

**Safety data sheet**  
**according to Regulation (EC) No 1907/2006, Article 31 and 2020/878/  
EU**

Printing date 13.05.2024

Version number 9 (replaces version 8)

Revision: 08.04.2024

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

**1.1 Product identifier**

**Trade name:** Soldering grease  
Lötfe  
t

UFI: 8MY8-K0KS-K00C-CS76



**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** *Soldering flux*

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

*Felder GmbH  
Im Lipperfeld 11  
D-46047 Oberhausen*

*Tel.: +49 (0)208/ 85035-0**Fax.: +49 (0)208/ 26080**http://www.felder.de**e-mail: info@felder.de*

**Further information obtainable from:**

*lab**(mo-thu: 8:00 a.m. - 4:00 p.m./ fr: 8:00 a.m. - 1:00 p.m.)**email: mprobst@felder.de*

**1.4 Emergency telephone number:**

*24-hour emergency information:*
*Giftnotruf Berlin, counselling in German and English**Phone: (030) 30686 700***EuPCs:** PC-TEC-24

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008****GHS05 corrosion***Eye Dam. 1 H318 Causes serious eye damage.***GHS07***Skin Irrit. 2 H315 Causes skin irritation.*

**2.2 Label elements**

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

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

**Hazard pictograms**

**GHS05****Signal word** *Danger*

**Hazard-determining components of labelling:**

*zinc chloride*

**Hazard statements**

*H315 Causes skin irritation.**H318 Causes serious eye damage.*

**Precautionary statements**

*P101 If medical advice is needed, have product container or label at hand.*

*P102 Keep out of reach of children.*

*P103 Read carefully and follow all instructions.*

*P264 Wash thoroughly after handling.*

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P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER/doctor/-  
 P332+P313 If skin irritation occurs: Get medical advice/attention.

**Labelling of packages where the contents do not exceed 125 ml**  
**Hazard pictograms**



GHS05

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

zinc chloride

**Hazard statements**

H318 Causes serious eye damage.

**Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.  
 P102 Keep out of reach of children.  
 P103 Read carefully and follow all instructions.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER/doctor.

**2.3 Other hazards****Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Description:** Mixture: consisting of the following components.

<b>Dangerous components:</b>		
CAS: 7646-85-7 EINECS: 231-592-0 Index number: 030-003-00-2 Reg.nr.: 01-2119472431-44	zinc chloride  Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410;  Acute Tox. 4, H302 Specific concentration limit: STOT SE 3; H335: C ≥ 5 %	<5%

**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:** Take affected persons out into the fresh air.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** If skin irritation continues, consult a doctor.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:**

Rinse out mouth and then drink plenty of water.

Seek medical treatment.

**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.

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## 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.  
 Use fire extinguishing methods suitable to surrounding conditions.

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

*In case of fire, the following can be released:*

Hydrogen chloride (HCl)

### 5.3 Advice for firefighters

**Protective equipment:** Do not inhale explosion gases or combustion gases.

## SECTION 6: Accidental release measures

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

**Wear protective clothing.**

### 6.2 Environmental precautions:

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

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

**Pick up mechanically.**

### 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

*No special precautions are necessary if used correctly.*

**Information about fire - and explosion protection:** No special measures required.

### 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:** Store away from foodstuffs.

**Further information about storage conditions:** Protect from frost.

**Storage class:** 11

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

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

##### 7646-85-7 zinc chloride

MAK (Germany)	Long-term value: 0.1A* 2E** mg/m <sup>3</sup> *alveolengängig; **einatembar
WEL (Great Britain)	Short-term value: 2 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
OEL (Ireland)	Short-term value: 2 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>

#### Regulatory information

MAK (Germany): MAK- und BAT-Liste

WEL (Great Britain): EH40/2020

OEL (Ireland): 2024 CoP for the Safety, Health and Welfare at Work

#### recommended monitoring procedures in accordance with 2020/878/EU no. 8.1.2:

7646-85-7 zinc chloride: NIOSH 7300, 7301, 7303(E) "Zinc", OSHA, ID-121(E)

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

### 8.2 Exposure controls

#### Appropriate engineering controls

Ensure adequate ventilation.

Remove the fumes by means of suitable suction devices.

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**Individual protection measures, such as personal protective equipment****General protective and hygienic measures:***Do not eat, drink, smoke or sniff while working.**Wash hands before breaks and at the end of work.***Respiratory protection:***Use suitable respiratory protective device in case of insufficient ventilation.**Filter B**Filter P2***Hand protection***Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation***Material of gloves***Nitrile rubber, NBR**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 cannot be calculated in advance and has therefore to be checked prior to the application.**Recommended thickness of the material:  $\geq 0.11$  mm***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.**The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions.**Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.**Value for the permeation: Level  $\leq 6$* **As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR****Eye/face protection Safety glasses****Body protection: Protective work clothing****SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information**

Colour:	Light yellow
Odour:	Characteristic
Odour threshold:	Not determined.
Melting point/freezing point:	55 °C
Boiling point or initial boiling point and boiling range	Undetermined.
Flammability	Not determined.
Lower and upper explosion limit	
Lower:	0.6 Vol %
Upper:	6.5 Vol %
Flash point:	210 °C
Decomposition temperature:	Not determined.
pH (100 g/l) at 20 °C	6
Viscosity:	
Kinematic viscosity	Not applicable.
Dynamic:	Not applicable.
Solubility	
water:	Insoluble.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20 °C:	23 hPa
Density and/or relative density	
Density at 20 °C:	1 g/cm³
Relative density	Not determined.
Vapour density	Not applicable.
Particle characteristics	

*See section 3.***9.2 Other information****Appearance:****Form:** *Pasty***Important information on protection of health and environment, and on safety.****Ignition temperature:** *Product is not selfigniting.*

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<b>Explosive properties:</b>	Product does not present an explosion hazard.
<b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>VOC (EC)</b>	0.0 %
<b>0.00 %</b>	
<b>Change in condition</b>	
<b>Evaporation rate</b>	Not applicable.
<b>Information with regard to physical hazard classes</b>	
<b>Explosives</b>	Void
<b>Flammable gases</b>	Void
<b>Aerosols</b>	Void
<b>Oxidising gases</b>	Void
<b>Gases under pressure</b>	Void
<b>Flammable liquids</b>	Void
<b>Flammable solids</b>	Void
<b>Self-reactive substances and mixtures</b>	Void
<b>Pyrophoric liquids</b>	Void
<b>Pyrophoric solids</b>	Void
<b>Self-heating substances and mixtures</b>	Void
<b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
<b>Oxidising liquids</b>	Void
<b>Oxidising solids</b>	Void
<b>Organic peroxides</b>	Void
<b>Corrosive to metals</b>	Void
<b>Desensitised explosives</b>	Void

## 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 and stored according to specifications.

**10.3 Possibility of hazardous reactions** Reacts with strong oxidising agents.

**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 hazard classes as defined in Regulation (EC) No 1272/2008**

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

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye damage.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

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

**STOT-single exposure** Based on available data, the classification criteria are not met.

**STOT-repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

**11.2 Information on other hazards**

**Endocrine disrupting properties**

None of the ingredients is listed.

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## SECTION 12: Ecological information

### 12.1 Toxicity

**Aquatic toxicity:**

LC50(96h)	>100 mg/l (fish) (OECD 203)
EC(48h)	>100 mg/l (daphnia) (OECD 202)
ErC50(72h)	>100 mg/l (algae) (OECD 201)

**chronic aquatic toxicity:**

NOEC(fish)≥ 100 mg/l, NOEC(daphnia)≥ 100mg/l, NOEC(algae)≥ 100mg/l

Study no. 1407401N-201,-301, -504L1

**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.

**12.5 Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

**12.7 Other adverse effects** 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.

## 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.

**European waste catalogue**

06 03 13\*: solid salts and solutions containing heavy metals

cleaned plastic can:

15 01 02: plastic packaging

cleaned metal can:

15 01 04: metallic packaging

packaging:

15 01 01: paper and cardboard packaging

**Uncleaned packaging:** 15 01 10\*: packaging containing residues of or contaminated by hazardous substances

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

**Recommended cleansing agents:**

mechanical scratching, clean with alkaline soap solution and subsequent rinsing with ethanol or isopropanol.

## SECTION 14: Transport information

### 14.1 UN number or ID number

ADR, ADN, IMDG, IATA Void

### 14.2 UN proper shipping name

ADR, ADN, IMDG, IATA Void

### 14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class Void

### 14.4 Packing group

ADR, IMDG, IATA Void

### 14.5 Environmental hazards:

Marine pollutant: No

### 14.6 Special precautions for user

Not applicable.

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**14.7 Maritime transport in bulk according to IMO**

instruments

Not applicable.

UN "Model Regulation":

Void

**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.*REGULATION (EU) 2019/1021 on persistent organic pollutants (POP) *None of the ingredients are included.*

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

*None of the ingredients is listed.*

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

*None of the ingredients is listed.*

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

*None of the ingredients is listed.*

Regulation (EC) No 273/2004 on drug precursors

*None of the ingredients is listed.*

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

*None of the ingredients is listed.***National regulations:**Information about limitation of use: *Employment restrictions concerning juveniles must be observed.*Waterhazard class: *Water hazard class 2 (Self-assessment): hazardous for water.*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.***Reasons for changes:**

28.08.2015: Adaption to Regulation 453/2010/EC, 830/2015/EU, 2012/18/EU

10.03.2017: Chapter 8.1, 11

24.05.2017: Chapter 11, 15

13.04.2018: Chapter 13

13.01.2020: Chapter 1 UFI

13.04.2021: Chapter 3, 15, 16

17.08.2022: Chapter 15

08.04.2024: Chapter 1, 8

Information referred to in Annex I, point 1.3.4.2 of Regulation 1272/2008/EC:

**Relevant phrases**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

**Contact:** Dr. M. Probst**Version number of previous version:** 8**Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

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GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

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

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

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

**Safety data sheet SD3245**

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