Safety data sheet
according to 1907/2006/EC, Article 31 and 453/2010/EC

Printing date 13.04.2018 *Version number 5* *Revision: 13.04.2018*

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

1.1 Product identifier
Trade name: Soldering grease
Lötfett

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:

Wullschleger AG
Löttechnik-Edelmetalle
Asylstrasse 25/CH-8800 Thalwil/ Schweiz
Tel. +41 44 720 05 78 / Fax. + 41 44 720 03 27

E-Mail: wullschlegerag@bluewin.ch
Home: www.wullschlegerag.ch

WULLSCHLEGER AG
EDELMETALLE
8800 THALWIL
TEL. 044 720 05 78

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 label before use.*
P264	*Wash thoroughly after handling.*
P280	*Wear protective gloves/protective clothing/eye protection/face protection.*

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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 label before use.
P280 Wear protective gloves/protective clothing/eye protection/face 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 Chemical characterisation: Mixtures
Description: Mixture: consisting of the following components.

Dangerous components:		
CAS: 7646-85-7 EINECS: 231-592-0 Reg.nr.: 01-2119472431-44	zinc chloride Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302	<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.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray.
Use fire extinguishing methods suitable to surrounding conditions.

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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

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

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/m³* **alveolengängig; **einatembar*

Regulatory information *MAK (Germany): MAK- und BAT-Liste*
recommended monitoring procedures in accordance with 453/2010/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.
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
Protection of hands:
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: ≥ 0.4 mm

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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. The determined penetration times according to EN 374 part III 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 ≤ 6
As protection from splashes gloves made of the following materials are suitable: *Nitrile rubber, NBR*
Eye 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

Appearance:	
Form:	*Pasty*
Colour:	*Light yellow*
Odour:	*Characteristic*
Odour threshold:	*Not determined.*
pH-value (100 g/l) at 20 °C:	*6*
Change in condition	
Melting point/freezing point:	*55 °C*
Initial boiling point and boiling range:	*Undetermined.*
Flash point:	*210 °C*
Flammability (solid, gas):	*Not determined.*
Decomposition temperature:	*Not determined.*
Auto-ignition temperature:	*Product is not selfigniting.*
Explosive properties:	*Product does not present an explosion hazard.*
Explosion limits:	
Lower:	*0.6 Vol %*
Upper:	*6.5 Vol %*
Vapour pressure at 20 °C:	*23 hPa*
Density at 20 °C:	*1 g/cm³*
Relative density	*Not determined.*
Vapour density	*Not applicable.*
Evaporation rate	*Not applicable.*
Solubility in / Miscibility with water:	*Insoluble.*
Partition coefficient: n-octanol/water:	*Not determined.*
Viscosity:	
Dynamic:	*Not applicable.*
Kinematic:	*Not applicable.*
Solvent content:	
Organic solvents:	*0.0 %*
VOC (EC)	*0.0 %*
	0.00 %
9.2 Other information	*No further relevant information available.*

SECTION 10: Stability and reactivity

10.1 Reactivity *No further relevant information available.*
10.2 Chemical stability
Thermal decomposition / conditions to be avoided:
No decomposition if used 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.*

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SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity *Based on available data, the classification criteria are not met.*

LD/LC50 values relevant for classification:		
7646-85-7 zinc chloride		
Oral	*LD50*	*1,100-1,260 mg/kg (rat)*

Primary irritant effect:
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.*
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity *Based on available data, the classification criteria are not met.*
Carcinogenicity *Based on available data, the classification criteria are not met.*
Reproductive toxicity *Based on available data, the classification criteria are not met.*
STOT-single exposure *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.*

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.*
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.
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.*

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Recommended cleansing agents:
Remove residues mechanically, clean the packaging with soap solution or with alcohol.

SECTION 14: Transport information

14.1 UN-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.*
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	*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.*

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

Relevant phrases
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
Contact: Herr Wullschleger
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 européen sur le transport 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
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B

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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
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