

SAFETY DATA SHEET

according to Regulation (EU) No 453/2010 SURFLINK
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RAS AG, D-93055 Regensburg

Updated: 31/07/2020

Replaces the release of 05/10/2016

SAFETY DATA SHEET

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

- 1.1 Product identifier**
SURFLINK
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**
SURFLINK is used as a surface activator in combination with other ECOS® products, like ECOS®HC.
- 1.3 Details of the supplier of the safety data sheet**
- | | |
|--------------------------|--|
| Manufacturer/Distributor | RAS AG |
| Address/POB | An der Irler Hoehe 3a |
| IVR/ZIP/Place | D-93055 Regensburg |
| E-mail address: | office@ras-ag.com |
| Telephone: | +49 (0)941 60 717-300 |
- 1.4 Emergency telephone number** +49 (0)941 60 717-300
during normal opening times (9 a.m. and 5 p.m.)

SECTION 2 Hazards identification

- 2.1 Classification of the substance or mixture**
Skin corrosion/irritation, Hazard Category 1B
Specific target organ toxicity — Single exposure, Hazard Category 3, Respiratory tract irritation

2.2 Label elements

according to Regulation (EC) No 1272/2008

Hazard pictogram(s) and signal word of the product



GHS05

GHS07

Signal word: **DANGER**

Hazard statements

H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
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 POISON CENTER or doctor/physician.

Name of the ingredient given on the warning label

Ethanolamine.

2.3 Other hazards

This mixture does not fulfil the criteria for the classification as a PBT resp. a vPvB.

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SECTION 3 Composition/information on ingredients

3.1 Substances

This product is a mixture.

3.2 Mixtures

Aqueous solution of ethanolamine.

Ethanolamine

EC No 205-483-3 CAS No 141-43-5

Content 2 - < 10 %

Classification codes Acute Tox. 4; H302 – Acute Tox. 4; H312 – Skin Corr. 1B; H314
Acute Tox. 4; H332 – STOT SE 3; H335 – Aquatic Chronic 3; H412

For this substance there are Union workplace exposure limits (see section 8).

The wording of the classification codes is in section 16.

SECTION 4 First aid measures

4.1 Description of first aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled Move the person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact Take off contaminated clothing. Wash off affected skin with plenty of water using soap, in case of indisposition obtain medical advice.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse the mouth with water. Call a physician.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

All usual extinguishing media.

Unsuitable extinguishing media

Not applicable.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition to carbon monoxide, nitrogen oxides and nitrogen-organic cracked products.

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not allow the product to enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal, see section 13.

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SECTION 7 Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

No data available.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters (2006/15/EC)

Ethanolamine
EC No 205-483-3 CAS No 141-43-5
Limit value (8 h) 2.5 mg/m³ / 1 ppm
Limit value (15 min.) 7.6 mg/m³ / 3 ppm

Notations Risk of resorption by skin.

Components with workplace control parameters (TRGS 900 Germany)

Ethanolamine
EC No 205-483-3 CAS No 141-43-5
AGW 2 ml/m³(ppm) – 5.1 mg/m³
Peak limit factor of exceeding 2(l)
Remarks DFG, EU, H, Y, Sh, 11

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Respiratory protection In case of exceeding of permitted exposure limit in closed rooms use a self-contained breathing apparatus.

Eye protection Use tightly closing protective goggles with lateral protection or face shield (8-inch minimum).

Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Full contact Material: Nature latex/chloroprene, minimum layer thickness 0.6 mm, breakthrough time 480 min. Splash contact Material: Nitrile rubber, minimum layer thickness 0.2 mm, breakthrough time 30 min.

Body Protection Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

8.3 Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not allow the product to enter drains. Discharge into the environment must be avoided.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Parameter

1. Appearance:
 - a. Conditions: concentrate, at 20°C
 - b. Aggregate state: colourless liquid
2. Odour: Slight individual odour
3. Melting/freezing point: Not available.
4. Initial boiling point/boiling range: 100°C
5. Flash point: >100°C
6. pH: Not available.

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7. Flammability:	Not available.
8. Ignition temperature:	Not available
9. Auto flammability:	Not applicable.
10. Oxidising properties:	Not applicable.
11. Explosive properties	For vapour/air mixtures.
12. Explosion limits:	
<i>lower</i>	2,5% by volume (Ethanolamine)
<i>upper</i>	17% by volume (Ethanolamine)
13. Relative density (water = 1):	Not available.
14. Water solubility:	Soluble in each ratio.
15. Vapour pressure:	Not available.
16. Vapour density (air =1):	Not available.
17. Partition coefficient (n-octanol/water):	Not available.
18. Viscosity:	Not available.
19. Separation of solvent:	Not applicable.
20. Evaporation rate	Not applicable.

9.2 Other information

No data available.

SECTION 10 Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

This product is stable under normal conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Concentrated mineral acids and strong oxidising agents.

10.6 Hazardous decomposition products

In case of fire only, see section 5.2.

SECTION 11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity

for ethanolamine

LD₅₀ oral (rat) 1,720 mg/kg

LD₅₀ dermal (rabbit) 1,015 mg/kg

Skin corrosion/irritation

Causes severe skin burns.

Serious eye damage/irritation

Eyes (rabbit) result severe eye irritation

Respiratory or skin sensitisation

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

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Reproductive toxicity

No data available.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

No data available.

SECTION 12 Ecological information

12.1 Toxicity

for ethanolamine

Fish toxicity	(pimephales promelas)	LC ₅₀ 227 mg/l / 96 h
Daphnia toxicity	(daphnia magna)	EC ₅₀ 65 mg/l / 48 h
Algae toxicity	(desmodesmus subspicatus)	EC ₅₀ 15 mg/l / 72 h

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Spilling product harms waters by high consumption of oxygen and general pollution impact.

SECTION 13 Disposal considerations

13.1 Waste treatment methods

Dangerous waste according to the European waste catalogue (2008/98/EC). If recycling is not possible, wastes must be eliminated according to the provisions of the local authorities. Do not dispose by the sewage.

EU waste codes

16 10 03* Aqueous concentrates containing dangerous substances.

15 01 10 Packaging containing residues of or contaminated by dangerous substances.

SECTION 14 Transport information

14.1 UN number

2491

14.2 Proper shipping name

ADR/RID / IMDG / IATA
ETHANOLAMINE SOLUTION

14.3 Transport hazard class(es)

8 (corrosive substances)

14.4 Packing group

III (substances presenting low danger)

14.5 Environmental hazards

Labelling of environmentally dangerous substances

ADR/RID / IMDG / IATA not applicable.

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Marine Pollutant not applicable.

14.6 Special precautions for user
See sections 6 – 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
Not applicable.

SECTION 15 Regulatory information

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

Regulations of the EU

Denomination in Annex I of the Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances:

Not applicable.

Directive 1998/8/EC for the marketing of biocidal products:
Not applicable.

Regulation (EC) No 648/2004 (Regulation concerning detergents):
Not applicable.

Directive 1999/13/EC for the limitation of emissions of volatile organic compounds:
Not applicable.

Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding:
Applicable.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work:
Applicable.

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

German regulations

Technical instructions on maintaining air purity (TA Luft) Not applicable.

Water hazard class WGK 1 (low hazardous to waters)
Storage class according to TRGS 510 LGK 8 B (not combustible corrosive substances)

Other regulations, restrictions and prohibition ordinances

Observe the information sheet M 004 of the BG Chemie.

15.2 Chemical safety assessment

This mixture was not subject to a safety assessment.

SECTION 16 Other information

The wording of the classification codes of section 3

Acute Tox. 4; H302	Acute toxicity (oral), Hazard Category 4; Harmful if swallowed.
Acute Tox. 4; H312	Acute toxicity (dermal), Hazard Category 4; Harmful in contact with skin.
Skin Corr. 1B; H314	Skin corrosion/irritation, Hazard Category 1B; Causes severe skin burns and eye damage.
Acute Tox. 4; H332	Acute toxicity (inhal.), Hazard Category 4; Harmful if inhaled.
STOT SE 3; H335	Specific target organ toxicity — Single exposure, Hazard Category 3, Respiratory tract irritation; May cause respiratory irritation.
Aquatic Chronic 3; H412	Hazardous to the aquatic environment — Chronic Hazard, Category 3; Harmful to aquatic life with long lasting effects.

The classification codes only apply to the pure substances and do not declare necessarily the classification of the mixture. The classification and the labelling of the mixture are specified in section 2.

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Abbreviations

11	Sum of steam and aerosols.
AGW	Occupational exposure limit value.
BG Chemie	Employer's liability insurance association of the German chemical industry.
BGW	Permitted biological limit value for work place.
DFG	German Research Council (Committee on Occupational Exposure Limits).
EU	European Union.
H	Risk of resorption by skin.
LGK	Storage class.
PBT	Persistent, bioaccumulative and toxic.
Sh	Skin sensitisation.
TRGS	Technical regulation for dangerous substances.
vPvB	Very persistent and very bioaccumulative.
WGK	Water hazard class.
Y	No harm to the unborn child, if values of AGW and BGW are kept.

This safety data sheet is developed on basis of the valid EU regulations and German regulations. It shows the present state of the knowledge and is no contractual warranty of quality properties of the product. These statements may not be changed or transferred to other products. Duplication in unchanged state is permitted.