

**Safety data sheet**

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

Printing date 11.04.2016

Version number 2

Revision: 07.10.2015

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name: Soldering fluid acc. to DIN 8511-F-SW 32 (Art. Nr. 160092)

**haupa®****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:****HAUPA GmbH & Co. KG**

Königstraße 165-169

D-42853 Remscheid

Tel.: +49 (0)2191 84 18-0

Fax: +49 (0)2191 84 18 840

E-Mail: sales@haupa.com

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**1.4 Emergency telephone number:**

Tel.: +49 (0)2191 84 18-0

(MO-TUE: 07:30-16:30 Uhr / FR: 07:30-13:30 Uhr)

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

**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**

GHS02 GHS07

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

propan-2-ol

**Hazard statements**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

**Precautionary statements**

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

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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.

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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**

GHS02 GHS07

**Signal word** *Danger***Hazard-determining components of labelling:***propan-2-ol***Hazard statements***H336 May cause drowsiness or dizziness.***Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.  
 P102 Keep out of reach of children.  
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P312 Call a POISON CENTER/doctor if you feel unwell.  
 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.

**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: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	propan-2-ol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	50-100%
CAS: 110-15-6 EINECS: 203-740-4	succinic acid ⚠ Eye Dam. 1, H318	<2,5%
CAS: 107-41-5 EINECS: 203-489-0	2-methylpentane-2,4-diol ⚠ Skin Irrit. 2, H315; ⚠ Eye Irrit. 2, H319	<2,5%

**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****After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Generally the product does not irritate the skin.

**After eye contact:**

Seek medical treatment.

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

**After swallowing:** 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:**

*Alcohol resistant foam*

*CO<sub>2</sub>, sand, extinguishing powder. Do not use water.*

**For safety reasons unsuitable extinguishing agents:** *Water with full jet*

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

*Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:*

*Carbon monoxide (CO)*

#### 5.3 Advice for firefighters

**Protective equipment:** *Wear self-contained 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:

*Inform respective authorities in case of seepage into water course or sewage system.*

*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).*

*Ensure adequate ventilation.*

*Do not flush with water or aqueous cleansing agents*

#### 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.*

*Prevent formation of aerosols.*

#### Information about fire - and explosion protection:

*Keep ignition sources away - Do not smoke.*

*Protect against electrostatic charges.*

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Storage:

**Requirements to be met by storerooms and receptacles:** *Store in a cool location.*

##### Information about storage in one common storage facility:

*Store away from flammable substances.*

*Store away from foodstuffs.*

##### Further information about storage conditions:

*Protect from heat and direct sunlight.*

*Protect from frost.*

*Keep container tightly sealed.*

*Store in cool, dry conditions in well sealed receptacles.*

**Storage class:** 3

#### 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:**

**67-63-0 propan-2-ol**

AGW (Germany)	Long-term value: 500 mg/m <sup>3</sup> , 200 ppm
	2(II);DFG, Y

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## 107-41-5 2-methylpentane-2,4-diol

MAK (Germany): Long-term value: 49\* mg/m<sup>3</sup>, 10 ppm  
vgl. Abschn. Xc; \*Dampf und Aerosol

### Regulatory information

AGW (Germany): TRGS 900

MAK (Germany): MAK- und BAT-Liste

recommended monitoring procedures in accordance with 453/2010/EU no. 8.1.2:

67-63-0 propan-2-ol: BIA 8415(D), MétroPol Fiche 077 Alcools en C3 à C8(F), MTA/MA-016/A89(ESP), DFG (D, E)  
Solvent mixtures 6

107-41-5 2-methylpentane-2,4-diol: OSHA PV2101(E) "Hexylen glycol"

### Ingredients with biological limit values:

#### 67-63-0 propan-2-ol

BGW (Germany): 25 mg/l  
Untersuchungsmaterial: Vollblut  
Probennahmezeitpunkt: Expositionsende bzw. Schichtende  
Parameter: Aceton

25 mg/l  
Untersuchungsmaterial: Urin  
Probennahmezeitpunkt: Expositionsende bzw. Schichtende  
Parameter: Aceton

Regulatory information BGW (Germany): TRGS 903

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

## 8.2 Exposure controls

### Appropriate engineering controls:

Ensure adequate ventilation.

Explosion protection equipment required. Extinguish all open flames. Remove sources of ignition. avoid sparks.

Take measures to prevent electrostatic charging. Ground all devices.

Removing the fumes by suitable suction devices.

### 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.

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.

Suitable respiratory protective device recommended.

Filter AP2

#### 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:  $\geq 0,33$  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  $\leq 6$

As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR

#### Eye protection:



Tightly sealed goggles

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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: *Amber coloured*  
 Odour: *Characteristic*  
 Odour threshold: *Not determined.*

pH-value at 20 °C: *3,9*

##### Change in condition

Melting point/Melting range: *Not determined*  
 Boiling point/Boiling range: *82 °C*

Flash point: *13 °C*Flammability (solid, gaseous): *Not applicable.*Ignition temperature: *300 °C*Decomposition temperature: *Not determined.*Self-igniting: *Product is not selfigniting.*Danger of explosion: *Product is not explosive. However, formation of explosive air/vapour mixtures are possible.*

##### Explosion limits:

Lower: *2,0 Vol %*  
 Upper: *12,0 Vol %*

Vapour pressure at 20 °C: *43 hPa*Density at 20 °C: *0,81 g/cm³*Relative density: *Not determined.*Vapour density: *Not determined.*Evaporation rate: *Not determined.*Solubility in / Miscibility with water: *Not miscible or difficult to mix.*Partition coefficient (n-octanol/water): *Not determined.*

##### Viscosity:

Dynamic: *Not determined.*  
 Kinematic: *Not determined.*

##### Solvent content:

Organic solvents: *85,0 %*  
 VOC (EC) *85,00 %*  
 Solids content: *13,1 %*

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

*Flammable.**Forms flammable gases/fumes.*10.4 Conditions to avoid: *No further relevant information available.*10.5 Incompatible materials: *No further relevant information available.*10.6 Hazardous decomposition products: *Flammable gases/vapours*

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

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

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**LD/LC50 values relevant for classification:****67-63-0 propan-2-ol**

Oral	LD50	5045 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalative	LC50/4 h	30 mg/l (rat)

**Primary irritant effect:****Skin corrosion/irritation** Based on available data, the classification criteria are not met.**Serious eye damage/irritation**

Causes serious eye irritation.

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

**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.**Additional ecological information:****General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**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**

14 06 03*	other solvents and solvent mixtures
HP 3	Flammable
HP 4	Irritant - skin irritation and eye damage
HP 5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number****ADR, IMDG, IATA**

UN1219

**14.2 UN proper shipping name****ADR****IMDG, IATA**1219 ISOPROPANOL (ISOPROPYL ALCOHOL) mixture  
ISOPROPANOL (ISOPROPYL ALCOHOL) mixture

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**14.3 Transport hazard class(es)**

ADR, IMDG, IATA



Class	3 Flammable liquids.
Label	3
14.4 Packing group	
ADR, IMDG, IATA	II
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Warning: Flammable liquids.
Danger code (Kemler):	33
EMS Number:	F-E,S-D
Stowage Category	B
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

**Transport/Additional information:**

ADR	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
Transport category	2
Tunnel restriction code	D/E
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL) MIXTURE, 3, II

**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 P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t

National regulations:

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

Waterhazard class: Water hazard class 1 (Self-assessment): slightly 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: 07/10/2015: matching section 1, 8, 15 to Regulations 453/2010/EC, 830/2015/EU, 2012/18/EU

**Relevant phrases**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Contact: Dr. M. Probst

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**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)*

*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*

*ICAO: International Civil Aviation Organisation*

*ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)*

*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*

*DNEL: Derived No-Effect Level (REACH)*

*PNEC: Predicted No-Effect Concentration (REACH)*

*SVHC: Substances of Very High Concern*

*Flam. Liq. 2: Flammable liquids – Category 2*

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

*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*

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