.2021

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

· **1.1 Product identifier**

· **Trade name:** DAVIDSON'S FIXATIVE, MODIFIED

· **Article number:** 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G

· **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. 1 H224 Extremely flammable liquid and vapour.



skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 1B H350 May cause cancer.



corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



Acute Tox. 4 H302 Harmful if swallowed.

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Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02 GHS05 GHS06 GHS08

Signal word Danger

Hazard-determining components of labelling:

formaldehyde

Acetic Acid Glacial

Hazard statements

H224 Extremely flammable liquid and vapour.

H302 Harmful if swallowed.

H311+H331 Toxic in contact with skin or if inhaled.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H335 May cause respiratory irritation.

Precautionary statements

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.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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: 50-00-0	formaldehyde	>25-≤50%
EINECS: 200-001-8	Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; Carc. 1B, H350; Skin Corr. 1B, H314; Skin Sens. 1, H317	

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CAS: 64-17-5 EINECS: 200-578-6	Ethyl alcohol Flam. Liq. 2, H225	>10-≤25%
CAS: 64-19-7 EINECS: 200-580-7	Acetic Acid Glacial Flam. Liq. 3, H226; Skin Corr. 1A, H314; Acute Tox. 4, H312	>2.5-≤10%
CAS: 67-56-1 EINECS: 200-659-6	Methyl Alcohol Flam. Liq. 2, H225; STOT SE 1, H370; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2.5%

· **SVHC**

64-17-5	Ethyl alcohol
67-56-1	Methyl Alcohol

· **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:**

Immediately remove any clothing soiled by the product.

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

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation:**

Supply fresh air or oxygen; call for 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. Then consult a doctor.· **After swallowing:**

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

· **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:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.· **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:**

Dilute with plenty of water.

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

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- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **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:**

50-00-0 formaldehyde

WEL	Short-term value: 2.5 mg/m ³ , 2 ppm
	Long-term value: 2.5 mg/m ³ , 2 ppm
	Carc

64-17-5 Ethyl alcohol

WEL	Long-term value: 1920 mg/m ³ , 1000 ppm
-----	--

64-19-7 Acetic Acid Glacial

WEL	Short-term value: 50 mg/m ³ , 20 ppm
	Long-term value: 25 mg/m ³ , 10 ppm

67-56-1 Methyl Alcohol

WEL	Short-term value: 333 mg/m ³ , 250 ppm
	Long-term value: 266 mg/m ³ , 200 ppm
	Sk

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· **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.

Store protective clothing separately.

Avoid contact with the eyes.

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:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Solution

Colour: Clear

· **Odour:** Alcohol-like

· **Odour threshold:** Not determined.

· **pH-value at 20 °C:** 2.5

· **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: -21 °C

· **Flash point:** 17 °C

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· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	300 °C
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	3.5 Vol %
Upper:	73 Vol %
· Vapour pressure at 20 °C:	59 hPa
· Density at 20 °C:	0.9501 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	57.8 %
Water:	42.3 %
VOC (EC)	57.75 %
Solids content:	0.0 %
· 9.2 Other information	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** No dangerous reactions known.
- **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**
- Harmful if swallowed.
- Toxic in contact with skin or if inhaled.

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GB

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Trade name: DAVIDSON'S FIXATIVE, MODIFIED

(Contd. of page 6)

· LD/LC50 values relevant for classification:		
50-00-0 formaldehyde		
Oral	LD50	>200 mg/kg (rat)

- **Primary irritant effect:**

- **Skin corrosion/irritation**

Causes severe skin burns and eye damage.

- **Serious eye damage/irritation**

Causes serious eye damage.

- **Respiratory or skin sensitisation**

May cause an allergic skin reaction.

- **Additional toxicological information:**

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

- **Germ cell mutagenicity**

Suspected of causing genetic defects.

- **Carcinogenicity**

May cause cancer.

- **Reproductive toxicity** Based on available data, the classification criteria are not met.

- **STOT-single exposure**

May cause respiratory irritation.

- **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.

- **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.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

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

- **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.

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· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

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

UN1170

· **14.2 UN proper shipping name**

· **ADR**
· **IMDG**
· **IATA**

1170 ETHANOL (ETHYL ALCOHOL)
ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT
ETHANOL

· **14.3 Transport hazard class(es)**· **ADR**

· **Class**
· **Label**

3 Flammable liquids.
3+8

· **IMDG**

· **Class**
· **Label**

3 Flammable liquids.
3/8

· **IATA**

· **Class**
· **Label**

3 Flammable liquids.
3 (8)

· **14.4 Packing group**· **ADR, IMDG, IATA**

II

· **14.5 Environmental hazards:**· **Marine pollutant:**

Symbol (fish and tree)

· **14.6 Special precautions for user**

Warning: Flammable liquids.

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

368

· **EMS Number:**

F-E,S-C

· **Stowage Category**

E

· **Stowage Code**

SW2 Clear of living quarters.

· **Segregation Code**

SG5 Segregation as for class 3

SG8 Stow "away from" class 4.1

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

Not applicable.

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· **Transport/Additional information:**· **ADR**

- **Limited quantities (LQ)** 0
- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity
- **Transport category** 1
- **Tunnel restriction code** C/E

· **IMDG**

- **Limited quantities (LQ)** 0
- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity

- **UN "Model Regulation":** UN 1170 ETHANOL (ETHYL ALCOHOL), 3 (8), II

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**
P5a FLAMMABLE LIQUIDS
H2 ACUTE TOXIC
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 10 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50 t

· **National regulations:**· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
Exceptions can be made by the authorities in certain cases.

· **Other regulations, limitations and prohibitive regulations**· **Substances of very high concern (SVHC) according to REACH, Article 57**

64-17-5	Ethyl alcohol
67-56-1	Methyl Alcohol

- **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.

· **Relevant phrases**

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.

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*H331 Toxic if inhaled.**H332 Harmful if inhaled.**H341 Suspected of causing genetic defects.**H350 May cause cancer.**H370 Causes damage to organs.***· 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)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 1: Flammable liquids – Category 1**Flam. Liq. 2: Flammable liquids – Category 2**Flam. Liq. 3: Flammable liquids – Category 3**Acute Tox. 3: Acute toxicity – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Skin Corr. 1A: Skin corrosion/irritation – Category 1A**Skin Corr. 1B: Skin corrosion/irritation – Category 1B**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Skin Sens. 1: Skin sensitisation – Category 1**Muta. 2: Germ cell mutagenicity – Category 2**Carc. 1B: Carcinogenicity – Category 1B**STOT SE 1: Specific target organ toxicity (single exposure) – Category 1**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2021.12.09

在 2021.12.09 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: **DAVIDSON'S FIXATIVE, MODIFIED**
- 商品编号: 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G
- 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:

纯净的, 溶液, 极端易燃液体和蒸气。吞咽有害。皮肤接触或吸入可致中毒。造成严重皮肤灼伤和眼损伤。可能导致皮肤过敏反应。怀疑会导致遗传性缺陷。可能致癌。

· GHS危险性类别



火焰

易燃液体 第1类

H224 极端易燃液体和蒸气



骷髅和交叉骨

急性毒性(经皮肤) 第3类

H311 皮肤接触会中毒

急性毒性(吸入) 第3类

H331 吸入会中毒



健康危害

生殖细胞致突变性 第2类

H341 怀疑会导致遗传性缺陷

致癌性 第1B类

H350 可能致癌



腐蚀

皮肤腐蚀/刺激 第1B类

H314 造成严重皮肤灼伤和眼损伤

严重眼睛损伤/眼睛刺激性 第1类 H318 造成严重眼损伤



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急性毒性(经口) 第4类 H302 吞咽有害
敏化(皮肤) 第1类 H317 可能导致皮肤过敏反应

· 标签要素

· **GHS卷标要素** 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。

· 象形图



GHS02 GHS05 GHS06 GHS08

· 警示词 危险

· 标签上辨别危险的成份:

福尔马林溶液 (>25-≤50 %)

醋酸溶液 (>2.5-≤10 %)

· 危险性说明

极端易燃液体和蒸气

吞咽有害

皮肤接触或吸入可致中毒

造成严重皮肤灼伤和眼损伤

可能导致皮肤过敏反应

怀疑会导致遗传性缺陷

可能致癌

· 防范说明

· 应急措施

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

立即呼叫急救中心/医生

具体治疗(见本标签上的)

立即脱掉所有沾染的衣服,清洗后方可重新使用

· 贮存

存放处须加锁

· 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:

50-00-0	福尔马林溶液 formaldehyde	>25-≤50%
	<p>⚠ 急性毒性(经口) 第3类, H301; 急性毒性(经皮肤) 第3类, H311; 急性毒性(吸入) 第3类, H331; ⚠ 生殖细胞致突变性 第2类, H341; 致癌性 第1B类, H350;</p> <p>⚠ 皮肤腐蚀/刺激 第1B类, H314; ⚠ 敏化(皮肤) 第1类, H317; 易燃液体 第4类, H227</p>	

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64-17-5	无水酒精 Ethyl alcohol ⚠ 易燃液体 第2类, H225	>10-≤25%
64-19-7	醋酸溶液 Acetic Acid Glacial ⚠ 易燃液体 第3类, H226; ⚠ 皮肤腐蚀/刺激 第1A类, H314; ⚠ 急性毒性(经皮肤) 第4类, H312; 急性毒性(经口) 第5类, H303	>2.5-≤10%
67-56-1	木精 Methyl Alcohol ⚠ 易燃液体 第2类, H225; ⚠ 特定靶器官系统毒性(单次接触) 第1类, H370; ⚠ 急性毒性(经口) 第4类, H302; 急性毒性(经皮肤) 第4类, H312; 急性毒性(吸入) 第4类, H332	≤2.5%

4 急救措施

· 应急措施要领

· 总说明:

马上脱下染有该产品的衣服。

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。

只在彻底地脱去了已被污染的衣服之后才能移走呼吸仪器。

万一出现了不规则的呼吸或呼吸的阻碍,请为病人提供人工呼吸。

· 吸入:

供给新鲜空气或氧气;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。然后咨询医生。

· 食入:

马上召唤医生。

喝大量的清水和提供新鲜的空气。马上召唤医生。

· 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 (CO₂)、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。

· **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:

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)。

使用中和剂。

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根据第 13 条条款弃置受污染物。

确保有足够的通风装置。

· 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。

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。

小心打开及处理贮藏器。

防止气溶胶的形成。

· 有关火灾及防止爆炸的资料:

远离火源 - 切勿吸烟。

防热。

防静电。

提供呼吸保护装置。

· 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: 储存在阴凉的位置。

· 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

50-00-0 福尔马林溶液

OEL (CN) 最高容许浓度: 0.5 mg/m³
敏, G1

PEL (TW) PC-TWA: 1.2 mg/m³, 1 ppm

64-17-5 无水酒精

PEL (TW) PC-TWA: 1880 mg/m³, 1000 ppm

64-19-7 醋酸溶液

OEL (CN) PC-STEL: 20 mg/m³
PC-TWA: 10 mg/m³

PEL (TW) PC-TWA: 25 mg/m³, 10 ppm

67-56-1 木精

OEL (CN) PC-STEL: 50 mg/m³
PC-TWA: 25 mg/m³
皮

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PEL (TW) | PC-TWA: 262 mg/m³, 200 ppm

· **额外的资料:** 制作期间有效的清单将作为基础来使用.

· **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.

分开储存保护性衣服.

避免和眼睛接触.

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, 渗透率和降解参数

· **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:**



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:** 溶液

· **颜色:** 纯净的

· **气味:** 类似酒精

· **嗅觉阈限** 未决定.

· **pH值 在 20 °C:** 2.5

· **条件的更改**

· **熔点:** 未确定的

· **沸点/初沸点和沸程:** -21 °C

· **闪点:** 17 °C

· **可燃性 (固体、气体):** 不适用的

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· 点火温度:	300 °C
· 分解温度:	未决定.
· 自燃温度:	该产品是不自燃的
· 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
· 爆炸极限:	
较低:	3.5 Vol %
较高:	73 Vol %
· 蒸气压 在 20 °C:	59 hPa
· 密度 在 20 °C:	0.9501 g/cm ³
· 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:	未决定.
运动学的:	未决定.
· 溶剂成份:	
有机溶剂:	57.8 %
水:	42.3 %
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 未有已知的危险反应.
- 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:

· 与分类相关的 LD/ LC50 值:

50-00-0 福尔马林溶液

口腔 LD50 >200 mg/kg (rat)

- 主要的刺激性影响:

· 皮肤: 在皮肤和粘膜上造成强烈的腐蚀性影响.

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CN

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2021.12.09

在 2021.12.09 审核

化学品中文(英文)名称, 化学品俗名或商品名 : DAVIDSON'S FIXATIVE, MODIFIED

(在 6 页继续)

- **在眼睛上面:**
强烈的腐蚀性影响。
强烈的刺激性和造成严重伤害眼睛的危险。
- **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:
毒性的
有害的
腐蚀性的
刺激性的
吞咽该产品除了导致口部和喉咙出现强烈的腐蚀性现象之外, 还有对食道和胃部造成穿孔的危险。
致癌的。
- **对以下组别可能产生影响的数据:**
- **CMR作用 (致癌、导致基因突变、对生殖系统有害)**
生殖细胞致突变性 第2类, 致癌性 第1B类

12 生态学信息

- **生态毒性**
- **水生毒性:** 无相关详细资料。
- **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。
- **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。
不要让未被稀释或未被中和的产品接触下水道或排水沟渠。
即使是少量的产品渗入地下也会对饮用水造成危险。
- **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)**
- **ADR, IMDG, IATA** UN1170

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· UN适当装船名

· ADR

1170 乙醇

· IMDG

ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT

· IATA

ETHANOL

· 运输危险等级

· ADR



· 级别

3 易燃液体

· 标签

3+8

· IMDG



· Class

3 易燃液体

· Label

3/8

· IATA



· Class

3 易燃液体

· Label

3 (8)

· 包装组别

· ADR, IMDG, IATA

II

· 环境危害

· 海运污染物:

象征符号 (鱼和树)

· 用户特别预防措施

警告: 易燃液体

· 危险编码:

368

· EMS 号码:

F-E,S-C

· Stowage Category

E

· Stowage Code

SW2 Clear of living quarters.

· Segregation Code

SG5 Segregation as for class 3

SG8 Stow "away from" class 4.1

· MARPOL73/78(针对船舶引起的海洋污染预防协议)

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: E0

Not permitted as Excepted Quantity

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· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "标准规定":	UN 1170 乙醇, 3 (8), II

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
- 危险化学品安全管理条例

· 危险化学品目录

50-00-0	福尔马林溶液
64-17-5	无水酒精
64-19-7	醋酸溶液
67-56-1	木精

- 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

列出所有成分

- 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。

· 象形图



GHS02 GHS05 GHS06 GHS08

- 警示词 危险

· 标签上辨别危险的成份:

福尔马林溶液 (>25-≤50 %)

醋酸溶液 (>2.5-≤10 %)

· 危险性说明

极端易燃液体和蒸气

吞咽有害

皮肤接触或吸入可致中毒

造成严重皮肤灼伤和眼损伤

可能导致皮肤过敏反应

怀疑会导致遗传性缺陷

可能致癌

· 防范说明

· 应急措施

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

立即呼叫急救中心/医生

具体治疗(见本标签上的)

立即脱掉所有沾染的衣服,清洗后方可重新使用

· 贮存

存放处须加锁

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· **处置**

处置内装物/容器按照地方/区域/国家/国际规章

· **国家的规章:**

· **有关使用限制的资料:** 禁止员工接触在配制中含有致癌的物料. 在某些情况中由当局作出例外的决定.

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: 持久性生物累积性有毒物质

vPvB: very Persistent and very Bioaccumulative

易燃液体 第1类: Flammable liquids – Category 1

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

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

易燃液体 第4类: Flammable liquids – Category 4

急性毒性(经口) 第3类: Acute toxicity – Category 3

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

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

皮肤腐蚀/刺激 第1A类: Skin corrosion/irritation – Category 1A

皮肤腐蚀/刺激 第1B类: Skin corrosion/irritation – Category 1B

严重眼睛损伤/眼睛刺激性 第1类: Serious eye damage/eye irritation – Category 1

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

生殖细胞致突变性 第2类: Germ cell mutagenicity – Category 2

致癌性 第1B类: Carcinogenicity – Category 1B

特定靶器官系统毒性 (单次接触) 第1类: Specific target organ toxicity (single exposure) – Category 1

Sikkerhedsdatablad

ifølge 1907/2006/EF, Artikel 31

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PUNKT 1: Identifikation af stoffet/blandingen og af selskabet/virksomheden

- **1.1 Produktidentifikator**
- **Handelsnavn:** DAVIDSON'S FIXATIVE, MODIFIED
- **Artikelnummer:** 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G
- **UFI:** EX01-F0HQ-Y00P-W1DD
- **1.2 Relevante identificerede anvendelser for stoffet eller blandingen samt anvendelser, der frarådes**
Der står ingen yderligere, relevante informationer til rådighed.
- **Stoffets/præparatets anvendelse** Laboratoriekemikalier
- **1.3 Nærmere oplysninger om leverandøren af sikkerhedsdatabladet**
- **Producent/leverandør**
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
- **For yderligere information:** Product safety department
- **1.4 Nødtelefon:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

PUNKT 2: Fareidentifikation

- **2.1 Klassificering af stoffet eller blandingen**
- **Klassificering i henhold til forordning (EF) nr. 1272/2008**



GHS02 flamme

Flam. Liq. 1 H224 Yderst brandfarlig væske og damp.



GHS06 dødningshoved og korslagte knogler

Acute Tox. 3 H311 Giftig ved hudkontakt.

Acute Tox. 3 H331 Giftig ved indånding.



GHS08 sundhedsfarer

Muta. 2 H341 Mistænkt for at forårsage genetiske defekter.

Carc. 1B H350 Kan fremkalde kræft.



GHS05 ætsning

Skin Corr. 1B H314 Forårsager svære ætsninger af huden og øjenskader.

Eye Dam. 1 H318 Forårsager alvorlig øjenskade.



GHS07

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Acute Tox. 4 H302 Farlig ved indtagelse.
 Skin Sens. 1 H317 Kan forårsage allergisk hudreaktion.
 STOT SE 3 H335 Kan forårsage irritation af luftvejene.

2.2 Mærkningselementer

- **Mærkning i henhold til forordning (EF) nr. 1272/2008**
 Dette produkt er klassificeret og mærket iht. CLP-forordningen.
- **Farepiktogrammer**



GHS02 GHS05 GHS06 GHS08

Signalord Fare

Farebestemmende komponent(er) til etikettering:

formaldehyd
 eddikesyre

Faresætninger

- H224 Yderst brandfarlig væske og damp.
 H302 Farlig ved indtagelse.
 H311+H331 Giftig ved hudkontakt eller indånding.
 H314 Forårsager svære ætsninger af huden og øjenskader.
 H317 Kan forårsage allergisk hudreaktion.
 H341 Mistænkt for at forårsage genetiske defekter.
 H350 Kan fremkalde kræft.
 H335 Kan forårsage irritation af luftvejene.

Sikkerhedssætninger

- P303+P361+P353 VED KONTAKT MED HUDEN (eller håret): Tilsudset tøj tages straks af/fjernes. Skyl [eller brus] huden med vand.
 P305+P351+P338 VED KONTAKT MED ØJNENE: Skyl forsigtigt med vand i flere minutter. Fjern eventuelle kontaktlinser, hvis dette kan gøres let. Fortsæt skylning.
 P310 Ring omgående til en GIFTINFORMATION/læge.
 P321 Særlig behandling (se på denne etiket).
 P361+P364 Alt tilsudset tøj tages straks af og vaskes inden genanvendelse.
 P405 Opbevares under lås.
 P501 Bortskaffelse af indholdet/beholderen i henhold til de lokale/regionale/nationale/internationale forskrifter.

2.3 Andre farer

Resultater af PBT- og vPvB-vurdering

- **PBT:** Ikke relevant.
- **vPvB:** Ikke relevant.

PUNKT 3: Sammensætning af/oplysning om indholdsstoffer

3.2 Kemisk betegnelse: Blandinger

- **Beskrivelse:** Blanding med nedenstående stoffer med ufarlige tilsætningsstoffer.

Farlige indholdsstoffer:

CAS: 50-00-0	formaldehyd	>25-≤50%
EINECS: 200-001-8		

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		(Fortsat fra side 2)
CAS: 64-17-5 EINECS: 200-578-6	ethanol ☠ Flam. Liq. 2, H225	>10-≤25%
CAS: 64-19-7 EINECS: 200-580-7	eddikesyre ☠ Flam. Liq. 3, H226; ☠ Skin Corr. 1A, H314; ☠ Acute Tox. 4, H312	>2,5-≤10%
CAS: 67-56-1 EINECS: 200-659-6	methanol ☠ Flam. Liq. 2, H225; ☠ STOT SE 1, H370; ☠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%

· SVHC

64-17-5	ethanol
67-56-1	methanol

· **Yderligere anvisninger:** Teksten til de anførte farehenvvisninger fremgår af kapitel 16.

PUNKT 4: Førstehjælpsforanstaltninger

· **4.1 Beskrivelse af førstehjælpsforanstaltninger**· **Generelle anvisninger:**

Tøj, der er forurenet med produktet, skal tages af med det samme.

Forgiftningssymptomer kan optræde med mange timers forsinkelse, derfor skal lægeovervågningen være mindst 48 timer efter et uheld.

Åndedrætsværnet må først tages af, efter at det forurenede tøj er blevet fjernet.

I tilfælde af uregelmæssigt åndedræt eller hvis åndedrættet ophører, skal der gives kunstigt åndedræt.

· **Efter indånding:**

Tilførsel af frisk luft eller ilt. Søg lægehjælp.

I tilfælde af bevidstløshed skal den tilskadekomne lægges ned og transporteres i stabilt sideleje.

· **Efter hudkontakt:** Skal omgående vaskes af med vand og sæbe, skyl godt efter.· **Efter øjenkontakt:** Skyl øjnene med åbent øjenlåg i flere minutter under rindende vand og søg læge.· **Efter indtagelse:**

Søg læge.

Drik rigeligt vand og sørg for frisk luft. Tilkald omgående læge.

· **4.2 Vigtigste symptomer og virkninger, både akutte og forsinkede**

Der står ingen yderligere, relevante informationer til rådighed.

· **4.3 Angivelse af om øjeblikkelig lægehjælp og særlig behandling er nødvendig**

Der står ingen yderligere, relevante informationer til rådighed.

PUNKT 5: Brandbekæmpelse

· **5.1 Slukningsmidler**· **Egnede slukningsmidler:**CO₂, slukningspulver eller vandspraystråle. Større brande bekæmpes med vandspraystråle eller alkoholbestandigt skum.· **5.2 Særlige farer i forbindelse med stoffet eller blandingen**

Der står ingen yderligere, relevante informationer til rådighed.

· **5.3 Anvisninger for brandmandskab**· **Særlige værnemidler:** Bær åndedrætsværn.

PUNKT 6: Forholdsregler over for udslip ved uheld

· **6.1 Personlige sikkerhedsforanstaltninger, personlige værnemidler og nødprocedurer**

Bær beskyttelsesudstyr. Hold ubeskyttede personer borte.

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- **6.2 Miljøbeskyttelsesforanstaltninger:**
Fortynd med rigeligt vand.
Må ikke udledes i kloaksystemet/overfladevand/grundvand.
- **6.3 Metoder og udstyr til inddæmning og oprensning:**
Opsamles med væskebindende materiale (sand, kiselgur, syrebindemiddel, universalbindemiddel, savsmuld).
Brug neutraliseringsmiddel.
Kontamineret materiale skal bortskaffes som affald ifølge punkt 13.
Sørg for tilstrækkelig udluftning.
- **6.4 Henvisning til andre punkter**
Information om sikker håndtering se kapitel 7.
Informationer vedrørende personlige værnemidler se kapitel 8.
Informationer om bortskaffelse se kapitel 13.

PUNKT 7: Håndtering og opbevaring

- **7.1 Forholdsregler for sikker håndtering**
Sørg for god udluftning/udsugning på arbejdspladsen.
Beholdere skal åbnes og håndteres med forsigtighed.
Undgå aerosoldannelse.
- **Anvisninger vedrørende brand- og eksplosionsbeskyttelse:**
Hold antændelige kilder borte – ingen rygning.
Beskyttes mod varme.
Træf forholdsregler mod elektrostatiske opladninger.
Hold åndedrætsværn i beredskab.
- **7.2 Betingelser for sikker opbevaring, herunder eventuel uforenelighed**
- **Opbevaring:**
- **Krav til opbevaringsrum og beholdere:** Opbevares på et køligt sted.
- **Henvisninger vedrørende opbevaring med andre stoffer:** Ikke påkrævet.
- **Yderligere oplysninger vedrørende opbevaringsbetingelserne:**
Hold beholderen tætsluttende lukket.
Opbevares køligt og tørt i tætsluttende beholdere.
Beskyttes mod varme og direkte sollys.
- **7.3 Særlige anvendelser** Der står ingen yderligere, relevante informationer til rådighed.

PUNKT 8: Eksponeringskontrol/personlige værnemidler

- **8.1 Kontrolparametre**
- **Yderligere anvisninger vedrørende udformning af tekniske anlæg:** Ingen yderligere oplysninger, se punkt 7.

· **Indholdsstoffer med arbejdspladsrelaterede grænseværdier, der skal overvåges:**

50-00-0 formaldehyd	
GV	Loftværdi: 0,4 mg/m ³ , 0,3 ppm
LK	
64-17-5 ethanol	
GV	Langtidsværdi: 1900 mg/m ³ , 1000 ppm
64-19-7 eddikesyre	
GV	Langtidsværdi: 25 mg/m ³ , 10 ppm
E	

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67-56-1 methanol

GV Langtidsværdi: 260 mg/m³, 200 ppm
EH

· **Yderligere anvisninger:** Baseret på de lister, der var gældende på tidspunktet for udarbejdelsen.

· 8.2 Eksponeringskontrol

· Personlige værnemidler:

· Generelle forholdsregler vedrørende beskyttelse og hygiejne:

- Skal holdes borte fra føde- og drikkevarer og foderstoffer.
- Forurenet, gennemvædet tøj skal det tages af med det samme.
- Vask hænder inden der holdes pause og ved arbejdsophør.
- Adskilt opbevaring af beskyttelsesklædning.
- Undgå kontakt med øjnene.
- Undgå kontakt med øjne og hud.

· Åndedrætsværn:

Ved kortvarig eller ringe belastning skal der benyttes åndedrætsværn med filter, ved intensiv eller længere eksponering skal der benyttes luftforsynet åndedrætsværn.

· Håndbeskyttelse:



Beskyttelseshandsker

Handskematerialet skal være uigennemtrængeligt og kunne tåle produktet/stoffet/præparatet.

På grund af manglende tests kan der ikke anbefales noget handskemateriale til produktet/præparatet/kemikalieblandingen.

Ved valg af handskematerialet skal der tages højde for gennemtrængningstider, permeabilitetstal og nedbrydning.

· Handskemateriale:

Valg af en egnet handske afhænger ikke blot af materialet, men også af yderligere kvalitetskriterier og er forskelligt fra den ene fabrikant til den anden. Da produktet er et præparat af flere forskellige stoffer, kan handskematerialernes bestandighed ikke beregnes på forhånd og skal derfor efterprøves inden brugen.

· Handskematerialets gennemtrængningstid

Hos handskefabrikanten skal man forespørge om den nøjagtige gennemtrængningstid og overholde denne.

· Øjenbeskyttelse:



Tætsluttende beskyttelsesbriller

PUNKT 9: Fysiske og kemiske egenskaber

· 9.1 Oplysninger om grundlæggende fysiske og kemiske egenskaber

· Generelle oplysninger

· Udseende:

Form:	Opløsning
Farve:	Klar
· Lugt:	Alkoholagtig
· Lugttærskel:	Ikke bestemt.

· pH-værdi ved 20 °C: 2,5

· Tilstandsændring

Smeltepunkt/frysepunkt: Ikke bestemt.

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Begyndelseskogepunkt og kogepunktsinterval: -21 °C	
· Flammepunkt:	17 °C
· Antændelighed (fast stof, luftart):	Ikke relevant.
· Antændelsepunkt:	300 °C
· Dekomponeringstemperatur:	Ikke bestemt.
· Selvantændelsestemperatur:	Produktet er ikke selvantændeligt.
· Eksplorative egenskaber:	Produktet er ikke eksplosivt, der kan dog dannes eksplosive damp-/luftblandinger.
· Eksplisionsgrænser:	
Nedre:	3,5 Vol %
Øvre:	73 Vol %
· Damptryk ved 20 °C:	59 hPa
· Densitet ved 20 °C:	0,9501 g/cm ³
· Relativ massefylde:	Ikke bestemt.
· Dampmassefylde:	Ikke bestemt.
· Fordampningshastighed	Ikke bestemt.
· Opløselighed i/blandbarhed med vand:	Fuldt blandbar.
· Fordelelingskoefficient: n-oktanol/vand:	Ikke bestemt.
· Viskositet:	
dynamisk:	Ikke bestemt.
kinematisk:	Ikke bestemt.
· Opløsningsmiddelindhold:	
Organiske opløsningsmidler:	57,8 %
Vand	42,3 %
VOC (EU)	57,75 %
· Tørstofindhold:	0,0 %
· 9.2 Andre oplysninger	Der står ingen yderligere, relevante informationer til rådighed.

PUNKT 10: Stabilitet og reaktivitet

- **10.1 Reaktivitet** Der står ingen yderligere, relevante informationer til rådighed.
- **10.2 Kemisk stabilitet**
- **Termisk nedbrydning/forhold, der bør undgås** Ingen nedbrydning ved formålsbestemt brug.
- **10.3 Risiko for farlige reaktioner** Der er ikke kendskab til nogen farlige reaktioner.
- **10.4 Forhold, der skal undgås** Der står ingen yderligere, relevante informationer til rådighed.
- **10.5 Materialer, der skal undgås:** Der står ingen yderligere, relevante informationer til rådighed.
- **10.6 Farlige nedbrydningsprodukter:** Der er ikke kendskab til nogen farlige nedbrydningsprodukter.

PUNKT 11: Toksikologiske oplysninger

- **11.1 Oplysninger om toksikologiske virkninger**
- **Akut toksicitet**
Farlig ved indtagelse.

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Giftig ved hudkontakt eller indånding.

· **Klassificeringsrelevante LD/LC50-værdier:**

50-00-0 formaldehyd

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

· **Primær irritationsvirkning:**

· **Hudætsning/irritation**

Forårsager svære ætsninger af huden og øjenskader.

· **Alvorlig øjenskade/øjenirritation**

Forårsager alvorlig øjenskade.

· **Respiratorisk sensibilisering eller hudsensibilisering**

Kan forårsage allergisk hudreaktion.

· **Yderligere toksikologiske oplysninger:**

· **CMR-virkninger (kræftfremkaldende egenskaber, mutagenicitet og reproduktionstoksicitet)**

· **Kimcellemutagenicitet**

Mistænkt for at forårsage genetiske defekter.

· **Kræftfremkaldende egenskaber**

Kan fremkalde kræft.

· **Reproduktionstoksicitet**

Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.

· **Enkel STOT-eksponering**

Kan forårsage irritation af luftvejene.

· **Gentagne STOT-eksponeringer**

Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.

· **Aspirationsfare**

Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.

PUNKT 12: Miljøoplysninger

· **12.1 Toksicitet**

· **Toksicitet i vand:** Der står ingen yderligere, relevante informationer til rådighed.

· **12.2 Persistens og nedbrydelighed** Der står ingen yderligere, relevante informationer til rådighed.

· **12.3 Bioakkumuleringspotentiale** Der står ingen yderligere, relevante informationer til rådighed.

· **12.4 Mobilitet i jord** Der står ingen yderligere, relevante informationer til rådighed.

· **Yderligere økologiske oplysninger:**

· **Generelle anvisninger:**

Fareklasse for vand 2 (Selvklassificering): vandforurenende

Må ikke udledes i grundvandet, vandløb eller kloaksystemet.

Må ikke udledes ufortyndet eller unneutraliseret i spildevandet eller recipienten.

Risiko for forurening af drikkevandet allerede ved udslip af små mængder i undergrunden.

· **12.5 Resultater af PBT- og vPvB-vurdering**

· **PBT:** Ikke relevant.

· **vPvB:** Ikke relevant.

· **12.6 Andre negative virkninger** Der står ingen yderligere, relevante informationer til rådighed.

PUNKT 13: Bortskaffelse

· **13.1 Metoder til affaldsbehandling**

· **Anbefaling:** Må ikke bortskaffes sammen med husholdningsaffald. Må ikke udledes i kloaksystemet.

· **Urensede emballager:**

· **Anbefaling:** Bortskaffes i overensstemmelse med myndighedernes forskrifter.

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· **Anbefalet rengøringsmiddel:** Vand, eventuelt tilsat rengøringsmidler.

PUNKT 14: Transportoplysninger

· 14.1 UN-nummer
· ADR, IMDG, IATA

UN1170

· 14.2 UN-forsendelsesbetegnelse (UN proper shipping name)

· ADR
· IMDG
· IATA

1170 ETHANOL (ETHYLALKOHOL)
ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT
ETHANOL

· 14.3 Transportfareklasse(r)

· ADR



· klasse
· Faremærkat

3 Brandfarlige væsker
3+8

· IMDG



· Class
· Label

3 Brandfarlige væsker
3/8

· IATA



· Class
· Label

3 Brandfarlige væsker
3 (8)

· 14.4 Emballagegruppe

· ADR, IMDG, IATA

II

· 14.5 Miljøfarer:

· Marine pollutant:

Symbol (fisk og træ)

· 14.6 Særlige forsigtighedsregler for brugeren

· Farenummer (Kemler-tal):

· EMS-nummer:

· Stowage Category

· Stowage Code

· Segregation Code

Advarsel: Brandfarlige væsker
368
F-E,S-C
E
SW2 Clear of living quarters.
SG5 Segregation as for class 3
SG8 Stow "away from" class 4.1

· 14.7 Bulktransport i henhold til bilag II til MARPOL og IBC-koden

Ikke relevant.

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· **Transport/yderligere oplysninger:**· **ADR**· **Begrænsede mængder (LQ)**

0

· **Undtagne mængder (EQ)**

Kode: E0

Ikke tilladt som undtagen mængde

· **Transportkategori**

1

· **Tunnelrestriktionskode**

C/E

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

0

· **Excepted quantities (EQ)**

Code: E0

Not permitted as Excepted Quantity

· **UN "Model Regulation":**

UN 1170 ETHANOL (ETHYLALKOHOL), 3 (8), II

PUNKT 15: Oplysninger om regulering· **15.1 Særlige bestemmelser/særlig lovgivning for stoffet eller blandingen med hensyn til sikkerhed, sundhed og miljø**· **Direktiv 2012/18/EU**· **Navngivne farlige stoffer - BILAG I** Ingen af indholdsstofferne er optaget i listen.· **Seveso-bestemmelser**

P5a BRANDFARLIGE VÆSKER

H2 AKUT TOKSISK

· **Tærskelmængde (tons) for anvendelse af Kolonne 2-krav 10 t**· **Tærskelmængde (tons) for anvendelse af Kolonne 3-krav 50 t**· **Forordning (EF) nr. 1907/2006 BILAG XVII** Begrænsninger: 3, 28, 72· **Direktiv 2011/65/EU om begrænsning af anvendelsen af visse farlige stoffer i elektrisk og elektronisk udstyr - Bilag II**

Ingen af indholdsstofferne er optaget i listen.

· **FORORDNING (EU) 2019/1148**· **Bilag I - UD GANGSSTOFFER TIL EKSPLOSIVSTOFFER UNDERLAGT BEGRÆNSNINGER (Øvre grænseværdi med henblik på licens i henhold til artikel 5, stk. 3)**

Ingen af indholdsstofferne er optaget i listen.

· **Bilag II - INDBERETNINGSPLIGTIGE UD GANGSSTOFFER TIL EKSPLOSIVSTOFFER**

Ingen af indholdsstofferne er optaget i listen.

· **Forordning (EF) nr. 273/2004 om narkotikaprækursorer**

Ingen af indholdsstofferne er optaget i listen.

· **Forordning (EF) Nr. 111/2005 om regler for overvågning af handel med narkotikaprækursorer mellem Fællesskabet og tredjelande**

Ingen af indholdsstofferne er optaget i listen.

· **Nationale forskrifter:**· **Oplysninger vedrørende beskæftigelsesbegrænsning:**

Arbejdstagere må ikke udsættes for de kræftfremkaldende farestoffer som dette præparat indeholder. I enkelte tilfælde kan myndighederne bevillige undtagelser.

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· **Øvrige forskrifter, restriktioner og forbudsforordninger**

· **Særligt problematiske stoffer (SVHC) ifølge REACH, artikel 57**

64-17-5	ethanol
67-56-1	methanol

· **MAL-Code:** 5-6

· **15.2 Kemikaliesikkerhedsvurdering:** Der er ikke udført kemikaliesikkerhedsvurdering.

PUNKT 16: Andre oplysninger

Alle ovenstående angivelser er baseret på vores aktuelle viden, udgør dog ikke nogen tilsikring af produkt egenskaber og stifter heller ikke noget kontraktligt retsforhold.

· **Risikoangivelser**

H225 Meget brandfarlig væske og damp.

H226 Brandfarlig væske og damp.

H301 Giftig ved indtagelse.

H302 Farlig ved indtagelse.

H311 Giftig ved hudkontakt.

H312 Farlig ved hudkontakt.

H314 Forårsager svære ætsninger af huden og øjenskader.

H317 Kan forårsage allergisk hudreaktion.

H331 Giftig ved indånding.

H332 Farlig ved indånding.

H341 Mistænkt for at forårsage genetiske defekter.

H350 Kan fremkalde kræft.

H370 Forårsager organskader.

· **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)

Måleteknisk Arbejdshygiejnisk Luftbehov

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Brandfarlige væsker – Kategori 1

Flam. Liq. 2: Brandfarlige væsker – Kategori 2

Flam. Liq. 3: Brandfarlige væsker – Kategori 3

Acute Tox. 3: Akut toksicitet – Kategori 3

Acute Tox. 4: Akut toksicitet – Kategori 4

Skin Corr. 1A: Hudætsning/hudirritation – Kategori 1A

Skin Corr. 1B: Hudætsning/hudirritation – Kategori 1B

Eye Dam. 1: Alvorlige øjenskader/øjenirritation – Kategori 1

Skin Sens. 1: Hudsensibilisering – Kategori 1

Muta. 2: Kimcellemutagenicitet – Kategori 2

Carc. 1B: Carcinogenicitet – Kategori 1B

STOT SE 1: Specifik målorgantoksicitet (enkelt eksponering) – Kategori 1

STOT SE 3: Specifik målorgantoksicitet (enkelt eksponering) – Kategori 3

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

· 1.1 Productidentificatie

· **Handelsnaam:** DAVIDSON'S FIXATIVE, MODIFIED

· **Artikelnummer:** 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G

· **UFI:** EX01-F0HQ-Y00P-W1DD

· 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 verstreker 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. 1 H224 Zeer licht ontvlambare vloeistof en damp.



GHS06 doodshoofd met gekruiste beenderen

Acute Tox. 3 H311 Giftig bij contact met de huid.

Acute Tox. 3 H331 Giftig bij inademing.



GHS08 gezondheidsgevaar

Muta. 2 H341 Verdacht van het veroorzaken van genetische schade.

Carc. 1B H350 Kan kanker veroorzaken.

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GHS05 corrosie

Skin Corr. 1B H314 Veroorzaakt ernstige brandwonden en oogletsel.

Eye Dam. 1 H318 Veroorzaakt ernstig oogletsel.



GHS07

Acute Tox. 4 H302 Schadelijk bij inslikken.

Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.

STOT SE 3 H335 Kan irritatie van de luchtwegen veroorzaken.

· 2.2 Etiketteringselementen

· Etikettering overeenkomstig Verordening (EG) nr. 1272/2008

Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

· Gevarenpictogrammen



GHS02



GHS05



GHS06



GHS08

· Signaalwoord Gevaar

· Gevaaraanduidende componenten voor de etikettering:

formaldehyde

azijnzuur

· Gevarenaanduidingen

H224 Zeer licht ontvlambare vloeistof en damp.

H302 Schadelijk bij inslikken.

H311+H331 Giftig bij contact met de huid en bij inademing.

H314 Veroorzaakt ernstige brandwonden en oogletsel.

H317 Kan een allergische huidreactie veroorzaken.

H341 Verdacht van het veroorzaken van genetische schade.

H350 Kan kanker veroorzaken.

H335 Kan irritatie van de luchtwegen veroorzaken.

· Veiligheidsaanbevelingen

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.

P310 Onmiddellijk een ANTIGIFCENTRUM/arts raadplegen.

P321 Specifieke behandeling vereist (zie op dit etiket).

P361+P364 Verontreinigde kleding onmiddellijk uittrekken en wassen alvorens deze opnieuw te gebruiken.

P405 Achter slot bewaren.

P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

· 2.3 Andere gevaren

· Resultaten van PBT- en zPzB-beoordeling

- PBT: Niet bruikbaar.

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· **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: 50-00-0 EINECS: 200-001-8	formaldehyde ☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ☠ Muta. 2, H341; Carc. 1B, H350; ☠ Skin Corr. 1B, H314; ☠ Skin Sens. 1, H317	>25-≤50%
CAS: 64-17-5 EINECS: 200-578-6	ethanol ☠ Flam. Liq. 2, H225	>10-≤25%
CAS: 64-19-7 EINECS: 200-580-7	azijnzuur ☠ Flam. Liq. 3, H226; ☠ Skin Corr. 1A, H314; ☠ Acute Tox. 4, H312	>2,5-≤10%
CAS: 67-56-1 EINECS: 200-659-6	methanol ☠ Flam. Liq. 2, H225; ☠ STOT SE 1, H370; ☠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%

- **SVHC**

64-17-5	ethanol
67-56-1	methanol

- **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:**
 - Verontreinigde kleding onmiddellijk uittrekken.
 - Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.
 - Ademhalingstoestel pas afnemen nadat de verontreinigde kleding verwijderd is.
 - Bij onregelmatige ademhaling of ademstilstand kunstmatige ademhaling toepassen.
- **Na het inademen:**
 - Verse lucht of zuurstof toedienen; deskundige medische hulp inroepen.
 - Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
- **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.
- **Na oogcontact:** Ogen met open ooglid een aantal minuten onder stromend water afspoelen en dokter raadplegen.
- **Na inslikken:**
 - Onmiddellijk arts raadplegen.
 - Drink zeer veel water en voer verse lucht aan. Onmiddellijk een dokter waarschuwen.
- **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.

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RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:**
CO₂, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.
- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweerlieden**
- **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:**
Met veel water verdunnen.
Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 Insluitings- en reinigingsmethoden en -materiaal:**
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.
Neutralisatiemiddel gebruiken.
Besmet materiaal zoals afval volgens punt 13 verwijderen.
Voor voldoende ventilatie zorgen.
- **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.
Tanks voorzichtig openen en behandelen.
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.
Ademhalingstoestellen gereedhouden.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Op een koele plaats bewaren.
- **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.

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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:**

50-00-0 formaldehyde

WGW	Korte termijn waarde: 0,5 mg/m ³ , 0,4 ppm Lange termijn waarde: 0,15 mg/m ³ , 0,1 ppm
-----	---

64-17-5 ethanol

WGW	Korte termijn waarde: 1900 mg/m ³ , 990 ppm Lange termijn waarde: 260 mg/m ³ , 35 ppm
-----	--

64-19-7 azijnzuur

WGW	Korte termijn waarde: 50 mg/m ³ , 20 ppm Lange termijn waarde: 25 mg/m ³ , 10 ppm
-----	--

67-56-1 methanol

WGW	Lange termijn waarde: 133 mg/m ³ , 100 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.
Beschermende kleding afzonderlijk bewaren.
Aanraking met de ogen vermijden.
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.

- **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.

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· Oogbescherming:



Nauw aansluitende veiligheidsbril

RUBRIEK 9: Fysische en chemische eigenschappen

· 9.1 Informatie over fysische en chemische basiseigenschappen

· Algemene gegevens

· Voorkomen:

Vorm: Oplossing

Kleur: Helder

· Geur: Alcoholachtig

· Geurdrempelwaarde: Niet bepaald.

· pH-waarde bij 20 °C: 2,5

· Toestandsverandering

Smelt-/vriespunt: Niet bepaald.

Beginkookpunt en kooktraject: -21 °C

· Vlampunt: 17 °C

· Ontvlambaarheid (vast, gas): Niet bruikbaar.

· Ontstekingstemperatuur: 300 °C

· Ontledingstemperatuur: Niet bepaald.

· Zelfontbrandingstemperatuur: Het produkt ontbrandt niet uit zichzelf.

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

· Ontploffingsgrenzen:

Onderste: 3,5 Vol %

Bovenste: 73 Vol %

· Dampspanning bij 20 °C: 59 hPa

· Dichtheid bij 20 °C: 0,9501 g/cm³

· Relatieve dichtheid: Niet bepaald.

· Dampdichtheid: Niet bepaald.

· Verdampingsnelheid: Niet bepaald.

· Oplosbaarheid in/mengbaarheid met

Water: Volledig mengbaar.

· Verdelingscoëfficiënt: n-octanol/water: Niet bepaald.

· Viscositeit

Dynamisch: Niet bepaald.

Kinematisch: Niet bepaald.

· Oplosmiddelgehalte:

Organisch oplosmiddel: 57,8 %

Water: 42,3 %

VOC (EG) 57,75 %

(Vervolg op blz. 7)

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Gehalte aan vaste bestanddelen: 0,0 %

· 9.2 Overige informatie 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** Geen gevaarlijke reacties bekend.
- **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**
Schadelijk bij inslikken.
Giftig bij contact met de huid en bij inademing.
- **Indelingsrelevantie LD/LC50-waarden:**
- **50-00-0 formaldehyde**
- **Oraal LD50** >200 mg/kg (rat)
- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**
Veroorzaakt ernstige brandwonden en oogletsel.
- **Ernstig oogletsel/oogirritatie**
Veroorzaakt ernstig oogletsel.
- **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**
Verdacht van het veroorzaken van genetische schade.
- **Kankerverwekkendheid**
Kan kanker veroorzaken.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling**
Kan irritatie van de luchtwegen veroorzaken.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **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.

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- **Verdere ecologische informatie:**
- **Algemene informatie:**
Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioacumulerend vermogen/ toxiciteit of persistentie)
Gevaar voor water klasse 2 (D) (Zelfclassificatie): gevaar voor water
Niet lozen in grondwater, in oppervlaktewater of in riolering.
Mag niet onverdond of niet geneutraliseerd in oppervlaktewater of in afwateringskanaal geloosd worden.
Gevaar voor drinkwater zelfs bij uitlopen van geringe hoeveelheden in de ondergrond.
- **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** UN1170
- **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**
- **ADR** 1170 ETHANOL (ETHYLALCOHOL)
- **IMDG** ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT
- **IATA** ETHANOL
- **14.3 Transportgevaarenklasse(n)**
- **ADR**
- 
- **klasse** 3 Brandbare vloeistoffen
- **Etiket** 3+8
- **IMDG**
- 
- **Class** 3 Brandbare vloeistoffen

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· Label	3/8
· IATA	
	
· Class	3 Brandbare vloeistoffen
· Label	3 (8)
· 14.4 Verpakkingsgroep:	
· ADR, IMDG, IATA	II
· 14.5 Milieugevaren:	
· Marine pollutant:	Symbool (vis en boom)
· 14.6 Bijzondere voorzorgen voor de gebruiker	Waarschuwing: Brandbare vloeistoffen
· Gevaarsidentificatienummer (Kemler-getal):	368
· EMS-nummer:	F-E,S-C
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· Segregation Code	SG5 Segregation as for class 3 SG8 Stow "away from" class 4.1
· 14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code	Niet bruikbaar.
· Transport/verdere gegevens:	
· ADR	
· Beperkte hoeveelheden (LQ)	0
· Uitgezonderde hoeveelheden (EQ)	Code: E0 Niet toegestaan als vrijgestelde hoeveelheid
· Vervoerscategorie	1
· Tunnelbeperkingscode	C/E
· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· VN "Model Regulation":	UN 1170 ETHANOL (ETHYLALCOHOL), 3 (8), II

RUBRIEK 15: Regelgeving

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

· SZW-lijst van kankerverwekkende stoffen	
50-00-0	formaldehyde
64-17-5	ethanol
· SZW-lijst van mutagene stoffen	
geen der bestanddelen staat op de lijst.	
· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid	
64-17-5	ethanol
	IA

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-NL

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· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling	
64-17-5	ethanol
	IA

· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding	
64-17-5	ethanol
	x

· Lijst Zeer Zorgwekkende Stoffen (ZZS)	
50-00-0	formaldehyde

· Lijst van Potentieel Zeer Zorgwekkende Stoffen	
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**

- P5a ONTVLAMBARE VLOEISTOFFEN

- H2 ACUUT TOXISCH

- **Drempelwaarde (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen 10 t**

- **Drempelwaarde (ton) voor toepassing van voorschriften voor hogedrempelinrichtingen 50 t**

- **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 3, 28, 72

· Richtlijn 2011/65/EU betreffende beperking van het gebruik van bepaalde gevaarlijke stoffen in elektrische en elektronische apparatuur - Bijlage II	
geen der bestanddelen staat op de lijst.	

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

· Bijlage I - PRECURSOREN VOOR EXPLOSIEVEN WAARVOOR EEN BEPERKING GELDT (Bovengrenswaarde ten behoeve van vergunningverlening op grond van artikel 5, lid 3)	
geen der bestanddelen staat op de lijst.	

· Bijlage II - PRECURSOREN VOOR EXPLOSIEVEN DIE MOETEN WORDEN GEMELD	
geen der bestanddelen staat op de lijst.	

· Verordening (EG) nr. 273/2004 inzake drugsprecursoren	
geen der bestanddelen staat op de lijst.	

· Verordening (EG) Nr. 111/2005 houdende voorschriften voor het toezicht op de handel tussen de Gemeenschap en derde landen in drugsprecursoren	
geen der bestanddelen staat op de lijst.	

- **Nationale voorschriften:**

- **Aanwijzingen m.b.t. tewerkstellingsbeperking:**

- Werknemers mogen aan de kankerverwekkende gevaarlijke stoffen van deze toebereiding niet blootgesteld worden. In uitzonderingsgevallen kan de overheid speciale vergunningen afgeven.

- **Gevaarklasse v. water:**

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

- **Aanvullende voorschriften, beperkingen en verbodsverordeningen**

· Zeer zorgwekkende stoffen (SVHC) volgens REACH, artikel 57	
64-17-5	ethanol
67-56-1	methanol

- **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

NL

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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.
- H301 Giftig bij inslikken.
- H302 Schadelijk bij inslikken.
- H311 Giftig bij contact met de huid.
- H312 Schadelijk bij contact met de huid.
- H314 Veroorzaakt ernstige brandwonden en oogletsel.
- H317 Kan een allergische huidreactie veroorzaken.
- H331 Giftig bij inademing.
- H332 Schadelijk bij inademing.
- H341 Verdacht van het veroorzaken van genetische schade.
- H350 Kan kanker veroorzaken.
- H370 Veroorzaakt schade aan organen.

· **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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 1: Ontvlambare vloeistoffen – Categorie 1
- Flam. Liq. 2: Ontvlambare vloeistoffen – Categorie 2
- Flam. Liq. 3: Ontvlambare vloeistoffen – Categorie 3
- Acute Tox. 3: Acute toxiciteit – Categorie 3
- Acute Tox. 4: Acute toxiciteit – Categorie 4
- Skin Corr. 1A: Huidcorrosie/irritatie – Categorie 1A
- Skin Corr. 1B: Huidcorrosie/irritatie – Categorie 1B
- Eye Dam. 1: Ernstig oogletsel/oogirritatie – Categorie 1
- Skin Sens. 1: Sensibilisatie van de huid – Categorie 1
- Muta. 2: Mutageniteit in geslachtscellen – Categorie 2
- Carc. 1B: Kankerverwekkendheid – Categorie 1B
- STOT SE 1: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 1
- STOT SE 3: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 3

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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:** DAVIDSON'S FIXATIVE, MODIFIED
- **Code du produit:** 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G
- **UFI:** EX01-F0HQ-Y00P-W1DD
- **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: sgkcck@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. 1 H224 Liquide et vapeurs extrêmement inflammables.



GHS06 tête de mort sur deux tibias

Acute Tox. 3 H311 Toxique par contact cutané.

Acute Tox. 3 H331 Toxique par inhalation.



GHS08 danger pour la santé

Muta. 2 H341 Susceptible d'induire des anomalies génétiques.

Carc. 1B H350 Peut provoquer le cancer.



GHS05 corrosion

Skin Corr. 1B H314 Provoque de graves brûlures de la peau et de graves lésions des yeux.

Eye Dam. 1 H318 Provoque de graves lésions des yeux.



GHS07

(suite page 2)

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Acute Tox. 4 H302 Nocif en cas d'ingestion.
 Skin Sens. 1 H317 Peut provoquer une allergie cutanée.
 STOT SE 3 H335 Peut irriter les voies respiratoires.

· 2.2 Éléments d'étiquetage

· **Étiquetage selon le règlement (CE) n° 1272/2008** Le produit est classifié et étiqueté selon le règlement CLP.

· **Pictogrammes de danger**



GHS02 GHS05 GHS06 GHS08

· **Mention d'avertissement** Danger

· **Composants dangereux déterminants pour l'étiquetage:**

Formaldéhyde
 acide acétique

· **Mentions de danger**

H224 Liquide et vapeurs extrêmement inflammables.
 H302 Nocif en cas d'ingestion.
 H311+H331 Toxique par contact cutané ou par inhalation.
 H314 Provoque de graves brûlures de la peau et de graves lésions des yeux.
 H317 Peut provoquer une allergie cutanée.
 H341 Susceptible d'induire des anomalies génétiques.
 H350 Peut provoquer le cancer.
 H335 Peut irriter les voies respiratoires.

· **Conseils de prudence**

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.
 P310 Appeler immédiatement un CENTRE ANTIPOISON/un médecin.
 P321 Traitement spécifique (voir sur cette étiquette).
 P361+P364 Enlever immédiatement tous les vêtements contaminés et les laver avant réutilisation.
 P405 Garder sous clef.
 P501 Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

· **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: 50-00-0	Formaldéhyde	>25-≤50%
EINECS: 200-001-8	Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; Carc. 1B, H350; Skin Corr. 1B, H314; Skin Sens. 1, H317	

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		(suite de la page 2)
CAS: 64-17-5 EINECS: 200-578-6	éthanol ⚠ Flam. Liq. 2, H225	>10-≤25%
CAS: 64-19-7 EINECS: 200-580-7	acide acétique ⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H312	>2,5-≤10%
CAS: 67-56-1 EINECS: 200-659-6	méthanol ⚠ Flam. Liq. 2, H225; ⚠ STOT SE 1, H370; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%

· **SVHC**

64-17-5	éthanol
67-56-1	méthanol

· **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:**

Enlever immédiatement les vêtements contaminés par le produit.

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

Ne retirer la protection respiratoire qu'après avoir retiré les vêtements contaminés.

Respiration artificielle dans le cas d'une respiration irrégulière ou d'un arrêt respiratoire.

· **Après inhalation:**

Donner de l'air frais ou de l'oxygène; demander d'urgence une assistance médicale.

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 et consulter un médecin.

· **Après ingestion:**

Consulter immédiatement un médecin.

Boire de l'eau en abondance et donner de l'air frais. Consulter immédiatement 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:**

CO₂, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.

· **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.

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- **6.2 Précautions pour la protection de l'environnement:**
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).
Utiliser un neutralisant.
Evacuer les matériaux contaminés en tant que déchets conformément au point 13.
Assurer une aération suffisante.
- **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.
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.
Ouvrir et manipuler les récipients avec précaution.
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.
Tenir des appareils de protection respiratoire prêts.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Stocker dans un endroit frais.
- **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:**

50-00-0 Formaldéhyde

VLEP	Valeur momentanée: 0,74 mg/m ³ , 0,6 ppm Valeur à long terme: 0,37 0,5* mg/m ³ , 0,3 0,62* ppm C1B, M2, *:jusqu'au 11.07.24 l'embaumement
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64-17-5 éthanol

VLEP	Valeur momentanée: 9500 mg/m ³ , 5000 ppm Valeur à long terme: 1900 mg/m ³ , 1000 ppm
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64-19-7 acide acétique

VLEP Valeur momentanée: 50 mg/m³, 20 ppm
Valeur à long terme: 25 mg/m³, 10 ppm

67-56-1 méthanol

VLEP Valeur momentanée: 1300 mg/m³, 1000 ppm
Valeur à long terme: 260 mg/m³, 200 ppm
risque de pénétration percutanée, (11)

· **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.

Conserver à part les vêtements de protection.

Eviter tout contact avec les yeux.

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.

· **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 hermétiques

RUBRIQUE 9: Propriétés physiques et chimiques

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

· **Indications générales**

· **Aspect:**

Forme:

Solution

Couleur:

Transparent

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· Odeur:	Genre alcool
· Seuil olfactif:	Non déterminé.
· valeur du pH à 20 °C:	2,5
· Changement d'état	
Point de fusion/point de congélation:	Non déterminé.
Point initial d'ébullition et intervalle d'ébullition:	-21 °C
· Point d'éclair	17 °C
· Inflammabilité (solide, gaz):	Non applicable.
· Température d'inflammation:	300 °C
· Température de décomposition:	Non déterminé.
· Température d'auto-inflammabilité:	Le produit ne s'enflamme pas spontanément.
· Propriétés explosives:	Le produit n'est pas explosif; toutefois, des mélanges explosifs vapeur-air peuvent se former.
· Limites d'explosion:	
Inférieure:	3,5 Vol %
Supérieure:	73 Vol %
· Pression de vapeur à 20 °C:	59 hPa
· Densité à 20 °C:	0,9501 g/cm ³
· Densité relative	Non déterminé.
· Densité de vapeur:	Non déterminé.
· Taux d'évaporation:	Non déterminé.
· Solubilité dans/miscibilité avec l'eau:	Entièrement miscible
· Coefficient de partage: n-octanol/eau:	Non déterminé.
· Viscosité:	
Dynamique:	Non déterminé.
Cinématique:	Non déterminé.
· Teneur en solvants:	
Solvants organiques:	57,8 %
Eau:	42,3 %
VOC (CE)	57,75 %
Teneur en substances solides:	0,0 %
· 9.2 Autres informations	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 Aucune réaction dangereuse connue.
- 10.4 Conditions à éviter Pas d'autres informations importantes disponibles.
- 10.5 Matières incompatibles: Pas d'autres informations importantes disponibles.

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· **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**

Nocif en cas d'ingestion.

Toxique par contact cutané ou par inhalation.

· **Valeurs LD/LC50 déterminantes pour la classification:**

50-00-0 Formaldéhyde

Oral	LD50	>200 mg/kg (rat)
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· **Effet primaire d'irritation:**

· **Corrosion cutanée/irritation cutanée**

Provoque de graves brûlures de la peau et de graves lésions des yeux.

· **Lésions oculaires graves/irritation oculaire**

Provoque de graves lésions des yeux.

· **Sensibilisation respiratoire ou cutanée**

Peut provoquer une allergie cutanée.

· **Indications toxicologiques complémentaires:**

· **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**

· **Mutagenicité sur les cellules germinales**

Susceptible d'induire des anomalies génétiques.

· **Cancérogénicité**

Peut provoquer le cancer.

· **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 irriter les voies respiratoires.

· **Toxicité spécifique pour certains organes cibles - exposition répétée**

Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

· **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.

· **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.

Ne doit pas pénétrer à l'état non dilué ou non neutralisé dans les eaux usées ou le collecteur.

Danger pour l'eau potable dès fuite d'une petite quantité dans le sous-sol.

· **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.

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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"> · 14.1 Numéro ONU · ADR, IMDG, IATA 	UN1170
<ul style="list-style-type: none"> · 14.2 Désignation officielle de transport de l'ONU · ADR · IMDG · IATA 	1170 ÉTHANOL (ALCOOL ÉTHYLIQUE) ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT ETHANOL
<ul style="list-style-type: none"> · 14.3 Classe(s) de danger pour le transport · ADR 	<div style="display: flex; align-items: center; gap: 10px;">   </div> <p>· Classe · Étiquette</p> <p style="text-align: right;">3 Liquides inflammables. 3+8</p>
<ul style="list-style-type: none"> · IMDG 	<div style="display: flex; align-items: center; gap: 10px;">    </div> <p>· Class · Label</p> <p style="text-align: right;">3 Liquides inflammables. 3/8</p>
<ul style="list-style-type: none"> · IATA 	<div style="display: flex; align-items: center; gap: 10px;">   </div> <p>· Class · Label</p> <p style="text-align: right;">3 Liquides inflammables. 3 (8)</p>
<ul style="list-style-type: none"> · 14.4 Groupe d'emballage · ADR, IMDG, IATA 	II
<ul style="list-style-type: none"> · 14.5 Dangers pour l'environnement: · Marine Pollutant: 	Signe conventionnel (poisson et arbre)
<ul style="list-style-type: none"> · 14.6 Précautions particulières à prendre par l'utilisateur · Numéro d'identification du danger (Indice Kemler): 	Attention: Liquides inflammables. 368

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· No EMS:	F-E,S-C
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· Segregation Code	SG5 Segregation as for class 3 SG8 Stow "away from" class 4.1

· 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC Non applicable.

· Indications complémentaires de transport:

· ADR	
· Quantités limitées (LQ)	0
· Quantités exceptées (EQ)	Code: E0 Non autorisé en tant que quantité exceptée
· Catégorie de transport	1
· Code de restriction en tunnels	C/E

· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity

· "Règlement type" de l'ONU: UN 1170 ÉTHANOL (ALCOOL ÉTHYLIQUE), 3 (8), II

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
P5a LIQUIDES INFLAMMABLES
H2 TOXICITÉ AIGUË
- Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas 10 t
- Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut 50 t
- RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII Conditions de limitation: 3, 28, 72

· 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

Aucun des composants n'est compris.

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

Aucun des composants n'est compris.

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

Aucun des composants n'est compris.

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· **Prescriptions nationales:**

· **Indications sur les restrictions de travail:**

Le personnel ne doit pas être exposé aux substances dangereuses cancérogènes contenues dans cette préparation.
Les autorités peuvent autoriser des exceptions dans des cas particuliers.

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

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

64-17-5	éthanol
67-56-1	méthanol

· **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.

H301 Toxique en cas d'ingestion.

H302 Nocif en cas d'ingestion.

H311 Toxique par contact cutané.

H312 Nocif par contact cutané.

H314 Provoque de graves brûlures de la peau et de graves lésions des yeux.

H317 Peut provoquer une allergie cutanée.

H331 Toxique par inhalation.

H332 Nocif par inhalation.

H341 Susceptible d'induire des anomalies génétiques.

H350 Peut provoquer le cancer.

H370 Risque avéré d'effets graves pour les organes.

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Liquides inflammables – Catégorie 1

Flam. Liq. 2: Liquides inflammables – Catégorie 2

Flam. Liq. 3: Liquides inflammables – Catégorie 3

Acute Tox. 3: Toxicité aiguë – Catégorie 3

Acute Tox. 4: Toxicité aiguë – Catégorie 4

Skin Corr. 1A: Corrosion cutanée/irritation cutanée – Catégorie 1A

Skin Corr. 1B: Corrosion cutanée/irritation cutanée – Catégorie 1B

Eye Dam. 1: Lésions oculaires graves/irritation oculaire – Catégorie 1

Skin Sens. 1: Sensibilisation cutanée – Catégorie 1

Muta. 2: Mutagénicité sur les cellules germinales – Catégorie 2

Carc. 1B: Cancérogénicité – Catégorie 1B

STOT SE 1: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 1

STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 09.12.2021

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

· **1.1 Produktidentifikator**

· **Handelsname:** DAVIDSON'S FIXATIVE, MODIFIED

· **Artikelnummer:** 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G

· **UFI:** EX01-F0HQ-Y00P-WIDD

· **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

· **Auskunfteibereich:** 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. 1 H224 Flüssigkeit und Dampf extrem entzündbar.



GHS06 Totenkopf mit gekreuzten Knochen

Acute Tox. 3 H311 Giftig bei Hautkontakt.

Acute Tox. 3 H331 Giftig bei Einatmen.



GHS08 Gesundheitsgefahr

Muta. 2 H341 Kann vermutlich genetische Defekte verursachen.

Carc. 1B H350 Kann Krebs erzeugen.

(Fortsetzung auf Seite 2)

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GHS05 Ätzwirkung

Skin Corr. 1B H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

Eye Dam. 1 H318 Verursacht schwere Augenschäden.



GHS07

Acute Tox. 4 H302 Gesundheitsschädlich bei Verschlucken.

Skin Sens. 1 H317 Kann allergische Hautreaktionen verursachen.

STOT SE 3 H335 Kann die Atemwege reizen.

· 2.2 Kennzeichnungselemente

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

Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

· Gefahrenpiktogramme



GHS02



GHS05



GHS06



GHS08

· Signalwort Gefahr

· Gefahrbestimmende Komponenten zur Etikettierung:

Formaldehyd

Essigsäure

· Gefahrenhinweise

H224 Flüssigkeit und Dampf extrem entzündbar.

H302 Gesundheitsschädlich bei Verschlucken.

H311+H331 Giftig bei Hautkontakt oder Einatmen.

H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

H317 Kann allergische Hautreaktionen verursachen.

H341 Kann vermutlich genetische Defekte verursachen.

H350 Kann Krebs erzeugen.

H335 Kann die Atemwege reizen.

· Sicherheitshinweise

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.

P310 Sofort GIFTINFORMATIONSZENTRUM/Arzt anrufen.

P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).

P361+P364 Alle kontaminierten Kleidungsstücke sofort ausziehen und vor erneutem Tragen waschen.

P405 Unter Verschluss aufbewahren.

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

· Zusätzliche Angaben:

Nur für gewerbliche Anwender.

· 2.3 Sonstige Gefahren

· Ergebnisse der PBT- und vPvB-Beurteilung

· **PBT:** Nicht anwendbar.

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· **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: 50-00-0 EINECS: 200-001-8	Formaldehyd ☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ☠ Muta. 2, H341; Carc. 1B, H350; ☠ Skin Corr. 1B, H314; ☠ Skin Sens. 1, H317	>25-≤50%
CAS: 64-17-5 EINECS: 200-578-6	Ethanol ☠ Flam. Liq. 2, H225	>10-≤25%
CAS: 64-19-7 EINECS: 200-580-7	Essigsäure ☠ Flam. Liq. 3, H226; ☠ Skin Corr. 1A, H314; ☠ Acute Tox. 4, H312	>2,5-≤10%
CAS: 67-56-1 EINECS: 200-659-6	Methanol ☠ Flam. Liq. 2, H225; ☠ STOT SE 1, H370; ☠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%

· **SVHC**

64-17-5	Ethanol
67-56-1	Methanol

· **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:**

Mit Produkt verunreinigte Kleidungsstücke unverzüglich entfernen.

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

Atemschutz erst nach Entfernen verunreinigter Kleidungsstücke abnehmen.

Bei unregelmäßiger Atmung oder Atemstillstand künstliche Beatmung.

· **Nach Einatmen:**

Frischluf- oder Sauerstoffzufuhr; ärztliche Hilfe in Anspruch nehmen.

Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.

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

Augen bei geöffnetem Lidspalt mehrere Minuten unter fließendem Wasser abspülen und Arzt konsultieren.

· **Nach Verschlucken:**

Sofort Arzt aufsuchen.

Reichlich Wasser nachtrinken und Frischluftzufuhr. Unverzüglich Arzt hinzuziehen.

· **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.

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ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:**
CO₂, Löschpulver oder Wassersprühstrahl. Größeren Brand mit Wassersprühstrahl oder alkoholbeständigem Schaum bekämpfen.
- **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:**
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.
Neutralisationsmittel anwenden.
Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.
Für ausreichende Lüftung sorgen.
- **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.
Behälter mit Vorsicht öffnen und handhaben.
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:**
Zündquellen fernhalten - nicht rauchen.
Vor Hitze schützen.
Maßnahmen gegen elektrostatische Aufladung treffen.
Atemschutzgeräte bereithalten.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** An einem kühlen Ort lagern.
- **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):** Entzündbare Flüssigkeiten

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 · **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:**
50-00-0 Formaldehyd

 AGW Langzeitwert: 0,37 mg/m³, 0,3 ml/m³
2(I);AGS, Sh, Y, X

64-17-5 Ethanol

 AGW Langzeitwert: 380 mg/m³, 200 ml/m³
4(II);DFG, Y

64-19-7 Essigsäure

 AGW Langzeitwert: 25 mg/m³, 10 ml/m³
2(I);DFG, EU, Y

67-56-1 Methanol

 AGW Langzeitwert: 130 mg/m³, 100 ml/m³
2(II);DFG, EU, H, Y

 · **Bestandteile mit biologischen Grenzwerten:**
67-56-1 Methanol

 BGW 30 mg/l
 Untersuchungsmaterial: Urin
 Probenahmezeitpunkt: bei Langzeitexposition: am Schichtende nach mehreren vorangegangenen Schichten, Expositionsende bzw. Schichtende
 Parameter: Methanol

 · **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.
 Getrennte Aufbewahrung der Schutzkleidung.
 Berührung mit den Augen vermeiden.
 Berührung mit den Augen und der Haut vermeiden.
- **Atemschutz:**
 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.

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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:**



Dichtschließende Schutzbrille

ABSCHNITT 9: Physikalische und chemische Eigenschaften

- **9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**

- **Allgemeine Angaben**

- **Aussehen:**

Form:	Lösung
Farbe:	Klar
Geruch:	Alkoholartig
Geruchsschwelle:	Nicht bestimmt.

- **pH-Wert bei 20 °C:** 2,5

- **Zustandsänderung**

Schmelzpunkt/Gefrierpunkt:	Nicht bestimmt.
Siedebeginn und Siedebereich:	-21 °C

- **Flammpunkt:** 17 °C

- **Entzündbarkeit (fest, gasförmig):** Nicht anwendbar.

- **Zündtemperatur:** 300 °C

- **Zersetzungstemperatur:** Nicht bestimmt.

- **Selbstentzündungstemperatur:** Das Produkt ist nicht selbstentzündlich.

- **Explosive Eigenschaften:** Das Produkt ist nicht explosionsgefährlich, jedoch ist die Bildung explosionsgefährlicher Dampf-/Luftgemische möglich.

- **Explosionsgrenzen:**

Untere:	3,5 Vol %
Obere:	73 Vol %

- **Dampfdruck bei 20 °C:** 59 hPa

Dichte bei 20 °C:	0,9501 g/cm ³
Relative Dichte	Nicht bestimmt.
Dampfdichte	Nicht bestimmt.
Verdampfungsgeschwindigkeit	Nicht bestimmt.

- **Löslichkeit in / Mischbarkeit mit Wasser:** Vollständig mischbar.

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- | | |
|--|-----------------|
| · Verteilungskoeffizient: n-Octanol/Wasser: Nicht bestimmt. | |
| · Viskosität: | |
| Dynamisch: | Nicht bestimmt. |
| Kinematisch: | Nicht bestimmt. |
| · Lösemittelgehalt: | |
| Organische Lösemittel: | 57,8 % |
| Wasser: | 42,3 % |
| VOC (EU) | 57,75 % |
| Festkörpergehalt: 0,0 % | |
| · 9.2 Sonstige Angaben 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** Keine gefährlichen Reaktionen bekannt.
- **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.

ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
 - **Akute Toxizität**
Gesundheitsschädlich bei Verschlucken.
Giftig bei Hautkontakt oder Einatmen.
- | | | |
|--|------|------------------|
| · Einstufungsrelevante LD/LC50-Werte: | | |
| 50-00-0 Formaldehyd | | |
| Oral | LD50 | >200 mg/kg (rat) |
- **Primäre Reizwirkung:**
 - **Ätz-/Reizwirkung auf die Haut**
Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
 - **Schwere Augenschädigung/-reizung**
Verursacht schwere Augenschäden.
 - **Sensibilisierung der Atemwege/Haut**
Kann allergische Hautreaktionen verursachen.
 - **Zusätzliche toxikologische Hinweise:**
 - **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
 - **Keimzell-Mutagenität**
Kann vermutlich genetische Defekte verursachen.
 - **Karzinogenität**
Kann Krebs erzeugen.
 - **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
 - **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**
Kann die Atemwege reizen.

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- **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.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**
Wassergefährdungsklasse 2 (Selbsteinstufung): deutlich wassergefährdend
Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.
Darf nicht unverdünnt bzw. unneutralisiert ins Abwasser bzw. in den Vorfluter gelangen.
Trinkwassergefährdung bereits beim Auslaufen geringer Mengen in den Untergrund.
- **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.
- **Empfohlenes Reinigungsmittel:** Wasser, gegebenenfalls mit Zusatz von Reinigungsmitteln.

ABSCHNITT 14: Angaben zum Transport

- | | |
|--|---|
| 14.1 UN-Nummer | |
| ADR, IMDG, IATA | UN1170 |
| 14.2 Ordnungsgemäße UN-Versandbezeichnung | |
| ADR | 1170 ETHANOL (ETHYLALKOHOL) |
| IMDG | ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT |
| IATA | ETHANOL |
| 14.3 Transportgefahrenklassen | |
| ADR | |
| | |
| Klasse | 3 Entzündbare flüssige Stoffe |

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· Gefahrzettel	3+8
· IMDG	
	
· Class	3 Entzündbare flüssige Stoffe
· Label	3/8
· IATA	
	
· Class	3 Entzündbare flüssige Stoffe
· Label	3 (8)
· 14.4 Verpackungsgruppe	
· ADR, IMDG, IATA	II
· 14.5 Umweltgefahren:	
· Marine pollutant:	Symbol (Fisch und Baum)
· 14.6 Besondere Vorsichtsmaßnahmen für den Verwender	Achtung: Entzündbare flüssige Stoffe
· Nummer zur Kennzeichnung der Gefahr (Kemler-Zahl):	368
· EMS-Nummer:	F-E,S-C
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· Segregation Code	SG5 Segregation as for class 3 SG8 Stow "away from" class 4.1
· 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code	Nicht anwendbar.
· Transport/weitere Angaben:	
· ADR	
· Begrenzte Menge (LQ)	0
· Freigestellte Mengen (EQ)	Code: E0 In freigestellten Mengen nicht zugelassen
· Beförderungskategorie	1
· Tunnelbeschränkungscode	C/E
· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1170 ETHANOL (ETHYLALKOHOL), 3 (8), II

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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
P5a ENTZÜNDBARE FLÜSSIGKEITEN
H2 AKUT TOXISCH
- Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse 10 t
- Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse 50 t
- VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII Beschränkungsbedingungen: 3, 28, 72

· 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

Keiner der Inhaltsstoffe ist enthalten.

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

Keiner der Inhaltsstoffe ist enthalten.

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

Keiner der Inhaltsstoffe ist enthalten.

· Nationale Vorschriften:

· **Hinweise zur Beschäftigungsbeschränkung:**

Arbeitnehmer dürfen den in dieser Zubereitung enthaltenen krebserzeugenden Gefahrstoffen nicht ausgesetzt sein. Im Einzelfall kann die Behörde Ausnahmen zulassen.

· **Technische Anleitung Luft:**

Klasse	Anteil in %
Wasser	42,3
I	38,2
II	6,3
NK	13,3

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

· **Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen**

Das Produkt unterliegt der Anlage 2 der Chemikalienverbotsverordnung (ChemVerbotsV) - Anforderungen in Bezug auf die Abgabe

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

64-17-5 Ethanol

67-56-1 Methanol

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

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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.
- H301 Giftig bei Verschlucken.
- H302 Gesundheitsschädlich bei Verschlucken.
- H311 Giftig bei Hautkontakt.
- H312 Gesundheitsschädlich bei Hautkontakt.
- H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
- H317 Kann allergische Hautreaktionen verursachen.
- H331 Giftig bei Einatmen.
- H332 Gesundheitsschädlich bei Einatmen.
- H341 Kann vermutlich genetische Defekte verursachen.
- H350 Kann Krebs erzeugen.
- H370 Schädigt die Organe.

· **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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 1: Entzündbare Flüssigkeiten – Kategorie 1
- Flam. Liq. 2: Entzündbare Flüssigkeiten – Kategorie 2
- Flam. Liq. 3: Entzündbare Flüssigkeiten – Kategorie 3
- Acute Tox. 3: Akute Toxizität – Kategorie 3
- Acute Tox. 4: Akute Toxizität – Kategorie 4
- Skin Corr. 1A: Hautreizende/-ätzende Wirkung – Kategorie 1A
- Skin Corr. 1B: Hautreizende/-ätzende Wirkung – Kategorie 1B
- Eye Dam. 1: Schwere Augenschädigung/Augenreizung – Kategorie 1
- Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1
- Muta. 2: Keimzellmutagenität – Kategorie 2
- Carc. 1B: Karzinogenität – Kategorie 1B
- STOT SE 1: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 1
- STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3

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

Stampato il: 09.12.2021

Revisione: 09.12.2021

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

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** DAVIDSON'S FIXATIVE, MODIFIED

· **Articolo numero:** 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-IGAL, 64133-50-10L, 64133-50-1G

· **UFI:** EX01-F0HQ-Y00P-W1DD

· **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: sgkcck@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. 1 H224 Liquido e vapori altamente infiammabili.



GHS06 teschio e tibie incrociate

Acute Tox. 3 H311 Tossico per contatto con la pelle.

Acute Tox. 3 H331 Tossico se inalato.



GHS08 pericolo per la salute

Muta. 2 H341 Sospettato di provocare alterazioni genetiche.

Carc. 1B H350 Può provocare il cancro.



GHS05 corrosione

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Skin Corr. 1B H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

Eye Dam. 1 H318 Provoca gravi lesioni oculari.



GHS07

Acute Tox. 4 H302 Nocivo se ingerito.

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

STOT SE 3 H335 Può irritare le vie respiratorie.

· **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

GHS05

GHS06

GHS08

· **Avvertenza Pericolo**

· **Componenti pericolosi che ne determinano l'etichettatura:**

formaldeide

acido acetico

· **Indicazioni di pericolo**

H224 Liquido e vapori altamente infiammabili.

H302 Nocivo se ingerito.

H311+H331 Tossico a contatto con la pelle o se inalato.

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

H317 Può provocare una reazione allergica cutanea.

H341 Sospettato di provocare alterazioni genetiche.

H350 Può provocare il cancro.

H335 Può irritare le vie respiratorie.

· **Consigli di prudenza**

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.

P310 Contattare immediatamente un CENTRO ANTIVELENI/un medico.

P321 Trattamento specifico (vedere su questa etichetta).

P361+P364 Togliere immediatamente tutti gli indumenti contaminati e lavarli prima di indossarli nuovamente.

P405 Conservare sotto chiave.

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

· **2.3 Altri pericoli**

· **Risultati della valutazione PBT e vPvB**

· **PBT:** Non applicabile.

· **vPvB:** Non applicabile.

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SEZIONE 3: Composizione/informazioni sugli ingredienti

· **3.2 Caratteristiche chimiche: Miscela**

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

· **Sostanze pericolose:**

CAS: 50-00-0 EINECS: 200-001-8	formaldeide Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; Carc. 1B, H350; Skin Corr. 1B, H314; Skin Sens. 1, H317	>25-≤50%
CAS: 64-17-5 EINECS: 200-578-6	etanolo Flam. Liq. 2, H225	>10-≤25%
CAS: 64-19-7 EINECS: 200-580-7	acido acetico Flam. Liq. 3, H226; Skin Corr. 1A, H314; Acute Tox. 4, H312	>2,5-≤10%
CAS: 67-56-1 EINECS: 200-659-6	metanolo Flam. Liq. 2, H225; STOT SE 1, H370; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%

· **SVHC**

64-17-5	etanolo
67-56-1	metanolo

· **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:**

Allontanare immediatamente gli abiti contaminati dal prodotto.

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.

Levare la maschera protettiva solamente dopo aver tolto gli abiti contaminati.

In caso di respirazione irregolare o di blocco respiratorio praticare la respirazione artificiale.

· **Inalazione:**

Portare il soggetto in zona ben areata o somministrare ossigeno; chiedere l'intervento di 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 e consultare il medico.

· **Ingestione:**

Chiamare subito il medico.

Bere abbondante acqua e sostare in zona ben areata. Richiedere immediatamente l'intervento del 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:**

CO₂, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.

· **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.

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- **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:**
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).
Utilizzare mezzi di neutralizzazione.
Smaltimento del materiale contaminato conformemente al punto 13.
Provvedere ad una sufficiente areazione.
- **6.4 Riferimento ad altre sezioni**
Per informazioni relative ad un 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.
Aprire e manipolare i recipienti con cautela.
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.
Tener pronto il respiratore.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Conservare in ambiente fresco.
- **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:**

50-00-0 formaldeide

TWA Limite Ceiling: 0,37 mg/m³, 0,3 ppm
sen, A2

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64-17-5 etanolo

TWA Valore a breve termine: 1884 mg/m³, 1000 ppm
A3

64-19-7 acido acetico

TWA Valore a breve termine: 37 mg/m³, 15 ppm
Valore a lungo termine: 25 mg/m³, 10 ppm
VL Valore a breve termine: 50 mg/m³, 20 ppm
Valore a lungo termine: 25 mg/m³, 10 ppm

67-56-1 metanolo

TWA Valore a breve termine: 328 mg/m³, 250 ppm
Valore a lungo termine: 262 mg/m³, 200 ppm
Cute, IBE
VL Valore a lungo termine: 260 mg/m³, 200 ppm
Pelle

· **Componenti con valori limite biologici:**

67-56-1 metanolo

IBE 15 mg/l
Campioni: urine
Momento del prelievo: a fine turno
Indicatore biologico: metanolo

· **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.
- Custodire separatamente l'equipaggiamento protettivo.
- Evitare il contatto con gli occhi.
- 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.

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· 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: Soluzione

Colore: Chiaro

· **Odore:** Simile all'alcool

· **Soglia olfattiva:** Non definito.

· **valori di pH a 20 °C:** 2,5

· Cambiamento di stato

Punto di fusione/punto di congelamento: Non definito.

Punto di ebollizione iniziale e intervallo di ebollizione: -21 °C

· **Punto di infiammabilità:** 17 °C

· **Infiammabilità (solidi, gas):** Non applicabile.

· **Temperatura di accensione:** 300 °C

· **Temperatura di decomposizione:** Non definito.

· **Temperatura di autoaccensione:** Prodotto non autoinfiammabile.

· **Proprietà esplosive:** Prodotto non è esplosivo, è tuttavia possibile la formazione di miscele di vapore/aria esplosive.

· Limiti di infiammabilità:

Inferiore: 3,5 Vol %

Superiore: 73 Vol %

· **Tensione di vapore a 20 °C:** 59 hPa

· **Densità a 20 °C:** 0,9501 g/cm³

· **Densità relativa** Non definito.

· **Densità di vapore:** Non definito.

· **Velocità di evaporazione** Non definito.

· **Solubilità in/Miscibilità con acqua:**

Completamente miscibile.

· **Coefficiente di ripartizione: n-ottanolo/acqua:** Non definito.

· Viscosità:

Dinamica: Non definito.

Cinematica: Non definito.

· Tenore del solvente:

Solventi organici: 57,8 %

Acqua: 42,3 %

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VOC (CE)	57,75 %
Contenuto solido:	0,0 %
· 9.2 Altre informazioni	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** Non sono note reazioni pericolose.
- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.
- **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**

Nocivo se ingerito.

Tossico a contatto con la pelle o se inalato.

- **Valori LD/LC50 rilevanti per la classificazione:**

- **50-00-0 formaldeide**

Orale	LD50	>200 mg/kg (rat)
-------	------	------------------

- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**
Provoca gravi ustioni cutanee e gravi lesioni oculari.
- **Lesioni oculari gravi/irritazioni oculari gravi**
Provoca gravi lesioni oculari.
- **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**
Sospettato di provocare alterazioni genetiche.
- **Cancerogenicità**
Può provocare il cancro.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**
Può irritare le vie respiratorie.
- **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.

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- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **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.
Non immettere il prodotto non diluito o non neutralizzato nelle acque di scarico e nei canali di raccolta.
Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di piccole quantità di prodotto.
- **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.
- **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 | UN1170 |
| · 14.2 Nome di spedizione dell'ONU | |
| · ADR | 1170 ETANOLO (ALCOL ETILICO) |
| · IMDG | ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT |
| · IATA | ETHANOL |
| · 14.3 Classi di pericolo connesso al trasporto | |
| · ADR | |
|  | |
| · Classe | 3 Liquidi infiammabili |
| · Etichetta | 3+8 |
| · IMDG | |
|  | |
| · Class | 3 Liquidi infiammabili |

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· Label	3/8
· IATA	
	
· Class	3 Liquidi infiammabili
· Label	3 (8)
· 14.4 Gruppo di imballaggio	
· ADR, IMDG, IATA	II
· 14.5 Pericoli per l'ambiente:	
· Marine pollutant:	Simbolo (pesce e albero)
· 14.6 Precauzioni speciali per gli utilizzatori	Attenzione: Liquidi infiammabili
· N° identificazione pericolo (Numero Kemler):	368
· Numero EMS:	F-E,S-C
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· Segregation Code	SG5 Segregation as for class 3 SG8 Stow "away from" class 4.1
· 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC	Non applicabile.
· Trasporto/ulteriori indicazioni:	
· ADR	
· Quantità limitate (LQ)	0
· Quantità esenti (EQ)	Codice: E0 Vietato al trasporto in quantità esente
· Categoria di trasporto	1
· Codice di restrizione in galleria	C/E
· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1170 ETANOLO (ALCOL ETILICO), 3 (8), II

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**
P5a LIQUIDI INFIAMMABILI
H2 TOSSICITÀ ACUTA
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 10 t**
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 50 t**

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· **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3, 28, 72

· **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 SEGNALAZIONE**

Nessuno dei componenti è contenuto.

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

Nessuno dei componenti è contenuto.

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

Nessuno dei componenti è contenuto.

· **Disposizioni nazionali:**

· **Indicazioni relative alla limitazione delle attività lavorative:**

Il personale non deve essere esposto alle sostanze cancerogene contenute in questo preparato L'autorità può ammettere nei singoli casi delle eccezioni.

· **Istruzione tecnica aria:**

Classe	quota in %
NC	57,8

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

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

64-17-5 etanolo

67-56-1 metanolo

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

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.

· **Frasei rilevanti**

H225 Liquido e vapori facilmente infiammabili.

H226 Liquido e vapori infiammabili.

H301 Tossico se ingerito.

H302 Nocivo se ingerito.

H311 Tossico per contatto con la pelle.

H312 Nocivo per contatto con la pelle.

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

H317 Può provocare una reazione allergica cutanea.

H331 Tossico se inalato.

H332 Nocivo se inalato.

H341 Sospettato di provocare alterazioni genetiche.

H350 Può provocare il cancro.

H370 Provoca danni agli organi.

(continua a pagina 11)

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

Stampato il: 09.12.2021

Revisione: 09.12.2021

Denominazione commerciale: DAVIDSON'S FIXATIVE, MODIFIED

(Segue da pagina 10)

· 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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 1: Liquidi infiammabili – Categoria 1
Flam. Liq. 2: Liquidi infiammabili – Categoria 2
Flam. Liq. 3: Liquidi infiammabili – Categoria 3
Acute Tox. 3: Tossicità acuta – Categoria 3
Acute Tox. 4: Tossicità acuta – Categoria 4
Skin Corr. 1A: Corrosione/irritazione della pelle – Categoria 1A
Skin Corr. 1B: Corrosione/irritazione della pelle – Categoria 1B
Eye Dam. 1: Gravi lesioni oculari/irritazione oculare – Categoria 1
Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1
Muta. 2: Mutagenicità sulle cellule germinali – Categoria 2
Carc. 1B: Cancerogenicità – Categoria 1B
STOT SE 1: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 1
STOT SE 3: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 3

IT

安全データシート

JIS Z 7253:2019 による

印刷日: 2021.12.09

バージョン番号: 1

改訂日: 2021.12.09

項目 1: 化学品及び会社情報

・製品識別子

・化学品の名称 DAVIDSON'S FIXATIVE, MODIFIED

・製品コード 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G

・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: sgkcck@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1

H224 極めて引火性の高い液体及び蒸気



頭蓋骨と大たい骨

急性毒性(経皮) 区分3

H311 皮膚に接触すると有毒

急性毒性(吸入) 区分3

H331 吸入すると有毒



健康に危険

生殖細胞変異原性 区分2

H341 遺伝性疾患のおそれの疑い

発がん性 区分1B

H350 発がんのおそれ



腐食

皮膚腐食性/刺激性 区分1B

H314 重篤な皮膚の薬傷及び眼の損傷

重篤な眼の損傷性/眼刺激性 区分1 H318 重篤な眼の損傷



急性毒性(経口) 区分4

H302 飲み込むと有害

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

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・ **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 GHS05 GHS06 GHS08

・ **注意喚起語** 危険

・ **危険と定められた成分をラベル表示:**

ホルムアルデヒド
酢酸

・ **危険有害性情報**

極めて引火性の高い液体及び蒸気
飲み込むと有害
皮膚に接触したり, 吸入すると有毒
重篤な皮膚の薬傷及び目の損傷
アレルギー性皮膚反応を起こすおそれ
遺伝性疾患のおそれの疑い
発がんのおそれ

・ **注意書き**

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。

ただちに毒物センター/医師に連絡すること。

特別な処置が必要である (このラベルのを見よ) 。

汚染された衣類を直ちに全て脱ぎ, 再使用する場合には洗濯をすること。

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:**

50-00-0	ホルムアルデヒド ⚠ 急性毒性(経口) 区分3, H301; 急性毒性(経皮) 区分3, H311; 急性毒性(吸入) 区分3, H331; ⚠ 生殖細胞変異原性 区分2, H341; 発がん性 区分1B, H350; ⚠ 皮膚腐食性/刺激性 区分1B, H314; ⚠ 感作性(皮膚) 区分1, H317; 引火性液体 区分4, H227	>25-≤50%
64-17-5	エタノール ⚠ 引火性液体 区分2, H225	>10-≤25%
64-19-7	酢酸 ⚠ 引火性液体 区分3, H226; ⚠ 皮膚腐食性/刺激性 区分1A, H314; ⚠ 急性毒性(経皮) 区分4, H312	>2.5-≤10%

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67-56-1	メタノール	(2ページの続き) ≤2.5%
	<ul style="list-style-type: none"> ⚠ 引火性液体 区分2, H225; ⚠ 特定標的臓器有害性(単回暴露) 区分1, H370; ⚠ 急性毒性(経口) 区分4, H302; 急性毒性(経皮) 区分4, H312; 急性毒性(吸入) 区分4, H332 	

項目 4: 応急措置

・ 応急手当処置に関する説明

・ 一般情報:

プロダクトの付着した衣類は速やかに脱ぐこと

中毒症状は時間がかかり経過した後に現れる場合もあるため、事故後最低 48 時間は医師の監視のもとで過ごすこと

呼吸防護マスクは汚染衣服を脱いだ後にはずすこと

呼吸が不規則な場合あるいは呼吸停止の際には人工呼吸器を使用のこと

・ 吸入した場合

外気もしくは酸素を送り込む、医者への助けを借りる

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、医者に相談する

・ 飲み込んだ場合

即医者を呼ぶ

十分水を飲み、外気を吸う。速やかに医者を呼ぶ

・ 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

CO₂, 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

・ 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

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

中和剤を使用

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

・ 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

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廃棄処分に関しては 13 項参照

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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
容器は十分に注意しながら開封し、取り扱う
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
呼吸保護装置を用意しておく
- ・ **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: 涼しい場所に保管する
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。

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:**

50-00-0 ホルムアルデヒド

OEL	長期値: 0.12 mg/m ³ , 0.1 ppm 最大許容濃度: 0.24 mg/m ³ , 0.2 ppm
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64-19-7 酢酸

OEL	長期値: 25 mg/m ³ , 10 ppm
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67-56-1 メタノール

OEL	長期値: 260 mg/m ³ , 200 ppm
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- ・ **生物学的許容値を持つ原料:**

67-56-1 メタノール

OEL-B	20 mg/l 試料: urine 試料採取時期: End of shift 物質: Methanol
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- ・ **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

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防護服は別に保管する
 眼に入らないように
 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。調剤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:**



密閉式保護めがね

項目 9: 物理的及び化学的性質

・**基本的な物理及び化学特性に関する情報**

・**一般指示事項**

・**物理状態**

液状

・**色**

透明

・**臭い**

アルコールのような

・**嗅覚閾値**

決まっていない。

・**融点 / 凝固点 (混合物の場合は、記載省略可)**

決まっていない

・**沸点又は初留点及び沸点範囲**

-21 °C

・**可燃性**

情報なし

・**爆発下限界及び爆発上限界 / 可燃限界**

・**下限:**

3.5 Vol %

・**上限:**

73 Vol %

・**引火点**

17 °C

・**自然発火点**

プロダクトは自然発火しない

・**分解温度**

決まっていない。

・**pH 約 20 °C**

2.5

・**粘性:**

・**動粘性率**

決まっていない。

・**力学的:**

決まっていない。

・**溶解度 (混合物の場合は、記載省略可)**

・**水:**

完全に混合できる

・**n-オクタノール / 水分係数 (log 値) (混合物の場合は、記載省略可)**

決まっていない。

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・蒸気圧 約 20 °C	59 hPa
・密度及び / 又は相対密度	
・密度 約 20 °C:	0.9501 g/cm ³
・相対的密度	決まっていない.
・蒸気密度	決まっていない.

・その他のデータ	
・外観	
・形:	溶剤
・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	
・発火温度:	300 °C
・爆発の危険:	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
・溶剤含有量:	
・有機溶剤:	57.8 %
・水:	42.3 %
・固形物含有量:	0.0 %
・状態の変化	
・気化速度	決まっていない.

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 危険な反応は起きていない
- ・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。
- ・危険有害な分解生成物 危険な分解プロダクトはない

項目 11: 有害性情報

- ・毒性学的影響に関する情報
- ・急性毒性
飲み込むと有害
皮膚に接触したり,吸入すると有毒

分類上の LD/LC50 値:

50-00-0 ホルムアルデヒド

□ LD50 >200 mg/kg (rat)

- ・皮膚腐食性 / 刺激性 重篤な皮膚の薬傷及び眼の損傷
- ・眼に対する重篤な損傷性 / 眼刺激性 重篤な眼の損傷
- ・呼吸器感作性又は皮膚感作性 アレルギー性皮膚反応を起こすおそれ
- ・生殖細胞変異原性 遺伝性疾患のおそれの疑い
- ・発がん性 発がんのおそれ
- ・誤えん有害性 追加的な関連情報は得られていません。

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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。
- ・ 土壤中の移動性 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
- ・ 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
 - 希薄せずにあるいは中和せずに、廃水もしくは導水路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

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 | UN1170 |
| ・ 品名 (国連輸送名) | |
| ・ ADR | 1170 ETHANOL (ETHYL ALCOHOL) |
| ・ IMDG | ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT |
| ・ IATA | ETHANOL |
| ・ 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 |

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化学品の名称 DAVIDSON'S FIXATIVE, MODIFIED

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・危険物ラベル	3+8
・IMDG	
	
・ Class	3 可燃性液体成分
・ Label	3/8
・ IATA	
	
・ Class	3 可燃性液体成分
・ Label	3 (8)
・ 容器等級	
・ ADR, IMDG, IATA	II
・ 環境危険: ・ 海洋汚染物質	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:	368
・ EMS (電子メールサービスナンバー) 番号:	F-E,S-C
・ Stowage Category	E
・ Stowage Code	SW2 Clear of living quarters.
・ Segregation Code	SG5 Segregation as for class 3 SG8 Stow "away from" class 4.1
・ 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: E0 Not permitted as Excepted Quantity
・ IMDG	
・ Limited quantities (LQ)	0
・ Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
・ UN "模範規制":	UN 1170 ETHANOL (ETHYL ALCOHOL), 3 (8), II

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
- ・ 化審法

・ 既存化学物質		
50-00-0	ホルムアルデヒド	2-482
64-17-5	エタノール	2-202

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64-19-7	酢酸	2-688
67-56-1	メタノール	2-201
・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		
50-00-0	ホルムアルデヒド	旧第二
・優先評価化学物質		
50-00-0	ホルムアルデヒド	
67-56-1	メタノール	
・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)		
50-00-0	ホルムアルデヒド	
64-17-5	エタノール	
64-19-7	酢酸	
67-56-1	メタノール	
・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		
50-00-0	ホルムアルデヒド	411
・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		
50-00-0	ホルムアルデヒド	
67-56-1	メタノール	
・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)		
64-17-5	エタノール	
64-19-7	酢酸	
67-56-1	メタノール	

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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**

50-00-0 ホルムアルデヒド

・ **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)**

50-00-0	ホルムアルデヒド	548
64-17-5	エタノール	61
64-19-7	酢酸	176
67-56-1	メタノール	560

・ **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**

67-56-1 メタノール

・ **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**

50-00-0	ホルムアルデヒド
64-17-5	エタノール
64-19-7	酢酸
67-56-1	メタノール

・ **海洋汚染防止法**

50-00-0	ホルムアルデヒド
64-17-5	エタノール
64-19-7	酢酸
67-56-1	メタノール

・ **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

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・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

50-00-0 ホルムアルデヒド

67-56-1 メタノール

・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

50-00-0 ホルムアルデヒド

3-3-1

・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

GHS05

GHS06

GHS08

・注意喚起語 危険

・危険と定められた成分をラベル表示:

ホルムアルデヒド

酢酸

・危険有害性情報

極めて引火性の高い液体及び蒸気

飲み込むと有害

皮膚に接触したり, 吸入すると有毒

重篤な皮膚の薬傷及び眼の損傷

アレルギー性皮膚反応を起こすおそれ

遺伝性疾患のおそれの疑い

発がんのおそれ

・注意書き

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。

ただちに毒物センター/医師に連絡すること。

特別な処置が必要である(このラベルのを見よ)。

汚染された衣類を直ちに全て脱ぎ, 再使用する場合には洗濯をすること。

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

・国内規定:

・使用上の制約に関する注意事項:

被用者はこの調合に含まれる発ガン性危険成分に暴露されてはならない。ただし、場合に依りて関係当局が例外許可をおろすこともある

・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

JP

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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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

PRTR/化管法: 化学物質排出把握管理促進法

引火性液体 区分1: Flammable liquids – Category 1

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

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

引火性液体 区分4: Flammable liquids – Category 4

急性毒性(経口) 区分3: Acute toxicity – Category 3

急性毒性(経皮) 区分4: Acute toxicity – Category 4

皮膚腐食性/刺激性 区分1A: Skin corrosion/irritation – Category 1A

皮膚腐食性/刺激性 区分1B: Skin corrosion/irritation – Category 1B

重篤な眼の損傷性/眼刺激性 区分1: Serious eye damage/eye irritation – Category 1

感作性(皮膚) 区分1: Skin sensitisation – Category 1

生殖細胞変異原性 区分2: Germ cell mutagenicity – Category 2

発がん性 区分1B: Carcinogenicity – Category 1B

特定標的臓器有害性(単回暴露) 区分1: Specific target organ toxicity (single exposure) – Category 1

물질안전보건자료 GHS에 따라

인쇄일자: 2021.12.09

개정: 2021.12.09

1 화학제품과 회사에 관한 정보

- **제품 식별자**
- **제품명: DAVIDSON'S FIXATIVE, MODIFIED**
- **상품번호:** 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G
- **해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도**
- **제품의 권고 용도와 사용상의 제한:** DAVIDSON'S FIXATIVE, MODIFIED
- **제품의 권고 용도와 사용상의 제한:** 실험실화학품
- **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

 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 - 구분1

H224 극인화성 액체 및 증기



두개골과 대퇴골

급성 독성 - 경피 - 구분3

H311 피부와 접촉하면 유독함

급성 독성 - 흡입 - 구분3

H331 흡입하면 유독함



건강에 위험

(2 쪽에 계속)

물질안전보건자료

GHS에 따라

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제품명: DAVIDSON'S FIXATIVE, MODIFIED

(1 쪽부터계속)

생식세포 변이원성- 구분2 H341 유전적인 결함을 일으킬 것으로 의심됨
 발암성 - 구분1B H350 암을 일으킬 수 있음



부식

피부 부식성/피부 자극성 - 구분 1 H314 피부에 심한 화상과 눈에 손상을 일으킴
 심한 눈 손상성/눈 자극성 - 구분1 H318 눈에 심한 손상을 일으킴



급성 독성 - 경구 - 구분4 H302 삼키면 유해함
 피부 과민성은 - 구분1 H317 알레르기성 피부 반응을 일으킬 수 있음

- 라벨표기 요소
- GHS 라벨 요소
- 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
- GHS 그림문자



GHS02 GHS05 GHS06 GHS08

- 신호어 위험
- **상표상에명확히위험성이표시된성분:**
 포르말린
 Acetic Acid Glacial
- **유해·위험문구**
 극산화성 액체 및 증기
 삼키면 유해함
 피부에 접촉하거나 흡입하면 유독함.
 피부에 심한 화상과 눈에 손상을 일으킴
 알레르기성 피부 반응을 일으킬 수 있음
 유전적인 결함을 일으킬 것으로 의심됨
 암을 일으킬 수 있음
- **예방조치문구**
 피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나 제거하십시오. 피부를 물로 씻으시오/샤워하십시오
 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.
 즉시 독성물질센터/병원 연락 필요.
 (라벨 참조) 처치를 하시오.
 오염된 모든 의복은 즉시 벗고 다시 사용 전 세척하십시오.
 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.

KR

(3 쪽에계속)

물질안전보건자료

GHS에 따라

인쇄일자: 2021.12.09

개정: 2021.12.09

제품명: DAVIDSON'S FIXATIVE, MODIFIED

(2 쪽부터 계속)

3 구성성분의 명칭 및 함유량

- **화학적 특성:** 혼합물
- **설명:** 무해한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

· **위험요소:**

50-00-0	포르말린 ⚠ 급성 독성 - 경구 - 구분3, H301; 급성 독성 - 경피 - 구분3, H311; 급성 독성 - 흡입 - 구분3, H331; ⚠ 생식세포 변이원성 - 구분2, H341; 발암성 - 구분1B, H350; ⚠ 피부 부식성/피부 자극성 - 구분 1, H314; ⚠ 피부 과민성은 - 구분1, H317	>25-≤50%
64-17-5	Ethyl alcohol ⚠ 인화성 액체 - 구분2, H225	>10-≤25%
64-19-7	Acetic Acid Glacial ⚠ 인화성 액체 - 구분3, H226; ⚠ 피부 부식성/피부 자극성 - 구분 1, H314; ⚠ 급성 독성 - 경피 - 구분4, H312	>2.5-≤10%
67-56-1	메틸알코올 ⚠ 인화성 액체 - 구분2, H225; ⚠ 특정표적장기 독성 - 1회 노출 - 구분1, H370; ⚠ 급성 독성 - 경구 - 구분4, H302; 급성 독성 - 경피 - 구분4, H312; 급성 독성 - 흡입 - 구분4, H332	≤2.5%

4 응급조치 요령

· **응급조치요령 내용**

· **일반적 정보:**

이제품에 의해 오염된 의상은 즉시 제거한다.
 중독 증상은 몇 시간 이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간 동안은 의료진의 관찰을 받아야 한다.
 반드시 오염된 의상을 완전히 제거한 후에 호흡 보호기를 떼어낸다.
 불규칙적인 호흡이나 호흡 정지 상태에서는 인공 호흡을 실시한다.

· **흡입했을 때:**

신선한 공기나 산소를 공급받고, 의료진의 도움을 구한다.
 환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.

· **피부에 접촉했을 때:** 즉시 물과 비누로 씻고 잘 행군다.

· **눈에 들어갔을 때:** 흐르는 물에 눈을 몇 분 동안 씻어내고 나서, 의사와 상담한다.

· **먹었을 때:**

즉시 의사의 도움을 구한다.
 물을 충분히 마시고 신선한 공기를 쐬다. 즉시 의사의 도움을 구한다.

· **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 석회 가루 또는 물 방사를 사용하고, 더 큰 화재는 물을 분사하거나 알코올이 함유된 거품으로 끈다.

· **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.

(4 쪽에 계속)

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- 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:
많은 물로 희석시킨다.
하수도망/해수면위의물/지하수로도달하지않게한다.
- 밀폐 및 정화 방법과 소재:
액체가 혼합된 물질(모래, 규조토, 산성결합물, 일반결합물, 톱밥)에 흡입되도록 한다.
중성제를사용한다.
항목 13에 따라 오염된 물질을 쓰레기로 처분한다.
충분한 환기가 되도록 한다.
- 타 섹션 참조
안전관리에 대한 정보는 제7 장을 참고하십시오.
개인보호장비에 대한 정보는 제8 장을 참고하십시오.
쓰레기처리에 대한 정보는 제13 장을 참고하십시오.

7 취급 및 저장방법

- 취급:
· 안전 취급을 위한 예방조치
작업장에서는통풍이잘되고/습기제거가잘되게주의한다.
조심스럽게용기를 개봉하거나취급한다.
연무질이형성되는것을피한다.
- 화재 및 폭발 사고 예방대책에 관한 정보:
발화요소는 멀리둔다.금연.
열로부터보호한다.
정전기의충전으로부터 보호한다.
호흡보호장비를항상비치한다.
- 혼합위험성 등 안전 저장 조건
- 보관:
· 안전한 저장 방법: 차가운 장소에 보관한다.
· 하나의 공동 보관 시설에 대한 보관 관련 정보: 필요없음
- 보관 조건에 관한 추가적인 정보:
용기를새지않게밀폐한채보관한다.
밀폐된용기속에서늘하고건조하게보관한다.
열이나직사광선으로부터보호한다.
- 구체적 최종 사용자 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

- 첨단시설 디자인에 대한 추가정보: 더 이상 의 자료는 없음. 항목 7 을 참고하십시오.

(5 쪽에계속)

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통제 변수

· 화학물질의 노출기준, 생물학적 노출기준 등:

50-00-0 포르말린

OELV (KR)	장기간의값: 0.3 ppm 발암성1A, 생식세포 변이원성2
BOELV (EU)	단기간의값: 0.74 mg/m ³ , 0.6 ppm 장기간의값: 0.37 (0.62)* mg/m ³ , 0.3 (0.5)* ppm Skin sens; *health/funeral/embalming till 11/7/24
PEL (US)	단기간의값: 2 ppm 장기간의값: 0.75 ppm see 29 CFR 1910.1048(c)
REL (US)	장기간의값: 0.016 ppm 최고노출기준: 0.1* ppm *15-min; See Pocket Guide App. A
TLV (US)	단기간의값: 0.3 ppm 장기간의값: 0.1 ppm DSEN; RSEN, A1

64-17-5 Ethyl alcohol

OELV (KR)	장기간의값: 1000 ppm 발암성 1A
PEL (US)	장기간의값: 1900 mg/m ³ , 1000 ppm
REL (US)	장기간의값: 1900 mg/m ³ , 1000 ppm
TLV (US)	단기간의값: 1000 ppm A3

64-19-7 Acetic Acid Glacial

OELV (KR)	단기간의값: 15 ppm 장기간의값: 10 ppm
IOELV (EU)	단기간의값: 50 mg/m ³ , 20 ppm 장기간의값: 25 mg/m ³ , 10 ppm
PEL (US)	장기간의값: 25 mg/m ³ , 10 ppm
REL (US)	단기간의값: 37 mg/m ³ , 15 ppm 장기간의값: 25 mg/m ³ , 10 ppm
TLV (US)	단기간의값: 15 ppm 장기간의값: 10 ppm

67-56-1 메틸알코올

OELV (KR)	단기간의값: 250 ppm 장기간의값: 200 ppm Skin
IOELV (EU)	장기간의값: 260 mg/m ³ , 200 ppm Skin
PEL (US)	장기간의값: 260 mg/m ³ , 200 ppm
REL (US)	단기간의값: 325 mg/m ³ , 250 ppm 장기간의값: 260 mg/m ³ , 200 ppm Skin
TLV (US)	단기간의값: 250 ppm 장기간의값: 200 ppm Skin; BEI

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· 생물학적 허용값을 갖는 원료:

67-56-1 메틸알코올

BEI (US)	15 mg/L
	Medium: urine
	Time: end of shift
	Parameter: Methanol (background, nonspecific)

· **추가 정보:** 제조할 당시에 유효한 목록을 기초로 사용했다.

· **노출 통제**

· **개인 보호구**

· **일반적보호조치및위생조치:**

- 식료품, 음료수와 사료로부터 멀리떨어뜨려 놓는다.
- 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
- 휴식전이나 작업이 끝날때마다 손을 씻는다.
- 방호복은 따로보관한다.
- 눈과의 접촉을 피한다.
- 눈과 피부와의 접촉은 피한다.

· **호흡기 보호:**

단 시간 또는 경미한 오염의 경우에는 호흡여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡보호장비를 사용한다.

· **손 보호:**



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.
테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.
투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

· **장갑 의재료**

적합한장갑의선택은재질차이뿐아니라품질기준의차이도고려하여이루어져야하고제조업종에따라서도다르게선정되어야한다. 제품은다양한재료로부터의조제로이루어지는것이기때문에, 장갑재질의안정성은사전예측되어질수있는것이아니고, 반드시사용전에 (그안전성이) 체크되어야한다.

· **장갑 재료의 투과 시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.

· **눈 보호:**



팩조이는보안경

9 물리화학적 특성

· **기본 물리 및 화학적 특성에 대한 정보**

· **일반정보**

· **외형**

· 물리적 상태:	용해
· 색:	밝은
· 냄새:	알코올종류의
· 후각역치	알맞지않다.

· pH 의경우 20 °C: 2.5

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· 상태변화 녹는점/어는점: 초기 끓는점과 끓는점 범위:	맞지않는 -21 °C
· 인화점:	17 °C
· 인화성(고체, 기체):	해당사항 없음.
· 점화온도:	300 °C
· 분해 온도:	알맞지않다.
· 자기점화:	이제품은자연발화성이없다.
· 폭발위험:	이제품은폭발위험성이없지만, 폭발가능성이있는증기화합물/공기화합물의형성가능성이있다.
· 인화 또는 폭발 범위의 상한/하한 아래로: 위로:	3.5 Vol % 73 Vol %
· 증기압 의경우 20 °C:	59 hPa
· 밀도 의경우 20 °C: · 비중: · 증기밀도: · 증발 속도:	0.9501 g/cm ³ 알맞지않다. 알맞지않다. 알맞지않다.
· 용해도: 물:	완전히혼합할수있는
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도: 역학성: 동점성:	알맞지않다. 알맞지않다.
· 용매내용물 유기용매: 물: VOC (EU)	57.8 % 42.3 % 57.75 %
· 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: 규정에따라사용할경우해체는없다
- 유해반응 가능성 위험한 반응으로는알려지지않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은알려지지않았다.

KR

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11 독성에 관한 정보

· 독성학적 영향에 대한 정보

· 급성 독성:

· LD/LC50-수치에 따른 분류:

50-00-0 포르말린

구강의	LD50	>200 mg/kg (rat)
-----	------	------------------

· 일차적 자극 효과:

· 피부 부식성 또는 자극성: 피부와점막에강한부식작용.

· 심한 눈 손상 또는 자극성:

강한부식작용

심각한안구상처의위험이있는강한자극

· 감각화: 피부접촉을통하여감각화가가능성이었다.

· 추가적인 독성에 관한 정보:

이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전준비에대하여제시하고있다.

독성의

건강에해로운

부식작용의

자극적인

삼킬경우식도나위등의내장기관벽에상처를주는위험과 마찬가지로입주변이나구강에강한부식작용을한다
압을유발하는

· 다음 종류의 잠재적인 효과에 대한 정보

· CMR-효과 (암 유발, 돌연변이성 그리고 생식 독성)

생식세포 변이원성- 구분2, 발암성 - 구분1B

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.

· 추가적인 생태학 정보:

· 일반 특징:

수질오염등급 2 (자체등급분류): 수질오염이된

지하수나, 하천으로또는하수도망에도달하지않게한다.

희석시키지않은채또는중화시키지않은채하수도나배수로에도달하지않게해야한다.

지하수로경미한양이유입되었을경우엔이미식수오염상태이다

· 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: 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.

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- 비위생적 포장:
- 권고: 당국의지침에입각한쓰레기처리.
- 추천 세정제: 경우에따라서세제가첨가된물

14 운송에 필요한 정보

· 유엔 번호 · ADR, IMDG, IATA	UN1170
· UN 적정 선적명 · ADR · IMDG · IATA	1170 ETHANOL (ETHYL ALCOHOL) ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT ETHANOL
· 교통 위험 클래스 · ADR	3 발화성용액 3+8
· 등급 · 위험물 라벨	3 발화성용액 3+8
· IMDG	3 발화성용액 3/8
· IATA	3 발화성용액 3 (8)
· 용기등급 · ADR, IMDG, IATA	II
· 환경적 유해물질: · 해양오염물질:	심벌 (물고기와 나무)
· 이용자 특별 예방조치 · 위험 코드: · EMS-번호: · Stowage Category · Stowage Code	경고: 발화성용액 368 F-E,S-C E SW2 Clear of living quarters.

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제품명: DAVIDSON'S FIXATIVE, MODIFIED

(9 쪽부터계속)

· Segregation Code	SG5 Segregation as for class 3 SG8 Stow "away from" class 4.1
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송	해당사항 없음.
· 운송/추가 정보:	
· ADR · 한정 수량 (LQ) · Excepted quantities (EQ)	0 Code: E0 Not permitted as Excepted Quantity
· 운송 구분 · 터널 제한 코드	1 C/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	0 Code: E0 Not permitted as Excepted Quantity
· UN "모범 규제":	UN 1170 ETHANOL (ETHYL ALCOHOL), 3 (8), II

15 법적 규제현황

· 산업안전보건법에 의한 규제:		
· 제조 등 금지물질:	어떠한내용물도목록화되어있지않다	
· 허가대상물질:	어떠한내용물도목록화되어있지않다	
· 관리대상유해물질:		
50-00-0	포르말린	
64-19-7	Acetic Acid Glacial	
67-56-1	메틸알코올	
· 관리대상 유해물질의 종류 유기화합물: 118		
· 작업환경측정 대상 유해인자		
50-00-0	포르말린	1A105
64-19-7	Acetic Acid Glacial	1C15
67-56-1	메틸알코올	1A28
· 특수건강진단 대상 유해인자		
50-00-0	포르말린	1A98
67-56-1	메틸알코올	1A31
· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률		
· Korean Existing Chemical Inventory		
7732-18-5	물	KE-35400
50-00-0	포르말린	KE-17074
64-17-5	Ethyl alcohol	KE-13217
64-19-7	Acetic Acid Glacial	KE-00013
67-56-1	메틸알코올	KE-23193

(11 쪽에계속)

물질안전보건자료

GHS에 따라

인쇄일자: 2021.12.09

개정: 2021.12.09

제품명: DAVIDSON'S FIXATIVE, MODIFIED

(10 쪽부터계속)

· 화학물질관리법

· 사고대비물질

50-00-0 포르말린

67-56-1 메틸알코올

· 금지물질

어떠한내용물도목록화되어있지않다

· 제한물질

50-00-0 포르말린

· 유독물질

50-00-0 포르말린

67-56-1 메틸알코올

· 허가물질

50-00-0 포르말린

67-56-1 메틸알코올

· 위험물안전관리법 (위험물 및 지정수량) 제 4: 400 리터

· 등록 또는 신고 면제대상 화학물질

7732-18-5 물

· ‘21년까지 등록하여야 할 압, 들언병이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 기존화학물질

어떠한내용물도목록화되어있지않다

· 중점관리물질의 지정

· 표1 중점관리물질(제2조 관련)

50-00-0 포르말린

· 표2 중점관리물질(제2조 관련)

어떠한내용물도목록화되어있지않다

· GHS 라벨 요소

본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· GHS 그림문자



GHS02 GHS05 GHS06 GHS08

· 신호어 위험

· 상표상에명확히위험성이표시된성분:

포르말린

Acetic Acid Glacial

· 유해·위험문구

극산화성 액체 및 증기

삼키면 유해함

피부에 접촉하거나 흡입하면 유독함.

피부에 심한 화상과 눈에 손상을 일으킴

알레르기성 피부 반응을 일으킬 수 있음

유전적인 결함을 일으킬 것으로 의심됨

압을 일으킬 수 있음

· 예방조치문구

피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나 제거하십시오. 피부를 물로 씻으시오/샤워하십시오

(12 쪽에계속)

물질안전보건자료

GHS에 따라

인쇄일자: 2021.12.09

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제품명: DAVIDSON'S FIXATIVE, MODIFIED

(11 쪽부터계속)

눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.

즉시 독성물질센터/병원 연락 필요.

(라벨 참조) 처치를 하시오.

오염된 모든 의복은 즉시 벗고 다시 사용 전 세척하십시오.

밀봉하여 저장하십시오.

(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.

· 국내규정:

· 사용제한에 대한 정보:

노동자들은 이러한 예방준비하에 암을 유발시키는 성분을 함유한 위험물을 버리지 말아야 한다. 개별적인 경우에 관청은 예외를 허가할 수 있다.

· 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: 2021.12.09

· 개정 횟수 및 최종 개정일자: 1 / 2021.12.09

· 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 09.12.2021

Revisión: 09.12.2021

SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

· 1.1 Identificador del producto

· **Nombre comercial:** DAVIDSON'S FIXATIVE, MODIFIED

· **Número del artículo:** 64133-50, 64133-50-10, 64133-50-SP, 64133-50-SP-1GAL, 64133-50-10L, 64133-50-1G

· **UFI:** EX01-F0HQ-Y00P-W1DD

· 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: sgkcck@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. 1 H224 Líquido y vapores extremadamente inflamables.



GHS06 calavera y tibias cruzadas

Acute Tox. 3 H311 Tóxico en contacto con la piel.

Acute Tox. 3 H331 Tóxico en caso de inhalación.



GHS08 peligro para la salud

Muta. 2 H341 Se sospecha que provoca defectos genéticos.

Carc. 1B H350 Puede provocar cáncer.

(se continua en página 2)

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Nombre comercial: **DAVIDSON'S FIXATIVE, MODIFIED**

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GHS05 corrosión

Skin Corr. 1B H314 Provoca quemaduras graves en la piel y lesiones oculares graves.

Eye Dam. 1 H318 Provoca lesiones oculares graves.



GHS07

Acute Tox. 4 H302 Nocivo en caso de ingestión.

Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.

STOT SE 3 H335 Puede irritar las vías respiratorias.

· 2.2 Elementos de la etiqueta

· Etiquetado con arreglo al Reglamento (CE) n° 1272/2008

El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.

· Pictogramas de peligro



GHS02



GHS05



GHS06



GHS08

· Palabra de advertencia Peligro

· Componentes peligrosos a indicar en el etiquetaje:

formaldehído

ácido acético

· Indicaciones de peligro

H224 Líquido y vapores extremadamente inflamables.

H302 Nocivo en caso de ingestión.

H311+H331 Tóxico en contacto con la piel o si se inhala.

H314 Provoca quemaduras graves en la piel y lesiones oculares graves.

H317 Puede provocar una reacción alérgica en la piel.

H341 Se sospecha que provoca defectos genéticos.

H350 Puede provocar cáncer.

H335 Puede irritar las vías respiratorias.

· Consejos de prudencia

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.

P310 Llamar inmediatamente a un CENTRO DE TOXICOLOGÍA/médico.

P321 Se necesita un tratamiento específico (ver en esta etiqueta).

P361+P364 Quitar inmediatamente todas las prendas contaminadas y lavarlas antes de volver a usarlas.

P405 Guardar bajo llave.

P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

· 2.3 Otros peligros

· Resultados de la valoración PBT y mPmB

· PBT: No aplicable.

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· **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: 50-00-0 EINECS: 200-001-8	formaldehído ☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ☠ Muta. 2, H341; Carc. 1B, H350; ☠ Skin Corr. 1B, H314; ☠ Skin Sens. 1, H317	>25-≤50%
CAS: 64-17-5 EINECS: 200-578-6	etanol 🔥 Flam. Liq. 2, H225	>10-≤25%
CAS: 64-19-7 EINECS: 200-580-7	ácido acético 🔥 Flam. Liq. 3, H226; ☠ Skin Corr. 1A, H314; ☠ Acute Tox. 4, H312	>2,5-≤10%
CAS: 67-56-1 EINECS: 200-659-6	metanol 🔥 Flam. Liq. 2, H225; ☠ STOT SE 1, H370; ☠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≤2,5%

· SVHC

64-17-5	etanol
67-56-1	metanol

· **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:

Quitarse de inmediato toda prenda contaminada con el producto.

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.

Antes de quitarse la protección respiratoria, quítese la ropa contaminada.

En caso de respiración irregular o apnea (paro respiratorio), hágase la respiración artificial.

· En caso de inhalación del producto:

Suministrar aire fresco u oxígeno; solicitar ayuda médica.

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:

Limpia los ojos abiertos durante varios minutos con agua corriente y consultar un médico.

· En caso de ingestión:

Consultar inmediatamente un médico.

Beber mucha agua a respirar aire fresco. Solicitar asistencia médica inmediatamente.

· 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.

ES

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SECCIÓN 5: Medidas de lucha contra incendios

- **5.1 Medios de extinción**
- **Sustancias extintoras apropiadas:**
CO2, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al alcohol.
- **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:**
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).
Utilizar un neutralizador.
Desechar el material contaminado como vertido según item 13.
Asegurar suficiente ventilación.
- **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.
Abrir y manejar el recipiente con cuidado.
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.
Tener preparados los aparatos respiratorios.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** Almacenar en un lugar fresco.
- **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.

ES

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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:

50-00-0 formaldehído

LEP Valor de corta duración: 0,74 mg/m³, 0,6 ppm
 Valor de larga duración: 0,37 mg/m³, 0,3 ppm
 CIB, Sen, s

64-17-5 etanol

LEP Valor de corta duración: 1910 mg/m³, 1000 ppm
 s

64-19-7 ácido acético

LEP Valor de corta duración: 50 mg/m³, 20 ppm
 Valor de larga duración: 25 mg/m³, 10 ppm
 VLI

67-56-1 metanol

LEP Valor de larga duración: 266 mg/m³, 200 ppm
 vía dérmica, VLB, VLI

· Componentes con valores límite biológicos:

67-56-1 metanol

VLB 15 mg/l
 Muestra: orina
 Momento de Muestero: Final de la jornada laboral
 Indicador Biológico: Metanol

· **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.

Guardar la ropa protectora por separado.

Evitar el contacto con los ojos.

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 / substancia / preparado.

Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de substancias químicas.

Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

(se continua en página 6)

Ficha de datos de seguridad

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· **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 herméticas

SECCIÓN 9: Propiedades físicas y químicas

· **9.1 Información sobre propiedades físicas y químicas básicas**

· **Datos generales**

· **Aspecto:**

Forma:

Solución

Color:

Claro

· **Olor:**

Similar al del alcohol

· **Umbral olfativo:**

No determinado.

· **valor pH a 20 °C:**

2,5

· **Cambio de estado**

Punto de fusión/punto de congelación:

Indeterminado.

Punto inicial de ebullición e intervalo de ebullición: -21 °C

· **Punto de inflamación:**

17 °C

· **Inflamabilidad (sólido, gas):**

No aplicable.

· **Temperatura de ignición:**

300 °C

· **Temperatura de descomposición:**

No determinado.

· **Temperatura de auto-inflamación:**

El producto no es autoinflamable.

· **Propiedades explosivas:**

El producto no es explosivo; sin embargo, pueden formarse mezclas explosivas de vapor / aire.

· **Límites de explosión:**

Inferior:

3,5 Vol %

Superior:

73 Vol %

· **Presión de vapor a 20 °C:**

59 hPa

· **Densidad a 20 °C:**

0,9501 g/cm³

· **Densidad relativa**

No determinado.

· **Densidad de vapor**

No determinado.

· **Tasa de evaporación:**

No determinado.

· **Solubilidad en / miscibilidad con agua:**

Completamente mezclable.

· **Coefficiente de reparto: n-octanol/agua:**

No determinado.

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· Viscosidad:	
Dinámica:	No determinado.
Cinemática:	No determinado.
· Concentración del disolvente:	
Disolventes orgánicos:	57,8 %
Agua:	42,3 %
VOC (CE)	57,75 %
· Contenido de cuerpos sólidos:	
	0,0 %
· 9.2 Otros datos	
	No existen más datos relevantes disponibles.

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** No se conocen reacciones peligrosas.
- **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

Nocivo en caso de ingestión.

Tóxico en contacto con la piel o si se inhala.

· Valores LD/LC50 (dosis letal /dosis letal = 50%) relevantes para la clasificación:

50-00-0 formaldehído

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**
Provoca quemaduras graves en la piel y lesiones oculares graves.
- **Lesiones o irritación ocular graves**
Provoca lesiones oculares graves.
- **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**
Se sospecha que provoca defectos genéticos.
- **Carcinogenicidad**
Puede provocar cáncer.
- **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 irritar las vías respiratorias.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

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· **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.
- **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.
 En estado no diluido o no neutralizado, no verter en el alcantarillado o en otros sistemas de desagüe.
 Una cantidad mínima vertida en el subsuelo ya representa un peligro para el agua potable.
- **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** UN1170
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 1170 ETANOL (ALCOHOL ETÍLICO)
- **IMDG** ETHANOL (ETHYL ALCOHOL), MARINE POLLUTANT
- **IATA** ETHANOL
- **14.3 Clase(s) de peligro para el transporte**
- **ADR**
- 
- **Clase** 3 Líquidos inflamables

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· Etiqueta	3+8
· IMDG	
	
· Class	3 Líquidos inflamables
· Label	3/8
· IATA	
	
· Class	3 Líquidos inflamables
· Label	3 (8)
· 14.4 Grupo de embalaje	
· ADR, IMDG, IATA	II
· 14.5 Peligros para el medio ambiente:	
· Contaminante marino:	Símbolo (pez y árbol)
· 14.6 Precauciones particulares para los usuarios	Atención: Líquidos inflamables
· Número de identificación de peligro (Número Kemler):	368
· Número EMS:	F-E,S-C
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· Segregation Code	SG5 Segregation as for class 3 SG8 Stow "away from" class 4.1
· 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)	0
· Cantidades exceptuadas (EQ)	Código: E0 No se permite como cantidad exceptuada
· Categoría de transporte	1
· Código de restricción del túnel	C/E
· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· "Reglamentación Modelo" de la UNECE:	UN 1170 ETANOL (ALCOHOL ETÍLICO), 3 (8), II

ES

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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**

P5a LÍQUIDOS INFLAMABLES

H2 TOXICIDAD AGUDA

· **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior 10 t**

· **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior 50 t**

· **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones: 3, 28, 72**

· **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**

ninguno de los componentes está incluido en una lista

· **Reglamento (CE) no 273/2004 sobre precursores de drogas**

ninguno de los componentes está incluido en una lista

· **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**

ninguno de los componentes está incluido en una lista

· **Disposiciones nacionales:**

· **Indicaciones sobre las limitaciones de trabajo:**

Los empleados no deben exponerse a las sustancias cancerígenas contenidas en el producto. En casos aislados las autoridades pueden hacer excepciones.

· **Demás disposiciones, limitaciones y decretos prohibitivos**

· **Sustancias altamente preocupantes (SVHC) según REACH, artículo 57**

64-17-5 etanol

67-56-1 metanol

· **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.

· **Frasas relevantes**

H225 Líquido y vapores muy inflamables.

H226 Líquidos y vapores inflamables.

H301 Tóxico en caso de ingestión.

H302 Nocivo en caso de ingestión.

H311 Tóxico en contacto con la piel.

H312 Nocivo en contacto con la piel.

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*H314 Provoca quemaduras graves en la piel y lesiones oculares graves.**H317 Puede provocar una reacción alérgica en la piel.**H331 Tóxico en caso de inhalación.**H332 Nocivo en caso de inhalación.**H341 Se sospecha que provoca defectos genéticos.**H350 Puede provocar cáncer.**H370 Provoca daños en los órganos.***· 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)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 1: Líquidos inflamables – Categoría 1**Flam. Liq. 2: Líquidos inflamables – Categoría 2**Flam. Liq. 3: Líquidos inflamables – Categoría 3**Acute Tox. 3: Toxicidad aguda – Categoría 3**Acute Tox. 4: Toxicidad aguda – Categoría 4**Skin Corr. 1A: Corrosión o irritación cutáneas – Categoría 1A**Skin Corr. 1B: Corrosión o irritación cutáneas – Categoría 1B**Eye Dam. 1: Lesiones oculares graves o irritación ocular – Categoría 1**Skin Sens. 1: Sensibilización cutánea – Categoría 1**Muta. 2: Mutagenicidad en células germinales – Categoría 2**Carc. 1B: Carcinogenicidad – Categoría 1B**STOT SE 1: Toxicidad específica en determinados órganos (exposición única) – Categoría 1**STOT SE 3: Toxicidad específica en determinados órganos (exposición única) – Categoría 3*