

# Safety data sheet

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

Printing date 02.11.2016

Version number 4

Revision: 24.10.2016

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

**1.1 Product identifier**

Trade name: **Kabelflussmittel ISO-Flux "KF-L"**  
**Cable fluxes ISO-Flux "KF-L"**

**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:**

Felder GmbH  
 Im Lipperfeld 11  
 D-46047 Oberhausen

Tel.: +49 (0)208/ 85035-0

Fax.: +49 (0)208/ 26080

<http://www.felder.de>

e-mail: [info@felder.de](mailto:info@felder.de)

**Further information obtainable from:**

lab

*(mo-thu. 8:00 a.m. - 4:00 p.m./ fr. 8:00 a.m. - 1:00 p.m.)*

email: [mprobst@felder.de](mailto:mprobst@felder.de)

**1.4 Emergency telephone number:**

Tel.: +49(0) 208/85035-29

+49(0) 208/85035-11

## SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture**

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



GHS07

*Eye Irrit. 2 H319 Causes serious eye 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**

GHS07

**Signal word** *Warning*

**Hazard statements**

*H319 Causes serious eye irritation.*

**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 eye protection / face protection.*

*P264 Wash thoroughly after handling.*

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

*P337+P313 If eye irritation persists: Get medical advice/attention.*

**Labelling of packages where the contents do not exceed 125 ml**

**Hazard pictograms**

GHS07

**Signal word** *Warning*

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**Hazard statements** *Void***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.***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	<i>propan-2-ol</i> ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	<10%
CAS: 107-41-5 EINECS: 203-489-0	<i>2-methylpentane-2,4-diol</i> ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	<5%
CAS: 110-15-6 EINECS: 203-740-4	<i>succinic acid</i> ⚠ Eye Dam. 1, H318	<3%

**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:** *No special measures required.***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.***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.***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** *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:***Dilute with plenty water.**Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).***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 measures required.*

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**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:** *None.*

**Storage class:** *10-13*

**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
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### 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-Methyl-2,4-pentandiol: 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
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25 mg/l	Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Aceton
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**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.*

*Remove the fumes by means of suitable suction devices.*

#### Personal protective equipment:

##### General protective and hygienic measures:

*The usual precautionary measures are to be adhered to when handling chemicals.*

##### Respiratory protection:

*Use suitable respiratory protective device in case of insufficient ventilation.*

*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

*Butyl rubber, BR*

*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.*

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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  $\leq 6$

**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:

<b>Form:</b>	Fluid
<b>Colour:</b>	Blue
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.

**pH-value at 20 °C:** 2,3

#### Change in condition

<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	100 °C

**Flash point:** Not applicable.

**Flammability (solid, gaseous):** Not applicable.

#### Ignition temperature:

**Decomposition temperature:** Not determined.

**Self-igniting:** Product is not selfigniting.

**Danger of explosion:** 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:** 0,99 g/cm<sup>3</sup>

**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:** 5,0 %

**VOC (EC)** 3,99 %

**Solids content:** 3,4 %

**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** 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 toxicological effects

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

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**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** *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:** *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****European waste catalogue**

06 03 14	<i>solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13</i>
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**Uncleaned packaging:****Recommendation:***Non contaminated packagings may be recycled.**Non contaminated packagings may be treated like household garbage.**Wash empty containers, neutralize if necessary.***Recommended cleansing agents:** *Water, if necessary together with cleansing agents.*

## 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

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## 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.*

**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 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:

16.06.2015: *Adaptation to Regulation 453/2010 / EC Annex II*

15.10.2015: *Section 1, 8, 15 Adaptation to Regulation 830/2015/EU, 2012/18/EU*

24.10.2016: *Section 8.1*

### 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*

### 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)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*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*

**Safety data sheet SD3054**