



## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 24.01.2023

Version number 3.6 (replaces version 3.5)

Revision: 24.01.2023

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

#### · 1.1 Product identifier

· Trade name: **Flux 500-3429-1**

#### · 1.2 Relevant identified uses of the substance or mixture and uses advised against

· Technical function soldering

· Application of the substance / the mixture Soldering flux

#### · 1.3 Details of the supplier of the safety data sheet

· **Manufacturer/Supplier:**  
Stannol GmbH & Co. KG  
Haberstrasse 24  
D-42551 Velbert

+49 (0) 2051 3120 332  
sdb@stannol.de

· **Further information obtainable from:** Product Safety Department

· **1.4 Emergency telephone number:**  
8:00 am - 5:00 pm (CET) +49 (0) 2051 3120 332

National Poisons Information Service  
+44 121 507 4123

Members of the public seeking specific information on poisons should contact:  
In England and Wales: NHS 111 - dial 111  
In Scotland: NHS 24 - dial 111

### SECTION 2: Hazards identification

#### · 2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008**

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

Eye Dam. 1 H318 Causes serious eye damage.

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 GB CLP regulation.

· **Hazard pictograms**



GHS02



GHS05



GHS07

· **Signal word** Danger

· **Hazard-determining components of labelling:**

propan-2-ol

ethyl (S)-2-hydroxypropionate

2-phenoxyethanol

succinic acid

· **Hazard statements**

H225 Highly flammable liquid and vapour.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

· **Precautionary statements**

P210

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

P233

Keep container tightly closed.

P271

Use only outdoors or in a well-ventilated area.

P280

Wear protective gloves / eye protection.

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- P280 Wear protective clothing.
- 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 doctor.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards**

Flux / flux gels:

Inhalation of vapors released during the soldering process should be avoided. Flux vapors irritate the nose, throat, and respiratory tract, and can lead to allergic reactions (asthma) after prolonged or repeated contact. Therefore, an active suction is recommended.

After working with the product and before eating, drinking or smoking, wash your hands with soap and water.

Keep out of the reach of children.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

**Dangerous components:**

CAS: 67-63-0	propan-2-ol	60 - 95%
EINECS: 200-661-7	Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	
CAS: 687-47-8	ethyl (S)-2-hydroxypropionate	≤ 2.5%
EINECS: 211-694-1	Flam. Liq. 3, H226 Eye Dam. 1, H318 STOT SE 3, H335	
CAS: 107-41-5	2-methylpentane-2,4-diol	≤ 2.5%
EINECS: 203-489-0	Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 122-99-6	2-phenoxyethanol	≤ 2.5%
EINECS: 204-589-7	Eye Dam. 1, H318 Acute Tox. 4, H302; STOT SE 3, H335 ATE: LD50 oral: 1,394 mg/kg	
CAS: 110-15-6	succinic acid	≤ 2.5%
EINECS: 203-740-4	Eye Dam. 1, H318	

- **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:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **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:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
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:**  
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** No special precautions are necessary if used correctly.
- **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:** Not required.
- **Further information about storage conditions:**  
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

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
**CAS: 67-63-0 propan-2-ol**  
WEL (Great Britain) Short-term value: 1250 mg/m<sup>3</sup>, 500 ppm  
Long-term value: 999 mg/m<sup>3</sup>, 400 ppm  
**CAS: 107-41-5 2-methylpentane-2,4-diol**  
WEL (Great Britain) Short-term value: 123 mg/m<sup>3</sup>, 25 ppm  
Long-term value: 123 mg/m<sup>3</sup>, 25 ppm
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing

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Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

Not necessary if room is well-ventilated.

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A

· **Hand protection**



Protective gloves

Solvent resistant gloves

Rubber gloves

Synthetic rubber gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

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 can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

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.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection** Safety glasses

### SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Physical state**

Fluid

· **Colour:**

Amber coloured

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Undetermined.

· **Boiling point or initial boiling point and boiling range**

82 °C

· **Flammability**

Highly flammable.

· **Lower and upper explosion limit**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

12 °C

· **Decomposition temperature:**

Not determined.

· **pH**

Not determined.

· **Viscosity:**

· **Kinematic viscosity**

Not determined.

· **Dynamic:**

Not determined.

· **Solubility**

· **water:**

Not miscible or difficult to mix.

· **Partition coefficient n-octanol/water (log value)**

Not determined.

· **Vapour pressure:**

Not determined.

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- **Density and/or relative density**
- **Density:** Not determined.
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **9.2 Other information**
- **Appearance:**
- **Form:** Fluid
- **Important information on protection of health and environment, and on safety.**
- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- **Solvent content:**
- **Organic solvents:** 92.2 %
- **Water:** 1.6 %
- **VOC (EC)** 92.19 %
- **Change in condition**
- **Evaporation rate** Not determined.
- **Information with regard to physical hazard classes**
- **Explosives** Void
- **Flammable gases** Void
- **Aerosols** Void
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Highly flammable liquid and vapour.
- **Flammable solids** Void
- **Self-reactive substances and mixtures** Void
- **Pyrophoric liquids** Void
- **Pyrophoric solids** Void
- **Self-heating substances and mixtures** Void
- **Substances and mixtures, which emit flammable gases in contact with water** Void
- **Oxidising liquids** Void
- **Oxidising solids** Void
- **Organic peroxides** Void
- **Corrosive to metals** Void
- **Desensitised explosives** 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 according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **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.

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

Oral LD50 5,045 mg/kg (rat)

Dermal LD50 12,800 mg/kg (rabbit)

Inhalative LC50/4 h 30 mg/l (rat)

**· Serious eye damage/irritation** Causes serious eye damage.**· STOT-single exposure** May cause drowsiness or dizziness.**· 11.2 Information on other hazards****· Endocrine disrupting properties**

CAS: 95-14-7 benzotriazole

List II

**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.**· 12.5 Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.**· 12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.**· 12.7 Other adverse effects****· 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.

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

**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.

**· Uncleaned packaging:****· Recommendation:** Packagings that may not be cleansed are to be disposed of in the same manner as the product.**SECTION 14: Transport information****· 14.1 UN number or ID number****· ADR, IMDG, IATA**

UN1219

**· 14.2 UN proper shipping name****· ADR**

1219 ISOPROPANOL (ISOPROPYL ALCOHOL)

**· IMDG, IATA**

ISOPROPANOL (ISOPROPYL ALCOHOL)

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- 14.3 Transport hazard class(es)
- ADR, IMDG, IATA



- Class 3 Flammable liquids.
- Label 3
- 14.4 Packing group II
- ADR, IMDG, IATA II
- 14.5 Environmental hazards: Not applicable.
- 14.6 Special precautions for user Warning: Flammable liquids.
- Hazard identification number (Kemler code): 33
- EMS Number: F-E,S-D
- Stowage Category B
- 14.7 Maritime transport in bulk according to IMO instruments 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), 3, II

### SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008  
The product is classified and labelled according to the GB CLP regulation.
- Hazard pictograms



GHS02



GHS05



GHS07

- Signal word Danger
- Hazard-determining components of labelling:  
propan-2-ol  
ethyl (S)-2-hydroxypropionate  
2-phenoxyethanol  
succinic acid

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**Hazard statements**

- H225 Highly flammable liquid and vapour.
- H318 Causes serious eye damage.
- H336 May cause drowsiness or dizziness.

**Precautionary statements**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves / eye protection.
- P280 Wear protective clothing.
- 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 doctor.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**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
- 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.

**Relevant phrases**

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.

**Department issuing SDS:** Product Safety Department**Contact:** Hr. Dörr**Abbreviations and acronyms:**

- 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
- 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
- Flam. Liq. 2: Flammable liquids – Category 2
- Flam. Liq. 3: Flammable liquids – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- 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