

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/08/2022

Reviewed on 03/08/2022

1 Identification

· **Product identifier**

· **Trade name:** BOUIN'S FLUID

· **Article number:** 15990-01, 15990-04, 15990-10, 15990-20, 15990-30

· **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**



GHS01 Exploding bomb

Explosives 1.1

H201 Explosive; mass explosion hazard.



GHS06 Skull and crossbones

Acute Toxicity - Dermal 3 H311 Toxic in contact with skin.

Acute Toxicity - Inhalation 3 H331 Toxic if inhaled.



GHS08 Health hazard

Germ Cell Mutagenicity 2 H341 Suspected of causing genetic defects.

Carcinogenicity 1B H350 May cause cancer.



GHS05 Corrosion

Skin Corrosion 1C

H314 Causes severe skin burns and eye damage.

Eye Damage 1

H318 Causes serious eye damage.



GHS07

Acute Toxicity - Oral 4

H302 Harmful if swallowed.

Sensitization - Skin 1

H317 May cause an allergic skin reaction.

Flammable Liquids 4

H227 Combustible liquid.

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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

Acetic Acid Glacial

2,4,6-trinitrophenol

· **Hazard statements**

Explosive; mass explosion hazard.

Combustible liquid.

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.

Keep wetted.

Ground/bond container and receiving equipment.

Do not subject to grinding/shock/friction.

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.

In case of fire: Evacuate area.

Explosion risk in case of fire.

DO NOT fight fire when fire reaches explosives.

Store in accordance with local/regional/national/international regulations.

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

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Store in a well-ventilated place. Keep cool.

Store locked up.

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

· **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	>2.5-≤10%
64-19-7	Acetic Acid Glacial	>2.5-≤10%
88-89-1	2,4,6-trinitrophenol	≤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.

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- **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, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Remove persons from danger area.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** 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.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

50-00-0	formaldehyde	0.90 ppm
64-19-7	Acetic Acid Glacial	5 ppm
88-89-1	2,4,6-trinitrophenol	0.3 mg/m ³

- **PAC-2:**

50-00-0	formaldehyde	14 ppm
64-19-7	Acetic Acid Glacial	35 ppm
88-89-1	2,4,6-trinitrophenol	17 mg/m ³

- **PAC-3:**

50-00-0	formaldehyde	56 ppm
64-19-7	Acetic Acid Glacial	250 ppm
88-89-1	2,4,6-trinitrophenol	100 mg/m ³

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.

Prevent impact and friction.

Keep respiratory protective device available.

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

· **Storage:**

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

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

· **Further information about storage conditions:**

Keep receptacle tightly sealed.

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

64-19-7 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

88-89-1 2,4,6-trinitrophenol

PEL Long-term value: 0.1 mg/m³

Skin

REL Short-term value: 0.3 mg/m³

Long-term value: 0.1 mg/m³

Skin

TLV Long-term value: 0.1 mg/m³

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

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- **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:**

Safety glasses



Tightly sealed goggles

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: Liquid

Color: Light yellow

- **Odor:** Pungent

- **Odor threshold:** Not determined.

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

- **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: -21 °C (-5.8 °F)

- **Flash point:** 0 °C (32 °F)

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Trade name: **BOUIN'S FLUID**

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· Flammability (solid, gaseous):	Not flammable.
· Ignition temperature:	300 °C (572 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Risk of explosion by shock, friction, fire or other sources of ignition.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
· Density at 20 °C (68 °F):	0.99507 g/cm ³ (8.30386 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	18.0 %
Water:	81.0 %
VOC content:	18.00 %
	923.3 g/l / 7.71 lb/gal
Solids content:	1.0 %
· 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.

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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
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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.

- **vPvB:** Not applicable.

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Trade name: **BOUIN'S FLUID**

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· **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.

14 Transport information

- | | |
|---|-----------------|
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Void |

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

88-89-1 2,4,6-trinitrophenol

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

All components have the value ACTIVE.

- **Hazardous Air Pollutants**

50-00-0 formaldehyde

- **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:**

None of the ingredients is listed.

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

50-00-0 formaldehyde	B1
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· **TLV (Threshold Limit Value)**

50-00-0 formaldehyde	A2
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

50-00-0 formaldehyde	
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· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).· **Hazard pictograms**

GHS01 GHS05 GHS06 GHS07 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labeling:***formaldehyde**Acetic Acid Glacial**2,4,6-trinitrophenol*· **Hazard statements***Explosive; mass explosion hazard.**Combustible liquid.**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.**Keep wetted.**Ground/bond container and receiving equipment.**Do not subject to grinding/shock/friction.**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).*

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Trade name: BOUIN'S FLUID

(Contd. of page 10)

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.

In case of fire: Evacuate area.

Explosion risk in case of fire.

DO NOT fight fire when fire reaches explosives.

Store in accordance with local/regional/national/international regulations.

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** 03/08/2022 / -

· **Abbreviations and acronyms:**

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

REL: Recommended Exposure Limit

Explosives 1.1: Explosives – Division 1.1

Flammable Liquids 4: Flammable liquids – Category 4

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Acute Toxicity - Dermal 3: Acute toxicity – Category 3

Skin Corrosion 1C: Skin corrosion/irritation – Category 1C

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Sensitization - Skin 1: Skin sensitisation – Category 1

Germ Cell Mutagenicity 2: Germ cell mutagenicity – Category 2

Carcinogenicity 1B: Carcinogenicity – Category 1B

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according to WHS Regulations

Printing date 08.03.2022

Revision: 08.03.2022

1 Identification

- **Product identifier**
- **Trade name:** **BOUIN'S FLUID**
- **Article number:** 15990-01, 15990-04, 15990-10, 15990-20, 15990-30
- **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**



GHS01 exploding bomb

Expl. 1.1 H201 Explosive; mass explosion hazard.



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. 1B H350 May cause cancer.

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GHS05 corrosion

Skin Corr. 1C 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.

Flam. Liq. 4 H227 Combustible liquid.

- **Label elements**

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

- **Hazard pictograms**



GHS01



GHS05



GHS06



GHS07



GHS08

- **Signal word** Danger

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

formaldehyde

Acetic Acid Glacial

2,4,6-trinitrophenol

- **Hazard statements**

Explosive; mass explosion hazard.

Combustible liquid.

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.

Keep wetted.

Ground/bond container and receiving equipment.

Do not subject to grinding/shock/friction.

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.

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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.

In case of fire: Evacuate area.

Explosion risk in case of fire.

DO NOT fight fire when fire reaches explosives.

Store in accordance with local/regional/national/international regulations.

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	>2.5-≤10%
64-19-7	Acetic Acid Glacial	>2.5-≤10%
88-89-1	2,4,6-trinitrophenol	≤2.5%

- **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, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**
Remove persons from danger area.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** 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.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
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.
Prevent impact and friction.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
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

64-19-7 Acetic Acid Glacial

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

88-89-1 2,4,6-trinitrophenol

WES	Long-term value: 0.1 mg/m ³
-----	--

· **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:**
Safety glasses



Tightly sealed goggles

9 Physical and Chemical Properties

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

- **General Information**

- **Appearance:**

· Form:	Liquid
· Colour:	Light yellow
· Odour:	Pungent
· Odour threshold:	Not determined.

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

- **Change in condition**

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

- **Flash point:** 0 °C

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

- **Ignition temperature:** 300 °C

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Risk of explosion by shock, friction, fire or other sources of ignition.

- **Explosion limits:**

· Lower:	Not determined.
· Upper:	Not determined.

- **Vapour pressure at 20 °C:** 23 hPa

· Density at 20 °C:	0.99507 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

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

Not miscible or difficult to mix.

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

- **Viscosity:**

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

- **Solvent content:**

· Organic solvents:	18.0 %
· Water:	81.0 %
· VOC (EC)	18.00 %

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Solids content:	1.0 %
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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. 1B

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.

14 Transport information

- | | |
|---|-----------------|
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · UN "Model Regulation": | not regulated |

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
88-89-1	2,4,6-trinitrophenol	S4, 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).

· Hazard pictograms



GHS01 GHS05 GHS06 GHS07 GHS08

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Trade name: BOUIN'S FLUID

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· **Signal word** *Danger*

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

formaldehyde

Acetic Acid Glacial

2,4,6-trinitrophenol

· **Hazard statements**

Explosive; mass explosion hazard.

Combustible liquid.

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.

Keep wetted.

Ground/bond container and receiving equipment.

Do not subject to grinding/shock/friction.

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.

In case of fire: Evacuate area.

Explosion risk in case of fire.

DO NOT fight fire when fire reaches explosives.

Store in accordance with local/regional/national/international regulations.

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

Store in a well-ventilated place. Keep cool.

Store locked up.

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

· **Directive 2012/18/EU**

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

· **Seveso category** *P5a FLAMMABLE LIQUIDS*

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** *10 t*

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** *50 t*

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· **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:**

· **Abbreviations and acronyms:**

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

Expl. 1.1: Explosives – Division 1.1

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

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

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1 Identification

· **Product identifier**

· **Trade name:** BOUIN'S FLUID

· **Article number:** 15990-01, 15990-04, 15990-10, 15990-20, 15990-30

· **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**



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 1B H350 May cause cancer.



GHS05 Corrosion

Skin Corrosion - Category 1C 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.

Flammable Liquids - Category 4 H227 Combustible liquid.

· **Label elements**

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

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· **Hazard pictograms**· **Signal word** *Danger*· **Hazard-determining components of labeling:***formaldehyde**Acetic Acid Glacial**2,4,6-trinitrophenol*· **Hazard statements***Combustible liquid.**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.**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 locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Classification system:**· **NFPA ratings (scale 0 - 4)***Health = 3**Fire = 0**Reactivity = 0*

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = 3
FIRE	0	Fire = 0
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	5-10% w/w *
64-19-7	Acetic Acid Glacial	5-10% w/w *
88-89-1	2,4,6-trinitrophenol	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.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Remove persons from danger area.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** 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.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
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.
Prevent impact and friction.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
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

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

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Ceiling	1.5 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
88-89-1 2,4,6-trinitrophenol	
EL	TWA: 0.1 mg/m ³ S(D)
EV	STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³ 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

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**

Safety glasses



Tightly sealed goggles

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9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Liquid
Color:	Light yellow
· Odor:	Pungent
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-21 °C
· Flash point:	0 °C
· Flammability (solid, gaseous):	Not flammable.
· Ignition temperature:	300 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Risk of explosion by shock, friction, fire or other sources of ignition.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C:	23 hPa
· Density at 20 °C:	0.99507 g/cm ³
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water): Not determined.	
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	18.0 %
Water:	81.0 %
Solids content:	1.0 %
· 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.

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- **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
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- **NTP (National Toxicology Program)**

50-00-0	formaldehyde	K
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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.
- **vPvB:** Not applicable.

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Trade name: **BOUIN'S FLUID**

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· **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.

14 Transport information

- | | |
|---|-----------------|
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Void |

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

88-89-1 2,4,6-trinitrophenol

- **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

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

64-19-7 Acetic Acid Glacial

88-89-1 2,4,6-trinitrophenol

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

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CA

Safety Data Sheet according to HPR, Schedule 1

Printing date 03/08/2022

Reviewed on 03/08/2022

Trade name: **BOUIN'S FLUID**

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· **Hazard pictograms**

GHS05 GHS06 GHS07 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labeling:***formaldehyde**Acetic Acid Glacial**2,4,6-trinitrophenol*· **Hazard statements***Combustible liquid.**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.**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 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.*

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Safety Data Sheet
according to HPR, Schedule 1

Printing date 03/08/2022

Reviewed on 03/08/2022

Trade name: BOUIN'S FLUID

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

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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** 03/08/2022 / -
- **Abbreviations and acronyms:**
 - 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*

CA

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

Printing date 08.03.2022

Revision: 08.03.2022

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

- **1.1 Product identifier**
- **Trade name:** **BOUIN'S FLUID**
- **Article number:** 15990-01, 15990-04, 15990-10, 15990-20, 15990-30
- **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.



health hazard

Muta. 2 H341 Suspected of causing genetic defects.
Carc. 1B H350 May cause cancer.



Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 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.

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GB

Safety data sheet

according to 1907/2006/EC, Article 31

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Revision: 08.03.2022

Trade name: BOUIN'S FLUID

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Hazard pictograms

GHS02 GHS07 GHS08

Signal word *Danger***Hazard-determining components of labelling:**

formaldehyde

2,4,6-trinitrophenol

Hazard statementsH224 *Extremely flammable liquid and vapour.*H302+H332 *Harmful if swallowed or if inhaled.*H315 *Causes skin irritation.*H319 *Causes serious eye irritation.*H317 *May cause an allergic skin reaction.*H341 *Suspected of causing genetic defects.*H350 *May cause cancer.*H335 *May cause respiratory irritation.***Precautionary statements**P210 *Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.*P241 *Use explosion-proof [electrical/ventilating/lighting] equipment.*P303+P361+P353 *IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*P405 *Store locked up.*P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.***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 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	>2.5-≤10%
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: 88-89-1 EINECS: 201-865-9	2,4,6-trinitrophenol ☠ Expl. 1.1, H201; ☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	≤2.5%

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Trade name: **BOUIN'S FLUID**

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· **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, sand, extinguishing powder. Do not use water.

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

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· 5.3 Advice for firefighters

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

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Remove persons from danger area.

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

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

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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according to 1907/2006/EC, Article 31

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Trade name: **BOUIN'S FLUID**

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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.

Prevent impact and friction.

Keep respiratory protective device available.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

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

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

· Further information about storage conditions:

Keep container tightly sealed.

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/m³, 2 ppm

Long-term value: 2.5 mg/m³, 2 ppm

Carc

64-19-7 Acetic Acid Glacial

WEL Short-term value: 50 mg/m³, 20 ppm

Long-term value: 25 mg/m³, 10 ppm

88-89-1 2,4,6-trinitrophenol

WEL Short-term value: 0.3 mg/m³

Long-term value: 0.1 mg/m³

· 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.

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· Protection of hands:

Protective gloves

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

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

· Material of gloves

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

· Penetration time of glove material

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

· Eye protection:

Safety glasses



Tightly sealed goggles

SECTION 9: Physical and chemical properties

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

Form:	Liquid
Colour:	Light yellow
Odour:	Pungent
Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

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

· Flash point: 0 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 300 °C

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Risk of explosion by shock, friction, fire or other sources of ignition.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure at 20 °C: 23 hPa

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Trade name: BOUIN'S FLUID

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· Density at 20 °C:	0.99507 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	18.0 %
Water:	81.0 %
VOC (EC)	18.00 %
Solids content:	1.0 %
· 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 or if inhaled.

· LD/LC50 values relevant for classification:

50-00-0 formaldehyde

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

· Primary irritant effect:

· Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye irritation.

· Respiratory or skin sensitisation

May cause an allergic skin reaction.

· Additional toxicological information:

· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

· Germ cell mutagenicity

Suspected of causing genetic defects.

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Trade name: BOUIN'S FLUID

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- **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.

SECTION 14: Transport information

- | | |
|--|-----------------|
| · 14.5 Environmental hazards: | Not applicable. |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · UN "Model Regulation": | not regulated |

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.

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according to 1907/2006/EC, Article 31

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Trade name: BOUIN'S FLUID

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- **Seveso category P5a FLAMMABLE LIQUIDS**
- **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.
- **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**
H201 Explosive; mass explosion hazard.
H226 Flammable liquid and vapour.
H301 Toxic 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.
H331 Toxic if inhaled.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
- **Abbreviations and acronyms:**
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
vPvB: very Persistent and very Bioaccumulative
Expl. 1.1: Explosives – Division 1.1
Flam. Liq. 1: Flammable liquids – Category 1
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
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Muta. 2: Germ cell mutagenicity – Category 2
Carc. 1B: Carcinogenicity – Category 1B
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 2022.03.08

在 2022.03.08 审核

1 化学品及企业标识

- 产品识别者
- 化学品中文(英文)名称, 化学品俗名或商品名: **BOUIN'S FLUID**
- 商品编号: 15990-01, 15990-04, 15990-10, 15990-20, 15990-30
- 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:

浅黄色, 液体, 爆炸物:整体爆炸危险。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



爆炸物

爆炸物 第1.1类

H201 爆炸物:整体爆炸危险



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1A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



(在 2 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2022.03.08

在 2022.03.08 审核

化学品中文(英文)名称, 化学品俗名或商品名: BOUIN'S FLUID

(在 1 页继续)

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



GHS01

GHS05

GHS06

GHS08

· 警示词 危险

· 标签上辨别危险的成份:

福尔马林溶液 (>2.5-≤10 %)

醋酸溶液 (>2.5-≤10 %)

苦味酸 (≤2.5 %)

· 危险性说明

爆炸物:整体爆炸危险

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

· 事故响应

如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴

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

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

火烧到爆炸物时切勿救火

· 安全储存

贮存按照地方/区域/国家/国际规章

存放处须加锁

· 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

· 其他有害性

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

· PBT(残留性、生物浓缩性、毒性物质) 不适用的

· vPvB(高残留性、高生物浓缩性物质): 不适用的

3 成分/组成信息

· 混合物

· 描述: 由以下含有无害添加剂的成分组成的混合物

· 危险的成分:

50-00-0	福尔马林溶液 formaldehyde	>2.5-≤10%
	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; 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	

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		(在 2 页继续)
64-19-7	醋酸溶液 Acetic Acid Glacial <ul style="list-style-type: none"> ⚠ 易燃液体 第3类, H226; ⚠ 皮肤腐蚀/刺激 第1A类, H314; ⚠ 急性毒性(径皮肤) 第4类, H312; 急性毒性(径口) 第5类, H303 	>2.5-≤10%
88-89-1	苦味酸 2,4,6-trinitrophenol <ul style="list-style-type: none"> ⚠ 爆炸物 第1.1类, H201; ⚠ 急性毒性(径口) 第3类, H301; 急性毒性(径皮肤) 第3类, H311; 急性毒性(吸入) 第3类, H331 	≤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. 然后谘询医生.

· 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: 使用二氧化碳 (CO₂)、沙粒、灭火粉末. 切勿使用水.

· 为了安全,不适当的灭火剂会: 水

· 特别危险性 无相关详细资料.

· 特殊灭火方法

· 消防人员特殊的防护装备: 口腔呼吸保护装置.

6 泄漏应急处理

· 保护措施

将人们带离危险的地方.

带上保护仪器. 让未受到保护的人们远离.

· 环境保护措施: 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.

根据第 13 条条款弃置受污染物.

确保有足够的通风装置.

切勿用水或水溶清洁剂来冲清.

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- 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:
 - 远离火源一切勿吸烟.
 - 防热.
 - 防静电.
 - 避免撞击和摩擦.
 - 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: 没有特别的要求.
 - 有关使用一个普通的储存设施来储存的资料: 不需要.
 - 有关储存条件的更多资料:
 - 将容器密封.
 - 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

64-19-7 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

88-89-1 苦味酸

OEL (CN) PC-TWA: 0.1 mg/m³

PEL (TW) PC-TWA: 0.1 mg/m³

- 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.

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(在 4 页继续)

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:

安全眼镜



密封的护目镜

9 理化特性

·有关基本物理及化学特性的信息

·一般说明

·外观:

·形状: 液体

·颜色: 浅黄色

·气味: 刺激性的

·嗅觉阈限 未决定.

·pH值: 未决定.

·条件的更改

·熔点: 未确定的

·沸点/初沸点和沸程: -21 °C

·闪点: 0 °C

·可燃性(固体、气体): 不适用的

·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: 通过摇晃、摩擦、着火或其它点燃源头有爆炸的危险.

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· 爆炸极限:	
较低:	未决定.
较高:	未决定.
· 蒸气压 在 20 °C:	23 hPa
· 密度 在 20 °C:	0.99507 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:	不能拌和的或难以拌和
· 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:	18.0 %
水:	81.0 %
固体成份:	1.0 %
· 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。
- 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

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- 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。

14 运输信息

·环境危害	不适用的
·用户特别预防措施	不适用的
·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
·UN "标准规定":	无效

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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
64-19-7	醋酸溶液
88-89-1	苦味酸

- 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



GHS01 GHS05 GHS06 GHS08

- 警示词 危险

· 标签上辨别危险的成份:

福尔马林溶液 (>2.5-≤10 %)

醋酸溶液 (>2.5-≤10 %)

苦味酸 (≤2.5 %)

· 危险性说明

爆炸物:整体爆炸危险

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

· 事故响应

如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴

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

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

火烧到爆炸物时切勿救火

· 安全储存

贮存按照地方/区域/国家/国际规章

存放处须加锁

· 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

· 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.

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· 化学物质安全性评价: 尚未进行化学物质安全性评价

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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:

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

爆炸物 第1.1类: Explosives – Division 1.1

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(径口) 第3类: Acute toxicity – Category 3

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

急性毒性(径皮肤) 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

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Veiligheidsinformatieblad volgens 1907/2006/EG, Artikel 31

datum van de druk: 08.03.2022

Herziening van: 08.03.2022

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

- **1.1 Productidentificatie**
- **Handelsnaam: BOUIN'S FLUID**
- **Artikelnummer:** 15990-01, 15990-04, 15990-10, 15990-20, 15990-30
- **UFI:** 0912-60FM-S009-CN2X
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Aurion**
Binnenhaven 5
6709 PD Wageningen
The Netherlands
Tel: 31 317 415094
Fax: 31 317 415955
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

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



GHS02 vlam

Flam. Liq. 1 H224 Zeer licht ontvlambare vloeistof en damp.



GHS08 gezondheidsgevaar

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

Carc. 1B H350 Kan kanker veroorzaken.



GHS07

Acute Tox. 4 H302 Schadelijk bij inslikken.

Acute Tox. 4 H332 Schadelijk bij inademing.

Skin Irrit. 2 H315 Veroorzaakt huidirritatie.

Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.

(Vervolg op blz. 2)

Veiligheidsinformatieblad volgens 1907/2006/EG, Artikel 31

datum van de druk: 08.03.2022

Herziening van: 08.03.2022

Handelsnaam: BOUIN'S FLUID

(Vervolg van blz. 1)

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 geïdentificeerd en geëtiketteerd volgens de CLP-verordening.

Gevarenpictogrammen

GHS02 GHS07 GHS08

Signaalwoord Gevaar**Gevaaraanduidende componenten voor de etikettering:**

formaldehyde

2,4,6-trinitrofenol

Gevarenaanduidingen

H224 Zeer licht ontvlambare vloeistof en damp.

H302+H332 Schadelijk bij inslikken en bij inademing.

H315 Veroorzaakt huidirritatie.

H319 Veroorzaakt ernstige oogirritatie.

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

P210 Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken.

P241 Explosieveilige [elektrische/ventilatie-/verlichtings-]apparatuur gebruiken.

P303+P361+P353 BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken. Huid met water afspoelen [of afdouchen].

P305+P351+P338 BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.

P405 Achter slot bewaren.

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

2.3 Andere gevaren**Resultaten van PBT- en zPzB-beoordeling**

PBT: Niet bruikbaar.

zPzB: Niet bruikbaar.

RUBRIEK 3: Samenstelling en informatie over de bestanddelen

3.2 Chemische karakterisering: Mengsels

Beschrijving: Mengsel van na elkaar aangevoerde stoffen met ongevaarlijke bijmengingen.

Gevaarlijke inhoudstoffen:

CAS: 50-00-0	formaldehyde	>2,5-≤10%
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	

(Vervolg op blz. 3)

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CAS: 64-19-7	azijnzuur	>2,5-≤10%
EINECS: 200-580-7	⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H312	
CAS: 88-89-1	2,4,6-trinitrofenol	≤2,5%
EINECS: 201-865-9	⚠ Expl. 1.1, H201; ⚠ Acute Tox. 3, H301; ⚠ Acute Tox. 3, H311; ⚠ Acute Tox. 3, H331	

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.

RUBRIEK 5: Brandbestrijdingsmaatregelen

5.1 Blusmiddelen

Geschikte blusmiddelen: CO₂, zand, bluspoeder. Geen water gebruiken.

Blusmiddelen die uit veiligheidsoogpunt niet geschikt zijn: Water

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

Geen verdere relevante informatie verkrijgbaar.

5.3 Advies voor 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

Personen in veiligheid brengen.

Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.

6.2 Milieuvoorzorgsmaatregelen: 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.

Niet met water of waterachtige reinigingsmiddelen wegspoelen.

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- **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.
Stoten en schuren vermijden.
Ademhalingstoestellen gereedhouden.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** *Geen bijzondere eisen.*
- **Informatie m.b.t. gezamenlijke opslag:** *Niet noodzakelijk.*
- **Verdere inlichtingen over eisen m.b.t. de opslag:**
Tanks ondoordringbaar gesloten houden.
Tegen hitte en directe zonnestrallen beschermen.
- **7.3 Specifiek eindgebruik** *Geen verdere relevante informatie verkrijgbaar.*

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

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

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

50-00-0 formaldehyde	
WGW	<i>Korte termijn waarde: 0,5 mg/m³, 0,4 ppm</i> <i>Lange termijn waarde: 0,15 mg/m³, 0,1 ppm</i>
64-19-7 azijnzuur	
WGW	<i>Korte termijn waarde: 50 mg/m³, 20 ppm</i> <i>Lange termijn waarde: 25 mg/m³, 10 ppm</i>
88-89-1 2,4,6-trinitrofenol	
WGW	<i>Lange termijn waarde: 0,1 mg/m³</i>

- **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.

(Vervolg op blz. 5)

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- **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.

- **Oogbescherming:**

Veiligheidsbril



Nauw aansluitende veiligheidsbril

RUBRIEK 9: Fysische en chemische eigenschappen

- **9.1 Informatie over fysische en chemische basiseigenschappen**

- **Algemene gegevens**

- **Voorkomen:**

Vorm:	Vloeistof
Kleur:	Lichtgeel
Geur:	Stekend
Geurdrempelwaarde:	Niet bepaald.

- **pH-waarde:** Niet bepaald.

- **Toestandsverandering**

Smelt-/vriespunt:	Niet bepaald.
Beginkookpunt en kooktraject:	-21 °C

- **Vlampunt:** 0 °C

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

- **Ontstekingstemperatuur:** 300 °C

- **Ontledingstemperatuur:** Niet bepaald.

- **Zelfontbrandingstemperatuur:** Het produkt ontbrandt niet uit zichzelf.

- **Ontploffingseigenschappen:** Ontploffingsgevaar door schok, wrijving, vuur of andere ontstekingsoorzaken.

(Vervolg op blz. 6)

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· Ontploffingsgrenzen:	
Onderste:	Niet bepaald.
Bovenste:	Niet bepaald.
· Dampspanning bij 20 °C:	23 hPa
· Dichtheid bij 20 °C:	0,99507 g/cm ³
· Relatieve dichtheid	Niet bepaald.
· Dampdichtheid	Niet bepaald.
· Verdampingssnelheid	Niet bepaald.
· Oplosbaarheid in/mengbaarheid met Water:	Niet resp. gering mengbaar.
· Verdelingscoëfficiënt: n-octanol/water:	Niet bepaald.
· Viscositeit	
Dynamisch:	Niet bepaald.
Kinematisch:	Niet bepaald.
· Oplosmiddelgehalte:	
Organisch oplosmiddel:	18,0 %
Water:	81,0 %
VOC (EG)	18,00 %
Gehalte aan vaste bestanddelen:	1,0 %
· 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 en bij inademing.

Indelingsrelevantie LD/LC50-waarden:

50-00-0 formaldehyde

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

- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**
Veroorzaakt huidirritatie.
- **Ernstig oogletsel/oogirritatie**
Veroorzaakt ernstige oogirritatie.
- **Sensibilisatie van de luchtwegen/de huid**
Kan een allergische huidreactie veroorzaken.

(Vervolg op blz. 7)

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- **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.
- **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 onverdund 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.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- | | |
|---|---------------------|
| · 14.5 Milieugevaren: | Niet bruikbaar. |
| · 14.6 Bijzondere voorzorgen voor de gebruiker | Niet bruikbaar. |
| · 14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code | Niet bruikbaar. |
| · VN "Model Regulation": | Niet van toepassing |

NL

(Vervolg op blz. 8)

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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

· SZW-lijst van mutagene stoffen

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding

geen der bestanddelen staat op de lijst.

· 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

· 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/bioaccumulerend vermogen/ toxiciteit of persistentie)

(Vervolg op blz. 9)

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

RUBRIEK 16: Overige informatie

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

· **Relevante zinnen**

- H201 Ontplobbare stof; gevaar voor massa-explosie.
- H226 Ontvlambare vloeistof en damp.
- H301 Giftig 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.
- H341 Verdacht van het veroorzaken van genetische schade.
- H350 Kan kanker veroorzaken.

· **Afkortingen en acroniemen:**

- 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
- vPvB: very Persistent and very Bioaccumulative
- Expl. 1.1: Ontplobbare stoffen – Subklasse 1.1
- Flam. Liq. 1: Ontvlambare vloeistoffen – Categorie 1
- 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
- Skin Irrit. 2: Huidcorrosie/-irritatie – Categorie 2
- Eye Irrit. 2: Ernstig oogletsel/oogirritatie – Categorie 2
- Skin Sens. 1: Sensibilisatie van de huid – Categorie 1
- Muta. 2: Mutageniteit in geslachtscellen – Categorie 2
- Carc. 1B: Kankerverwekkendheid – Categorie 1B
- STOT SE 3: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 3

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 08.03.2022

Tarkistus: 08.03.2022

KOHTA 1: Aineen tai seoksen ja yhtiön tai yrityksen tunnistetiedot

- **1.1 Tuotetunniste**
- **Kauppanimike: BOUIN'S FLUID**
- **Artikkelinumero:** 15990-01, 15990-04, 15990-10, 15990-20, 15990-30
- **UFI:** 0912-60FM-S009-CN2X
- **1.2 Aineen tai seoksen merkitykselliset tunnistetut käytöt ja käytöt, joita ei suositella**
Merkittäviä lisätietoja ei ole saatavilla.
- **Aineen / valmisteen käyttö** Laboratoriokemikaalit
- **1.3 Käyttöturvallisuustiedotteen toimittajan tiedot**
- **Valmistaja/toimittaja:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkceck@aol.com
www.emsdiasum.com
- **Tietoja antaa:** Product safety department
- **1.4 Häätöpuhelinnumero:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

KOHTA 2: Vaaran yksilöinti

- **2.1 Aineen tai seoksen luokitus**
- **Luokitus asetuksen (EY) N:o 1272/2008 mukaisesti**



GHS02 liekki

Flam. Liq. 1 H224 Erittäin helposti syttyvä neste ja höyry.



GHS08 terveysvaara

Muta. 2 H341 Epäillään aiheuttavan perimävaurioita.

Carc. 1B H350 Saattaa aiheuttaa syöpää.



GHS07

Acute Tox. 4 H302 Haitallista nieltynä.

Acute Tox. 4 H332 Haitallista hengitettynä.

Skin Irrit. 2 H315 Ärsyttää ihoa.

Eye Irrit. 2 H319 Ärsyttää voimakkaasti silmiä.

Skin Sens. 1 H317 Voi aiheuttaa allergisen ihoreaktion.

STOT SE 3 H335 Saattaa aiheuttaa hengitysteiden ärsytystä.

- **2.2 Merkinnät**
- **Merkinnät asetuksen (EY) N:o 1272/2008 mukaisesti** Tuote on luokiteltu ja merkitty CLP-asetuksen mukaan.

(jatkuu sivulla 2)

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(jatkuu sivulla 1)

· Varoitusmerkit

GHS02 GHS07 GHS08

· Huomiosana Vaara**· Vaaran määrävät komponentit etiketeissä:**

formaldehydi

Pikriinihappo

· Vaaralausekkeet

H224 Erittäin helposti syttyvä neste ja höyry.

H302+H332 Haitallista nieltynä tai hengitettynä.

H315 Ärsyttää ihoa.

H319 Ärsyttää voimakkaasti silmiä.

H317 Voi aiheuttaa allergisen ihoreaktion.

H341 Epäillään aiheuttavan perimävaurioita.

H350 Saattaa aiheuttaa syöpää.

H335 Saattaa aiheuttaa hengitysteiden ärsytystä.

· Turvalausekkeet

P210 Suojaa lämmöltä, kuumilta pinnoilta, kipinöiltä, avotulelta ja muilta sytytyslähteiltä. Tupakointi kielletty.

P241 Käytä räjähdysturvallisia [sähkö/ilmanvaihto/valaisin]laitteita.

P303+P361+P353 JOS KEMIKAALIA JOUTUU IHOLLE (tai hiuksiin): Riisu saastunut vaatetus välittömästi. Huuho iho vedellä [tai suihkuta].

P305+P351+P338 JOS KEMIKAALIA JOUTUU SILMIIN: Huuho huolellisesti vedellä usean minuutin ajan. Poista mahdolliset piilolinssit, jos sen voi tehdä helposti. Jatka huuhtomista.

P405 Varastoi lukitussa tilassa.

P501 Hävitä säiliö(t) noudattaen paikallisia/alueellisia/kansallisia/kansainvälisiä määräyksiä.

· 2.3 Muut vaarat**· PBT- ja vPvB-arvioinnin tulokset****· PBT:** Ei voida käyttää.**· vPvB:** Ei voida käyttää.**KOHTA 3: Koostumus ja tiedot aineosista****· 3.2 Kemialliset ominaisuudet: Seokset****· Selostus:** Seuraavista aineista koostuva seos, jossa vaarattomia lisäaineita.**· Sisältää vaarallisia aineita:**

CAS: 50-00-0 EINECS: 200-001-8	formaldehydi ⚠ 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	>2,5-≤10%
CAS: 64-19-7 EINECS: 200-580-7	etikkahappo ⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H312	>2,5-≤10%
CAS: 88-89-1 EINECS: 201-865-9	Pikriinihappo ⚠ Expl. 1.1, H201; ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	≤2,5%

· Lisätietoja: Annettujen turvaohjeiden sanamuoto kappaleesta 16.

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(jatkuu sivulla 3)

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(jatkuu sivulla 2)

KOHTA 4: Ensiaputoimenpiteet

· 4.1 Ensiaputoimenpiteiden kuvaus

· Yleisohjeet:

Aineen saastuttamat vaatekappaleet on riisuttava välittömästi.

Myrkytysoireet voivat ilmaantua vasta useiden tuntien kuluttua. Tästä syystä henkilöt on pidettävä lääkärin tarkkailun alaisena ainakin 48 tuntia onnettomuuden jälkeen.

Hengityssuojain saadaan poistaa vasta kun saastuneet vaatteet on riisuttu.

Annettava tekehengitystä hengityksen ollessa epätasainen tai pysähtynyt.

· Hengitettyinä:

Huolehdittava raittiin ilman saannista tai annettava hapetta; pyydettyä lääkärin apua.

Tajuton pidettävä ja kuljetettava kyljellään.

· Ihokosketuksessa: Pestävä heti vedellä ja saippualla ja huuhdottava hyvin.

· Aineen päästyä silmiin:

Silmiä huuhdotaan luomet auki juoksevan veden alla useita minutteja ja käännytään lääkärin puoleen.

· Niehty:

Saatettava lääkärin hoitoon.

Juotava runsaasti vettä ja huolehdittava raittiin ilman saannista. Käännyttävä välittömästi lääkärin puoleen.

· 4.2 Tärkeimmät oireet ja vaikutukset, sekä välittömät että viivästyneet Merkittäviä lisätietoja ei ole saatavilla.

· 4.3 Mahdollisesti tarvittavaa välitöntä lääketieteellistä apua ja erityishoitoa koskevat ohjeet

Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 5: Palontorjuntatoimenpiteet

· 5.1 Sammutusaineet

· Sopivat sammutusaineet: CO₂, hiekka, kuivakemikaalisammutin. Vettä ei saa käyttää.

· Turvallisuussyistä sopimattomat sammutusaineet: Vesi

· 5.2 Aineesta tai seoksesta johtuvat erityiset vaarat Merkittäviä lisätietoja ei ole saatavilla.

· 5.3 Palontorjuntaa koskevat ohjeet

· Erityinen suojavarustus: Käytettävä hengityssuojainta.

KOHTA 6: Toimenpiteet onnettomuuspäästöissä

· 6.1 Varotoimenpiteet, henkilönsuojaimet ja menettely hätätilanteessa

Henkilöt vietävä turvaan.

Käytettävä suojavarustusta. Suojautumattomat henkilöt pidettävä loitolla.

· 6.2 Ympäristöön kohdistuvat varotoimet: Estettävä pääsy viemäreihin/pintavesiin/pohjaveteen.

· 6.3 Suojarakenteita ja puhdistusta koskevat menetelmät ja -välineet:

Imettävä nestettä sitovalla aineella (hiekkä, piimaa, hapon sidosaine, yleisidosaine, sahajauho).

Käytettävä neutralointiaineita.

Saastunut aine on jätteenä hävitettävä kohdan 13 mukaisesti.

Huolehdittava riittävästä tuuletuksesta.

Ei saa huuhtoa pois vedellä tai vetisillä puhdistusaineilla.

· 6.4 Viittaukset muihin kohtiin

Turvallista käsittelyä koskevia ohjeita kappaleessa 7.

Henkilökohtaista suojavarustusta koskevia ohjeita kappaleessa 8.

Aineen hävitystä koskevia ohjeita kappaleessa 13.

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(jatkuu sivulla 4)

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(jatkuu sivulla 3)

KOHTA 7: Käsittely ja varastointi

- **7.1 Turvallisen käsittelyn edellyttämät toimenpiteet**
Huolehdittava hyvästä tuuletuksesta/imusta työpaikalla.
Säiliöt avattava ja käsiteltävä varovasti.
Vältettävä aerosolin muodostusta.
- **Palo- ja räjähdysuojaohjeet:**
Eristettävä sytytyslähteistä - tupakanpolto kielletty.
Suojaa lämmöltä.
Suoritettava toimenpiteet sähköstaattista latausta vastaan.
Vältettävä iskuja ja hankausta.
Pidettävä hengityssuojain käyttövalmiina.
- **7.2 Turvallisen varastoinnin edellyttämät olosuhteet, mukaan luettuina yhteensopimattomuudet**
- **Varastointi:**
- **Varastotiloille ja säiliöille asetettavat vaatimukset:** Ei erikoisvaatimuksia.
- **Yhteisvarastointiohjeet:** Ei tarvita.
- **Lisätietoja varastointiehtoihin:**
Astiat on pidettävä tiiviisti suljettuina.
Suojattava kuumuudelta ja välittömältä auringonpaisteelta.
- **7.3 Erityinen loppukäyttö** Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 8: Altistumisen ehkäiseminen ja henkilösuojaimet

- **8.1 Valvontaa koskevat muuttujat**
- **Lisäohjeita teknisten laitteiden varustukseen:** Ei muita tietoja, ks. kohta 7.

· **Aineosat työpaikkakohtaisin valvottavin raja-arvo:**

50-00-0 formaldehydi

HTP Lyhytaikaisarvo: 0,74* mg/m³, 0,6* ppm
Pitkäaikaisarvo: 0,37* mg/m³, 0,3* ppm
*situvat raja-arvot: Ihoherkistyminen

64-19-7 etikkahappo

HTP Lyhytaikaisarvo: 25 mg/m³, 10 ppm
Pitkäaikaisarvo: 13 mg/m³, 5 ppm

88-89-1 Pikriinihappo

HTP Lyhytaikaisarvo: 0,3 mg/m³
Pitkäaikaisarvo: 0,1 mg/m³
iho

· **Lisäohjeet:** Tiedot perustuvat valmistushetkellä voimassaoleviin luetteloihin.

· 8.2 Altistumisen ehkäiseminen

· **Henkilökohtainen suojavarustus:**

· **Yleiset suoj- ja hygieniatoimenpiteet:**

Pidettävä loitolla elintarvikkeista, juomista ja rehuista.

Likaantuneet, aineen saastuttamat vaatekappaleet on riisuttava välittömästi.

Kädet on pestävä ennen taukoja ja työn päätyttyä.

Suojavaatetus on säilytettävä erikseen.

Vältettävä kosketusta silmiin.

Vältettävä ihokosketusta ja kosketusta silmiin.

· **Hengityssuoja:**

Lyhytaikaisessa tai vähäisessä altistuksessa hengityssuojasuodin; intensiivisessä tai pitkäaikaisessa rasituksessa ulkoilmasta riippumaton hengityssuojain.

(jatkuu sivulla 5)

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(jatkuu sivulla 4)

· Käsisuojus:

Suojakäsineet

Käsinmateriaalin tulee olla tuotetta/ainetta/valmistetta kestävä ja läpäisemätöntä.

Puuttuvien testien vuoksi suositusta soveltuvasta suojakäsinmateriaalista tuotteelle/ valmisteelle / kemikaalisekoitteelle ei voida antaa.

Suojakäsinmateriaalin valinnassa on otettava huomioon läpäisyajat, läpäisevyyskerroin ja kuluminen.

· Käsinmateriaali

Soveltuvan käsinetyypin valikoima ei riipu yksinomaan materiaalista vaan myös muista laatuominaisuuksista ja vaihtelee eri valmistajilla. Koska tuote on valmiste, joka koostuu eri aineista, ei suojakäsinmateriaalin kestävyys ole ennalta arvioitavissa vaan pitää tarkistaa ennen käyttöä.

· Käsinmateriaalin läpäisy aika

Tarkka läpäisy aika on selvitettävä suojakäsinevalmistajalta ja sitä on noudatettava.

· Silmäsuojus:

Suojalasit



Tiiviit suojalasit

KOHTA 9: Fysikaaliset ja kemialliset ominaisuudet

· 9.1 Fysikaalisia ja kemiallisia perusominaisuuksia koskevat tiedot**· Yleiset ohjeet****· Olomuoto:**

Muoto: Neste
Väri: Vaalean keltainen

· Haju: Pistävä

· Hajukynnys: Ei määrätty.

· pH-arvo: Ei määrätty.

· Tilanmuutos

Sulamis- tai jäätympiste: Ei määrätty.

Kiehumispiste ja kiehumisalue: -21 °C

· Leimahduspiste: 0 °C

· Syttyvyys (kiinteät aineet, kaasut): Ei voida käyttää.

· Syttymislämpötila: 300 °C

· Hajoamislämpötila: Ei määrätty.

· Itsesyttymislämpötila: Tuote ei ole itsestään syttyvä.

· Räjähätvyys: Räjähätävää iskun, hankauksen, avotulen tai muun sytytyslähteen vaikutuksesta.

· Räjähdyksrajat:

Alempi: Ei määrätty.

Ylempi: Ei määrätty.

· Höyrypaine 20 °C lämpötilassa: 23 hPa

(jatkuu sivulla 6)

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(jatkuu sivulla 5)

· Tiheys 20 °C lämpötilassa:	0,99507 g/cm ³
· Suhteellinen tiheys	Ei määrätty.
· Höyryntiheys:	Ei määrätty.
· Haihtumisnopeus:	Ei määrätty.
· Liukenevuus/sekoittuvuus veteen:	Ei sekoittuva tai vain osittain sekoittuva.
· Jakautumiskerroin: n-oktanoliv/vesi:	Ei määrätty.
· Viskositeetti:	
Dynaaminen:	Ei määrätty.
Kinemaattinen:	Ei määrätty.
· Liuteainepitoisuus:	
Orgaaniset liuteaineet:	18,0 %
Vesi:	81,0 %
VOC (EY)	18,00 %
· Kiinnepitoisuus:	1,0 %
· 9.2 Muut tiedot	Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 10: Stabiilisuus ja reaktiivisuus

- **10.1 Reaktiivisuus** Merkittäviä lisätietoja ei ole saatavilla.
- **10.2 Kemiallinen stabiilisuus**
- **Terminen hajoavuus / vältettävät olosuhteet:** Ei hajaantumista määräystenmukaisessa käytössä.
- **10.3 Vaarallisten reaktioiden mahdollisuus** Ei tiedossa vaarallisia reaktioita.
- **10.4 Vältettävät olosuhteet** Merkittäviä lisätietoja ei ole saatavilla.
- **10.5 Yhteensopimattomat materiaalit:** Merkittäviä lisätietoja ei ole saatavilla.
- **10.6 Vaaralliset hajoamistuotteet:** Tiedossa ei ole vaarallisia hajoamistuotteita.

KOHTA 11: Myrkyllisyyteen liittyvät tiedot

- **11.1 Tiedot myrkyllisistä vaikutuksista**
- **Välitön myrkyllisyys**
Haitallista nieltynä tai hengitettynä.

- **Luokittelurelevantti LD/LC50-arvot:**

50-00-0 formaldehydi

Oraali LD50 >200 mg/kg (rat)

- **Ensisijainen ärsyttävä vaikutus:**
- **Ihosityttövyys/ihoärsytys**
Ärsyttää ihoa.
- **Vakava silmävaurio/silmä-ärsytys**
Ärsyttää voimakkaasti silmiä.
- **Hengitysteiden tai ihon herkistyminen**
Voi aiheuttaa allergisen ihoreaktion.
- **Toksikologisia lisätietoja:**
- **CMR-vaikutukset eli syöpää aiheuttavat, perimää vaurioittavat ja lisääntymiselle vaaralliset vaikutukset**
- **Sukusolujen perimää vaurioittavat vaikutukset**
Epäillään aiheuttavan perimävaurioita.

(jatkuu sivulla 7)

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(jatkuu sivulla 6)

- **Syöpää aiheuttavat vaikutukset**
Saattaa aiheuttaa syöpää.
- **Lisääntymiselle vaaralliset vaikutukset** Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- **Elinkohtainen myrkyllisyys – kerta-altistuminen**
Saattaa aiheuttaa hengitysteiden ärsytystä.
- **Elinkohtainen myrkyllisyys – toistuva altistuminen**
Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- **Aspiraatiovaara** Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.

KOHTA 12: Tiedot vaarallisuudesta ympäristölle

- **12.1 Myrkyllisyys**
- **Vesimyrkyllisyys:** Merkittäviä lisätietoja ei ole saatavilla.
- **12.2 Pysyvyys ja hajoavuus** Merkittäviä lisätietoja ei ole saatavilla.
- **12.3 Biokertyvyys** Merkittäviä lisätietoja ei ole saatavilla.
- **12.4 Liikkuvuus maaperässä** Merkittäviä lisätietoja ei ole saatavilla.
- **Ekologisia lisätietoja:**
- **Yleisohjeita:**
Vesistövaarallisuusluokka 2 (Oma luokitus): vesistöä vaarantava
Estetään pääsy pohjaveteen, vesistöihin, viemäristöön.
Ei saa päästää ohentamatta tai neutraloimatta viemäriin eikä vedenottoaltaaseen.
Juomavesi vaaraantuu jo pienten määrien päästessä maaperään.
- **12.5 PBT- ja vPvB-arvioinnin tulokset**
- **PBT:** Ei voida käyttää.
- **vPvB:** Ei voida käyttää.
- **12.6 Muut haitalliset vaikutukset** Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 13: Jätteiden käsittelyyn liittyvät näkökohdat

- **13.1 Jätteiden käsittelymenetelmät**
- **Suositus:** Ei voida hävittää yhdessä talousjätteiden kanssa. Ei saa päästää viemäristöön.
- **Puhdistamattomat pakkaukset:**
- **Suositus:** Hävitettävä virallisten määräysten mukaisesti.

KOHTA 14: Kuljetustiedot

- | | |
|---|-------------------|
| · 14.5 Ympäristövaarat: | Ei voida käyttää. |
| · 14.6 Erityiset varotoimet käyttäjälle | Ei voida käyttää. |
| · 14.7 Kuljetus irtolastina Marpol-sopimuksen II liitteen ja IBC-säännösten mukaisesti | Ei voida käyttää. |
| · UN "Model Regulation": | tarpeeton |

KOHTA 15: Lainsäädäntöä koskevat tiedot

- **15.1 Nimenomaisesti ainetta tai seosta koskevat turvallisuus-, terveys- ja ympäristösäännökset tai -lainsäädäntö**
- **Direktiivi 2012/18/EU**
- **Nimetyt vaaralliset aineet - LIITE I** sisältäviä aineita ei ole lueteltu

(jatkuu sivulla 8)

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(jatkuu sivulla 7)

- **Seveso-luokka P5a SYTTYVÄT NESTEET**
- **Soveltamisen vähimmäismäärät (tonneina) alemman tason vaatimukset 10 t**
- **Soveltamisen vähimmäismäärät (tonneina) ylemmän tason vaatimukset 50 t**
- **NEUVOSTON ASETUS (EY) N:o 1907/2006 LIITE XVII Rajoitusehdot: 3, 28, 72**

· **Direktiivi 2011/65/EU tiettyjen vaarallisten aineiden käytön rajoittamisesta sähkö- ja elektroniikkalaitteissa - Liite II**

sisältäviä aineita ei ole lueteltu

· **ASETUS (EU) 2019/1148**

· **Liite I - RAJOITETUT RÄJÄHTEIDEN LÄHTÖAINEET (Yläraja-arvo lupien myöntämiseksi 5 artiklan 3 kohdan mukaisesti)**

sisältäviä aineita ei ole lueteltu

· **Liite II - ILMOITETTAVAT RÄJÄHTEIDEN LÄHTÖAINEET**

sisältäviä aineita ei ole lueteltu

· **Asetus (EY) N:o 273/2004 huumausaineiden lähtöaineista**

sisältäviä aineita ei ole lueteltu

· **Asetus (EY) N:o 111/2005 yhteisön ja kolmansien maiden välisen huumausaineiden lähtöaineiden kaupan valvontaa koskevista säännöistä**

sisältäviä aineita ei ole lueteltu

· **Kansalliset määräykset:**

· **Työskenteleyä rajoittavat huomautukset:**

Työntekijöitä ei saa altistaa tämän valmisteen sisältämille syöpää aiheuttaville vaarallisille aineille. Virastot voivat erikoistapauksessa antaa poikkeusluvan.

· **15.2 Kemikaaliturvallisuusarviointi:** Kemikaaliturvallisuusarviointia ei ole tehty.

KOHTA 16: Muut tiedot

Annetut tiedot perustuvat tähänhetkisiin tietoihimme. Ne eivät kuitenkaan anna takuuta tuotteen ominaisuuksista eivätkä aikaansaa sopimuksellista oikeussuhdetta.

· **Asiaankuuluvat lausekkeet**

H201 Räjähde; massaräjähdysvaara.

H226 Syttyvä neste ja höyry.

H301 Myrkyllistä nieltynä.

H311 Myrkyllistä joutuessaan iholle.

H312 Haitallista joutuessaan iholle.

H314 Voimakkaasti ihoa syövyttävää ja silmiä vaurioittavaa.

H317 Voi aiheuttaa allergisen ihoreaktion.

H331 Myrkyllistä hengitettynä.

H341 Epäillään aiheuttavan perimävaurioita.

H350 Saattaa aiheuttaa syöpää.

· **Lyhenteet ja lyhytnimet:**

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

vPvB: very Persistent and very Bioaccumulative

Expl. 1.1: Räjähdeet – Vaarallisuusluokka 1.1

Flam. Liq. 1: Syttyvät nesteet – Katgoria 1

Flam. Liq. 3: Syttyvät nesteet – Katgoria 3

(jatkuu sivulla 9)

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(jatkuu sivulla 8)

Acute Tox. 3: Välitön myrkyllisyys – Katgoria 3
Acute Tox. 4: Välitön myrkyllisyys – Katgoria 4
Skin Corr. 1A: Ihosyövyttävyys/ihoärsytys – Katgoria 1A
Skin Corr. 1B: Ihosyövyttävyys/ihoärsytys – Katgoria 1B
Skin Irrit. 2: Ihosyövyttävyys/ihoärsytys – Katgoria 2
Eye Irrit. 2: Vakava silmävaurio/silmä-ärsytys – Katgoria 2
Skin Sens. 1: Ihoa herkistävä – Katgoria 1
Muta. 2: Sukusolujen perimää vaurioittavat vaikutukset – Katgoria 2
Carc. 1B: Syöpää aiheuttavat vaikutukset – Katgoria 1B
STOT SE 3: Elinkohtainen myrkyllisyys (kerta-altistuminen) – Katgoria 3

FI

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 08.03.2022

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

- **1.1 Identificateur de produit**
- **Nom du produit:** BOUIN'S FLUID
- **Code du produit:** 15990-01, 15990-04, 15990-10, 15990-20, 15990-30
- **UFI:** 0912-60FM-S009-CN2X
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkceck@aol.com
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

RUBRIQUE 2: Identification des dangers

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



GHS02 flamme

Flam. Liq. 1 H224 Liquide et vapeurs extrêmement inflammables.



GHS08 danger pour la santé

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

Carc. 1B H350 Peut provoquer le cancer.



GHS07

Acute Tox. 4 H302 Nocif en cas d'ingestion.

Acute Tox. 4 H332 Nocif par inhalation.

Skin Irrit. 2 H315 Provoque une irritation cutanée.

Eye Irrit. 2 H319 Provoque une sévère irritation des yeux.

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

STOT SE 3 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.

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· **Pictogrammes de danger**

GHS02 GHS07 GHS08

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

Formaldéhyde

2,4,6-trinitrophénol

· **Mentions de danger**

H224 Liquide et vapeurs extrêmement inflammables.

H302+H332 Nocif en cas d'ingestion ou d'inhalation.

H315 Provoque une irritation cutanée.

H319 Provoque une sévère irritation 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**

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

P241 Utiliser du matériel [électrique/de ventilation/d'éclairage] antidéflagrant.

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

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

P405 Garder sous clef.

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

· **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 EINECS: 200-001-8	Formaldéhyde ⚠ 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	>2,5-≤10%
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: 88-89-1 EINECS: 201-865-9	2,4,6-trinitrophénol ⚠ Expl. 1.1, H201; ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	≤2,5%

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· **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, sable, poudre d'extinction. Ne pas utiliser d'eau.

· **Produits extincteurs déconseillés pour des raisons de sécurité:** Eau

· **5.2 Dangers particuliers résultant de la substance ou du mélange**

Pas d'autres informations importantes disponibles.

· **5.3 Conseils aux pompiers**

· **Équipement spécial de sécurité:** Porter un appareil de protection respiratoire.

RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

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

Mettre les personnes en sécurité.

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

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

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.

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

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

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

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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.
Eviter les chocs et les frictions.
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:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**
Tenir les emballages hermétiquement 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 momentané: 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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64-19-7 acide acétique

VLEP	Valeur momentané: 50 mg/m ³ , 20 ppm Valeur à long terme: 25 mg/m ³ , 10 ppm
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88-89-1 2,4,6-trinitrophénol

VLEP	Valeur à long terme: 0,1 mg/m ³ Risque de pénétration percutanée
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- **Remarques supplémentaires:**
Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.
- **8.2 Contrôles de l'exposition**
- **Équipement 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.

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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



Lunettes de protection hermétiques

RUBRIQUE 9: Propriétés physiques et chimiques

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

· **Indications générales**

· **Aspect:**

Forme:	Liquide
Couleur:	Jaune clair
Odeur:	Piquante
Seuil olfactif:	Non déterminé.

· **valeur du pH:** Non déterminé.

· **Changement d'état**

Point de fusion/point de congélation:	Non déterminé.
Point initial d'ébullition et intervalle d'ébullition:	-21 °C

· **Point d'éclair** 0 °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.

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· Propriétés explosives:	Risque d'explosion par le choc, la friction, le feu ou d'autres sources d'ignition.
· Limites d'explosion: Inférieure: Supérieure:	Non déterminé. Non déterminé.
· Pression de vapeur à 20 °C:	23 hPa
· Densité à 20 °C: · Densité relative · Densité de vapeur: · Taux d'évaporation:	0,99507 g/cm ³ Non déterminé. Non déterminé. Non déterminé.
· Solubilité dans/miscibilité avec l'eau:	Pas ou peu miscible
· Coefficient de partage: n-octanol/eau:	Non déterminé.
· Viscosité: Dynamique: Cinématique:	Non déterminé. Non déterminé.
· Teneur en solvants: Solvants organiques: Eau: VOC (CE)	18,0 % 81,0 % 18,00 %
Teneur en substances solides:	1,0 %
· 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.
- **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 ou d'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 une irritation cutanée.

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- **Lésions oculaires graves/irritation oculaire**
Provoque une sévère irritation des yeux.
- **Sensibilisation respiratoire ou cutanée**
Peut provoquer une allergie cutanée.
- **Indications toxicologiques complémentaires:**
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagénicité sur les cellules germinales**
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.

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.

RUBRIQUE 14: Informations relatives au transport

- | | |
|---|-----------------|
| · 14.5 Dangers pour l'environnement: | Non applicable. |
| · 14.6 Précautions particulières à prendre par l'utilisateur | Non applicable. |

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- | | |
|--|------------------------|
| · 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC | <i>Non applicable.</i> |
| · "Règlement type" de l'ONU: | <i>néant</i> |

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**
- **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 |
|---|

<i>Aucun des composants n'est compris.</i>
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- **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) |
|---|

<i>Aucun des composants n'est compris.</i>
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- | |
|--|
| · Annexe II - PRÉCURSEURS D'EXPLOSIFS DEVANT FAIRE L'OBJET D'UN SIGNALEMENT |
|--|

<i>Aucun des composants n'est compris.</i>
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- | |
|--|
| · Règlement (CE) n° 273/2004 relatif aux précurseurs de drogues |
|--|

<i>Aucun des composants n'est compris.</i>
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- | |
|--|
| · Règlement (CE) n° 111/2005 fixant des règles pour la surveillance du commerce des précurseurs des drogues entre la Communauté et les pays tiers |
|--|

<i>Aucun des composants n'est compris.</i>
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- **Prescriptions nationales:**

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

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

- **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**

H201 Explosif; danger d'explosion en masse.

H226 Liquide et vapeurs inflammables.

H301 Toxique 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.

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*H331 Toxique par inhalation.**H341 Susceptible d'induire des anomalies génétiques.**H350 Peut provoquer le cancer.***· Acronymes et abréviations:***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**vPvB: very Persistent and very Bioaccumulative**Expl. 1.1: Explosibles – Division 1.1**Flam. Liq. 1: Liquides inflammables – Catégorie 1**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**Skin Irrit. 2: Corrosion cutanée/irritation cutanée – Catégorie 2**Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2**Skin Sens. 1: Sensibilisation cutanée – Catégorie 1**Muta. 2: Mutagénicité sur les cellules germinales – Catégorie 2**Carc. 1B: Cancérogénicité – Catégorie 1B**STOT/SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3*

FR

Sicherheitsdatenblatt gemäß 1907/2006/EG, Artikel 31

Druckdatum: 08.03.2022

überarbeitet am: 08.03.2022

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

- **1.1 Produktidentifikator**
- **Handelsname: BOUIN'S FLUID**
- **Artikelnummer:** 15990-01, 15990-04, 15990-10, 15990-20, 15990-30
- **UFI:** 0912-60FM-S009-CN2X
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com

Science Services GmbH
Unterhachinger Str. 75
81737 München Germany

Tel: +49(0)89 18 93 668-0
safety@scienceservices.de

Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org
Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h
- **Auskunftgebender Bereich:** Product safety department
- **1.4 Notrufnummer:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

ABSCHNITT 2: Mögliche Gefahren

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



GHS02 Flamme

Flam. Liq. 1 H224 Flüssigkeit und Dampf extrem entzündbar.



GHS08 Gesundheitsgefahr

Muta. 2 H341 Kann vermutlich genetische Defekte verursachen.

Carc. 1B H350 Kann Krebs erzeugen.



GHS07

Acute Tox. 4 H302 Gesundheitsschädlich bei Verschlucken.

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Acute Tox. 4 H332 Gesundheitsschädlich bei Einatmen.
 Skin Irrit. 2 H315 Verursacht Hautreizungen.
 Eye Irrit. 2 H319 Verursacht schwere Augenreizung.
 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 GHS07 GHS08

· Signalwort Gefahr

· Gefahrbestimmende Komponenten zur Etikettierung:

Formaldehyd
 2,4,6-Trinitrophenol

· Gefahrenhinweise

H224 Flüssigkeit und Dampf extrem entzündbar.
 H302+H332 Gesundheitsschädlich bei Verschlucken oder Einatmen.
 H315 Verursacht Hautreizungen.
 H319 Verursacht schwere Augenreizung.
 H317 Kann allergische Hautreaktionen verursachen.
 H341 Kann vermutlich genetische Defekte verursachen.
 H350 Kann Krebs erzeugen.
 H335 Kann die Atemwege reizen.

· Sicherheitshinweise

P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen und anderen Zündquellen fernhalten. Nicht rauchen.
 P241 Explosionsgeschützte [elektrische/Lüftungs-/Beleuchtungs-] Geräte verwenden.
 P303+P361+P353 BEI BERÜHRUNG MIT DER HAUT (oder dem Haar): Alle kontaminierten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen [oder duschen].
 P305+P351+P338 BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.
 P405 Unter Verschluss aufbewahren.
 P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.

· Zusätzliche Angaben:

Nur für gewerbliche Anwender.

· 2.3 Sonstige Gefahren

· Ergebnisse der PBT- und vPvB-Beurteilung

· PBT: Nicht anwendbar.
 · vPvB: Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

· 3.2 Chemische Charakterisierung: Gemische

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

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· 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	>2,5-≤10%
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: 88-89-1 EINECS: 201-865-9	2,4,6-Trinitrophenol ☠ Expl. 1.1, H201; ☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	≤2,5%

· **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.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

· 5.1 Löschmittel

· **Geeignete Löschmittel:** CO₂, Sand, Löschpulver. Kein Wasser verwenden.

· **Aus Sicherheitsgründen ungeeignete Löschmittel:** Wasser

· 5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren

Keine weiteren relevanten Informationen verfügbar.

· 5.3 Hinweise für die Brandbekämpfung

· **Besondere Schutzausrüstung:** Atemschutzgerät anlegen.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

· 6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren

Personen in Sicherheit bringen.

Schutzausrüstung tragen. Ungeschützte Personen fernhalten.

· 6.2 Umweltschutzmaßnahmen: Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.

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- **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.
Nicht mit Wasser oder wässrigen Reinigungsmitteln wegspülen.
- **6.4 Verweis auf andere Abschnitte**
Informationen zur sicheren Handhabung siehe Abschnitt 7.
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.
Informationen zur Entsorgung siehe Abschnitt 13.

ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.
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.
Schlag und Reibung vermeiden.
Atemschutzgeräte bereithalten.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:**
Behälter dicht geschlossen halten.
Vor Hitze und direkter Sonnenbestrahlung schützen.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** Entzündbare Flüssigkeiten
- **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/m ³ , 0,3 ml/m ³ 2(I);AGS, Sh, Y, X
-----	--

64-19-7 Essigsäure	
---------------------------	--

AGW	Langzeitwert: 25 mg/m ³ , 10 ml/m ³ 2(I);DFG, EU, Y
-----	--

88-89-1 2,4,6-Trinitrophenol	
-------------------------------------	--

AGW	Langzeitwert: 0,1 E mg/m ³ 1(I);H, EU, 13
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· **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 umluftunabhängiges Atemschutzgerät verwenden.

· **Handschutz:**



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

· **Handschuhmaterial**

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialien nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.

· **Durchdringungszeit des Handschuhmaterials**

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

· **Augenschutz:**

Schutzbrille



Dichtschließende Schutzbrille

ABSCHNITT 9: Physikalische und chemische Eigenschaften

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

· **Allgemeine Angaben**

· **Aussehen:**

Form: Flüssigkeit

Farbe: Hellgelb

· **Geruch:** Stechend

· **Geruchsschwelle:** Nicht bestimmt.

· **pH-Wert:** Nicht bestimmt.

· **Zustandsänderung**

Schmelzpunkt/Gefrierpunkt: Nicht bestimmt.

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Siedebeginn und Siedebereich:	-21 °C
· Flammpunkt:	0 °C
· Entzündbarkeit (fest, gasförmig):	Nicht anwendbar.
· Zündtemperatur:	300 °C
· Zersetzungstemperatur:	Nicht bestimmt.
· Selbstentzündungstemperatur:	Das Produkt ist nicht selbstentzündlich.
· Explosive Eigenschaften:	Durch Schlag, Reibung, Feuer oder andere Zündquellen explosionsgefährlich.
· Explosionsgrenzen:	
Untere:	Nicht bestimmt.
Obere:	Nicht bestimmt.
· Dampfdruck bei 20 °C:	23 hPa
· Dichte bei 20 °C:	0,99507 g/cm ³
· Relative Dichte	Nicht bestimmt.
· Dampfdichte	Nicht bestimmt.
· Verdampfungsgeschwindigkeit	Nicht bestimmt.
· Löslichkeit in / Mischbarkeit mit Wasser:	Nicht bzw. wenig mischbar.
· Verteilungskoeffizient: n-Octanol/Wasser:	Nicht bestimmt.
· Viskosität:	
Dynamisch:	Nicht bestimmt.
Kinematisch:	Nicht bestimmt.
· Lösemittelgehalt:	
Organische Lösemittel:	18,0 %
Wasser:	81,0 %
VOC (EU)	18,00 %
· Festkörpergehalt:	1,0 %
· 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.

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ABSCHNITT 11: Toxikologische Angaben

· 11.1 Angaben zu toxikologischen Wirkungen

· Akute Toxizität

Gesundheitsschädlich bei Verschlucken oder Einatmen.

· Einstufungsrelevante LD/LC50-Werte:

50-00-0 Formaldehyd

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

· Primäre Reizwirkung:

· Ätz-/Reizwirkung auf die Haut

Verursacht Hautreizungen.

· Schwere Augenschädigung/-reizung

Verursacht schwere Augenreizung.

· Sensibilisierung der Atemwege/Haut

Kann allergische Hautreaktionen verursachen.

· Zusätzliche toxikologische Hinweise:

· CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)

· Keimzell-Mutagenität

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.

· 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.

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- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

ABSCHNITT 14: Angaben zum Transport

- | | |
|---|------------------|
| · 14.5 Umweltgefahren: | Nicht anwendbar. |
| · 14.6 Besondere Vorsichtsmaßnahmen für den Verwender | Nicht anwendbar. |
| · 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code | Nicht anwendbar. |
| · UN "Model Regulation": | entfällt |

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**
- **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	81,0
I	10,0
II	9,0

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

ABSCHNITT 16: Sonstige Angaben

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

- **Relevante Sätze**

H201 Explosiv, Gefahr der Massenexplosion.

H226 Flüssigkeit und Dampf entzündbar.

H301 Giftig 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.

H341 Kann vermutlich genetische Defekte verursachen.

H350 Kann Krebs erzeugen.

- **Abkürzungen und Akronyme:**

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

vPvB: very Persistent and very Bioaccumulative

Expl. 1.1: Explosive Stoffe/Gemische und Erzeugnisse mit Explosivstoff – Unterklasse 1.1

Flam. Liq. 1: Entzündbare Flüssigkeiten – Kategorie 1

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

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

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

Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1

Muta. 2: Keimzellmutagenität – Kategorie 2

Carc. 1B: Karzinogenität – Kategorie 1B

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: 08.03.2022

Revisione: 08.03.2022

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

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** BOUIN'S FLUID

· **Articolo numero:** 15990-01, 15990-04, 15990-10, 15990-20, 15990-30

· **UFI:** 0912-60FM-S009-CN2X

· **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.



GHS08 pericolo per la salute

Muta. 2 H341 Sospettato di provocare alterazioni genetiche.

Carc. 1B H350 Può provocare il cancro.



GHS07

Acute Tox. 4 H302 Nocivo se ingerito.

Acute Tox. 4 H332 Nocivo se inalato.

Skin Irrit. 2 H315 Provoca irritazione cutanea.

Eye Irrit. 2 H319 Provoca grave irritazione oculare.

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

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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 GHS07 GHS08

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

formaldeide

2,4,6-trinitrofenolo

Indicazioni di pericolo

H224 Liquido e vapori altamente infiammabili.

H302+H332 Nocivo se ingerito o inalato.

H315 Provoca irritazione cutanea.

H319 Provoca grave irritazione oculare.

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

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

P241 Utilizzare impianti [elettrici/di ventilazione/d'illuminazione] a prova di esplosione.

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

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

P405 Conservare sotto chiave.

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

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

PBT: Non applicabile.

vPvB: Non applicabile.

SEZIONE 3: Composizione/informazioni sugli ingredienti**3.2 Caratteristiche chimiche: Miscela****Descrizione:** Miscela delle seguenti sostanze con additivi non pericolosi.**Sostanze pericolose:**

CAS: 50-00-0	formaldeide	>2,5-≤10%
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: 64-19-7	acido acetico	>2,5-≤10%
EINECS: 200-580-7	⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H312	
CAS: 88-89-1	2,4,6-trinitrofenolo	≤2,5%
EINECS: 201-865-9	⚠ Expl. 1.1, H201; ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	

· **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.

Levarsi 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, sabbia, polvere. Non usare acqua.

· **Mezzi di estinzione inadatti per motivi di sicurezza:** Acqua

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

· **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**

· **Mezzi protettivi specifici:** Indossare il respiratore.

SEZIONE 6: Misure in caso di rilascio accidentale

· **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza**

Portare le persone in luogo sicuro.

Indossare equipaggiamento protettivo. Allontanare le persone non equipaggiate.

· **6.2 Precauzioni ambientali:** 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.

Non dilavare con acqua o detersivi liquidi.

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- **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.
Evitare gli urti e sfregamenti.
Tener pronto il respiratore.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:**
Mantenere i recipienti ermeticamente chiusi.
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

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

88-89-1 2,4,6-trinitrofenolo

TWA Valore a lungo termine: 0,1 mg/m³

- **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.

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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.

· **Occhiali protettivi:**

Occhiali protettivi



Occhiali protettivi a tenuta

SEZIONE 9: Proprietà fisiche e chimiche· **9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali**· **Indicazioni generali**· **Aspetto:**

· Forma:	Liquido
· Colore:	Giallo chiaro
· Odore:	Pungente
· Soglia olfattiva:	Non definito.

· **valori di pH:** Non definito.· **Cambiamento di stato**· **Punto di fusione/punto di congelamento:** Non definito.· **Punto di ebollizione iniziale e intervallo di ebollizione:** -21 °C· **Punto di infiammabilità:** 0 °C· **Infiammabilità (solidi, gas):** Non applicabile.· **Temperatura di accensione:** 300 °C· **Temperatura di decomposizione:** Non definito.

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· Temperatura di autoaccensione:	Prodotto non autoinfiammabile.
· Proprietà esplosive:	Rischio di esplosione per urto, sfregamento, fuoco o altre sorgenti d'ignizione.
· Limiti di infiammabilità:	
Inferiore:	Non definito.
Superiore:	Non definito.
· Tensione di vapore a 20 °C:	23 hPa
· Densità a 20 °C:	0,99507 g/cm ³
· Densità relativa	Non definito.
· Densità di vapore:	Non definito.
· Velocità di evaporazione	Non definito.
· Solubilità in/Miscibilità con acqua:	Poco e/o non miscibile.
· Coefficiente di ripartizione: n-ottanolo/acqua:	Non definito.
· Viscosità:	
Dinamica:	Non definito.
Cinematica:	Non definito.
· Tenore del solvente:	
Solventi organici:	18,0 %
Acqua:	81,0 %
VOC (CE)	18,00 %
Contenuto solido:	1,0 %
· 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 o inalato.

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

50-00-0 formaldeide

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

- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**
Provoca irritazione cutanea.

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- **Lesioni oculari gravi/irritazioni oculari gravi**
Provoca grave irritazione oculare.
- **Sensibilizzazione respiratoria o cutanea**
Può provocare una reazione allergica cutanea.
- **Ulteriori dati tossicologici:**
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**
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.
- **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.

SEZIONE 14: Informazioni sul trasporto

- | | |
|---|------------------|
| · 14.5 Pericoli per l'ambiente: | Non applicabile. |
| · 14.6 Precauzioni speciali per gli utilizzatori | Non applicabile. |
| · 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC | Non applicabile. |

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· UN "Model Regulation": non applicabile

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**
- **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**
- **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	18,0

· **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**

H201 Esplosivo; pericolo di esplosione di massa.

H226 Liquido e vapori infiammabili.

H301 Tossico se ingerito.

H311 Tossico per contatto con la pelle.

H312 Nocivo per contatto con la pelle.

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*H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.**H317 Può provocare una reazione allergica cutanea.**H331 Tossico se inalato.**H341 Sospettato di provocare alterazioni genetiche.**H350 Può provocare il cancro.***· Abbreviazioni e acronimi:***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**vPvB: very Persistent and very Bioaccumulative**Expl. 1.1: Esplosivi – Divisione 1.1**Flam. Liq. 1: Liquidi infiammabili – Categoria 1**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**Skin Irrit. 2: Corrosione/irritazione della pelle – Categoria 2**Eye Irrit. 2: Gravi lesioni oculari/irritazione oculare – Categoria 2**Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1**Muta. 2: Mutagenicità sulle cellule germinali – Categoria 2**Carc. 1B: Cancerogenicità – Categoria 1B**STOT SE 3: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 3*

IT

물질안전보건자료 GHS에 따라

인쇄일자: 2022.03.08

개정: 2022.03.08

1 화학제품과 회사에 관한 정보

- 제품 식별자
- 제품명: **BOUIN'S FLUID**
- 상품번호: 15990-01, 15990-04, 15990-10, 15990-20, 15990-30
- 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도
- 제품의 권고 용도와 사용상의 제한: BOUIN'S FLUID
- 제품의 권고 용도와 사용상의 제한: 실험실 화학품
- 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
- 제조자/수입자/유통업자 정보:
 Electron Microscopy Sciences
 1560 Industry Road
 USA-Hatfield, PA 19440
 Tel: 215-412-8400 Fax: 215-412-8450
 email: sgkcck@aol.com
 www.emsdiasum.com
- Samchang Commercial Co., Ltd.
 Yeo Eui Do
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 Fax: 82 2 717 3298
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- Daedok Science, Co. Ltd.
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 Korea
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 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



폭발

폭발성 물질 - 등급 1.1

H201 폭발성 물질: 대폭발 위험



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

인쇄일자: 2022.03.08

개정: 2022.03.08

제품명: BOUIN'S FLUID

(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



GHS01 GHS05 GHS06 GHS08

- 신호어 위험
- 상표상에명확히위험성이표시된성분:
포르말린
Acetic Acid Glacial
피크릭 산

- 유해·위험문구
폭발성 물질: 대폭발 위험
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.
화염이 폭발성 물질에 도달하면 불을 끄려 하지 마시오.
현지/지역/국가/국제 규정에 따라서 보관 하기
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.

(3 쪽에계속)

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· vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.

(2 쪽부터 계속)

3 구성성분의 명칭 및 함유량

- **화 학 적 특 성:** 혼합물
- **설 명:** 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	>2.5-≤10%
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%
88-89-1	피크릭 산 ⚠ 폭발성 물질 - 등급 1.1, H201; ⚠ 급성 독성 - 경구 - 구분3, H301; ⚠ 급성 독성 - 경피 - 구분3, H311; ⚠ 급성 독성 - 흡입 - 구분3, H331	≤2.5%

4 응급조치 요령

· **응급조치요령 내용**

· **일 반 적 정 보:**

이 제품에 의해 오염된 의상은 즉시 제거한다.
 중독 증상은 몇 시간이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간 동안은 의료진의 관찰을 받아야 한다.
 반드시 오염된 의상을 완전히 제거한 후에 호흡보호기를 떼어낸다.
 불규칙적인 호흡이나 호흡정지 상태에서는 인공호흡을 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 쉰다. 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, 모래, 석회가루를 사용하고, 물을 사용하지 않는다.
- **부적절한 소화제:** 물
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.
- **소방관에 대한 권고사항**
- **화재 진압 시 착용할 보호구 및 예방조치:** 호흡보호장비 설치.

KR

(4 쪽에 계속)

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6 누출 사고 시 대처방법

- **개인적 예방조치, 보호장비 및 응급처치 절차**
위험 지역으로부터 사람들을 안전하게 이동시킨다.
안전장비 착용하고, 무방비의 사람은 격리시킨다.
- **환경 관련 예방조치:** 하수도망/해수면위의물/지하수로도달하지않게한다.
- **밀폐 및 정화 방법과 소재:**
액체가 혼합된 물질 (모래, 규조토, 산성 결합물, 알칼리 결합물, 톱밥)에 흡입되도록 한다.
중성제를사용한다.
항목 13에 따라 오염된 물질을 쓰레기로 처분한다.
충분한 환기가 되도록 한다.
물이나 묽은 세척제로 씻어 내지 마십시오
- **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.
조심스럽게용기를개봉하거나취급한다.
연무질이형성되는것을피한다.
- **화재 및 폭발 사고 예방대책에 관한 정보:**
발화요소는 멀리 둔다-금연.
열로부터보호한다.
정전기의충전으로부터 보호한다.
타격과마찰을피한다.
호흡보호장비를항상비치한다.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 특별한 요구사항이 없음.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필요없음
- **보관 조건에 관한 추가적인 정보:**
용기를새지않게밀폐한채보관한다.
열이나직사광선으로부터보호한다.
- **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

- **첨단시설 디자인에 대한 추가정보:** 더 이상의 자료는 없음. 항목 7 을 참고하십시오.
- **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

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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

64-19-7 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

88-89-1 피크릭 산

OELV (KR)	장기간의값: 0.1 mg/m ³ Skin
IOELV (EU)	장기간의값: 0.1 mg/m ³
PEL (US)	장기간의값: 0.1 mg/m ³ Skin
REL (US)	단기간의값: 0.3 mg/m ³ 장기간의값: 0.1 mg/m ³ Skin
TLV (US)	장기간의값: 0.1 mg/m ³

· 추가 정보: 제조할 당시에 유효한 목록을 기초로 사용했다.

· 노출 통제

· 개인 보호구

· 일반적보호조치및위생조치:

· 식료품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.

· 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.

· 휴식 전이나 작업이 끝날때마다 손을 씻는다.

· 방호복은 따로 보관한다.

· 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.

· 테스트를하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.

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투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

· 장갑의 재료

적합한 장갑의 선정은 재질 차이뿐 아니라 품질 기준의 차이도 고려하여 이루어져야 하고 제조업종에 따라서도 다르게 선정되어야 한다. 제품은 다양한 재료로부터의 조제로 이루어지는 것이기 때문에, 장갑 재질의 안정성은 사전에 예측되어질 수 있는 것이 아니고, 반드시 사용 전에 (그 안전성이) 체크되어야 한다.

· 장갑 재료의 투과 시간 정확한 관통 시간은 보호 장갑 제조자에 의하여 인지도, 준수되어야 한다.

· 눈 보호:

보호안경



꼭 조이는 보안경

9 물리화학적 특성

· 기본 물리 및 화학적 특성에 대한 정보

· 일반정보

· 외형

- 물리적 상태: 액체
- 색: 연한 노랑
- 냄새: 찌르는 듯한
- 후각역치: 알맞지 않다.

· pH: 알맞지 않다.

· 상태변화

- 녹는점/어는점: 맞지 않는
- 초기 끓는점과 끓는점 범위: -21 °C

· 인화점: 0 °C

· 인화성(고체, 기체): 해당사항 없음.

· 점화온도: 300 °C

· 분해 온도: 알맞지 않다.

· 자기점화: 이 제품은 자연발화성이 없다.

· 폭발위험: 타격, 마찰, 화염 또는 다른 발화 원인을 통하여 폭발 위험성이 있는

· 인화 또는 폭발 범위의 상한/하한

- 아래로: 알맞지 않다.
- 위로: 알맞지 않다.

· 증기압 의 경우 20 °C: 23 hPa

· 밀도 의 경우 20 °C: 0.99507 g/cm³

· 비중: 알맞지 않다.

· 증기밀도: 알맞지 않다.

· 증발 속도: 알맞지 않다.

· 용해도:

· 물: 각각의 경우에 따라서는 거의 혼합할 수 없는

· n 옥탄올/물 분배계수: 알맞지 않다.

· 점도:

· 역학적: 알맞지 않다.

(7 쪽에 계속)

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등점성:	알맞지않다.
·용매내용물	
유기용매:	18.0 %
물:	81.0 %
VOC (EU)	18.00 %
고체의 함량:	1.0 %
·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: 규정에따라서사용할경우해체는없다
- 유해반응 가능성 위험한반응으로는알려지지않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은알려지지않았다.

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: 피부접촉을통하여감각화가가능성이있다.
- 추 가 적 인 독성 에 관 한 정보:

이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전준비에대하여제시하고있다.

 - 독성의
 - 건강에해로운
 - 부식작용의
 - 자극적인
 - 삼킬경우식도나위등의내장기관벽에상처를주는위험과마찬가지로입주변이나구강에강한부식작용을한다
 - 암을유발하는
- 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.

(8 쪽에계속)

물질안전보건자료 GHS에 따라

인쇄일자: 2022.03.08

개정: 2022.03.08

제품명: BOUIN'S FLUID

(7 쪽부터계속)

- 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.
- 비위생적 포장:
- 권고: 당국의지침에입각한쓰레기처리.

14 운송에 필요한 정보

- 환경적 유해물질: 해당사항 없음.
- 이용자 특별 예방조치: 해당사항 없음.
- MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송: 해당사항 없음.
- UN "모범 규제": 누락되다

15 법적 규제현황

- 산업안전보건법에 의한 규제:

- 제조 등 금지물질:

어떠한내용물도목록화되어있지않다

- 허가대상물질:

어떠한내용물도목록화되어있지않다

- 관리대상유해물질:

50-00-0 포르말린

64-19-7 Acetic Acid Glacial

- 관리대상 유해물질의 종류 유기화합물: 118

- 작업환경측정 대상 유해인자

50-00-0 포르말린

1A105

64-19-7 Acetic Acid Glacial

1C15

(9 쪽에계속)

물질안전보건자료
GHS에 따라

인쇄일자: 2022.03.08

개정: 2022.03.08

제품명: BOUIN'S FLUID

(8 쪽부터계속)

· 특수건강진단 대상 유해인자		
50-00-0	포르말린	1A98

· 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
64-19-7	Acetic Acid Glacial	KE-00013
88-89-1	피크릭 산	KE-34715

· 화학물질관리법

· 사고대비물질		
50-00-0	포르말린	

· 금지물질

어떠한내용물도목록화되어있지않다

· 제한물질

50-00-0	포르말린	
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· 유독물질

50-00-0	포르말린	
88-89-1	피크릭 산	

· 허가물질

50-00-0	포르말린	
88-89-1	피크릭 산	

· 위험물안전관리법 (위험물 및 지정수량) 제 5: 200 킬로그램, 제 4: 2,000 리터

· 등록 또는 신고 면제대상 화학물질		
7732-18-5	물	

· ‘21년까지 등록하여야 할 암, 돌연변이, 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



GHS01 GHS05 GHS06 GHS08

· 신호어 위험

· 상표상에 명확히 위험성이 표시된 성분:

포르말린
Acetic Acid Glacial
피크릭 산

· 유해·위험문구

폭발성 물질: 대폭발 위험

(10 쪽에계속)

물질안전보건자료 GHS에 따라

인쇄일자: 2022.03.08

개정: 2022.03.08

제품명: BOUIN'S FLUID

(9 쪽부터계속)

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.
 화염이 폭발성 물질에 도달하면 불을 끄려 하지 마시오.
 현지/지역/국가/국제 규정에 따라서 보관 하기
 밀봉하여 저장하십시오.
 (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.

· 국내규정:

· 사용제한에 대한 정보:

노동자들은이러한예방준비하에암을유발시키는성분을함유한위험물을버리지말아야한다
 개별적인경우에관한은외를허가할수있다.

· 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음

16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다
 하지만이보고서는생산특성에관한보증은기술하지않았으며계약적인법률관계에기반을두고있지도않다

· 담당자:

· 최초 작성일자: 2022.03.08

· 개정 횟수 및 최종 개정일자: 1 / 2022.03.08

· 약어와 두문자어:

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

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 08.03.2022

revidert den: 08.03.2022

Avsnitt 1: Identifikasjon av stoffet/stoffblandingen og av selskapet/foretaket

- **1.1 Produktidentifikator**
- **Handelsnavn: BOUIN'S FLUID**
- **Artikkelnummer:** 15990-01, 15990-04, 15990-10, 15990-20, 15990-30
- **UFI:** 0912-60FM-S009-CN2X
- **1.2 Relevante identifiserte bruksområder for stoffet eller stoffblandingen og bruk som frarådes**
Ikke noe mer relevant informasjon tilgjengelig.
- **Bruk av stoffet/ tilberedning** laboratoriekjemikalier
- **1.3 Opplysninger om leverandøren av sikkerhetsdatabladet**
- **Produsent/leverandør:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcek@aol.com
www.emsdiasum.com
- **Avdeling for nærmere informasjon:** Product safety department
- **1.4 Nødtelefonnummer**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

Avsnitt 2: Fareidentifikasjon

- **2.1 Klassifisering av stoffet eller stoffblandingen**
- **Klassifisering i henhold til EC-forskrift nr.1272/2008**



GHS02 Flamme

Flam. Liq. 1 H224 Ekstremt brannfarlig væske og damp.



GHS08 Helsefare

Muta. 2 H341 Mistenkes for å kunne forårsake genetiske skader.

Carc. 1B H350 Kan forårsake kreft.



GHS07

Acute Tox. 4 H302 Farlig ved svelging.

Acute Tox. 4 H332 Farlig ved innånding.

Skin Irrit. 2 H315 Irriterer huden.

Eye Irrit. 2 H319 Gir alvorlig øyeirritasjon.

Skin Sens. 1 H317 Kan utløse en allergisk hudreaksjon.

STOT SE 3 H335 Kan forårsake irritasjon av luftveiene.

- **2.2 Merkingselementer**
- **Merking iht. bestemmelse (EC) Nr. 1272/2008**
Produktet er klassifisert og merket i henhold til CLP-forordningen.

(fortsatt på side 2)

NO

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Handelsnavn: BOUIN'S FLUID

(fortsatt fra side 1)

· Farepiktogrammer



GHS02 GHS07 GHS08

· Varselord Fare

· Farebestemmende komponenter ved etikettering:

formaldehyd
2,4,6-trinitrofenol

· Faresetninger

- H224 Ekstremt brannfarlig væske og damp.
 H302+H332 Farlig ved svelging eller innånding.
 H315 Irriterer huden.
 H319 Gir alvorlig øyeirritasjon.
 H317 Kan utløse en allergisk hudreaksjon.
 H341 Mistenkes for å kunne forårsake genetiske skader.
 H350 Kan forårsake kreft.
 H335 Kan forårsake irritasjon av luftveiene.

· Sikkerhetssetninger

- P210 Holdes vekk fra varme, varme overflater, gnister, åpen ild og andre antenningskilder. Røyking forbudt.
 P241 Bruk elektrisk materiell/ventilasjonsmateriell/belysningsmateriell som er eksplosjonssikkert.
 P303+P361+P353 VED HUDKONTAKT (eller håret): Tilsølte klær må fjernes straks. Skyll [eller dusj] huden med vann.
 P305+P351+P338 VED KONTAKT MED ØYNENE: Skyll forsiktig med vann i flere minutter. Fjern eventuelle kontaktlinser dersom dette enkelt lar seg gjøre. Fortsett skyllingen.
 P405 Oppbevares innelåst.
 P501 Innholdet / emballasjen skal avhendes i henhold til de lokale / regionale / nasjonale / internasjonale forskrifter.

· 2.3 Andre farer

· Resultater av PBT- og vPvB-vurdering

- PBT: Ikke brukbar.
 · vPvB: Ikke brukbar.

Avsnitt 3: Sammensetning/opplysninger om bestanddeler

· 3.2 Kjemisk karakterisering: Stoffblandinger

· Beskrivelse: Blanding av nedenstående oppførte stoffer med ufarlige tilsetninger.

· Farlige innholdsstoffer:

CAS: 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	>2,5-≤10%
CAS: 64-19-7 EINECS: 200-580-7	eddiksyre ☠ Flam. Liq. 3, H226; ☠ Skin Corr. 1A, H314; ☠ Acute Tox. 4, H312	>2,5-≤10%
CAS: 88-89-1 EINECS: 201-865-9	2,4,6-trinitrofenol ☠ Expl. 1.1, H201; ☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	≤2,5%

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· **Ytterligere informasjoner:** Teksten til de fareangivelsene som er inkludert her, kan konsulteres i kapittel 16.

Avsnitt 4: Førstehjelpstiltak

· **4.1 Beskrivelse av førstehjelpstiltak**· **Generelle informasjoner:**

Klær som er tilsølt med produktet må fjernes omgående.

Forgiftningssymptomer kan også oppstå etter mange timer. Personer må derfor ha legetilsyn i minst 48 timer etter en ulykke.

Åndedrettsbeskyttelse må først fjernes etter at tilsølte klær er fjernet.

Kunstig åndedrett ved uregelmessig åndedrett eller åndedrettsstillstand.

· **Etter innånding:**

Tilførsel av frisk luft eller surstoff; søk legehjelp.

Ved bevisstløshet lagring og transport i stabil sidestilling.

· **Etter hudkontakt:** Vask straks med vann og sepe og skylld godt etterpå.· **Etter øyekontakt:** Skylld øynene med åpne øyenlokk i flere minutter under rennende vann og tilkall lege.· **Etter svelging:**

Søk lege straks.

Drikk rikelig med vann og sørg for frisk luft. Tilkall lege omgående.

· **4.2 De viktigste symptomene og virkningene, både akutte og forsinkede**

Ikke noe mer relevant informasjon tilgjengelig.

· **4.3 Angivelse av om umiddelbar legehjelp og spesialbehandling er nødvendig**

Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 5: Brannsløkkingstiltak

· **5.1 Sløkkingsmidler**· **Egnede slukningsmidler:** CO₂, sand, slukningspulver. Bruk ikke vann.· **Av sikkerhetsgrunner ikke egnede slukningsmidler:** Vann· **5.2 Særlige farer knyttet til stoffet eller stoffblandingen** Ikke noe mer relevant informasjon tilgjengelig.· **5.3 Råd til brannmannskaper**· **Spesielt verneutstyr:** Ta på egnet åndedrettsbeskyttelse.

Avsnitt 6: Tiltak ved utilsiktede utslipp

· **6.1 Personlige forsiktighetsregler, personlig verneutstyr og nødrutiner**

Bring personer i sikkerhet.

Ta på beskyttelsesdrakt. Hold ubeskyttede personer borte.

· **6.2 Forsiktighetsregler med hensyn til miljø** La ikke produktet komme ned i kloakk/overflatevann/grunnvann.· **6.3 Metoder og materialer for oppsamling og rensing**

Ta opp stoffet med væskebindende materiale (sand, kiselgur, syrebindemiddel, universalbindemiddel, sagflis).

Bruk nøytraliseringsmiddel.

Bortskaff kontaminert matereriale som avfall i.h.t. punkt 13.

Sørg for tilstrekkelig ventilasjon.

Skylld ikke bort med vann eller med vannholdige rengjøringsmidler.

· **6.4 Henvisning til andre avsnitt**

Informasjoner om sikker håndtering, se kapittel 7.

Informasjoner om personlig beskyttelsesutstyr, se kapittel 8.

Informasjoner om bortskaffelse/deponering, se kapittel 13.

NO

(fortsatt på side 4)

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

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revidert den: 08.03.2022

Handelsnavn: **BOUIN'S FLUID**

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Avsnitt 7: Håndtering og lagring

- **7.1 Forsiktighetsregler for sikker håndtering**
Sørg for god ventilasjon/avsugning på arbeidsplassen.
Beholderne må åpnes og håndteres forsiktig.
Unngå aerosoldannelse.
- **Henvisninger om brann- og eksplosjonsvern:**
Bruk av åpen ild forbudt - røyking forbudt.
Beskytt mot varme.
Gjør tiltak mot elektrostatisk oppladning.
Unngå slag og gnissing.
Hold åndedrettsbeskyttelse i beredskap.
- **7.2 Vilkår for sikker lagring, herunder eventuelle uforenligheter**
- **Lagring:**
- **Krav til lagerrom og beholdere:** Ingen spesielle krav.
- **Informasjoner om felles lagring:** Ikke nødvendig.
- **Ytterligere informasjoner om lagervilkårene:**
Hold beholderne tett tillukket.
Beskyttes mot varme og direkte solpåvirkning.
- **7.3 Særlig(e) sluttanvendelse(r)** Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 8: Eksponeringskontroll / personlig verneutstyr

- **8.1 Kontrollparametere**
- **Ytterligere informasjoner om utforming av tekniske anlegg:** Ingen ytterligere informasjoner, se punkt 7.

· **Komponenter med grenseverdier for arbeidsplass som må overholdes:**

50-00-0 formaldehyd

AG	Korttidsverdi: 0,74 mg/m ³ , 0,6 ppm
	Langtidsverdi: 0,37* mg/m ³ , 0,3* ppm
	Takverdi: 1,2 mg/m ³ , 1 ppm
A K G	

64-19-7 eddiksyre

AG	Korttidsverdi: 50 mg/m ³ , 20 ppm
	Langtidsverdi: 25* mg/m ³ , 10* ppm
*A E	

88-89-1 2,4,6-trinitrofenol

AG	Langtidsverdi: 0,1 mg/m ³
H E	

- **Ytterligere informasjoner:** Basis: listene som var gyldige ved oppstillingen.

8.2 Eksponeringskontroll

- **Personlig verneutstyr:**
- **Generelle verne- og hygienetiltak:**
Holdes adskilt fra næringsmidler, drikkevarer og forstoffer.
Fjern omgående forurensede, gjennomvåtede klær.
Vask hendene før arbeidspauser og ved arbeidets slutt.
Beskyttelsesklær må oppbevares adskilt.
Unngå berøring med øynene.
Unngå berøring med øyne og hud.

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- **Åndedrettsvern:**

Ved korttidig eller liten belastning åndedrettsfilterapparat; ved intensiv eller lengre utsetting: bruk omluft-uavhengig åndedrettsbeskyttelsesapparat.

- **Håndvern:**



Beskyttelseshansker

Hanskematerialet må være ugjennomtrengelig og bestandig overfor produktet /stoffet /blandingen.

På grunn av manglende tester kan det ikke gis noen anbefaling om hanskemateriale for produktet / tilberedningsprosessen/kjemikalieblandingen.

Hanskematerialet velges under hensyntagen til holdbarhetstid, gjennomtrengelighet og degradering.

- **hanskemateriale**

Valget av egnet hanske er ikke bare avhengig av materiale, men også av andre kvalitetskjenner og er forskjellig fra produsent til produsent. Da produktet representerer en sammensetning av flere stoffer, kan holdbarheten av hanskematerialet ikke forhåndsregnes, og denne må testes før bruk.

- **gjennomtrengingstid for hanskemateriale**

Den nøyaktige holdbarhetstiden må bringes på det rene hos hanskeprodusenten og overholdes.

- **Øyevern:**

Vernebrille



Tettsittende vernebrille

Avsnitt 9: Fysiske og kjemiske egenskaper

- **9.1 Opplysninger om grunnleggende fysiske og kjemiske egenskaper**

- **alminnelige opplysninger**

- **Utseende:**

· Form:	Væske
· Farge:	Lysegul
· Lukt:	Stikkende
· Lukterskel:	Ikke bestemt.

- **pH-verdi:** Ikke bestemt.

- **Tilstandsending**

· Smeltepunkt/frysepunkt:	Ikke bestemt.
· Startkokepunkt og kokeområde:	-21 °C

- **Flammepunkt:** 0 °C

- **Antennelighet (fast stoff, gass):** Ikke brukbar.

- **Antennelsestemperatur:** 300 °C

- **Nedbrytningstemperatur:** Ikke bestemt.

- **Selvantennelsestemperatur:** Produktet er ikke selvantennelig.

- **Eksplorative egenskaper:** Eksplosjonsfarlig ved støt, gnidning, ild eller andre antennelseskilder

- **Ekspljosjonsgrenser:**

- **Nedre:** Ikke bestemt.

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Øvre	<i>Ikke bestemt.</i>
· Damptrykk ved 20 °C:	23 hPa
· Tetthet ved 20 °C:	0,99507 g/cm ³
· Relativ tetthet:	<i>Ikke bestemt.</i>
· Damp tetthet:	<i>Ikke bestemt.</i>
· Fordampingshastighet:	<i>Ikke bestemt.</i>
· Løslighet i / blandbarhet med vann:	<i>Ikke, hhv. lite blandbar.</i>
· Fordelingskoeffisient; n-oktanol/vann:	<i>Ikke bestemt.</i>
· Viskositet:	
Dynamisk:	<i>Ikke bestemt.</i>
Kinematisk:	<i>Ikke bestemt.</i>
· Løsningsmiddelandel:	
Organiske løsningsmidler:	18,0 %
Vann:	81,0 %
VOC (EF)	18,00 %
Andel faste stoffer:	1,0 %
· 9.2 Andre opplysninger	<i>Ikke noe mer relevant informasjon tilgjengelig.</i>

Avsnitt 10: Stabilitet og reaktivitet

- **10.1 Reaktivitet** *Ikke noe mer relevant informasjon tilgjengelig.*
- **10.2 Kjemisk stabilitet**
- **Termisk spaltning / vilkår som må unngås:** *Ingen spaltning ved formålsriktig bruk.*
- **10.3 Risiko for farlige reaksjoner** *Det kjennes ingen farlige reaksjoner.*
- **10.4 Forhold som skal unngås** *Ikke noe mer relevant informasjon tilgjengelig.*
- **10.5 Uforenlige materialer** *Ikke noe mer relevant informasjon tilgjengelig.*
- **10.6 Farlige nedbrytingsprodukter** *Ingen farlige spaltningsprodukter kjente.*

Avsnitt 11: Toksikologiske opplysninger

- **11.1 Opplysninger om toksikologiske virkninger**
- **Akutt giftighet**
Farlig ved svelging eller innånding.

· **Klassifiseringsrelevante LD/LC50-verdier:**

50-00-0 formaldehyd

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

- **Primær irritasjonsvirkning:**
- **Hudetsing/hudirritasjon**
Irriterer huden.
- **Alvorlig øyeskade/øyeirritasjon**
Gir alvorlig øyeirritasjon.
- **Sensibilisering ved innånding eller hudkontakt**
Kan utløse en allergisk hudreaksjon.

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- **Informasjon om følgende grupper med potensielle virkninger:**
- **CMR-virkninger (kreftfremkallende virkninger, arvestoffskadelige og reproduksjonsskadelige virkninger)**
- **Arvestoffskadelig virkning på kjønnsceller**
Mistenkes for å kunne forårsake genetiske skader.
- **Kreftframkallende egenskap**
Kan forårsake kreft.
- **Reproduksjonstoksitet** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **STOT – enkelteksponering**
Kan forårsake irritasjon av luftveiene.
- **STOT – gjentatt eksponering** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Aspirasjonsfare** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.

Avsnitt 12: Økologiske opplysninger

- **12.1 Giftighet**
- **Akvatisk toksisitet:** Ikke noe mer relevant informasjon tilgjengelig.
- **12.2 Persistens og nedbrytbarhet** Ikke noe mer relevant informasjon tilgjengelig.
- **12.3 Bioakkumuleringsevne** Ikke noe mer relevant informasjon tilgjengelig.
- **12.4 Mobilitet i jord** Ikke noe mer relevant informasjon tilgjengelig.
- **Ytterligere økologiske informasjoner:**
- **Generelle informasjoner:**
Vannfareklasse 2 (D) (Selvklassifisering): farlig for vann
Ikke la stoffet komme ned i grunnvannet, i vassdrag eller i kloakker.
Må ikke komme uforynnet eller uøytralisert ned i spillvann eller i avløpsgrøft.
Fare for drikkevann allerede ved utstrømning av små mengder i marken.
- **12.5 Resultater av PBT- og vPvB-vurdering**
- **PBT:** Ikke brukbar.
- **vPvB:** Ikke brukbar.
- **12.6 Andre skadevirkninger** Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 13: Sluttbehandling

- **13.1 Avfallsbehandlingsmetoder**
- **Anbefaling:** Må ikke bortskaffes sammen med husholdningsavfall. Må ikke komme ned i kloakk.
- **Ikke rengjort emballasje:**
- **Anbefaling:** Deponering i henhold til myndighetenes forskrifter.

Avsnitt 14: Transportopplysninger

- | | |
|--|---------------|
| · 14.5 Miljøfarer | Ikke brukbar. |
| · 14.6 Særlige forsiktighetsregler ved bruk | Ikke brukbar. |
| · 14.7 Bulktransport i henhold til vedlegg II til MARPOL 73/78 og IBC-regelverket | Ikke brukbar. |
| · UN "Model Regulation": | bortfaller |

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Avsnitt 15: Opplysninger om regelverk

· 15.1 Særlige bestemmelser / særskilt lovgivning om sikkerhet, helse og miljø for stoffet eller stoffblandingen

- Direktiv 2012/18/EU
- Spesifiserte farlige stoffer - VEDLEGG I ingen av innholdsstoffene er listet opp
- Seveso kategori P5a
- Mengdegrense (i tonn) for anvendelsen av krav til virksomheter på lavere nivå 10 t
- Mengdegrense (i tonn) for anvendelsen av krav til virksomheter på høyere nivå 50 t
- Forordning (EF) nr. 1907/2006 VEDLEGG XVII Begrensninger: 3, 28, 72

· Direktiv 2011/65/EF om begrensning av bruken av visse farlige stoffer i elektrisk og elektronisk utstyr - Vedlegg II

ingen av innholdsstoffene er listet opp

· Forordning (EF) nr. 273/2004 om utgangsstoffer for narkotika

ingen av innholdsstoffene er listet opp

· Forordning (EF) nr. 111/2005 om fastsettelse av regler for overvåking av handelen med utgangsstoffer for narkotika mel-lom Fellesskapet og tredjestater

ingen av innholdsstoffene er listet opp

· Nasjonale forskrifter:

· Informasjoner om arbeidsinnskrenkning:

Arbeidstagere må ikke utsettes for de kreftfremkallende farlige stoffer som er inneholdt i denne blandingen. I enkelte tilfeller kan myndighetene tillate unntak.

· 15.2 Vurdering av kjemikaliesikkerhet En kjemisk sikkerhetsvurdering er ikke utført.

Avsnitt 16: Andre opplysninger

Opplysningene er basert på vårt kjennskap i dag. De utgjør dog ingen forsikring om produkttegenskaper og er ikke grunnlag for noe kontraktmessig rettsforhold.

· Relevante satser

- H201 Eksplosjonsfarlig; fare for masseeksplosjon.
- H226 Brannfarlig væske og damp.
- H301 Giftig ved svelging.
- H311 Giftig ved hudkontakt.
- H312 Farlig ved hudkontakt.
- H314 Gir alvorlige etseskader på hud og øyne.
- H317 Kan utløse en allergisk hudreaksjon.
- H331 Giftig ved innånding.
- H341 Mistenkes for å kunne forårsake genetiske skader.
- H350 Kan forårsake kreft.

· Forkortelser og akronymer:

- 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
- vPvB: very Persistent and very Bioaccumulative
- Expl. 1.1: Eksplosive varer – Gruppe 1.1
- Flam. Liq. 1: Brannfarlige væsker – Kategori 1
- Flam. Liq. 3: Brannfarlige væsker – Kategori 3
- Acute Tox. 3: Akutt giftighet – Kategori 3

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Acute Tox. 4: Akutt giftighet – Kategori 4
Skin Corr. 1A: Hudetsing/hudirritasjon – Kategori 1A
Skin Corr. 1B: Hudetsing/hudirritasjon – Kategori 1B
Skin Irrit. 2: Hudetsing/hudirritasjon – Kategori 2
Eye Irrit. 2: Alvorlig øyeskade/øyeirritasjon – Kategori 2
Skin Sens. 1: Hudsensibilisering – Kategori 1
Muta. 2: Skade på arvestoffet i kjønnceller – Kategori 2
Carc. 1B: Kreftframkallende egenskaper – Kategori 1B
STOT SE 3: Giftvirkning på bestemte organer (enkelteksponering) – Kategori 3

NO

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

· 1.1 Identificador del producto

· **Nombre comercial:** BOUIN'S FLUID

· **Número del artículo:** 15990-01, 15990-04, 15990-10, 15990-20, 15990-30

· **UFI:** 0912-60FM-S009-CN2X

· **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**

No existen más datos relevantes disponibles.

· **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio

· 1.3 Datos del proveedor de la ficha de datos de seguridad

· **Fabricante/distribuidor:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: sgkceck@aol.com

www.emsdiasum.com

Aname

C/ Perez Galdos no. 2

28693 Quijorna

Madrid, Spain

Tel: +34.91.816.89.50

Fax: +34.91.816.85.94

email: ventas@aname.es

· **Área de información:** Product safety department

· **1.4 Teléfono de emergencia:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SECCIÓN 2: Identificación de los peligros

· 2.1 Clasificación de la sustancia o de la mezcla

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



GHS02 llama

Flam. Liq. 1 H224 Líquido y vapores extremadamente inflamables.



GHS08 peligro para la salud

Muta. 2 H341 Se sospecha que provoca defectos genéticos.

Carc. 1B H350 Puede provocar cáncer.



GHS07

Acute Tox. 4 H302 Nocivo en caso de ingestión.

Acute Tox. 4 H332 Nocivo en caso de inhalación.

Skin Irrit. 2 H315 Provoca irritación cutánea.

Eye Irrit. 2 H319 Provoca irritación ocular grave.

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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 GHS07 GHS08

· **Palabra de advertencia Peligro**

· **Componentes peligrosos a indicar en el etiquetaje:**

formaldehído

2,4,6-trinitrofenol

· **Indicaciones de peligro**

H224 Líquido y vapores extremadamente inflamables.

H302+H332 Nocivo en caso de ingestión o inhalación.

H315 Provoca irritación cutánea.

H319 Provoca irritación ocular grave.

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**

P210 Mantener alejado del calor, de superficies calientes, de chispas, de llamas abiertas y de cualquier otra fuente de ignición. No fumar.

P241 Utilizar material [eléctrico/ de ventilación/iluminación] antideflagrante.

P303+P361+P353 EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitar inmediatamente toda la ropa contaminada. Enjuagar la piel con agua [o ducharse].

P305+P351+P338 EN CASO DE CONTACTO CON LOS OJOS: Enjuagar con agua cuidadosamente durante varios minutos. Quitar las lentes de contacto cuando estén presentes y pueda hacerse con facilidad. Proseguir con el lavado.

P405 Guardar bajo llave.

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

· **2.3 Otros peligros**

· **Resultados de la valoración PBT y mPmB**

· **PBT:** No aplicable.

· **mPmB:** No aplicable.

SECCIÓN 3: Composición/información sobre los componentes

· **3.2 Caracterización química: Mezclas**

· **Descripción:** Mezcla formada por las sustancias especificadas a continuación con adiciones no peligrosas.

· **Componentes peligrosos:**

CAS: 50-00-0	formaldehído	>2,5-≤10%
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: 64-19-7 EINECS: 200-580-7	ácido acético ⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H312	>2,5-≤10%
CAS: 88-89-1 EINECS: 201-865-9	2,4,6-trinitrofenol ⚠ Expl. 1.1, H201; ⚠ Acute Tox. 3, H301; ⚠ Acute Tox. 3, H311; ⚠ Acute Tox. 3, H331	≤2,5%

· **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.

SECCIÓN 5: Medidas de lucha contra incendios

· 5.1 Medios de extinción

· **Sustancias extintoras apropiadas:** CO₂, arena, polvo extintor. No utilizar agua.

· **Sustancias extintoras inapropiadas por razones de seguridad:** Agua

· **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.

· 5.3 Recomendaciones para el personal de lucha contra incendios

· **Equipo especial de protección:** Colocarse la protección respiratoria.

SECCIÓN 6: Medidas en caso de vertido accidental

· 6.1 Precauciones personales, equipo de protección y procedimientos de emergencia

Poner las personas a salvo.

Llevar puesto equipo de protección. Mantener alejadas las personas sin protección.

· 6.2 Precauciones relativas al medio ambiente:

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.

No enjuagar con agua ni productos de limpieza acuosos.

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· 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.

Evitar golpes y roces.

Tener preparados los aparatos respiratorios.

· 7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades

· Almacenamiento:

· **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.

· **Normas en caso de un almacenamiento conjunto:** No es necesario.

· Indicaciones adicionales sobre las condiciones de almacenamiento:

Mantener el recipiente cerrado herméticamente.

Proteger del calor y de la luz directa del sol.

· **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

SECCIÓN 8: Controles de exposición/protección individual

· 8.1 Parámetros de control

· Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:

Sin datos adicionales, ver punto 7.

· Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:

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

64-19-7 ácido acético

LEP Valor de corta duración: 50 mg/m³, 20 ppm

Valor de larga duración: 25 mg/m³, 10 ppm

VLI

88-89-1 2,4,6-trinitrofenol

LEP Valor de larga duración: 0,1 mg/m³

VLI

· **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.

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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 / sustancia / preparado.

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

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

· **Material de los guantes**

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

· **Tiempo de penetración del material de los guantes**

El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

· **Protección de ojos:**

Gafas de protección



Gafas de protección herméticas

SECCIÓN 9: Propiedades físicas y químicas

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

· **Datos generales**

· **Aspecto:**

Forma:

Líquido

Color:

Amarillo claro

· **Olor:**

Penetrante

· **Umbral olfativo:**

No determinado.

· **valor pH:**

No determinado.

· **Cambio de estado**

Punto de fusión/punto de congelación:

Indeterminado.

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

· **Punto de inflamación:**

0 °C

· **Inflamabilidad (sólido, gas):**

No aplicable.

· **Temperatura de ignición:**

300 °C

· **Temperatura de descomposición:**

No determinado.

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· Temperatura de auto-inflamación:	El producto no es autoinflamable.
· Propiedades explosivas:	Riesgo de explosión por choque, fricción, fuego u otras fuentes de ignición.
· Límites de explosión: Inferior:	No determinado.
Superior:	No determinado.
· Presión de vapor a 20 °C:	23 hPa
· Densidad a 20 °C:	0,99507 g/cm ³
· Densidad relativa	No determinado.
· Densidad de vapor	No determinado.
· Tasa de evaporación:	No determinado.
· Solubilidad en / miscibilidad con agua:	Poco o no mezclable.
· Coefficiente de reparto: n-octanol/agua:	No determinado.
· Viscosidad: Dinámica:	No determinado.
Cinemática:	No determinado.
· Concentración del disolvente: Disolventes orgánicos:	18,0 %
Agua:	81,0 %
VOC (CE)	18,00 %
· Contenido de cuerpos sólidos:	1,0 %
· 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 o inhalación.

· **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 irritación cutánea.

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- **Lesiones o irritación ocular graves**
Provoca irritación ocular grave.
- **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.
- **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 (autoclasificación): 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.

SECCIÓN 14: Información relativa al transporte

- | | |
|---|---------------|
| · 14.5 Peligros para el medio ambiente: | No aplicable. |
| · 14.6 Precauciones particulares para los usuarios | No aplicable. |
| · 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC | No aplicable. |

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· "Reglamentación Modelo" de la UNECE: suprimido

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**

· **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.

· **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

· **Frases relevantes**

H201 Explosivo; peligro de explosión en masa.

H226 Líquidos y vapores inflamables.

H301 Tóxico en caso de ingestión.

H311 Tóxico en contacto con la piel.

H312 Nocivo en contacto con la piel.

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.

H341 Se sospecha que provoca defectos genéticos.

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*H350 Puede provocar cáncer.***· Abreviaturas y acrónimos:***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**vPvB: very Persistent and very Bioaccumulative**Expl. 1.1: Explosivos – División 1.1**Flam. Liq. 1: Líquidos inflamables – Categoría 1**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**Skin Irrit. 2: Corrosión o irritación cutáneas – Categoría 2**Eye Irrit. 2: Lesiones oculares graves o irritación ocular – Categoría 2**Skin Sens. 1: Sensibilización cutánea – Categoría 1**Muta. 2: Mutagenicidad en células germinales – Categoría 2**Carc. 1B: Carcinogenicidad – Categoría 1B**STOT SE 3: Toxicidad específica en determinados órganos (exposición única) – Categoría 3*

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