

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/02/2022

Reviewed on 08/02/2022

## 1 Identification

- **Product identifier**
- **Trade name:** Z-FIX CONCENTRATE
- **Article number:** 64125-01
- **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: info@emsdiasum.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**



GHS06 Skull and crossbones

Acute Toxicity - Oral 3

H301 Toxic if swallowed.

Acute Toxicity - Dermal 3

H311 Toxic in contact with skin.

Acute Toxicity - Inhalation 3

H331 Toxic if inhaled.



GHS08 Health hazard

Sensitization - Respiratory 1

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ Cell Mutagenicity 2

H341 Suspected of causing genetic defects.

Carcinogenicity 1B

H350 May cause cancer.

Toxic to Reproduction 1A

H360 May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure 2

H371 May cause damage to the central nervous system and the visual organs.

Specific Target Organ Toxicity - Repeated Exposure 1

H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

Skin Irritation 2

H315 Causes skin irritation.

Eye Irritation 2A

H319 Causes serious eye irritation.

Sensitization - Skin 1

H317 May cause an allergic skin reaction.

Flammable Liquids 4

H227 Combustible liquid.

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**Trade name: Z-FIX CONCENTRATE**

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· **Label elements**

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

· **Hazard pictograms**



GHS06    GHS08

· **Signal word** *Danger*

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

*formaldehyde*

*Methyl Alcohol*

· **Hazard statements**

*Combustible liquid.*

*Toxic if swallowed, in contact with skin or if inhaled.*

*Causes skin irritation.*

*Causes serious eye irritation.*

*May cause allergy or asthma symptoms or breathing difficulties if inhaled.*

*May cause an allergic skin reaction.*

*Suspected of causing genetic defects.*

*May cause cancer.*

*May damage fertility or the unborn child.*

*May cause damage to the central nervous system and the visual organs.*

*Causes damage to organs through prolonged or repeated exposure.*

· **Precautionary statements**

*Obtain special instructions before use.*

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

*Keep away from flames and hot surfaces. – No smoking.*

*Do not breathe dust/fume/gas/mist/vapors/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 must not be allowed out of the workplace.*

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

*[In case of inadequate ventilation] wear respiratory protection.*

*If swallowed: Immediately call a poison center/doctor.*

*Specific treatment (see on this label).*

*Rinse mouth.*

*If on skin: Wash with plenty of water.*

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

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

*Call a poison center/doctor if you feel unwell.*

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

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

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

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

*If experiencing respiratory symptoms: Call a poison center/doctor.*

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

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

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

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Store locked up.

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

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

Health = 2

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 2

Fire = 3

Reactivity = 0

· **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	>10-≤25%
67-56-1	Methyl Alcohol	>2.5-≤10%

### 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.

· **After inhalation:**

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

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

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

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

· **After swallowing:** Immediately call a doctor.· **Information for doctor:**· **Most important symptoms and effects, both acute and delayed** No further relevant information available.· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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## 5 Fire-fighting measures

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

## 6 Accidental release measures

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

### · PAC-1:

50-00-0	formaldehyde	0.90 ppm
67-56-1	Methyl Alcohol	530 ppm
1310-73-2	Sodium Hydroxide, Pellets, Reagent, A.C.S.	0.5 mg/m <sup>3</sup>
10043-35-3	BORIC ACID	6 mg/m <sup>3</sup>

### · PAC-2:

50-00-0	formaldehyde	14 ppm
67-56-1	Methyl Alcohol	2,100 ppm
1310-73-2	Sodium Hydroxide, Pellets, Reagent, A.C.S.	5 mg/m <sup>3</sup>
10043-35-3	BORIC ACID	23 mg/m <sup>3</sup>

### · PAC-3:

50-00-0	formaldehyde	56 ppm
67-56-1	Methyl Alcohol	7200* ppm
1310-73-2	Sodium Hydroxide, Pellets, Reagent, A.C.S.	50 mg/m <sup>3</sup>
10043-35-3	BORIC ACID	830 mg/m <sup>3</sup>

## 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.

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- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
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.
- **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

#### 67-56-1 Methyl Alcohol

PEL	Long-term value: 260 mg/m <sup>3</sup> , 200 ppm
REL	Short-term value: 325 mg/m <sup>3</sup> , 250 ppm Long-term value: 260 mg/m <sup>3</sup> , 200 ppm Skin
TLV	Short-term value: 250 ppm Long-term value: 200 ppm Skin; BEI

### · Ingredients with biological limit values:

#### 67-56-1 Methyl Alcohol

BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the eyes and skin.

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· **Breathing equipment:**

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

· **Protection of hands:**



Protective gloves

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

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

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

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Pungent
<b>Odor threshold:</b>	Not determined.

· **pH-value at 20 °C (68 °F):** 5.6-5.8

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	97 °C (206.6 °F)

· **Flash point:** 62 °C (143.6 °F)

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

· **Decomposition temperature:** Not determined.

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

· **Danger of explosion:** Not determined.

· **Explosion limits:**

<b>Lower:</b>	7 Vol %
<b>Upper:</b>	73 Vol %

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· Vapor pressure at 20 °C (68 °F):	1.7 hPa (1.3 mm Hg)
· Density at 20 °C (68 °F):	1.05 g/cm <sup>3</sup> (8.76225 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	23.0 %
Water:	4.4 %
· VOC content:	23.00 %
	253.1 g/l / 2.11 lb/gal
· Solids content:	0.0 %
· Other information	No further relevant information available.

## 10 Stability and reactivity

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

## 11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

50-00-0 formaldehyde

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

· on the skin: Irritant to skin and mucous membranes.

· on the eye: Irritating effect.

· Sensitization: Sensitization possible through skin contact.

· Additional toxicological information:

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

Harmful

Irritant

Carcinogenic.

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· **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.

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

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

## 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

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

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

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

## 14 Transport information

· **UN-Number**

· **DOT, ADR, IMDG**

· **IATA**

Void

UN1198

· **UN proper shipping name**

· **DOT, ADR, IMDG**

· **IATA**

Void

FORMALDEHYDE SOLUTION, FLAMMABLE

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US



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· **Transport hazard class(es)**· **DOT, ADR, ADN, IMDG**· **Class** Void· **IATA**· **Class** 3(8)· **Label** 3 (8)· **Packing group**· **DOT, ADR, IMDG** Void· **IATA** III· **Environmental hazards:** Not applicable.· **Special precautions for user** Not applicable.· **Transport in bulk according to Annex II of MARPOL73/78 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

67-56-1 Methyl Alcohol

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

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

50-00-0 formaldehyde

67-56-1 Methyl Alcohol

54-64-8 Thiomersal

· **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.

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

67-56-1 Methyl Alcohol

54-64-8 Thiomersal

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

50-00-0 formaldehyde

B1

10043-35-3 BORIC ACID

I (oral)

· **TLV (Threshold Limit Value)**

50-00-0 formaldehyde

A2

10043-35-3 BORIC ACID

A4

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

50-00-0 formaldehyde

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

· **Hazard pictograms**



GHS06 GHS08

· **Signal word** Danger

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

formaldehyde

Methyl Alcohol

· **Hazard statements**

Combustible liquid.

Toxic if swallowed, in contact with skin or if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

May damage fertility or the unborn child.

May cause damage to the central nervous system and the visual organs.

Causes damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Obtain special instructions before use.

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

Keep away from flames and hot surfaces. – No smoking.

Do not breathe dust/fume/gas/mist/vapors/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 must not be allowed out of the workplace.

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

[In case of inadequate ventilation] wear respiratory protection.

If swallowed: Immediately call a poison center/doctor.

Specific treatment (see on this label).

Rinse mouth.

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**Trade name: Z-FIX CONCENTRATE**

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*If on skin: Wash with plenty of water.*

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

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

*Call a poison center/doctor if you feel unwell.*

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

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

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

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

*If experiencing respiratory symptoms: Call a poison center/doctor.*

*In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.*

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

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

*Store locked up.*

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

· **National regulations:**

· **Information about limitation of use:**

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

*Exceptions can be made by the authorities in certain cases.*

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

## 16 Other information

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

· **Contact:**

· **Date of preparation / last revision** 08/02/2022 / -

· **Abbreviations and acronyms:**

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

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

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

*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*

*BEI: Biological Exposure Limit*

*Flammable Liquids 4: Flammable liquids – Category 4*

*Acute Toxicity - Oral 3: Acute toxicity – Category 3*

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

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

*Sensitization - Respiratory 1: Respiratory sensitisation – 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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*Toxic to Reproduction 1A: Reproductive toxicity – Category 1A**Specific Target Organ Toxicity - Single Exposure 2: Specific target organ toxicity (single exposure) – Category 2**Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) – Category 1*

US

# Safety Data Sheet

## according to WHS Regulations

Printing date 02.08.2022

Revision: 02.08.2022

### 1 Identification

- **Product identifier**
- **Trade name:** Z-FIX CONCENTRATE
- **Article number:** 64125-01
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- ProSciTech Pty Ltd  
11 Carlton Street, Kirwan QLD 4817 Australia  
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Website: [ems.proscitech.com](http://ems.proscitech.com)
- Emgrid Australia Pty. Ltd.  
P.O. Box 118  
The Patch VIC 3792  
Australia  
Tel: 03 9752 1785  
Fax: 03 9752 1784  
Website: [www.emgrid.com.au](http://www.emgrid.com.au)
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS06 skull and crossbones

- |              |                                  |
|--------------|----------------------------------|
| Acute Tox. 3 | H301 Toxic if swallowed.         |
| Acute Tox. 3 | H311 Toxic in contact with skin. |
| Acute Tox. 3 | H331 Toxic if inhaled.           |



GHS08 health hazard

- |               |                                                                                 |
|---------------|---------------------------------------------------------------------------------|
| Resp. Sens. 1 | H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Muta. 2       | H341 Suspected of causing genetic defects.                                      |
| Carc. 1B      | H350 May cause cancer.                                                          |
| Repr. 1A      | H360 May damage fertility or the unborn child.                                  |
| STOT SE 2     | H371 May cause damage to the central nervous system and the visual organs.      |
| STOT RE 1     | H372 Causes damage to organs through prolonged or repeated exposure.            |

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# Safety Data Sheet

## according to WHS Regulations

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Revision: 02.08.2022

Trade name: Z-FIX CONCENTRATE

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GHS07

*Skin Irrit. 2*      *H315 Causes skin irritation.*  
*Eye Irritation 2A* *H319 Causes serious eye irritation.*  
*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**



GHS06    GHS08

· **Signal word** *Danger*

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

*formaldehyde*

*Methyl Alcohol*

· **Hazard statements**

*Combustible liquid.*

*Toxic if swallowed.*

*Toxic in contact with skin.*

*Toxic if inhaled.*

*Causes skin irritation.*

*Causes serious eye irritation.*

*May cause allergy or asthma symptoms or breathing difficulties if inhaled.*

*May cause an allergic skin reaction.*

*Suspected of causing genetic defects.*

*May cause cancer.*

*May damage fertility or the unborn child.*

*May cause damage to the central nervous system and the visual organs.*

*Causes damage to organs through prolonged or repeated exposure.*

· **Precautionary statements**

*Obtain special instructions before use.*

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

*Keep away from flames and hot surfaces. – 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.*

*Wear respiratory protection.*

*IF SWALLOWED: Immediately call a POISON CENTER/ doctor.*

*Specific treatment (see on this label).*

*Rinse mouth.*

*IF ON SKIN: Wash with plenty of water.*

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

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

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

Call a POISON CENTER/doctor if you feel unwell.

Get medical advice/attention if you feel unwell.

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

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

If eye irritation persists: Get medical advice/attention.

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

In case of fire: Use CO<sub>2</sub>, powder or water spray for extinction.

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

Store in a well-ventilated place. Keep cool.

Store locked up.

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

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

### 3 Composition and Information on Ingredients

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

· **Dangerous components:**

50-00-0	formaldehyde	>10-≤25%
67-56-1	Methyl Alcohol	>2.5-≤10%

· **SVHC**

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

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

### 4 First Aid Measures

- **Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Call for a doctor immediately.
- **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.

AU

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### 5 Fire Fighting Measures

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

### 6 Accidental Release Measures

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

### 7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
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.
- **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.

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· **Control parameters**

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

**50-00-0 formaldehyde**

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

**67-56-1 Methyl Alcohol**

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

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

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

· **Respiratory protection:**

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

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

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Trade name: Z-FIX CONCENTRATE

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### 9 Physical and Chemical Properties

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

· **General Information**

· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Pungent
· <b>Odour threshold:</b>	Not determined.

· **pH-value at 20 °C:** 5.6-5.8

· **Change in condition**

· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Initial boiling point and boiling range:</b>	97 °C

· **Flash point:** 62 °C

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

· **Decomposition temperature:** Not determined.

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

· **Explosive properties:** Not determined.

· **Explosion limits:**

· <b>Lower:</b>	7 Vol %
· <b>Upper:</b>	73 Vol %

· **Vapour pressure at 20 °C:** 1.7 hPa

· <b>Density at 20 °C:</b>	1.05 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.

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

· **Viscosity:**

· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.

· **Solvent content:**

· <b>Organic solvents:</b>	23.0 %
· <b>Water:</b>	4.4 %
· <b>VOC (EC)</b>	23.00 %

· **Solids content:** 0.0 %

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

### 10 Stability and Reactivity

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

· **Chemical stability**

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

· **Possibility of hazardous reactions** No dangerous reactions known.

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- **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)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Harmful  
Irritant  
Carcinogenic.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Muta. 2, Carc. 1B, Repr. 1A

### 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **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.

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

### 14 Transport information

· UN-Number	
· ADG, IMDG	not regulated
· IATA	UN1198
· UN proper shipping name	
· ADG, IMDG	not regulated
· IATA	FORMALDEHYDE SOLUTION, FLAMMABLE
· Transport hazard class(es)	
· ADG, ADN, IMDG	
· Class	not regulated
· IATA	
	
· Class	3(8)
· Label	3 (8)
· Packing group	
· ADG, IMDG	not regulated
· IATA	III
· 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
67-56-1	Methyl Alcohol	S5, S6, S10
1310-73-2	Sodium Hydroxide, Pellets, Reagent, A.C.S.	S5, S6, S10
7447-40-7	potassium chloride	S4
10043-35-3	BORIC ACID	S4, S5

· Australia: Priority Existing Chemicals

50-00-0 formaldehyde

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

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# Safety Data Sheet

## according to WHS Regulations

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· **Hazard pictograms**

GHS06 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labelling:***formaldehyde**Methyl Alcohol*· **Hazard statements***Combustible liquid.**Toxic if swallowed.**Toxic in contact with skin.**Toxic if inhaled.**Causes skin irritation.**Causes serious eye irritation.**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**May cause an allergic skin reaction.**Suspected of causing genetic defects.**May cause cancer.**May damage fertility or the unborn child.**May cause damage to the central nervous system and the visual organs.**Causes damage to organs through prolonged or repeated exposure.*· **Precautionary statements***Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Keep away from flames and hot surfaces. – 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.**Wear respiratory protection.**IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**Specific treatment (see on this label).**Rinse mouth.**IF ON SKIN: Wash with plenty of water.**IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Call a POISON CENTER/doctor if you feel unwell.**Get medical advice/attention if you feel unwell.**Take off immediately all contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.**If experiencing respiratory symptoms: Call a POISON CENTER/doctor.**In case of fire: Use CO2, powder or water spray for extinction.**Store in a well-ventilated place. Keep container tightly closed.**Store in a well-ventilated place. Keep cool.**Store locked up.*

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# Safety Data Sheet

## according to WHS Regulations

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**Trade name: Z-FIX CONCENTRATE**

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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 H2 ACUTE TOXIC**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

- **National regulations:**

- **Information about limitation of use:**

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

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

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

67-56-1	Methyl Alcohol
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- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

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

- **Contact:**

- **Abbreviations and acronyms:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 3: Acute toxicity – Category 3

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

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

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 2: Germ cell mutagenicity – Category 2

Carc. 1B: Carcinogenicity – Category 1B

Repr. 1A: Reproductive toxicity – Category 1A

STOT SE 2: Specific target organ toxicity (single exposure) – Category 2

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 08/02/2022

Reviewed on 08/02/2022

### 1 Identification

- **Product identifier**
- **Trade name:** Z-FIX CONCENTRATE
- **Article number:** 64125-01
- **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: info@emsdiasum.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 (Oral) - Category 3

Acute Toxicity (Dermal) – Category 3

Acute Toxicity (Inhalation) - Category 3

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H331 Toxic if inhaled.



GHS08 Health hazard

Respiratory Sensitizer - Category 1

Germ Cell Mutagenicity - Category 2

Carcinogenicity - Category 1B

Reproductive Toxicity - Category 1A

Specific Target Organ Toxicity - Single Exposure -  
Category 2Specific Target Organ Toxicity - Repeated Exposure -  
Category 1H334 May cause allergy or asthma symptoms or  
breathing difficulties if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

H371 May cause damage to the central nervous system  
and the visual organs.H372 Causes damage to organs through prolonged or  
repeated exposure.

GHS07

Skin Irritation - Category 2

Eye Irritation - Category 2A

Skin Sensitizer - Category 1

Flammable Liquids - Category 4

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H227 Combustible liquid.

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# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 08/02/2022

Reviewed on 08/02/2022

Trade name: Z-FIX CONCENTRATE

(Contd. of page 1)

- **Label elements**

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

- **Hazard pictograms**



GHS06 GHS08

- **Signal word** *Danger*

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

*formaldehyde**Methyl Alcohol*

- **Hazard statements**

*Combustible liquid.**Toxic if swallowed, in contact with skin or if inhaled.**Causes skin irritation.**Causes serious eye irritation.**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**May cause an allergic skin reaction.**Suspected of causing genetic defects.**May cause cancer.**May damage fertility or the unborn child.**May cause damage to the central nervous system and the visual organs.**Causes damage to organs through prolonged or repeated exposure.*

- **Precautionary statements**

*Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**Do not 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.**[In case of inadequate ventilation] wear respiratory protection.**If swallowed: Immediately call a poison center/doctor.**Rinse mouth.**If on skin: Wash with plenty of water.**IF INHALED: Remove person to fresh air and keep comfortable for breathing.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Call a poison center/doctor if you feel unwell.**Get medical advice/attention if you feel unwell.**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.**If eye irritation persists: Get medical advice/attention.**If experiencing respiratory symptoms: Call a poison center/doctor.**Take off immediately all contaminated clothing.**Wash contaminated clothing before reuse.**In case of fire: Use CO2, powder or water spray to extinguish.*

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# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 08/02/2022

Reviewed on 08/02/2022

Trade name: **Z-FIX CONCENTRATE**

(Contd. of page 2)

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 = 2

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 3

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	10-30% w/w *
67-56-1	Methyl Alcohol	1-5% 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.

· **After inhalation:**

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

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

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

· **After eye contact:**

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

· **After swallowing:** 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:**

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

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

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# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 08/02/2022

Reviewed on 08/02/2022

Trade name: Z-FIX CONCENTRATE

(Contd. of page 3)

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

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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.  
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.
- **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
Ceiling	1.5 ppm

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CA

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 08/02/2022

Reviewed on 08/02/2022

Trade name: Z-FIX CONCENTRATE

(Contd. of page 4)

**67-56-1 Methyl Alcohol**

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

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

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

· **Protection of hands:**



Protective gloves

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

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

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

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Pungent

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## Safety Data Sheet

according to HPR, Schedule 1

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Reviewed on 08/02/2022

Trade name: Z-FIX CONCENTRATE

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· <b>Odor threshold:</b>	Not determined.
· <b>pH-value at 20 °C:</b>	5.6-5.8
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	97 °C
· <b>Flash point:</b>	62 °C
· <b>Flammability (solid, gaseous):</b>	Not flammable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Not determined.
· <b>Explosion limits:</b>	
<b>Lower:</b>	7 Vol %
<b>Upper:</b>	73 Vol %
· <b>Vapor pressure at 20 °C:</b>	1.7 hPa
· <b>Density at 20 °C:</b>	1.05 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	23.0 %
<b>Water:</b>	4.4 %
<b>Solids content:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** 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.

CA

(Contd. on page 7)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 08/02/2022

Reviewed on 08/02/2022

Trade name: Z-FIX CONCENTRATE

(Contd. of page 6)

### 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:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

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

- **Additional toxicological information:**

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

Harmful

Irritant

Carcinogenic.

- **Carcinogenic categories**

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

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

- **NTP (National Toxicology Program)**

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

### 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability:** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential:** No further relevant information available.

- **Mobility in soil:** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

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

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

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

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects:** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

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

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

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# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 08/02/2022

Reviewed on 08/02/2022

Trade name: Z-FIX CONCENTRATE

(Contd. of page 7)

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

### 14 Transport information

· UN-Number

· DOT/TDG, ADR, IMDG

· IATA

Void

UN1198

· UN proper shipping name

· DOT/TDG, ADR, IMDG

· IATA

Void

FORMALDEHYDE SOLUTION, FLAMMABLE

· Transport hazard class(es)

· DOT, ADR, ADN, IMDG

· Class

Void

· IATA



· Class

3(8)

· Label

3 (8)

· Packing group

· DOT/TDG, ADR, IMDG

· IATA

Void

III

· Environmental hazards:

Not applicable.

· Special precautions for user

Not applicable.

· Transport in bulk according to Annex II of MARPOL73/78 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

67-56-1 Methyl Alcohol

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Canadian substance listings:

· Canadian Domestic Substances List (DSL)

All ingredients are listed.

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CA

## Safety Data Sheet

according to HPR, Schedule 1

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Trade name: Z-FIX CONCENTRATE

(Contd. of page 8)

· <b>Canadian Non-Domestic Substances List (NDSL)</b>
None of the ingredients is listed.

· <b>Canadian Ingredient Disclosure list (limit 0.1%)</b>
50-00-0 formaldehyde

· <b>Canadian Ingredient Disclosure list (limit 1%)</b>
67-56-1 Methyl Alcohol

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

· **Hazard pictograms**



GHS06 GHS08

· **Signal word** Danger

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

formaldehyde

Methyl Alcohol

· **Hazard statements**

Combustible liquid.

Toxic if swallowed, in contact with skin or if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

May damage fertility or the unborn child.

May cause damage to the central nervous system and the visual organs.

Causes damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Obtain special instructions before use.

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

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

Do not 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.

[In case of inadequate ventilation] wear respiratory protection.

If swallowed: Immediately call a poison center/doctor.

Rinse mouth.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Call a poison center/doctor if you feel unwell.

Get medical advice/attention if you feel unwell.

Take off contaminated clothing and wash it before reuse.

Specific measures (see on this label).

(Contd. on page 10)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 08/02/2022

Reviewed on 08/02/2022

**Trade name: Z-FIX CONCENTRATE**

(Contd. of page 9)

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

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

*If experiencing respiratory symptoms: Call a poison center/doctor.*

*Take off immediately all contaminated clothing.*

*Wash contaminated clothing before reuse.*

*In case of fire: Use CO<sub>2</sub>, 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.*

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

### 16 Other information

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

· **Contact:**

· **Date of the latest revision of the safety data sheet 08/02/2022 / -**

· **Abbreviations and acronyms:**

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*



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

Printing date 02.08.2022

Revision: 02.08.2022

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

- **1.1 Product identifier**
- **Trade name:** Z-FIX CONCENTRATE
- **Article number:** 64125-01
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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**



skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.  
Acute Tox. 3 H311 Toxic in contact with skin.  
Acute Tox. 3 H331 Toxic if inhaled.



health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Muta. 2 H341 Suspected of causing genetic defects.  
Carc. 1B H350 May cause cancer.  
Repr. 1A H360 May damage fertility or the unborn child.  
STOT SE 2 H371 May cause damage to the central nervous system and the visual organs.  
STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



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.

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according to 1907/2006/EC, Article 31

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Trade name: Z-FIX CONCENTRATE

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## 2.2 Label elements

### Labelling according to Regulation (EC) No 1272/2008

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

### Hazard pictograms



GHS06 GHS08

### Signal word Danger

### Hazard-determining components of labelling:

formaldehyde

Methyl Alcohol

### Hazard statements

H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

H371 May cause damage to the central nervous system and the visual organs.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

### Precautionary statements

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

P405 Store locked up.

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

### 2.3 Other hazards

### Results of PBT and vPvB assessment

• PBT: Not applicable.

• vPvB: Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.2 Chemical characterisation: Mixtures

• Description: Mixture of substances listed below with nonhazardous additions.

### Dangerous components:

CAS: 50-00-0 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	>10-≤25%
CAS: 67-56-1 EINECS: 200-659-6	Methyl Alcohol ☠ Flam. Liq. 2, H225; ☠ STOT SE 1, H370; ☠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	>2.5-≤10%

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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.

##### · After inhalation:

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

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

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

##### · After eye contact:

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

##### · After swallowing: 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:

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

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

#### · 5.3 Advice for firefighters

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

### SECTION 6: Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

#### · 6.2 Environmental precautions:

Dilute with plenty of water.

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

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

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

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

#### · 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### SECTION 7: Handling and storage

#### · 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

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- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
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.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

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

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

### 50-00-0 formaldehyde

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

### 67-56-1 Methyl Alcohol

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

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

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
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.

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· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

## SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

**Form:** Liquid  
**Colour:** Colourless

· **Odour:** Pungent

· **Odour threshold:** Not determined.

· **pH-value at 20 °C:** 5.6-5.8

· **Change in condition**

**Melting point/freezing point:** Undetermined.

**Initial boiling point and boiling range:** 97 °C

· **Flash point:** 62 °C

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

· **Decomposition temperature:** Not determined.

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

· **Explosive properties:** Not determined.

· **Explosion limits:**

**Lower:** 7 Vol %

**Upper:** 73 Vol %

· **Vapour pressure at 20 °C:** 1.7 hPa

· **Density at 20 °C:** 1.05 g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

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

Fully miscible.

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

· **Viscosity:**

**Dynamic:** Not determined.

**Kinematic:** Not determined.

· **Solvent content:**

**Organic solvents:** 23.0 %

**Water:** 4.4 %

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<b>VOC (EC)</b>	23.00 %
<b>Solids content:</b>	0.0 %
<b>· 9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** 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**  
Toxic if swallowed, in contact with skin 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 allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity**  
Suspected of causing genetic defects.
- **Carcinogenicity**  
May cause cancer.
- **Reproductive toxicity**  
May damage fertility or the unborn child.
- **STOT-single exposure**  
May cause damage to the central nervous system and the visual organs.  
May cause respiratory irritation.
- **STOT-repeated exposure**  
Causes damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

GB

(Contd. on page 7)

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

## SECTION 14: Transport information

- |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Number</b></li> <li>· <b>ADR, IMDG</b></li> <li>· <b>IATA</b></li> </ul>                                               | <p style="text-align: right;">not regulated<br/>UN1198</p>                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR, IMDG</b></li> <li>· <b>IATA</b></li> </ul>                                 | <p style="text-align: right;">not regulated<br/>FORMALDEHYDE SOLUTION, FLAMMABLE</p>                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR, ADN, IMDG</b></li> <li>· <b>Class</b></li> <li>· <b>IATA</b></li> </ul> | <p style="text-align: right;">not regulated</p> <hr style="border-top: 1px dashed black;"/> <div style="display: flex; align-items: center; justify-content: center; gap: 20px;">   </div> <p style="text-align: right;"> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul> </p> |
| <ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG</b></li> <li>· <b>IATA</b></li> </ul>                                           | <p style="text-align: right;"> <ul style="list-style-type: none"> <li>3(8)</li> <li>3 (8)</li> </ul> <br/>           not regulated<br/>III         </p>                                                                                                                                                                                                                                                                                                                                       |

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- |                                                                                  |                 |
|----------------------------------------------------------------------------------|-----------------|
| · <b>14.5 Environmental hazards:</b>                                             | Not applicable. |
| · <b>14.6 Special precautions for user</b>                                       | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>                                                  | 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.
- **Seveso category H2 ACUTE TOXIC**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 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**  
H225 Highly flammable liquid and vapour.  
H301 Toxic if swallowed.  
H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H331 Toxic if inhaled.  
H332 Harmful if inhaled.  
H341 Suspected of causing genetic defects.  
H350 May cause cancer.  
H370 Causes damage to organs.
- **Abbreviations and acronyms:**  
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

(Contd. on page 9)



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

Printing date 02.08.2022

Revision: 02.08.2022

**Trade name: Z-FIX CONCENTRATE**

(Contd. of page 8)

*Flam. Liq. 2: Flammable liquids – Category 2*  
*Acute Tox. 3: Acute toxicity – Category 3*  
*Acute Tox. 4: Acute toxicity – Category 4*  
*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*  
*Resp. Sens. 1: Respiratory sensitisation – Category 1*  
*Skin Sens. 1: Skin sensitisation – Category 1*  
*Muta. 2: Germ cell mutagenicity – Category 2*  
*Carc. 1B: Carcinogenicity – Category 1B*  
*Repr. 1A: Reproductive toxicity – Category 1A*  
*STOT SE 1: Specific target organ toxicity (single exposure) – Category 1*  
*STOT SE 2: Specific target organ toxicity (single exposure) – Category 2*  
*STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1*

GB

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 02.08.2022

Herziening van: 02.08.2022

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

- **1.1 Productidentificatie**
- **Handelsnaam: Z-FIX CONCENTRATE**
- **Artikelnummer:** 64125-01
- **UFI:** H8D4-E052-300X-MTDS
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- Aurion  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: [info@aurion.nl](mailto: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**



GHS06 doodshoofd met gekruiste beenderen

- Acute Tox. 3 H301 Giftig bij inslikken.
- Acute Tox. 3 H311 Giftig bij contact met de huid.
- Acute Tox. 3 H331 Giftig bij inademing.



GHS08 gezondheidsgevaar

- Resp. Sens. 1 H334 Kan bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.
- Muta. 2 H341 Verdacht van het veroorzaken van genetische schade.
- Carc. 1B H350 Kan kanker veroorzaken.
- Repr. 1A H360 Kan de vruchtbaarheid of het ongeboren kind schaden.
- STOT SE 2 H371 Kan schade veroorzaken aan het centrale zenuwstelsel en de visuele organen.
- STOT RE 1 H372 Veroorzaakt schade aan organen bij langdurige of herhaalde blootstelling.

(Vervolg op blz. 2)

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(Vervolg van blz. 1)



GHS07

- Skin Irrit. 2 H315 Veroorzaakt huidirritatie.  
 Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.  
 Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.  
 STOT SE 3 H335 Kan irritatie van de luchtwegen veroorzaken.

### · 2.2 Etiketteringselementen

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

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

#### · Gevarenpictogrammen



GHS06 GHS08

#### · Signaalwoord Gevaar

#### · Gevaaraanduidende componenten voor de etikettering:

formaldehyde  
methanol

#### · Gevarenaanduidingen

- H301+H311+H331 Giftig bij inslikken, bij contact met de huid en bij inademing.  
 H315 Veroorzaakt huidirritatie.  
 H319 Veroorzaakt ernstige oogirritatie.  
 H334 Kan bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.  
 H317 Kan een allergische huidreactie veroorzaken.  
 H341 Verdacht van het veroorzaken van genetische schade.  
 H350 Kan kanker veroorzaken.  
 H360 Kan de vruchtbaarheid of het ongeboren kind schaden.  
 H371 Kan schade veroorzaken aan het centrale zenuwstelsel en de visuele organen.  
 H335 Kan irritatie van de luchtwegen veroorzaken.  
 H372 Veroorzaakt schade aan organen bij langdurige of herhaalde blootstelling.

#### · Veiligheidsaanbevelingen

- P301+P310 NA INSLIKKEN: onmiddellijk een ANTIGIFCENTRUM/arts raadplegen.  
 P321 Specifieke behandeling vereist (zie op dit etiket).  
 P330 De mond spoelen.  
 P305+P351+P338 BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.  
 P361+P364 Verontreinigde kleding onmiddellijk uittrekken en wassen alvorens deze opnieuw te gebruiken.  
 P405 Achter slot bewaren.  
 P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

### · 2.3 Andere gevaren

#### · Resultaten van PBT- en zPzB-beoordeling

- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.

NL

(Vervolg op blz. 3)

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(Vervolg van blz. 2)

## RUBRIEK 3: Samenstelling en informatie over de bestanddelen

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

- **Gevaarlijke inhoudstoffen:**

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

- **SVHC**

67-56-1 methanol

- **Aanvullende gegevens:**

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

## RUBRIEK 4: Eerstehulpmaatregelen

- **4.1 Beschrijving van de eerstehulpmaatregelen**
- **Algemene informatie:**  
Verontreinigde kleding onmiddellijk uittrekken.  
Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.
- **Na het inademen:**  
Veel verse lucht toedienen en voor alle zekerheid een arts raadplegen.  
Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
- **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.
- **Na oogcontact:**  
De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.
- **Na inslikken:** Onmiddellijk arts raadplegen.
- **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.
- **4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**  
Geen verdere relevante informatie verkrijgbaar.

## RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:**  
CO<sub>2</sub>, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.
- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**  
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweertieners**
- **Speciale beschermende kleding:** Ademhalingstoestel aantrekken.

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

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermingsmiddelen en noodprocedures**  
Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.

(Vervolg op blz. 4)

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(Vervolg van blz. 3)

- **6.2 Milieuvorzorgsmaatregelen:**  
Met veel water verdunnen.  
Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 InsluTINGS- en reinigingsmethoden en -materiaal:**  
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.  
Besmet materiaal zoals afval volgens punt 13 verwijderen.  
Voor voldoende ventilatie zorgen.
- **6.4 Verwijzing naar andere rubrieken**  
Informatie inzake veilig gebruik - zie hoofdstuk 7.  
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.  
Informatie inzake berging - zie hoofdstuk 13.

### RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**  
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.  
Tanks voorzichtig openen en behandelen.  
Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:**  
Onststekingsbronnen op afstand houden - niet roken.  
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.
- **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	Korte termijn waarde: 0,5 mg/m <sup>3</sup> , 0,4 ppm Lange termijn waarde: 0,15* mg/m <sup>3</sup> , 0,1 ppm *Sensibilisatie van de huid
-----	-------------------------------------------------------------------------------------------------------------------------------------------------

#### 67-56-1 methanol

WGW	Lange termijn waarde: 133 mg/m <sup>3</sup> , 100 ppm
-----	-------------------------------------------------------

- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.

- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**  
Verwijderd houden van eet- en drinkwaren.  
Verontreinigde kleding onmiddellijk uittrekken.  
Vóór de pauze en aan het einde van werktijd handen wassen.  
Beschermende kleding afzonderlijk bewaren.  
Aanraking met de ogen en de huid vermijden.

(Vervolg op blz. 5)

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(Vervolg van blz. 4)

- **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:**



Nauw aansluitende veiligheidsbril

## RUBRIEK 9: Fysische en chemische eigenschappen

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

- **Algemene gegevens**

- **Voorkomen:**

<b>Vorm:</b>	Vloeistof
<b>Kleur:</b>	Kleurloos
<b>Geur:</b>	Stekend
<b>Geurdrempelwaarde:</b>	Niet bepaald.

- **pH-waarde bij 20 °C:** 5,6-5,8

- **Toestandsverandering**

<b>Smelt-/vriespunt:</b>	Niet bepaald.
<b>Beginkookpunt en kooktraject:</b>	97 °C

- **Vlampunt:** 62 °C

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

- **Ontledingstemperatuur:** Niet bepaald.

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

- **Ontploffingseigenschappen:** Niet bepaald.

- **Ontploffingsgrenzen:**

<b>Onderste:</b>	7 Vol %
<b>Bovenste:</b>	73 Vol %

(Vervolg op blz. 6)

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(Vervolg van blz. 5)

· <b>Dampspanning bij 20 °C:</b>	1,7 hPa
· <b>Dichtheid bij 20 °C:</b>	1,05 g/cm <sup>3</sup>
· <b>Relatieve dichtheid</b>	Niet bepaald.
· <b>Dampdichtheid</b>	Niet bepaald.
· <b>Verdampingssnelheid</b>	Niet bepaald.
· <b>Oplosbaarheid in/mengbaarheid met Water:</b>	Volledig mengbaar.
· <b>Verdelingscoëfficiënt: n-octanol/water:</b>	Niet bepaald.
· <b>Viscositeit</b>	
<b>Dynamisch:</b>	Niet bepaald.
<b>Kinematisch:</b>	Niet bepaald.
· <b>Oplosmiddelgehalte:</b>	
<b>Organisch oplosmiddel:</b>	23,0 %
<b>Water:</b>	4,4 %
<b>VOC (EG)</b>	23,00 %
<b>Gehalte aan vaste bestanddelen:</b>	0,0 %
· <b>9.2 Overige informatie</b>	Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit** Geen verdere relevante informatie verkrijgbaar.
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **10.3 Mogelijke gevaarlijke reacties** 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**  
Giftig bij inslikken, bij contact met de huid en bij inademing.
- |                                               |      |                  |
|-----------------------------------------------|------|------------------|
| · <b>Indelingsrelevantie LD/LC50-waarden:</b> |      |                  |
| 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 bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.  
Kan een allergische huidreactie veroorzaken.

(Vervolg op blz. 7)



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(Vervolg van blz. 6)

- **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**  
Kan de vruchtbaarheid of het ongeboren kind schaden.
- **STOT bij eenmalige blootstelling**  
Kan schade veroorzaken aan het centrale zenuwstelsel en de visuele organen.  
Kan irritatie van de luchtwegen veroorzaken.
- **STOT bij herhaalde blootstelling**  
Veroorzaakt schade aan organen bij langdurige of herhaalde blootstelling.
- **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/bioaccumulerend vermogen/ toxiciteit of persistentie)  
Gevaar voor water klasse 2 (D) (Zelfclassificatie): gevaar voor water  
Niet lozen in grondwater, in oppervlaktewater of in riolering.  
Gevaar voor drinkwater zelfs bij uitlopen van geringe hoeveelheden in de ondergrond.
- **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 terecht komen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.
- **Aanbevolen reinigingsmiddel:** Water, eventueel met toevoeging van reinigingsmiddelen.

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

- **14.1 VN-nummer**
- **ADR, IMDG** Niet van toepassing
- **IATA** UN1198
- **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**
- **ADR, IMDG** Niet van toepassing

(Vervolg op blz. 8)



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(Vervolg van blz. 7)

· <b>IATA</b>	<b>FORMALDEHYDE SOLUTION, FLAMMABLE</b>
· <b>14.3 Transportgevarenklasse(n)</b>	
· <b>ADR, ADN, IMDG</b>	
· <b>klasse</b>	Niet van toepassing
· <b>IATA</b>	
	
· <b>Class</b>	3(8)
· <b>Label</b>	3 (8)
· <b>14.4 Verpakkingsgroep:</b>	
· <b>ADR, IMDG</b>	Niet van toepassing
· <b>IATA</b>	III
· <b>14.5 Milieugevaren:</b>	Niet bruikbaar.
· <b>14.6 Bijzondere voorzorgen voor de gebruiker</b>	Niet bruikbaar.
· <b>14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code</b>	Niet bruikbaar.
· <b>VN "Model Regulation":</b>	Niet van toepassing

## 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

10043-35-3 boorzuur

1B

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

10043-35-3 boorzuur

1B

#### · 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 H2 ACUUT TOXISCH**

· **Drempelwaarde (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen 50 t**

· **Drempelwaarde (ton) voor toepassing van voorschriften voor hogedrempelinrichtingen 200 t**

(Vervolg op blz. 9)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 02.08.2022

Herziening van: 02.08.2022

**Handelsnaam: Z-FIX CONCENTRATE**

(Vervolg van blz. 8)

- **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 3, 28, 69, 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)

- **Aanvullende voorschriften, beperkingen en verbodsverordeningen**

- **Zeer zorgwekkende stoffen (SVHC) volgens REACH, artikel 57**

67-56-1 | methanol

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

### RUBRIEK 16: Overige informatie

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

- **Relevante zinnen**

H225 Licht ontvlambare vloeistof en damp.

H301 Giftig bij inslikken.

H302 Schadelijk bij inslikken.

H311 Giftig bij contact met de huid.

H312 Schadelijk bij contact met de huid.

H314 Veroorzaakt ernstige brandwonden en oogletsel.

H317 Kan een allergische huidreactie veroorzaken.

H331 Giftig bij inademing.

H332 Schadelijk bij inademing.

H341 Verdacht van het veroorzaken van genetische schade.

H350 Kan kanker veroorzaken.

H370 Veroorzaakt schade aan organen.

- **Afkortingen en acroniemen:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

(Vervolg op blz. 10)

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(Vervolg van blz. 9)

*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*VOC: Volatile Organic Compounds (USA, EU)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*SVHC: Substances of Very High Concern*  
*vPvB: very Persistent and very Bioaccumulative*  
*Flam. Liq. 2: Ontvlambare vloeistoffen – Categorie 2*  
*Acute Tox. 3: Acute toxiciteit – Categorie 3*  
*Acute Tox. 4: Acute toxiciteit – Categorie 4*  
*Skin Corr. 1B: Huidcorrosie/-irritatie – Categorie 1B*  
*Skin Irrit. 2: Huidcorrosie/-irritatie – Categorie 2*  
*Eye Irrit. 2: Ernstig oogletsel/oogirritatie – Categorie 2*  
*Resp. Sens. 1: Sensibilisatie van de luchtwegen – Categorie 1*  
*Skin Sens. 1: Sensibilisatie van de huid – Categorie 1*  
*Muta. 2: Mutageniteit in geslachtscellen – Categorie 2*  
*Carc. 1B: Kankerverwekkendheid – Categorie 1B*  
*Repr. 1A: Voortplantingstoxiciteit – Categorie 1A*  
*STOT SE 1: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 1*  
*STOT SE 2: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 2*  
*STOT RE 1: Specifieke doelorgaantoxiciteit bij herhaalde blootstelling – Categorie 1*

NL

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 02.08.2022

Révision: 02.08.2022

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

#### · 1.1 Identificateur de produit

· **Nom du produit:** Z-FIX CONCENTRATE

· **Code du produit:** 64125-01

· **UFI:** H8D4-E052-300X-MTDS

#### · 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: info@emsdiasum.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**



GHS06 tête de mort sur deux tibias

*Acute Tox. 3 H301 Toxique en cas d'ingestion.*

*Acute Tox. 3 H311 Toxique par contact cutané.*

*Acute Tox. 3 H331 Toxique par inhalation.*



GHS08 danger pour la santé

*Resp. Sens. 1 H334 Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.*

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

*Carc. 1B H350 Peut provoquer le cancer.*

*Repr. 1A H360 Peut nuire à la fertilité ou au fœtus.*

*STOT SE 2 H371 Risque présumé d'effets graves pour le système nerveux central et les organes visuels.*

*STOT RE 1 H372 Risque avéré d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.*



GHS07

*Skin Irrit. 2 H315 Provoque une irritation cutanée.*

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

*Skin Sens. 1 H317 Peut provoquer une allergie cutanée.*

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STOT SE 3 H335 Peut irriter les voies respiratoires.

### · 2.2 Éléments d'étiquetage

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

### · Pictogrammes de danger



GHS06 GHS08

### · Mention d'avertissement Danger

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

Formaldéhyde  
méthanol

### · Mentions de danger

H301+H311+H331 Toxique par ingestion, par contact cutané ou par inhalation.

H315 Provoque une irritation cutanée.

H319 Provoque une sévère irritation des yeux.

H334 Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.

H317 Peut provoquer une allergie cutanée.

H341 Susceptible d'induire des anomalies génétiques.

H350 Peut provoquer le cancer.

H360 Peut nuire à la fertilité ou au fœtus.

H371 Risque présumé d'effets graves pour le système nerveux central et les organes visuels.

H335 Peut irriter les voies respiratoires.

H372 Risque avéré d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.

### · Conseils de prudence

P301+P310 EN CAS D'INGESTION: Appeler immédiatement un CENTRE ANTIPOISON/un médecin.

P321 Traitement spécifique (voir sur cette étiquette).

P330 Rincer la bouche.

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.

P361+P364 Enlever immédiatement tous les vêtements contaminés et les laver avant réutilisation.

P405 Garder sous clef.

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

### · 2.3 Autres dangers

### · Résultats des évaluations PBT et vPvB

· **PBT:** Non applicable.

· **vPvB:** Non applicable.

## RUBRIQUE 3: Composition/informations sur les composants

### · 3.2 Caractérisation chimique: Mélanges

· **Description:** Mélange des substances mentionnées à la suite avec des additifs non dangereux.

### · Composants dangereux:

CAS: 50-00-0	Formaldéhyde	>10- ≤25%
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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**Nom du produit: Z-FIX CONCENTRATE**

CAS: 67-56-1 EINECS: 200-659-6	méthanol <span style="color: red;">☹</span> Flam. Liq. 2, H225; <span style="color: red;">☹</span> STOT SE 1, H370; <span style="color: red;">☹</span> Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	(suite de la page 2) >2,5-≤10%
· SVHC		
67-56-1   méthanol		
· <b>Indications complémentaires:</b> 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.
- **Après inhalation:**  
Donner de l'air frais en abondance et consulter un médecin pour plus de sécurité.  
En cas d'inconscience, coucher et transporter la personne en position latérale stable.
- **Après contact avec la peau:** Laver immédiatement à l'eau et au savon et bien rincer.
- **Après contact avec les yeux:**  
Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.
- **Après ingestion:** 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:**  
CO<sub>2</sub>, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.
- **5.2 Dangers particuliers résultant de la substance ou du mélange**  
Pas d'autres informations importantes disponibles.
- **5.3 Conseils aux pompiers**
- **Équipement spécial de sécurité:** Porter un appareil de protection respiratoire.

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

- **6.1 Précautions individuelles, équipement de protection et procédures d'urgence**  
Porter un équipement de sécurité. Eloigner les personnes non protégées.
- **6.2 Précautions pour la protection de l'environnement:**  
Diluer avec beaucoup d'eau.  
Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.
- **6.3 Méthodes et matériel de confinement et de nettoyage:**  
Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).  
Évacuer les matériaux contaminés en tant que déchets conformément au point 13.  
Assurer une aération suffisante.

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

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

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

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

### RUBRIQUE 7: Manipulation et stockage

**· 7.1 Précautions à prendre pour une manipulation sans danger**

Veiller à une bonne ventilation/aspiration du poste de travail.

Ouvrir et manipuler les récipients avec précaution.

Eviter la formation d'aérosols.

**· Préventions des incendies et des explosions:**

Tenir à l'abri des sources d'inflammation - ne pas fumer.

Tenir 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.

**· 7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

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

**· 8.1 Paramètres de contrôle**

**· Indications complémentaires pour l'agencement des installations techniques:**

Sans autre indication, voir point 7.

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

**50-00-0 Formaldéhyde**

VLEP	Valeur momentanée: 0,74 mg/m <sup>3</sup> , 0,6 ppm Valeur à long terme: 0,37 0,5* mg/m <sup>3</sup> , 0,3 0,62* ppm CIB, M2, *:jusqu'au 11.07.24 l'embaumement
------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------

**67-56-1 méthanol**

VLEP	Valeur momentanée: 1300 mg/m <sup>3</sup> , 1000 ppm Valeur à long terme: 260 mg/m <sup>3</sup> , 200 ppm risque de pénétration percutanée, (11)
------	--------------------------------------------------------------------------------------------------------------------------------------------------------

**· Remarques supplémentaires:**

Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.

**· 8.2 Contrôles de l'exposition**

**· Equipement de protection individuel:**

**· Mesures générales de protection et d'hygiène:**

Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.

Retirer immédiatement les vêtements souillés ou humectés.

Se laver les mains avant les pauses et en fin de travail.

Conserver à part les vêtements de protection.

Eviter tout contact avec les yeux et avec la peau.

**· Protection respiratoire:**

En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.

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· **Protection des mains:**



Gants de protection

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

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

· **Matériau des gants**

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

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

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

· **Protection des yeux:**



Lunettes de protection hermétiques

### RUBRIQUE 9: Propriétés physiques et chimiques

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

· **Indications générales**

· **Aspect:**

<b>Forme:</b>	Liquide
<b>Couleur:</b>	Incolore
<b>Odeur:</b>	Piquante
<b>Seuil olfactif:</b>	Non déterminé.

· **valeur du pH à 20 °C:** 5,6-5,8

· **Changement d'état**

<b>Point de fusion/point de congélation:</b>	Non déterminé.
<b>Point initial d'ébullition et intervalle d'ébullition:</b>	97 °C

· **Point d'éclair** 62 °C

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

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

· **Température d'auto-inflammabilité:** Le produit ne s'enflamme pas spontanément.

· **Propriétés explosives:** Non déterminé.

· **Limites d'explosion:**

<b>Inférieure:</b>	7 Vol %
<b>Supérieure:</b>	73 Vol %

· **Pression de vapeur à 20 °C:** 1,7 hPa

· **Densité à 20 °C:** 1,05 g/cm<sup>3</sup>

· **Densité relative** Non déterminé.

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· <b>Densité de vapeur:</b>	Non déterminé.
· <b>Taux d'évaporation:</b>	Non déterminé.
· <b>Solubilité dans/miscibilité avec l'eau:</b>	Entièrement miscible
· <b>Coefficient de partage: n-octanol/eau:</b>	Non déterminé.
· <b>Viscosité:</b>	
<b>Dynamique:</b>	Non déterminé.
<b>Cinématique:</b>	Non déterminé.
· <b>Teneur en solvants:</b>	
<b>Solvants organiques:</b>	23,0 %
<b>Eau:</b>	4,4 %
<b>VOC (CE)</b>	23,00 %
<b>Teneur en substances solides:</b>	0,0 %
· <b>9.2 Autres informations</b>	Pas d'autres informations importantes disponibles.

### RUBRIQUE 10: Stabilité et réactivité

- **10.1 Réactivité** Pas d'autres informations importantes disponibles.
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.
- **10.3 Possibilité de réactions dangereuses** 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**  
Toxique par ingestion, par contact cutané ou par inhalation.
- |                                                                |      |                  |
|----------------------------------------------------------------|------|------------------|
| · <b>Valeurs LD/LC50 déterminantes pour la classification:</b> |      |                  |
| <b>50-00-0 Formaldéhyde</b>                                    |      |                  |
| Oral                                                           | LD50 | >200 mg/kg (rat) |
- **Effet primaire d'irritation:**
  - **Corrosion cutanée/irritation cutanée**  
Provoque une irritation cutanée.
  - **Lésions oculaires graves/irritation oculaire**  
Provoque une sévère irritation des yeux.
  - **Sensibilisation respiratoire ou cutanée**  
Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.  
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.

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- **Toxicité pour la reproduction**  
Peut nuire à la fertilité ou au fœtus.
- **Toxicité spécifique pour certains organes cibles - exposition unique**  
Risque présumé d'effets graves pour le système nerveux central et les organes visuels.  
Peut irriter les voies respiratoires.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**  
Risque avéré d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.
- **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.  
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.
- **Produit de nettoyage recommandé:** Eau, éventuellement avec des produits de nettoyage

### RUBRIQUE 14: Informations relatives au transport

- |                                                            |                                  |
|------------------------------------------------------------|----------------------------------|
| · <b>14.1 Numéro ONU</b>                                   |                                  |
| · <b>ADR, IMDG</b>                                         | néant                            |
| · <b>IATA</b>                                              | UN1198                           |
| · <b>14.2 Désignation officielle de transport de l'ONU</b> |                                  |
| · <b>ADR, IMDG</b>                                         | néant                            |
| · <b>IATA</b>                                              | FORMALDEHYDE SOLUTION, FLAMMABLE |

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# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

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Nom du produit: **Z-FIX CONCENTRATE**

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· **14.3 Classe(s) de danger pour le transport**

· ADR, ADN, IMDG

· Classe néant

· IATA



· Class 3(8)

· Label 3 (8)

· **14.4 Groupe d'emballage**

· ADR, IMDG néant

· IATA III

· **14.5 Dangers pour l'environnement:** Non applicable.

· **14.6 Précautions particulières à prendre par l'utilisateur** Non applicable.

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

· "Règlement type" de l'ONU: néant

### 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 H2 TOXICITÉ AIGUË

· Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas 50 t

· Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut 200 t

· RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII Conditions de limitation: 3, 28, 69, 72

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

Aucun des composants n'est compris.

· RÈGLEMENT (UE) 2019/1148

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

Aucun des composants n'est compris.

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

Aucun des composants n'est compris.

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

Aucun des composants n'est compris.

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

Aucun des composants n'est compris.

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· **Prescriptions nationales:**

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

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

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

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

67-56-1	méthanol
---------	----------

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

### RUBRIQUE 16: Autres informations

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

· **Phrases importantes**

H225 Liquide et vapeurs très inflammables.  
 H301 Toxique en cas d'ingestion.  
 H302 Nocif en cas d'ingestion.  
 H311 Toxique par contact cutané.  
 H312 Nocif par contact cutané.  
 H314 Provoque de graves brûlures de la peau et de graves lésions des yeux.  
 H317 Peut provoquer une allergie cutanée.  
 H331 Toxique par inhalation.  
 H332 Nocif par inhalation.  
 H341 Susceptible d'induire des anomalies génétiques.  
 H350 Peut provoquer le cancer.  
 H370 Risque avéré d'effets graves pour les organes.

· **Acronymes et abréviations:**

ADR: Accord relatif au transport international des marchandises dangereuses par route  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 SVHC: Substances of Very High Concern  
 vPvB: very Persistent and very Bioaccumulative  
 Flam. Liq. 2: Liquides inflammables – Catégorie 2  
 Acute Tox. 3: Toxicité aiguë – Catégorie 3  
 Acute Tox. 4: Toxicité aiguë – Catégorie 4  
 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  
 Resp. Sens. 1: Sensibilisation respiratoire – Catégorie 1  
 Skin Sens. 1: Sensibilisation cutanée – Catégorie 1  
 Muta. 2: Mutagénicité sur les cellules germinales – Catégorie 2  
 Carc. 1B: Cancérogénicité – Catégorie 1B  
 Repr. 1A: Toxicité pour la reproduction – Catégorie 1A  
 STOT SE 1: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 1  
 STOT SE 2: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 2  
 STOT RE 1: Toxicité spécifique pour certains organes cibles (exposition répétée) – Catégorie 1

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

- **1.1 Produktidentifikator**
- **Handelsname: Z-FIX CONCENTRATE**
- **Artikelnummer: 64125-01**
- **UFI: H8D4-E052-300X-MTDS**
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)  
  
Science Services GmbH  
Unterhachinger Str. 75  
81737 München Germany  
  
Tel: +49(0)89 18 93 668-0  
[safety@scienceservices.de](mailto:safety@scienceservices.de)  
  
Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, [www.toxinfo.org](http://www.toxinfo.org)  
Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h
- **Auskunfteibereich: Product safety department**
- **1.4 Notrufnummer:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### ABSCHNITT 2: Mögliche Gefahren

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



GHS06 Totenkopf mit gekreuzten Knochen

Acute Tox. 3 H301 Giftig bei Verschlucken.

Acute Tox. 3 H311 Giftig bei Hautkontakt.

Acute Tox. 3 H331 Giftig bei Einatmen.



GHS08 Gesundheitsgefahr

Resp. Sens. 1 H334 Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.

Muta. 2 H341 Kann vermutlich genetische Defekte verursachen.

Carc. 1B H350 Kann Krebs erzeugen.

Repr. 1A H360 Kann die Fruchtbarkeit beeinträchtigen oder das Kind im Mutterleib schädigen.

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STOT SE 2 H371 Kann das zentrale Nervensystem und die Sehorgane schädigen.

STOT RE 1 H372 Schädigt die Organe bei längerer oder wiederholter Exposition.



GHS07

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



GHS06 GHS08

#### · Signalwort Gefahr

#### · Gefahrbestimmende Komponenten zur Etikettierung:

Formaldehyd

Methanol

#### · Gefahrenhinweise

H301+H311+H331 Giftig bei Verschlucken, Hautkontakt oder Einatmen.

H315 Verursacht Hautreizungen.

H319 Verursacht schwere Augenreizung.

H334 Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.

H317 Kann allergische Hautreaktionen verursachen.

H341 Kann vermutlich genetische Defekte verursachen.

H350 Kann Krebs erzeugen.

H360 Kann die Fruchtbarkeit beeinträchtigen oder das Kind im Mutterleib schädigen.

H371 Kann das zentrale Nervensystem und die Sehorgane schädigen.

H335 Kann die Atemwege reizen.

H372 Schädigt die Organe bei längerer oder wiederholter Exposition.

#### · Sicherheitshinweise

P301+P310 BEI VERSCHLUCKEN: Sofort GIFTINFORMATIONSZENTRUM/Arzt anrufen.

P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).

P330 Mund ausspülen.

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

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

P405 Unter Verschluss aufbewahren.

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

#### · Zusätzliche Angaben:

Nur für gewerbliche Anwender.

#### · 2.3 Sonstige Gefahren

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

· PBT: Nicht anwendbar.

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· **vPvB:** Nicht anwendbar.

### ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

- **3.2 Chemische Charakterisierung: Gemische**
- **Beschreibung:** Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.

- **Gefährliche Inhaltsstoffe:**

CAS: 50-00-0 EINECS: 200-001-8	Formaldehyd ⚠️ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠️ Muta. 2, H341; Carc. 1B, H350; ⚠️ Skin Corr. 1B, H314; ⚠️ Skin Sens. 1, H317	>10-≤25%
CAS: 67-56-1 EINECS: 200-659-6	Methanol ⚠️ Flam. Liq. 2, H225; ⚠️ STOT SE 1, H370; ⚠️ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	>2,5-≤10%

- **SVHC**

67-56-1 | Methanol

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

### ABSCHNITT 4: Erste-Hilfe-Maßnahmen

- **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**
- **Allgemeine Hinweise:**  
Mit Produkt verunreinigte Kleidungsstücke unverzüglich entfernen.  
Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.
- **Nach Einatmen:**  
Reichlich Frischluftzufuhr und sicherheitshalber Arzt aufsuchen.  
Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.
- **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.
- **Nach Augenkontakt:**  
Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.
- **Nach Verschlucken:** Sofort Arzt aufsuchen.
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**  
Keine weiteren relevanten Informationen verfügbar.
- **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**  
Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:**  
CO<sub>2</sub>, Löschpulver oder Wassersprühstrahl. Größeren Brand mit Wassersprühstrahl oder alkoholbeständigem Schaum bekämpfen.
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**  
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Atemschutzgerät anlegen.

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### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**  
Schutzausrüstung tragen. Ungeschützte Personen fernhalten.
- **6.2 Umweltschutzmaßnahmen:**  
Mit viel Wasser verdünnen.  
Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**  
Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.  
Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.  
Für ausreichende Lüftung sorgen.
- **6.4 Verweis auf andere Abschnitte**  
Informationen zur sicheren Handhabung siehe Abschnitt 7.  
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.  
Informationen zur Entsorgung siehe Abschnitt 13.

### ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**  
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.  
Behälter mit Vorsicht öffnen und handhaben.  
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:**  
Zündquellen fernhalten - nicht rauchen.  
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.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** -
- **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<sup>3</sup>, 0,3 ml/m<sup>3</sup>  
2(I);AGS, Sh, Y, X

#### 67-56-1 Methanol

AGW Langzeitwert: 130 mg/m<sup>3</sup>, 100 ml/m<sup>3</sup>  
2(II);DFG, EU, H, Y

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· **Bestandteile mit biologischen Grenzwerten:**

**67-56-1 Methanol**

BGW 15 mg/l

Untersuchungsmaterial: Urin

Probennahmezeitpunkt: bei Langzeitexposition: am Schichtende nach mehreren vorangegangenen Schichten, Expositionsende bzw. Schichtende

Parameter: Methanol

· **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.

· **8.2 Begrenzung und Überwachung der Exposition**

· **Persönliche Schutzausrüstung:**

· **Allgemeine Schutz- und Hygienemaßnahmen:**

Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.

Beschmutzte, getränkte Kleidung sofort ausziehen.

Vor den Pausen und bei Arbeitsende Hände waschen.

Getrennte Aufbewahrung der Schutzkleidung.

Berührung mit den Augen 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:**



Dichtschließende Schutzbrille

## ABSCHNITT 9: Physikalische und chemische Eigenschaften

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

· **Allgemeine Angaben**

· **Aussehen:**

**Form:** Flüssigkeit

**Farbe:** Farblos

· **Geruch:** Stechend

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· Geruchsschwelle:	Nicht bestimmt.
· pH-Wert bei 20 °C:	5,6-5,8
· Zustandsänderung Schmelzpunkt/Gefrierpunkt:	Nicht bestimmt.
Siedebeginn und Siedebereich:	97 °C
· Flammpunkt:	62 °C
· Entzündbarkeit (fest, gasförmig):	Nicht anwendbar.
· Zersetzungstemperatur:	Nicht bestimmt.
· Selbstentzündungstemperatur:	Das Produkt ist nicht selbstentzündlich.
· Explosive Eigenschaften:	Nicht bestimmt.
· Explosionsgrenzen:	
Untere:	7 Vol %
Obere:	73 Vol %
· Dampfdruck bei 20 °C:	1,7 hPa
· Dichte bei 20 °C:	1,05 g/cm <sup>3</sup>
· Relative Dichte	Nicht bestimmt.
· Damfdichte	Nicht bestimmt.
· Verdampfungsgeschwindigkeit	Nicht bestimmt.
· Löslichkeit in / Mischbarkeit mit Wasser:	Vollständig mischbar.
· Verteilungskoeffizient: n-Octanol/Wasser:	Nicht bestimmt.
· Viskosität:	
Dynamisch:	Nicht bestimmt.
Kinematisch:	Nicht bestimmt.
· Lösemittelgehalt:	
Organische Lösemittel:	23,0 %
Wasser:	4,4 %
VOC (EU)	23,00 %
Festkörpergehalt:	0,0 %
· 9.2 Sonstige Angaben	Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

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

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### ABSCHNITT 11: Toxikologische Angaben

#### · 11.1 Angaben zu toxikologischen Wirkungen

##### · Akute Toxizität

Giftig bei Verschlucken, Hautkontakt oder Einatmen.

##### · Einstufungsrelevante LD/LC50-Werte:

**50-00-0 Formaldehyd**

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

##### · Primäre Reizwirkung:

##### · Ätz-/Reizwirkung auf die Haut

Verursacht Hautreizungen.

##### · Schwere Augenschädigung/-reizung

Verursacht schwere Augenreizung.

##### · Sensibilisierung der Atemwege/Haut

Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.

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

Kann die Fruchtbarkeit beeinträchtigen oder das Kind im Mutterleib schädigen.

##### · Spezifische Zielorgan-Toxizität bei einmaliger Exposition

Kann das zentrale Nervensystem und die Sehorgane schädigen.

Kann die Atemwege reizen.

##### · Spezifische Zielorgan-Toxizität bei wiederholter Exposition

Schädigt die Organe bei längerer oder wiederholter Exposition.

##### · 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.

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.

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### ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.
- **Empfohlenes Reinigungsmittel:** Wasser, gegebenenfalls mit Zusatz von Reinigungsmitteln.

### ABSCHNITT 14: Angaben zum Transport

- |                                                                                                 |                                  |
|-------------------------------------------------------------------------------------------------|----------------------------------|
| · <b>14.1 UN-Nummer</b>                                                                         |                                  |
| · <b>ADR, IMDG</b>                                                                              | entfällt                         |
| · <b>IATA</b>                                                                                   | UN1198                           |
| · <b>14.2 Ordnungsgemäße UN-Versandbezeichnung</b>                                              |                                  |
| · <b>ADR, IMDG</b>                                                                              | entfällt                         |
| · <b>IATA</b>                                                                                   | FORMALDEHYDE SOLUTION, FLAMMABLE |
| · <b>14.3 Transportgefahrenklassen</b>                                                          |                                  |
| · <b>ADR, ADN, IMDG</b>                                                                         |                                  |
| · <b>Klasse</b>                                                                                 | entfällt                         |
| · <b>IATA</b>                                                                                   |                                  |
|              |                                  |
| · <b>Class</b>                                                                                  | 3(8)                             |
| · <b>Label</b>                                                                                  | 3 (8)                            |
| · <b>14.4 Verpackungsgruppe</b>                                                                 |                                  |
| · <b>ADR, IMDG</b>                                                                              | entfällt                         |
| · <b>IATA</b>                                                                                   | III                              |
| · <b>14.5 Umweltgefahren:</b>                                                                   | Nicht anwendbar.                 |
| · <b>14.6 Besondere Vorsichtsmaßnahmen für den Verwender</b>                                    | Nicht anwendbar.                 |
| · <b>14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code</b> | Nicht anwendbar.                 |
| · <b>UN "Model Regulation":</b>                                                                 | 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 H2** AKUT TOXISCH
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse** 50 t
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse** 200 t

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· **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII Beschränkungsbedingungen: 3, 28, 69, 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	4,4
I	23,0

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

· **Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen**

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

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

67-56-1 | Methanol

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

## ABSCHNITT 16: Sonstige Angaben

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

· **Relevante Sätze**

H225 Flüssigkeit und Dampf leicht entzündbar.

H301 Giftig bei Verschlucken.

H302 Gesundheitsschädlich bei Verschlucken.

H311 Giftig bei Hautkontakt.

H312 Gesundheitsschädlich bei Hautkontakt.

H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

H317 Kann allergische Hautreaktionen verursachen.

H331 Giftig bei Einatmen.

H332 Gesundheitsschädlich bei Einatmen.

H341 Kann vermutlich genetische Defekte verursachen.

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*H350 Kann Krebs erzeugen.**H370 Schädigt die Organe.***Abkürzungen und Akronyme:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Entzündbare Flüssigkeiten – Kategorie 2**Acute Tox. 3: Akute Toxizität – Kategorie 3**Acute Tox. 4: Akute Toxizität – Kategorie 4**Skin Corr. 1B: Hautreizende/-ätzende Wirkung – Kategorie 1B**Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2**Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2**Resp. Sens. 1: Sensibilisierung der Atemwege – Kategorie 1**Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1**Muta. 2: Keimzellmutagenität – Kategorie 2**Carc. 1B: Karzinogenität – Kategorie 1B**Repr. 1A: Reproduktionstoxizität – Kategorie 1A**STOT SE 1: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 1**STOT SE 2: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 2**STOT RE 1: Spezifische Zielorgan-Toxizität (wiederholte Exposition) – Kategorie 1*

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

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** Z-FIX CONCENTRATE
- **Articolo numero:** 64125-01
- **UFI:** H8D4-E052-300X-MTDS
- **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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Società Italiana Chimici**  
Via Rio Nell Ellba 140  
00138 Rome, Italy  
Tel: 39 06 8800211  
Fax: 39 30 06 8815313  
Web: [www.sichim.com](http://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**



GHS06 teschio e tibie incrociate

- Acute Tox. 3 H301 Tossico se ingerito.  
Acute Tox. 3 H311 Tossico per contatto con la pelle.  
Acute Tox. 3 H331 Tossico se inalato.



GHS08 pericolo per la salute

- Resp. Sens. 1 H334 Può provocare sintomi allergici o asmatici o difficoltà respiratorie se inalato.  
Muta. 2 H341 Sospettato di provocare alterazioni genetiche.  
Carc. 1B H350 Può provocare il cancro.  
Repr. 1A H360 Può nuocere alla fertilità o al feto.  
STOT SE 2 H371 Può provocare danni al sistema nervoso centrale e gli organi visivi.  
STOT RE 1 H372 Provoca danni agli organi in caso di esposizione prolungata o ripetuta.

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GHS07

- Skin Irrit. 2 H315 Provoca irritazione cutanea.*  
*Eye Irrit. 2 H319 Provoca grave irritazione oculare.*  
*Skin Sens. 1 H317 Può provocare una reazione allergica cutanea.*  
*STOT SE 3 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**



GHS06 GHS08

· **Avvertenza Pericolo**

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

*formaldeide  
 metanolo*

· **Indicazioni di pericolo**

*H301+H311+H331 Tossico se ingerito, a contatto con la pelle o se inalato.*

- H315 Provoca irritazione cutanea.*  
*H319 Provoca grave irritazione oculare.*  
*H334 Può provocare sintomi allergici o asmatici o difficoltà respiratorie se inalato.*  
*H317 Può provocare una reazione allergica cutanea.*  
*H341 Sospettato di provocare alterazioni genetiche.*  
*H350 Può provocare il cancro.*  
*H360 Può nuocere alla fertilità o al feto.*  
*H371 Può provocare danni al sistema nervoso centrale e gli organi visivi.*  
*H335 Può irritare le vie respiratorie.*  
*H372 Provoca danni agli organi in caso di esposizione prolungata o ripetuta.*

· **Consigli di prudenza**

- P301+P310 IN CASO DI INGESTIONE: contattare immediatamente un CENTRO ANTIVELENI/un medico.*  
*P321 Trattamento specifico (vedere su questa etichetta).*  
*P330 Sciacquare la bocca.*  
*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.*  
*P361+P364 Togliere immediatamente tutti gli indumenti contaminati e lavarli prima di indossarli nuovamente.*  
*P405 Conservare sotto chiave.*  
*P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.*

· **2.3 Altri pericoli**

· **Risultati della valutazione PBT e vPvB**

- **PBT:** Non applicabile.  
 · **vPvB:** Non applicabile.

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### SEZIONE 3: Composizione/informazioni sugli ingredienti

- **3.2 Caratteristiche chimiche: Miscela**
- **Descrizione:** Miscela delle seguenti sostanze con additivi non pericolosi.

· <b>Sostanze pericolose:</b>		
CAS: 50-00-0 EINECS: 200-001-8	formaldeide ☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ☠ Muta. 2, H341; Carc. 1B, H350; ☠ Skin Corr. 1B, H314; ⚠ Skin Sens. 1, H317	>10-≤25%
CAS: 67-56-1 EINECS: 200-659-6	metanolo 🔥 Flam. Liq. 2, H225; ☠ STOT SE 1, H370; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	>2,5-≤10%

- **SVHC**

67-56-1	metanolo
---------	----------

- **Ulteriori indicazioni:** Il testo dell'avvertenza dei pericoli citati può essere appreso dal capitolo 16

### SEZIONE 4: Misure di primo soccorso

- **4.1 Descrizione delle misure di primo soccorso**
- **Indicazioni generali:**  
Allontanare immediatamente gli abiti contaminati dal prodotto.  
I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.
- **Inalazione:**  
Portare il soggetto in zona molto ben areata e per sicurezza consultare un medico.  
Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.
- **Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.
- **Contatto con gli occhi:**  
Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte Se persiste il dolore consultare il medico.
- **Ingestione:** Chiamare subito il medico.
- **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.
- **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**  
Non sono disponibili altre informazioni.

### SEZIONE 5: Misure antincendio

- **5.1 Mezzi di estinzione**
- **Mezzi di estinzione idonei:**  
CO<sub>2</sub>, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.
- **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.
- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Indossare il respiratore.

### SEZIONE 6: Misure in caso di rilascio accidentale

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza**  
Indossare equipaggiamento protettivo. Allontanare le persone non equipaggiate.
- **6.2 Precauzioni ambientali:**  
Diluire abbondantemente con acqua.

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

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

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

Smaltimento del materiale contaminato conformemente al punto 13.

Provvedere ad una sufficiente areazione.

· **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.

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.

· **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/m <sup>3</sup> , 0,3 ppm sen, A2
-----	-------------------------------------------------------------

**67-56-1 metanolo**

TWA	Valore a breve termine: 328 mg/m <sup>3</sup> , 250 ppm Valore a lungo termine: 262 mg/m <sup>3</sup> , 200 ppm Cute, IBE
VL	Valore a lungo termine: 260 mg/m <sup>3</sup> , 200 ppm Cute

· **Componenti con valori limite biologici:**

**67-56-1 metanolo**

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

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

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- **8.2 Controlli dell'esposizione**
- **Mezzi protettivi individuali:**
- **Norme generali protettive e di igiene del lavoro:**  
Tenere lontano da cibo, bevande e foraggi.  
Togliere immediatamente gli abiti contaminati.  
Lavarsi le mani prima dell'intervallo o a lavoro terminato.  
Custodire separatamente l'equipaggiamento protettivo.  
Evitare il contatto con gli occhi 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 a tenuta

### SEZIONE 9: Proprietà fisiche e chimiche

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

##### · Indicazioni generali

##### · Aspetto:

**Forma:** Liquido

**Colore:** Incolore

· **Odore:** Pungente

· **Soglia olfattiva:** Non definito.

· **valori di pH a 20 °C:** 5,6-5,8

##### · Cambiamento di stato

**Punto di fusione/punto di congelamento:** Non definito.

**Punto di ebollizione iniziale e intervallo di ebollizione:** 97 °C

· **Punto di infiammabilità:** 62 °C

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· <b>Infiammabilità (solidi, gas):</b>	Non applicabile.
· <b>Temperatura di decomposizione:</b>	Non definito.
· <b>Temperatura di autoaccensione:</b>	Prodotto non autoinfiammabile.
· <b>Proprietà esplosive:</b>	Non definito.
· <b>Limiti di infiammabilità:</b>	
<b>Inferiore:</b>	7 Vol %
<b>Superiore:</b>	73 Vol %
· <b>Tensione di vapore a 20 °C:</b>	1,7 hPa
· <b>Densità a 20 °C:</b>	1,05 g/cm <sup>3</sup>
· <b>Densità relativa</b>	Non definito.
· <b>Densità di vapore:</b>	Non definito.
· <b>Velocità di evaporazione</b>	Non definito.
· <b>Solubilità in/Miscibilità con acqua:</b>	Completamente miscibile.
· <b>Coefficiente di ripartizione: n-ottanolo/acqua:</b>	Non definito.
· <b>Viscosità:</b>	
<b>Dinamica:</b>	Non definito.
<b>Cinematica:</b>	Non definito.
· <b>Tenore del solvente:</b>	
<b>Solventi organici:</b>	23,0 %
<b>Acqua:</b>	4,4 %
<b>VOC (CE)</b>	23,00 %
<b>Contenuto solido:</b>	0,0 %
· <b>9.2 Altre informazioni</b>	Non sono disponibili altre informazioni.

### SEZIONE 10: Stabilità e reattività

- **10.1 Reattività** Non sono disponibili altre informazioni.
- **10.2 Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **10.3 Possibilità di reazioni pericolose** 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**  
Tossico se ingerito, a contatto con la pelle o se inalato.

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

**50-00-0 formaldeide**

Orale	LD50	>200 mg/kg (rat)
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(continua a pagina 7)

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

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**Denominazione commerciale: Z-FIX CONCENTRATE**

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- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**  
Provoca irritazione cutanea.
- **Lesioni oculari gravi/irritazioni oculari gravi**  
Provoca grave irritazione oculare.
- **Sensibilizzazione respiratoria o cutanea**  
Può provocare sintomi allergici o asmatici o difficoltà respiratorie se inalato.  
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**  
Può nuocere alla fertilità o al feto.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**  
Può provocare danni al sistema nervoso centrale e gli organi visivi.  
Può irritare le vie respiratorie.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**  
Provoca danni agli organi in caso di esposizione prolungata o ripetuta.
- **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.  
Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di piccole quantità di prodotto.
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

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

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.
- **Detergente consigliato:** Acqua eventualmente con l'aggiunta di detersivi.

IT

(continua a pagina 8)

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


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Denominazione commerciale: Z-FIX CONCENTRATE

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### SEZIONE 14: Informazioni sul trasporto

<ul style="list-style-type: none"> <li>· 14.1 Numero ONU</li> <li>· ADR, IMDG</li> <li>· IATA</li> </ul>	<p align="center">non applicabile UN1198</p>
<ul style="list-style-type: none"> <li>· 14.2 Nome di spedizione dell'ONU</li> <li>· ADR, IMDG</li> <li>· IATA</li> </ul>	<p align="center">non applicabile FORMALDEHYDE SOLUTION, FLAMMABLE</p>
<ul style="list-style-type: none"> <li>· 14.3 Classi di pericolo connesso al trasporto</li> <li>· ADR, ADN, IMDG</li> <li>· Classe</li> </ul>	<p align="center">non applicabile</p>
<ul style="list-style-type: none"> <li>· IATA</li> </ul>	
	
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	<p align="center">3(8) 3 (8)</p>
<ul style="list-style-type: none"> <li>· 14.4 Gruppo di imballaggio</li> <li>· ADR, IMDG</li> <li>· IATA</li> </ul>	<p align="center">non applicabile III</p>
<ul style="list-style-type: none"> <li>· 14.5 Pericoli per l'ambiente:</li> </ul>	<p align="center">Non applicabile.</p>
<ul style="list-style-type: none"> <li>· 14.6 Precauzioni speciali per gli utilizzatori</li> </ul>	<p align="center">Non applicabile.</p>
<ul style="list-style-type: none"> <li>· 14.7 Trasporto di rifiuti secondo l'allegato II di MARPOL ed il codice IBC</li> </ul>	<p align="center">Non applicabile.</p>
<ul style="list-style-type: none"> <li>· UN "Model Regulation":</li> </ul>	<p align="center">non applicabile</p>

### 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 H2 TOSSICITÀ ACUTA
- Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 50 t
- Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 200 t
- REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII Restrizioni: 3, 28, 69, 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.

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

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**Denominazione commerciale: Z-FIX CONCENTRATE**

(Segue da pagina 8)

**· 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	23,0

**· Ulteriori disposizioni, limitazioni e decreti proibitivi****· Sostanze estremamente preoccupanti (SVHC) ai sensi della regolamento REACH, articolo 57**

67-56-1 | metanolo

**· 15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.**SEZIONE 16: Altre informazioni**

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

**· Frasi rilevanti**

- H225 Liquido e vapori facilmente infiammabili.
- H301 Tossico se ingerito.
- H302 Nocivo se ingerito.
- H311 Tossico per contatto con la pelle.
- H312 Nocivo per contatto con la pelle.
- H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.
- H317 Può provocare una reazione allergica cutanea.
- H331 Tossico se inalato.
- H332 Nocivo se inalato.
- H341 Sospettato di provocare alterazioni genetiche.
- H350 Può provocare il cancro.
- H370 Provoca danni agli organi.

**· Abbreviazioni e acronimi:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 SVHC: Substances of Very High Concern  
 vPvB: very Persistent and very Bioaccumulative

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

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Revisione: 02.08.2022

**Denominazione commerciale: Z-FIX CONCENTRATE**

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*Flam. Liq. 2: Liquidi infiammabili – Categoria 2*  
*Acute Tox. 3: Tossicità acuta – Categoria 3*  
*Acute Tox. 4: Tossicità acuta – Categoria 4*  
*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*  
*Resp. Sens. 1: Sensibilizzazione delle vie respiratorie – Categoria 1*  
*Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1*  
*Muta. 2: Mutagenicità sulle cellule germinali – Categoria 2*  
*Carc. 1B: Cancerogenicità – Categoria 1B*  
*Repr. 1A: Tossicità per la riproduzione – Categoria 1A*  
*STOT SE 1: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 1*  
*STOT SE 2: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 2*  
*STOT RE 1: Tossicità specifica per organi bersaglio (esposizione ripetuta) – Categoria 1*

IT



# 물질안전보건자료

## GHS에 따라

인쇄일자: 2022.08.02

개정: 2022.08.02

### 제품명: Z-FIX CONCENTRATE

(1 쪽부터 계속)

생식독성 - 구분1A	H360 태아 또는 생식능력에 손상을 일으킬 수 있음
특정표적장기 독성 - 1회 노출 - 구분2	H371 중추 신경계 그리고 시각 기관 을 손상시킬 수 있다.
특정표적장기 독성 - 반복 노출 - 구분1	H372 장기간 또는 반복노출 되면 장기에 손상을 일으킴



피부 부식성/피부 자극성 - 구분2	H315 피부에 자극을 일으킴
심한 눈 손상성/눈 자극성 - 구분2A	H319 눈에 심한 자극을 일으킴
피부 과민성은 - 구분1	H317 알레르기성 피부 반응을 일으킬 수 있음
인화성 액체 - 구분4	H227 가연성 액체

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



GHS06 GHS08

- 신호어 위험
- 상표상에 명확히 위험성이 표시된 성분:

포르말린  
메틸알코올

#### 유해유해유해문구

가연성 액체  
삼키거나, 피부에 접촉하거나 흡입하면 유독함  
피부에 자극을 일으킴  
눈에 심한 자극을 일으킴  
흡입시 알레르기성 반응, 천식 또는 호흡 곤란 등을 일으킬 수 있음  
알레르기성 피부 반응을 일으킬 수 있음  
유전적인 결함을 일으킬 것으로 의심됨  
압을 일으킬 수 있음  
태아 또는 생식능력에 손상을 일으킬 수 있음  
중추 신경계 그리고 시각 기관 을 손상시킬 수 있다.  
장기간 또는 반복노출 되면 장기에 손상을 일으킴

#### 예방조치문구

삼켰을 시: 즉시 독성물질센터/병원 연락 필요.  
(라벨 참조) 처치를 하시오.  
입을 씻어내시오.  
눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.  
오염된 모든 의복은 즉시 벗고 다시 사용 전 세척하십시오.  
밀봉하여 저장하십시오.  
(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.

#### 기타기타기타성

- PBT(잔류성, 생물농축성, 물질분해성) 및 vPvB(고 잔류성, 고 생물농축성, 물질분해성) 평가 결과
- PBT(잔류성, 생물농축성, 물질분해성) 대상 사항 없음.

(3 쪽에 계속)





# 물질안전보건자료

## GHS에 따라 라다

인쇄일자: 2022.08.02

개정: 2022.08.02

**제품명: Z-FIX CONCENTRATE**

(4 쪽부터 계속)

**67-56-1 메틸알코올**

OELV (KR)	단기간 의값: 250 ppm 장기간 의값: 200 ppm Skin
IOELV (EU)	장기간 의값: 260 mg/m <sup>3</sup> , 200 ppm Skin
PEL (US)	장기간 의값: 260 mg/m <sup>3</sup> , 200 ppm
REL (US)	단기간 의값: 325 mg/m <sup>3</sup> , 250 ppm 장기간 의값: 260 mg/m <sup>3</sup> , 200 ppm Skin
TLV (US)	단기간 의값: 250 ppm 장기간 의값: 200 ppm Skin; BEI

· 생물학적 허용 값을 갖는 동물 원료

**67-56-1 메틸알코올**

BEI (US)	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
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· 추가 정보 정보 할 당시에 유 효 한 목 록 을 기 초 로 사 용 했 다.

노출 통제 통제  
개인 개인 보호 구

· 일반적 보호 조치 및 위생 조치:

- 식료품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.
- 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
- 휴식 전 이 나 작업이 끝날 때 마다 손 을 씻 는 다.
- 방호복은 따로 보관한다.
- 눈 과 피 부 와 의 접 촉 은 피 한 다.

· 호흡기 보호 보호

· 단 시간 또는 경 미 한 오 염 의 경 우 에 는 호 흡 여 과 기 를 사 용 한 다. 심 각 한 또는 장 기 간 노 출 시 에 는 호 흡 보 호 장 비 를 사 용 한 다.

· 보호 보호 보호



보호용 장갑

장갑재질은 제품 / 원료 / 조제를 통과시키지 않아야 하고, 내구성이 있어야 한다.  
테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.  
투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

· 장갑의 재료

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

· 장갑 재료의 투과 시간 정확한 관통 시간은 보호 장갑 제조자에 의 하여 인 지 되 고, 준 수 되 어 야 한 다.

(6 쪽에 계속)

# 물집안전보건자료 GHS에 따라라따

인쇄일자: 2022.08.02

개정: 2022.08.02

**제품명: Z-FIX CONCENTRATE**

보호 보호 보호

(5 쪽부터 계속)



꼭조이는보안경

## 9 물리화학적 특성

기본 정보 물리화학적 특성에 대한 기본 정보

· 일반정보	
외형외형의형	
· 물리적 상태	액체
· 색:	색소가없는
냄새냄새냄새	짜르는듯한
· 후각역치	알맞지않다.
· pH 의경우 20 °C:	5.6-5.8
· 상태변화	
· 녹는점/어는점:	맞지않는
· 초기초기 끓는점과 끓는점범위범위	97 °C
· 인화점:	62 °C
· 인화성고체기체기체	해당사항 없음.
분해분해온도	알맞지않다.
· 자기점화:	이제품은자연발화성이없다.
· 폭발위험:	알맞지않다.
인화 인화 인화 폭발 위험의 상한상한 하한	
· 아래로:	7 Vol %
· 위로위로위로	73 Vol %
· 증기압 의경우 20 °C:	1.7 hPa
밀도밀도 밀도 의경우 20 °C:	1.05 g/cm <sup>3</sup>
· 비중비중비중	알맞지않다.
· 증기밀도:	알맞지않다.
증발 증발 증발 속도	알맞지않다.
· 용해도:	
· 물:	완전히혼합할수있는
· n 옥탄올/물 분배계수:	알맞지않다.
점도점도점도	
· 역학성:	알맞지않다.
· 동점성:	알맞지않다.
· 용매내용물	
· 유기용매:	23.0 %
· 물:	4.4 %
· VOC (EU)	23.00 %
· 고체양함량함량	0.0 %

(7 쪽에 계속)







# 물질안전보건자료

## GHS에 따라라따

인쇄일자: 2022.08.02

개정: 2022.08.02

**제품명: Z-FIX CONCENTRATE**

(8 쪽부터계속)

**· 허가대상물질:**

어떠한내용물도목록화되어있지않다

**· 관리대상유해물질:**

50-00-0	포르말린
67-56-1	메틸알코올
1310-73-2	수산화 나트륨

· 관리대상 유해물질의 종류 종류 화합물: 118

**· 작업환경측정 대상유해인자**

50-00-0	포르말린	1A105
67-56-1	메틸알코올	1A28
1310-73-2	수산화 나트륨	1C6

**· 특수건강검진 대상유해인자**

50-00-0	포르말린	1A98
67-56-1	메틸알코올	1A31

해당 해당 순물질 또는 혼합물에 대한 유해인자 건강영향평가법 제 11조 제 1항 제 1호를 적용

**· Korean Existing Chemical Inventory**

50-00-0	포르말린	KE-17074
67-56-1	메틸알코올	KE-23193
7732-18-5	물	KE-35400
54-64-8	티메로살	KE-13896
1310-73-2	수산화 나트륨	KE-31487
7447-40-7	potassium chloride	KE-29086
10043-35-3	붕산	KE-03499

**· 화학물질관리법**

**· 사고대비물질**

50-00-0	포르말린
67-56-1	메틸알코올

**· 금지물질**

어떠한내용물도목록화되어있지않다

**· 제한물질**

50-00-0	포르말린
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**· 유독물질**

50-00-0	포르말린
67-56-1	메틸알코올
54-64-8	티메로살
1310-73-2	수산화 나트륨
10043-35-3	붕산

**· 허가물질**

50-00-0	포르말린
67-56-1	메틸알코올
1310-73-2	수산화 나트륨
10043-35-3	붕산

· 위험물안전관리법 (위험물 및 지정수량) 제 4: 400 리터

(10 쪽에계속)





# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 02.08.2022

Revisión: 02.08.2022

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

#### · 1.1 Identificador del producto

· **Nombre comercial:** Z-FIX CONCENTRATE

· **Número del artículo:** 64125-01

· **UFI:** H8D4-E052-300X-MTDS

#### · 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: [info@emsdiasum.com](mailto:info@emsdiasum.com)

[www.emsdiasum.com](http://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](mailto: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**



GHS06 calavera y tibias cruzadas

Acute Tox. 3 H301 Tóxico en caso de ingestión.

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

Acute Tox. 3 H331 Tóxico en caso de inhalación.



GHS08 peligro para la salud

Resp. Sens. 1 H334 Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.

Muta. 2 H341 Se sospecha que provoca defectos genéticos.

Carc. 1B H350 Puede provocar cáncer.

Repr. 1A H360 Puede perjudicar la fertilidad o dañar al feto.

STOT SE 2 H371 Puede provocar daños en el sistema nervioso central y los órganos visuales.

STOT RE 1 H372 Provoca daños en los órganos tras exposiciones prolongadas o repetidas.

( se continua en página 2 )

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GHS07

- Skin Irrit. 2 H315 Provoca irritación cutánea.  
 Eye Irrit. 2 H319 Provoca irritación ocular grave.  
 Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.  
 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



GHS06 GHS08

#### · Palabra de advertencia Peligro

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

formaldehído  
 metanol

#### · Indicaciones de peligro

H301+H311+H331 Tóxico en caso de ingestión, contacto con la piel o inhalación.

H315 Provoca irritación cutánea.

H319 Provoca irritación ocular grave.

H334 Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.

H317 Puede provocar una reacción alérgica en la piel.

H341 Se sospecha que provoca defectos genéticos.

H350 Puede provocar cáncer.

H360 Puede perjudicar la fertilidad o dañar al feto.

H371 Puede provocar daños en el sistema nervioso central y los órganos visuales.

H335 Puede irritar las vías respiratorias.

H372 Provoca daños en los órganos tras exposiciones prolongadas o repetidas.

#### · Consejos de prudencia

P301+P310 EN CASO DE INGESTIÓN: Llamar inmediatamente a un CENTRO DE TOXICOLOGÍA/ médico.

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

P330 Enjuagarse la boca.

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.

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

P405 Guardar bajo llave.

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

### · 2.3 Otros peligros

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

· PBT: No aplicable.

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· **mPmB:** No aplicable.

### SECCIÓN 3: Composición/información sobre los componentes

#### · 3.2 Caracterización química: Mezclas

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

#### · Componentes peligrosos:

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

#### · SVHC

67-56-1 | metanol

· **Indicaciones adicionales:** El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

### SECCIÓN 4: Primeros auxilios

#### · 4.1 Descripción de los primeros auxilios

##### · Instrucciones generales:

Quitarse de inmediato toda prenda contaminada con el producto.

Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.

##### · En caso de inhalación del producto:

Suministrar suficiente aire fresco y, para mayor seguridad, consultar el médico.

Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.

##### · En caso de contacto con la piel: Lavar inmediatamente con agua y jabón y enjuagar bien.

##### · En caso de con los ojos:

Limpia los ojos abiertos durante varios minutos con agua corriente. En caso de trastornos persistentes consultar un médico.

##### · En caso de ingestión: Consultar inmediatamente un médico.

#### · 4.2 Principales síntomas y efectos, agudos y retardados No existen más datos relevantes disponibles.

#### · 4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente

No existen más datos relevantes disponibles.

### SECCIÓN 5: Medidas de lucha contra incendios

#### · 5.1 Medios de extinción

##### · Sustancias extintoras apropiadas:

CO<sub>2</sub>, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al alcohol.

##### · 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.

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### SECCIÓN 6: Medidas en caso de vertido accidental

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia**  
Llevar puesto equipo de protección. Mantener alejadas las personas sin protección.
- **6.2 Precauciones relativas al medio ambiente:**  
Diluir con mucha agua.  
Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**  
Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).  
Desechar el material contaminado como vertido según ítem 13.  
Asegurar suficiente ventilación.
- **6.4 Referencia a otras secciones**  
Ver capítulo 7 para mayor información sobre una manipulación segura.  
Ver capítulo 8 para mayor información sobre el equipo personal de protección.  
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

### SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**  
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.  
Abrir y manejar el recipiente con cuidado.  
Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:**  
Mantener alejadas las fuentes de encendido. No fumar.  
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.
- **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/m <sup>3</sup> , 0,6 ppm Valor de larga duración: 0,37 mg/m <sup>3</sup> , 0,3 ppm CIB, Sen, s
-----	---------------------------------------------------------------------------------------------------------------------------------------

#### 67-56-1 metanol

LEP	Valor de larga duración: 266 mg/m <sup>3</sup> , 200 ppm vía dérmica, VLB, VLI, r
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· **Componentes con valores límite biológicos:**

**67-56-1 metanol**

VLB 15 mg/l

Muestra: orina

Momento de Muestero: Final de la jornada laboral

Indicador Biológico: Metanol

· **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.

· **8.2 Controles de la exposición**

· **Equipo de protección individual:**

· **Medidas generales de protección e higiene:**

Mantener alejado de alimentos, bebidas y alimentos para animales.

Quitarse de inmediato la ropa ensuciada o impregnada.

Lavarse las manos antes de las pausas y al final del trabajo.

Guardar la ropa protectora por separado.

Evitar el contacto con los ojos 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 herméticas

## SECCIÓN 9: Propiedades físicas y químicas

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

· **Datos generales**

· **Aspecto:**

**Forma:**

Líquido

**Color:**

Incoloro

· **Olor:**

Penetrante

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Nombre comercial: Z-FIX CONCENTRATE

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· Umbral olfativo:	No determinado.
· valor pH a 20 °C:	5,6-5,8
· Cambio de estado Punto de fusión/punto de congelación:	Indeterminado.
Punto inicial de ebullición e intervalo de ebullición:	97 °C
· Punto de inflamación:	62 °C
· Inflamabilidad (sólido, gas):	No aplicable.
· Temperatura de descomposición:	No determinado.
· Temperatura de auto-inflamación:	El producto no es autoinflamable.
· Propiedades explosivas:	No determinado.
· Límites de explosión: Inferior:	7 Vol %
Superior:	73 Vol %
· Presión de vapor a 20 °C:	1,7 hPa
· Densidad a 20 °C:	1,05 g/cm <sup>3</sup>
· Densidad relativa	No determinado.
· Densidad de vapor	No determinado.
· Tasa de evaporación:	No determinado.
· Solubilidad en / miscibilidad con agua:	Completamente mezclable.
· Coeficiente de reparto: n-octanol/agua:	No determinado.
· Viscosidad: Dinámica:	No determinado.
Cinemática:	No determinado.
· Concentración del disolvente: Disolventes orgánicos:	23,0 %
Agua:	4,4 %
VOC (CE)	23,00 %
Contenido de cuerpos sólidos:	0,0 %
· 9.2 Otros datos	No existen más datos relevantes disponibles.

### SECCIÓN 10: Estabilidad y reactividad

- 10.1 Reactividad No existen más datos relevantes disponibles.
- 10.2 Estabilidad química
- Descomposición térmica / condiciones que deben evitarse: No se descompone al emplearse adecuadamente.
- 10.3 Posibilidad de reacciones peligrosas No se conocen reacciones peligrosas.
- 10.4 Condiciones que deben evitarse No existen más datos relevantes disponibles.
- 10.5 Materiales incompatibles: No existen más datos relevantes disponibles.
- 10.6 Productos de descomposición peligrosos: No se conocen productos de descomposición peligrosos.

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### SECCIÓN 11: Información toxicológica

#### · 11.1 Información sobre los efectos toxicológicos

##### · Toxicidad aguda

Tóxico en caso de ingestión, contacto con la piel 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.

##### · Lesiones o irritación ocular graves

Provoca irritación ocular grave.

##### · Sensibilización respiratoria o cutánea

Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.

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

Puede perjudicar la fertilidad o dañar al feto.

##### · Toxicidad específica en determinados órganos (STOT) – exposición única

Puede provocar daños en el sistema nervioso central y los órganos visuales.

Puede irritar las vías respiratorias.

##### · Toxicidad específica en determinados órganos (STOT) – exposición repetida

Provoca daños en los órganos tras exposiciones prolongadas o repetidas.

##### · 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.

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.

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### SECCIÓN 13: Consideraciones relativas a la eliminación

- 13.1 Métodos para el tratamiento de residuos
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.
- **Producto de limpieza recomendado:** Agua, eventualmente añadiendo productos de limpieza.

### SECCIÓN 14: Información relativa al transporte

- |                                                                                        |                                                                                     |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| · 14.1 Número ONU                                                                      |                                                                                     |
| · ADR, IMDG                                                                            | suprimido                                                                           |
| · IATA                                                                                 | UN1198                                                                              |
| · 14.2 Designación oficial de transporte de las Naciones Unidas                        |                                                                                     |
| · ADR, IMDG                                                                            | suprimido                                                                           |
| · IATA                                                                                 | FORMALDEHYDE SOLUTION, FLAMMABLE                                                    |
| · 14.3 Clase(s) de peligro para el transporte                                          |                                                                                     |
| · ADR, ADN, IMDG                                                                       |                                                                                     |
| · Clase                                                                                | suprimido                                                                           |
| · IATA                                                                                 |                                                                                     |
|                                                                                        |  |
| · Class                                                                                | 3(8)                                                                                |
| · Label                                                                                | 3 (8)                                                                               |
| · 14.4 Grupo de embalaje                                                               |                                                                                     |
| · ADR, IMDG                                                                            | suprimido                                                                           |
| · IATA                                                                                 | III                                                                                 |
| · 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.                                                                       |
| · "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 H2 TOXICIDAD AGUDA
- Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior 50 t
- Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior 200 t

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Nombre comercial: **Z-FIX CONCENTRATE**

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· **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones:** 3, 28, 69, 72· **Directiva 2011/65/UE sobre restricciones a la utilización de determinadas sustancias peligrosas en aparatos eléctricos y electrónicos - Anexo II**

ninguno de los componentes está incluido en una lista

· **REGLAMENTO (UE) 2019/1148**· **Anexo I - PRECURSORES DE EXPLOSIVOS RESTRINGIDOS (Valor límite superior a efectos de la concesión de licencias con arreglo al artículo 5, apartado 3)**

ninguno de los componentes está incluido en una lista

· **Anexo II - PRECURSORES DE EXPLOSIVOS NOTIFICABLES**

ninguno de los componentes está incluido en una lista

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

ninguno de los componentes está incluido en una lista

· **Reglamento (CE) N o 111/2005 por el que establecen normas para la vigilancia del comercio de precursores de drogas entre la Comunidad y terceros países**

ninguno de los componentes está incluido en una lista

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

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

· **Demás disposiciones, limitaciones y decretos prohibitivos**· **Sustancias altamente preocupantes (SVHC) según REACH, artículo 57**

67-56-1 metanol

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

### SECCIÓN 16: Otra información

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

· **Frases relevantes**

H225 Líquido y vapores muy inflamables.

H301 Tóxico en caso de ingestión.

H302 Nocivo en caso de ingestión.

H311 Tóxico en contacto con la piel.

H312 Nocivo en contacto con la piel.

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

H317 Puede provocar una reacción alérgica en la piel.

H331 Tóxico en caso de inhalación.

H332 Nocivo en caso de inhalación.

H341 Se sospecha que provoca defectos genéticos.

H350 Puede provocar cáncer.

H370 Provoca daños en los órganos.

· **Abreviaturas y acrónimos:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

( se continua en página 10 )



**Ficha de datos de seguridad**  
**según 1907/2006/CE, Artículo 31**

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**Nombre comercial: Z-FIX CONCENTRATE**

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*VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Líquidos inflamables – Categoría 2**Acute Tox. 3: Toxicidad aguda – Categoría 3**Acute Tox. 4: Toxicidad aguda – Categoría 4**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**Resp. Sens. 1: Sensibilización respiratoria – Categoría 1**Skin Sens. 1: Sensibilización cutánea – Categoría 1**Muta. 2: Mutagenicidad en células germinales – Categoría 2**Carc. 1B: Carcinogenicidad – Categoría 1B**Repr. 1A: Toxicidad para la reproducción – Categoría 1A**STOT SE 1: Toxicidad específica en determinados órganos ( exposición única) – Categoría 1**STOT SE 2: Toxicidad específica en determinados órganos ( exposición única) – Categoría 2**STOT RE 1: Toxicidad específica en determinados órganos (exposiciones repetidas) – Categoría 1*

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