



STANNOL

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture	Lötflusmittel
Synonyms	Lötflusmittel EF350 * Lötflusmittel EF 330 * Lötflusmittel EF270 * Lötflusmittel 500-3431 * Lötflusmittel 500-3431 BF
Issue date	09-September-2013
Version number	1.0
Revision date	18-September-2013
Supersedes date	09-September-2013
Product use	Consumer use

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

Identified uses	soft soldering
Uses advised against	None known

1.3. Details of the supplier of the safety data sheet

Company name	STANNOL GmbH
Address	Oskarstr. 3-7 42283 Wuppertal Germany
Contact person	Dr. Sven Mönninghoff
Telephone number	+49 (0) 202 585-129
Fax	+49 (0) 202 585 155
e-mail	sven.moeninghoff@stannol.de
Contact person	HSE-BBS@bayer.com
Emergency telephone number	+49 (0) 202 585 129 (8:00 a.m. – 4:00 p.m. (MET))

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification F;R11, Xi;R36, R67

The full text for all R-phrases is displayed in section 16.

Hazard summary

Physical hazards	Highly flammable.
Health hazards	Irritating to eyes. Vapours may cause drowsiness and dizziness.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	Highly flammable. Irritating to eyes. Do not breathe dust/fume/gas/mist/vapors/spray.
Main symptoms	Irritation of eyes and mucous membranes.

2.2. Label elements

Label according to Directive 67/548/EEC or 1999/45/EC as amended

EC number -

EC label



Irritant



Highly flammable

R-phrases

R11 Highly flammable.
R36 Irritating to eyes.
R67 Vapours may cause drowsiness and dizziness.

S-phrases
 S2 Keep out of the reach of children.
 S9 Keep container in a well-ventilated place.
 S16 Keep away from sources of ignition - No smoking.
 S23 Do not breathe gas/fumes/vapour/spray.
 S25 Avoid contact with eyes.
 S26 In case of contact with eyes, Rinse immediately with plenty of water and seek medical advice.
 S29 Do not empty into drains.
 S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
 S60 This material and its container must be disposed of as hazardous waste.

Authorisation number Not available.

Supplemental label information Not applicable.

2.3. Other hazards Not assigned.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
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Propan-2-ol	< = 92	67-63-0 200-661-7	01-2119457558-25-xxxx	603-117-00-0	
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Classification: **DSD:** F;R11, Xi;R36, R67
CLP: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336

2-Phenoxyethanol	< = 2,0	122-99-6 204-589-7	-	603-098-00-9	
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Classification: **DSD:** Xn;R22, Xi;R36
CLP: Acute Tox. 4;H302, Eye Irrit. 2;H319

Adipic acid	< = 3,0	124-04-9 204-673-3	-	607-144-00-9	
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Classification: **DSD:** Xi;R36
CLP: Eye Irrit. 2;H319

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

#: This substance has been assigned Community workplace exposure limit(s).

Composition comments The full text for all R- and H-phrases is displayed in section 16. The full text for all R-phrases is displayed in Section 16.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In case of shortness of breath, give oxygen.

4.1. Description of first aid measures

Inhalation Move to fresh air. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.

Skin contact Take off immediately all contaminated clothing. Rinse skin with water/shower.

Eye contact Flush eyes immediately with large amounts of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. If ingestion of a large amount does occur, call a poison control centre immediately.

4.2. Most important symptoms and effects, both acute and delayed Irritation of eyes and mucous membranes.

4.3. Indication of any immediate medical attention and special treatment needed In case of shortness of breath, give oxygen.

SECTION 5: Firefighting measures

General fire hazards Not available.

5.1. Extinguishing media

Suitable extinguishing media Water fog. Carbon dioxide (CO₂). Alcohol resistant foam. Powder.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire. Water.

5.2. Special hazards arising from the substance or mixture

Fire may produce irritating, corrosive and/or toxic gases.

5.3. Advice for firefighters

Special protective equipment for firefighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Structural firefighters protective clothing will only provide limited protection.

Special fire fighting procedures Use standard firefighting procedures and consider the hazards of other involved materials. ALWAYS stay away from tanks engulfed in flame. Withdraw immediately in case of rising sound from venting safety device or any discolouration of tanks due to fire. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Avoid inhalation of vapours and spray mists.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the MSDS.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Extinguish all flames in the vicinity. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. For waste disposal, see section 13.

6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

May be ignited by open flame. Keep away from sources of ignition - No smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with eyes. Avoid prolonged exposure.

7.2. Conditions for safe storage, including any incompatibilities

Do not handle or store near an open flame, heat or other sources of ignition. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Refrigeration recommended. Store in a well-ventilated place.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Propan-2-ol (67-63-0)	STEL	1250 mg/m ³
		500 ppm
	TWA	999 mg/m ³
		400 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures

Follow standard monitoring procedures.

8.2. Exposure controls

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Avoid contact with eyes. Chemical goggles are recommended.
Skin protection	
- Hand protection	Nitrile gloves are recommended. Glove thickness : 0,40 mm. Break through time >480 min.
- Other	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Thermal hazards	Not available.
Hygiene measures	When using do not smoke. Wash hands after handling.
Environmental exposure controls	Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
Form	liquid
Colour	Various.
Odour	Alcoholic.
Odour threshold	Not available.
pH	Not applicable.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 80 °C (> 176 °F)
Boiling point pressure	> 1013 hPa
Flash point	12.00 °C (53.60 °F) Closed cup
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	

Explosive limit - lower (%)	2 % v/v
Explosive limit – upper (%)	12 % v/v

Vapour pressure	43 hPa 20°C
Vapour density	Not applicable.
Relative density	Not available.
Solubility(ies)	miscible
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Explosive properties	Not available.
Oxidizing properties	Not available.

9.2. Other information

Density	0.81 g/cm ³ @20°C
Flammability	425 °C (797 °F)
VOC (Weight %)	< 92 %

SECTION 10: Stability and reactivity

10.1. Reactivity	None known.
10.2. Chemical stability	Risk of ignition.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
10.5. Incompatible materials	Strong oxidizing agents. Isocyanates Chlorine.

10.6. Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information Not available.

Information on likely routes of exposure

Ingestion Not available.

Inhalation Vapours may cause drowsiness and dizziness.

Skin contact Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Eye contact Irritating to eyes.

Symptoms Irritation of eyes and mucous membranes.

11.1. Information on toxicological effects

Components	Species	Test results
2-Phenoxyethanol (122-99-6)		
Acute		
<i>Oral</i>		
LD50	Mouse	16500 mg/kg
	Rat	1260 mg/kg
Adipic acid (124-04-9)		
Acute		
<i>Inhalation</i>		
NOEL	Rat	0.126 mg/l, 6 Hours
<i>Oral</i>		
LD50	Mouse	1900 mg/kg
	Rabbit	> 11000 mg/kg
	Rat	> 11000 mg/kg
<i>Other</i>		
LD50	Mouse	680 mg/kg
Propan-2-ol (67-63-0)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	12800 mg/kg
<i>Oral</i>		
LD50	Mouse	4.5 g/kg
	Rabbit	5.03 g/kg
	Rat	4.7 g/kg
Skin corrosion/irritation	Based on available data, the classification criteria are not met.	
Serious eye damage/irritation	Irritating to eyes.	
Respiratory sensitisation	Not available.	
Skin sensitisation	Not available.	
Germ cell mutagenicity	Not available.	
Carcinogenicity	Not available.	
Reproductive toxicity	Not available.	
Specific target organ toxicity - single exposure	Not available.	
Specific target organ toxicity - repeated exposure	Not available.	
Aspiration hazard	Not available.	
Mixture versus substance information	Not available.	
Other information	Not available.	

SECTION 12: Ecological information

12.1. Toxicity Not expected to be harmful to aquatic organisms.

Components	Species	Test results
2-Phenoxyethanol (122-99-6)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 337 - 352 mg/l, 96 hours
Adipic acid (124-04-9)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 97 mg/l, 96 hours
Propan-2-ol (67-63-0)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia magna</i>) 13299 mg/l, 48 hours
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>) > 1400 mg/l, 96 hours

12.2. Persistence and degradability No data is available on the degradability of this product.

12.3. Bioaccumulative potential Not available.

Partition coefficient n-octanol/water (log Kow)

Propan-2-ol	0.05
Adipic acid	0.08
2-Phenoxyethanol	1.16

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil Not available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Avoid discharge into water courses or onto the ground.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code EWC-code: 140603

Disposal methods/information This material and its container must be disposed of as hazardous waste. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not discharge into drains, water courses or onto the ground. Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN1219
14.2. UN proper shipping name	Isopropanol
14.3. Transport hazard class(es)	3
Subsidiary class(es)	-
14.4. Packing group	II
14.5. Environmental hazards	No
Tunnel restriction code	D/E
Labels required	3
14.6. Special precautions for user	Not available.
Hazard ID	33

IATA

14.1. UN number	UN1219
14.2. UN proper shipping name	Isopropanol
14.3. Transport hazard class(es)	3
Subsidiary class(es)	-
14.4. Packing group	II
14.5. Environmental hazards	Not available.
Labels required	Not available.

ERG Code 3L
14.6. Special precautions for user Not available.

IMDG

14.1. UN number UN1219
14.2. UN proper shipping name Isopropanol
14.3. Transport hazard class(es) 3
Subsidiary class(es) -
14.4. Packing group II
14.5. Environmental hazards
Marine pollutant No
Labels required Not available.
EmS No. F-E, S-D
14.6. Special precautions for user Not available.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I
Not listed.
Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II
Not listed.
Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I as amended
Not listed.
Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended
Not listed.
Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended
Not listed.
Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended
Not listed.
Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended
Not listed.
Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry
Not listed.
Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA
Not listed.

Authorisations

Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorisation
Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Propan-2-ol (CAS 67-63-0)
Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work
Not regulated.
Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding
Not regulated.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances
Not regulated.
Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work
2-Phenoxyethanol (CAS 122-99-6)

Adipic acid (CAS 124-04-9)

Propan-2-ol (CAS 67-63-0)

Directive 94/33/EC on the protection of young people at work

Not regulated.

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations

Not available.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

Not available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R11 Highly flammable.
R22 Harmful if swallowed.
R36 Irritating to eyes.
R67 Vapours may cause drowsiness and dizziness.
H225 - Highly flammable liquid and vapour.
H302 - Harmful if swallowed.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.

Training information

Not available.

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

SDS sections updated

Product and company identification: Product and company identification
Regulatory information: Safety phrases