



Safety data sheet/ EG-Sicherheitsdatenblatt

Date of establishment: 15/01/03
Revision date:

Product/ Product group: **Soldering oil**

1.1 Substance/Preparation and Company Name

1.2 Information on the product

1.3 Information on manufacturer/Supplier

Supplier: **Tiffany Glaskunst GmbH**
Street: **Helleforthstr. 18-20**
UIP Code/town: **D-33758 Schloß Holte Stukenbrock**
Tel.: **+49 5207 91280**
Fax.: **+49 5207 912840**
e-mail: **tgk@tgk.de**
Internet: **http://www.tgk.de**

Telephone number in emergency cases: 05207-9128-0

2. Composition/Information on Ingredients :

Chemical characteristics:

Mixture of the following substances:

Synonyms: 1,2,3- propanetriol, glycerol

No.:	CAS-	Designation %	EINECS-Nummer:
56-81-5		Ca. Glycerol < 80%	2002895 (Glycerol)
7647-01-0		Hydrochloric acid, chem. pure < 10%	2315957 (Hydrochloric acid)

EC-No.: 017-002-01-X Hydrochloric acid

3. Possible hazards:

None

4. First Aid Measures:

Inhalation:

Fresh air, in case of discomfort seek medical attention.

Eye contact:

Wash eyes with opened palpebral fissures for several minutes under running water.

Skin contact:

Wash thoroughly under running water.

Ingestion:

Give plenty of water to drink, in case of discomfort seek medical attention.

5. Fire fighting measures:

Appropriate extinguishing media:

CO₂, extinguishing powder, alcohol resisting foam, water spray.

Unadequate extinguishing media for safety reasons:

Special hazards by the material or the composition, its combustion products or generated gases:

In case of uncomplete combustion, carbon monoxide can be generated. In case of thermic decomposition, corrosive acrolein can be generated. Hydrogen chloride is possible in case of environmental fire.

Special protection equipment for fire fighting:

In case of generation of acrolein, wear complete body-protection suit and independant respiratory device.

Additional information:

Cool containers in danger zone with water spray.
Combustion class B.

6. Accidental release measures:

Personal precaution measures:

Special sliding danger by leaking/spilled product.

Environmental protection measures:

Do not let pass undilutedly in soil, water or canalisation.

Measures for cleaning up/absorbing

Take up with liquid binding-material (sand, kieselguhr, acid-binding agent, universal binding agent, saw dust). Dispose of contaminated material refering to section 13.

7. Handling and storage:

Handling:

Information for secure handling:

Avoid contact with conc. nitric acid or nitrating acid.

Information concerning protection against fire and explosion:

Product is combustible, in case of very strong heating, explosive and inflammable vapour/air mixtures can be generated above the liquid. Therefore, avoid contact with hot surfaces or flames.

Storage:

Requirements for storage rooms and containers:

Store in firmly locked containers at cool and dry place.

Information on storage together with other substances:

Store separated from oxidating agents.

Additional information:

Product is hygroscopic. Protect against air moisture and water. Keep container firmly locked.

8. Expose controls and personal protection:

Ingredients with limit values on working place which have to be controlled:

CAS-No.	Designation	%	Max. concentration on working place	Value	Unity
7647-01-0	Hydrochloric acid	100	MAK	7 5	mg/m ³ ml/m ³

General protection and hygiene measures:

Please adhere to the usual protection measures concerning handling of chemicals.

Respiratory protection:

Only necessary in case of formation of aerosol, mist or hydrogen chloride.

Hand protection:

Protection gloves.

Eye protection:

Protection goggles recommendable at transferring product.

Body protection:

Standard working protection clothing.

9. Physical and chemical properties:

- **Aggregate state:** liquid
- **Colour:** colourless
- **Odour:** odourless
- **pH-value (100 g/l) at 20 °C:** slightly acidic
- **Boiling point/Boiling range (in °C):** ca. 290 °C
- **Melting point/Melting range (in °C):** ca. 18 °C
- **Flaming point:** ca. 175 °C
- **Ignition temperature:** ca. 425 °C
- **Specific gravity at 20 °C:** 1,26 g/cm³
- **Solubility in water:** completely mixable
- **Explosion danger:** The product is not explosive
- **Lower explosion limit:** ca. 0,9 Vol %
- **Vapour pressure at 20 °C:** 0,01 mbar

Additional information:

Glycerol is hygroscopic.

10. Stability and reactivity:

Conditions to avoid/thermic decomposition:

In case of normal pressure, not undecomposed distillable.

Products to avoid:

Oxidating agents, concentrated nitric acid, sulphuric acid.

Dangerous reactions:

Intensive reactions with strong oxidating agents.

In case of reaction with sulphuric acid, formation of explosive glycerol trinitrate.

Dangerous decomposition products:

In case of fire, formation of carbonmonoxid CO and carbondioxid CO₂.

In case of thermic decomposition or dehydrating with concentrated sulphuric acid, formation of acrolein. Formation of hydrogen chloride possible.

11. Toxicological information:

Acute toxicity:

LD/LC50 values relevant for classification:

Component	Method	Value	Species
Hydrochloric acid Ca. 31 %	Oral	900 mg/kg	Can.
Glycerol Ca. 99,5 %	Oral	25000 mg/kg	Rat

Experiences at humans:

Skin:

No irritation.

Eyes:

No irritation.

Sensibilisation:

No sensibilising effects known.

Additional toxicological information:

In case of appropriate handling and use, the product does not cause any effects that are dangerous for the health according to our experiences and the information supplied to us. The product has not to be marked according to the current EC-lists and the classification method of the General Classification Guideline for Preparations of the EC.

12.

Ecological information:

Information on elimination (persistence and biodegradability):

The product is easily biodegradable.

No bioaccumulation.

Aquatic toxicity:

Test method	Concentration	Method	Evaluation
Fishes	> 1000 mg/l	LC50	96 h

Additional information on ecology:

Water hazard class 1 (self- assessment of the manufacturer) weak water hazard.

Do not let pass undilutedly or in greater quantities in ground water, waters or canalisation.

Values refer to glycerol without addition of hydrochloric acid.

13.

Disposal considerations:

For the material/residues

Recommendation:

Disposal methods have to be, principally, agreed upon with the official Authorities.

Smaller quantities can be disposed of together with regular waste. If possible, pass into recycling system, otherwise dispose or burn in authorised treatment plant.

Waste-Code No.

Since 1st January, 1999, the waste code numbers have not only referred to the product but, essentially, to the user. The waste code numbers valid for the utilisation can be taken from the European Waste Catalogue.

For contaminated packing:

Waste disposal according to official regulations.

Recommendation:

Rented packings: After optimal emptying, return immediately to supplier firmly locked and uncleaned. Please take care that no foreign substances contaminate the packing.

Other packings: Empty completely and put into a reconditioning or recycling system.

Recommended cleaning agents:

Water, if necessary adding cleaning agents.

14. Transport information:

The product is not dangerous for transport according to transport regulations.

15. Regulatory information:

Marking according to EC guideline:

Precaution measures for handling of chemicals have to be adhered to.

The product has not to be marked according to EC lists or the literature sources known to us.

The product has not to be marked according to EC guidelines/GefStoffV.

Technical instruction air:

Class Portion in %

NK	100,0
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Water hazard class:

WGK 1 (Self-assessment of the manufacturer):

Weak water hazard (according to KBwS dd. 17th May, 1999).

16. Additional Information:

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.