

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 11.02.2008

Revision: 01.12.2005

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** *Silicone and wax surface tension reducing agent*
- **Article number:** 540 0070 5
- **Application of the substance / the preparation** *Surface tension reducing agent.*
- **Manufacturer/Supplier:**
*bredent GmbH & Co.KG
 Weißenhorner Straße 2
 89250 Senden
 Tel: +49 (0) 7309/872-0
 Fax: +49 (0) 7309/872-24*
- **Further information obtainable from:**
*R & D
 e-mail: R.D@bredent.com*
- **Information in case of emergency:** (001)3523233500 (24 h)

2 Hazards identification

- **Hazard description:**



*Xi Irritant
 F Highly flammable*

- **Information concerning particular hazards for human and environment:**
*The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
 Has a narcotizing effect.
 R 11 Highly flammable.
 R 36 Irritating to eyes.
 R 67 Vapours may cause drowsiness and dizziness.*
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on ingredients

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

- **Dangerous components:**

CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol	Xi, F; R 11-36-67	50-100%
	surfactant	Xi; R 36/38	10-25%

- **Additional information:** *For the wording of the listed risk phrases refer to section 16.*

4 First aid measures

- **General information:** *Immediately remove any clothing soiled by the product.*
- **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*
- **After skin contact:**
*Immediately wash with water and soap and rinse thoroughly.
 If skin irritation continues, consult a doctor.*
- **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*

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- **After swallowing:**
Do not induce vomiting; call for medical help immediately.
Rinse out mouth and then drink plenty of water.

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, sand, extinguishing powder. Do not use water.
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Cool endangered receptacles with water spray.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Use only in well ventilated areas.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Store only in unopened original receptacles.
- **Information about storage in one common storage facility:** Do not store together with acids.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat and direct sunlight.
Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

67-63-0 propan-2-ol

OES	Short-term value: 1250 mg/m ³ , 500 ppm
	Long-term value: 999 mg/m ³ , 400 ppm

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

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- **Personal protective equipment:**
- **General protective and hygienic measures:**
*The usual precautionary measures are to be adhered to when handling chemicals.
 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.
 Do not inhale gases / fumes / aerosols.*
- **Respiratory protection:** *Use suitable respiratory protective device in case of insufficient ventilation.*
- **Protection of hands:**



Protective gloves

*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 exact break through time has to be found out by the manufacturer of the protective gloves and has to be
 observed.*
- **Eye protection:**



Tightly sealed goggles

- **Body protection:** *Protective work clothing*

9 Physical and chemical properties

· General Information

Form: Fluid
Colour: Blue
Odour: Alcohol-like

· Change in condition

Melting point/Melting range: -89.5°C
Boiling point/Boiling range: 82°C

· **Flash point:** 13°C

· **Ignition temperature:** 425°C

· **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 %

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- | | |
|---|------------------------------|
| · Density at 20°C: | 0.785 g/cm ³ |
| · Solubility in / Miscibility with water: | Fully miscible. |
| · Solvent content:
Organic solvents: | 87.6 % |
| · Additional information: | Data given for propane-2-ol. |

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions**
Reacts with acids.
Reacts with strong oxidizing agents.
- **Dangerous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

- **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:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

12 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.

13 Disposal considerations

- **Product:**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

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14 Transport information

· Land transport ADR/RID (cross-border)



- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 33
- **UN-Number:** 1219
- **Packaging group:** II
- **Hazard label:** 3
- **Description of goods:** 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), mixture

· Maritime transport IMDG:



- **IMDG Class:** 3
- **UN Number:** 1219
- **Label:** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL), mixture

· Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1219
- **Label:** 3
- **Packaging group:** II
- **Proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL), mixture

15 Regulatory information

· Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:

Xi Irritant
F Highly flammable

· Risk phrases:

11 Highly flammable.
36 Irritating to eyes.
67 Vapours may cause drowsiness and dizziness.

· Safety phrases:

7/9 Keep container tightly closed and in a well-ventilated place.
16 Keep away from sources of ignition - No smoking.
23 Do not breathe fumes/aerosol.
24 Avoid contact with skin.
25 Avoid contact with eyes.

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26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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 R-phrases**

- 11 Highly flammable.
- 36 Irritating to eyes.
- 36/38 Irritating to eyes and skin.
- 67 Vapours may cause drowsiness and dizziness.

· **Department issuing MSDS: R & D**

· **Contact: R & D**

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