

Item **Type**
L0100ACID1 **25 ml**

SECTION 1: Substance/mixture and company identification

1.1 Product identifier

Trade name: Solder liquid

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:

Supplier/distributor
KEMPER SRL
Via Prampolini 1/Q, 43044 Lemignano di Collecchio (PR)
Tel.: +39 0521-957111 (dalle 8.30 alle 17.00)
Contact responsible with the SDS: info@kempergroup.it

1.4 Emergency telephone numbers:

DESCRIPTION	NATIONS	TELEPHONE
CEN.NAZ.INFORM.TOSSIC.FOND. S.MAUGERI (CNIT)	IT	+39 0382 24444
CENTRO ANTIVELENI, OSPEDALE NIGUARDA CA' GRANDA	IT	+39 02 66101029
TOX INFO SUISSE	CH	+41 44 251 51 51
REACH and CLP UK CA Help Desk Health and Safety Executive (HSE)	EN	+44 0151 9515897 / 0151 922 9235
Giftnotruf der Charité – Universitätsmedizin Berlin	DE	+49 030 19240
INRS, Institut National de Recherche et de Sécurité	FR	+33 (0)1 45 42 59 59
Centre Antipoison et de Toxicovigilance de PARIS	FR	+33 (0)1 40 05 48 48 / (0)1 40 05 41 93
Servicio de Información Toxicológica	ES	+ 34 91 562 04 20
Instituto Nacional de Emergência Médica	PT	+ 351 213 303 271
NATIONAAL VERGIFTIGINGEN INFORMATIE CENTRUM (NVIC)	NL	+31 030 274 8888

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS05 corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

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GHS07

STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms



GHS05

GHS07

GHS09

Signal word Danger

Hazard-determining components of labelling:

zinc chloride

Hazard statements

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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

P310 Immediately call a POISON CENTER/doctor.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

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

Labelling of packages where the contents do not exceed 125 ml

Hazard pictograms



GHS05

GHS07

GHS09

Signal word Danger

Hazard-determining components of labelling:

zinc chloride

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe dusts or mists.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

P310 Immediately call a POISON CENTER/doctor.

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.

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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	<25%
CAS: 12125-02-9 EINECS: 235-186-4	ammonium chloride Acute Tox. 4, H302; Eye Irrit. 2, H319	<10%

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.

After inhalation:

Supply fresh air; consult doctor in case of complaints.

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

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment.

After eye contact:

Protect unharmed eye.

Seek medical treatment.

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Seek medical treatment.

Call for a doctor immediately.

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

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray.

5.2 Special hazards arising from the substance or mixture

 Hydrogen chloride (HCl)

5.3 Advice for firefighters

Protective equipment:

Do not inhale explosion gases or combustion gases.

Mouth respiratory protective device.

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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:

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

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

6.3 Methods and material for containment and cleaning up:

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

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

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 that suitable extractors are available on processing machines

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about fire - and explosion protection: 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:

Store away from foodstuffs.

Store away from metals.

Further information about storage conditions: Keep container tightly sealed.

Storage class: 8 B

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

SECTION 8: Exposure control/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/m ³ *alveolengängig; **eintembar

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 suitable suction devices.

Personal protective equipment:

General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter P2

Filter B

Protection of hands:



Protective gloves

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

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:



- Tightly sealed goggles

Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Colour:	Yellowish
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value at 20 °C:	5
Change in condition	
Initial boiling point and boiling range:	100 °C
Flash point:	Not applicable.
Flammability (solid, gas):	Not applicable.
Decomposition temperature:	Not determined.

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Auto-ignition temperature:

Product is not selfigniting.

Explosive properties:

Product does not present an explosion hazard.

Explosion limits:**Lower:**

Not determined.

Upper:

Not determined.

Vapour pressure at 20 °C:

23 hPa

Density at 20 °C:

1.18 g/cm³

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:**

0.0 %

Water:

75.4 %

VOC (EC)

0.00 %

Solids content:

24.5 %

9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.**10.2 Chemical stability**

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

10.3 Possibility of hazardous reactions 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:** Corrosive gases/vapours

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 severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

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

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CMR effects (carcinogenicity, 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

May cause respiratory irritation.

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

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

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Toxic for fish

Additional ecological information:

General notes:

The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary

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

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely 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 method

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
HP 8	Corrosive
HP 14	Ecotoxic

sales packaging:

15 01 02: plastic packaging

overpack:

15 01 01: paper and cardboard packaging

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

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Recommendation: Disposal must be made
according to official regulations.

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

SECTION 14: Transport information

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

UN1840

**14.2 UN proper shipping name
ADR**

1840 ZINC CHLORIDE SOLUTION mixture,
ENVIRONMENTALLY HAZARDOUS

IMDG

ZINC CHLORIDE SOLUTION mixture, MARINE
POLLUTANT

IATA

ZINC CHLORIDE SOLUTION mixture

**14.3 Transport hazard class(es)
ADR, IMDG**



**Class
Label
IATA**

8 Corrosive substances.
8



**Class
Label**

8 Corrosive substances.
8

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

III

14.5 Environmental hazards:

Product contains environmentally hazardous substances:
zinc chloride

Marine pollutant:

Yes
Symbol (fish and tree)

Special marking (ADR):

Symbol (fish and tree)

**14.6 Special precautions for user
Danger code (Kemler):**

Warning: Corrosive substances.
80

**EMS Number:
Segregation groups**

F-A,S-B
Acids, heavy metals and their salts (including their
organometallic compounds)

Stowage Category

A

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

Not applicable.

**Transport/Additional information:
ADR**

Limited quantities (LQ)

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

Transport category

3

Tunnel restriction code

E

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IMDG

Limited quantities (LQ)

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation":

UN 1840 ZINC CHLORIDE SOLUTION MIXTURE,

ENVIRONMENTALLY HAZARDOUS, 8, III,

ENVIRONMENTALLY HAZARDOUS

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 E2 Hazardous to the Aquatic Environment

Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

National regulations:

Information about limitation of use: Employment restrictions concerning juveniles must be observed.

Waterhazard class: Water hazard class 3 (Self-assessment): extremely hazardous for water.

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

SECTION 16: Other information

The data is based on the present state of our knowledge, however, it does not represent any guarantee of the properties of the product and it does not establish a legally valid contractual relationship.

Contact: Technical Office

Relevant phrases

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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

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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

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

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

The information from this sheet refer only to the identified product and may not be of relevance if the product is used in combination with other products or for other uses than the intended ones.

The information from this Sheet are based on our knowledge available on September 2018.

Downstream users and the distributors to whom this Sheet is intended should have at disposal their own material safety data sheet based on the relevant scenarios and information.