

SAFETY DATA SHEET

Based on Regulation (EC) No 1907/2006 (REACH) Article 31 and Annex II

RE-HEALING FOAM RF3X6 ATC 3%-6%

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

1.1 Identification of the substance or preparation:

Product name : RE-HEALING FOAM RF3X6 ATC 3%-6%
Synonyms : RE-HEALING FOAM RF3X6 ATC
RE-HEALING FOAM 3%-6%

CAS No. : N.A.
EC index No. : N.A.
EINECS No. : N.A.
RTECS No. : N.A.
NFPA code : N.D.
Molecular weight : N.A.
Formula : N.A.

1.2 Use of the substance/preparation:

Fire extinguishing medium: concentrate

1.3 Company/undertaking identification:

SOLBERG SCANDINAVIAN AS - NORWAY
Olsvollstranda
NO-5938 Sæbøvågen
Tel: +47 56 34 97 00
Fax: +47 56 34 97 01
e-mail address: Luc@arcticfoam.com

1.4 Emergency telephone:

+47 97 64 00 00 (24h/24h)
SOLBERG SCANDINAVIAN AS - NORWAY

2. Hazards identification

- Not classified as dangerous in compliance with Directive 67/548/EEC and/or Directive 1999/45/EC

3. Composition/information on ingredients

Hazardous ingredients	CAS No. EINECS/ELINCS No.	Conc. (%)	Hazards (R-phrases)	Hazard symbol
2-(2-butoxyethoxy)ethanol	112-34-5 203-961-6	<20	36 (1)(2)	Xi
starch	9005-25-8 232-679-6	>1	- (2)	-
sucrose	57-50-1 200-334-9	>1	- (2)	-
1-propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-coco acyl derivs., hydroxides, inner salts	68139-30-0 268-761-3	<2.5	36/38-51/53 (1)	Xi;N

(1) For R-phrases in full: see heading 16

(2) Substance with a Community workplace exposure limit

(3) PBT-substance

4. First aid measures

4.1 After inhalation:

- Remove the victim into fresh air
- Respiratory problems: consult a doctor/medical service

Printing date : 10-2008
Compiled by : Solberg

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Date of issue : 23-04-2008
Reference number : 46049GB
Reason for revision : 13.2

Revision : 20-10-2008
Revision number : 001

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4.2 Skin contact:

- Rinse with water
- Soap may be used
- Take victim to a doctor if irritation persists

4.3 Eye contact:

- Rinse with water
- Take victim to an ophthalmologist if irritation persists

4.4 After ingestion:

- Rinse mouth with water
- Immediately give lots of water to drink
- Consult a doctor/medical service if you feel unwell

5. Fire-fighting measures

5.1 Suitable extinguishing media:

- Non combustible
- For surrounding fires: all extinguishing media allowed

5.2 Unsuitable extinguishing media:

- No data available

5.3 Special exposure hazards:

- On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide)

5.4 Instructions:

- Dilute toxic gases with water spray

5.5 Special protective equipment for fire-fighters:

- Heat/fire exposure: compressed air/oxygen apparatus
- Protective clothing

6. Accidental release measures

6.1 Personal precautions:

See heading 8.2/13

6.2 Environmental precautions:

- Contain released substance, pump into suitable containers
- Plug the leak, cut off the supply

6.3 Methods for cleaning up:

- Take up liquid spill into inert absorbent material, e.g.: sand/earth
- Scoop absorbed substance into closing containers
- Clean contaminated surfaces with an excess of water
- Wash clothing and equipment after handling

7. Handling and storage

7.1 Handling:

- Observe normal hygiene standards

7.2 Storage:

- Keep container in a well-ventilated place
- Meet the legal requirements
- Keep away from: heat sources

Storage temperature	: -30/65	°C
Quantity limits	: N.D.	kg
Storage life	: N.D.	days
Materials for packaging	:	
- suitable	: no data available	
- to avoid	: no data available	

7.3 Specific use(s):

- See information supplied by the manufacturer for the identified use(s)

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8. Exposure controls/Personal protection

8.1 Exposure limit values:

8.1.1 Occupational exposure:

2-(2-butoxyethoxy)ethanol

WEL-LTEL	: 67.5	mg/m ³	10	ppm
WEL-STEL	: 101.2	mg/m ³	15	ppm
TRGS 900	: 100	mg/m ³		ppm
MAK	: 100	mg/m ³		ppm
MAC-TGG 8 h	: 50	mg/m ³		
MAC-TGG 15 min.	: 100	mg/m ³		
VME-8 h	: 67.5	mg/m ³	10	ppm
VLE-15 min.	: 101.2	mg/m ³	15	ppm
GWBB-8 h	: 67.5	mg/m ³	10	ppm
GWK-15 min.	: 101.2	mg/m ³	15	ppm
EC	: 67.5	mg/m ³	10	ppm
EC-STEL	: 101.2	mg/m ³	15	ppm

starch

TLV-TWA	: 10	mg/m ³		ppm
TLV-STEL	: -	mg/m ³		ppm
WEL-LTEL	: 4 R/10 I	mg/m ³	-	ppm
WEL-STEL	: -	mg/m ³	-	ppm
GWBB-8 h	: 10	mg/m ³	-	ppm
GWK-15 min.	: -	mg/m ³	-	ppm

sucrose

TLV-TWA	: 10	mg/m ³		ppm
TLV-STEL	: -	mg/m ³		ppm
WEL-LTEL	: 10	mg/m ³	-	ppm
WEL-STEL	: 20	mg/m ³	-	ppm
VME-8 h	: 10	mg/m ³	-	ppm
VLE-15 min.	: -	mg/m ³	-	ppm
GWBB-8 h	: 10	mg/m ³	-	ppm
GWK-15 min.	: -	mg/m ³	-	ppm

8.1.2 Sampling methods:

- NO DATA AVAILABLE

8.2 Exposure controls:

8.2.1 Occupational exposure controls:

- Work under local exhaust/ventilation

Personal protective equipment:

a) Respiratory protection:

- Wear gas mask with filter type A if conc. in air > exposure limit

b) Hand protection:

- Gloves

Suitable materials: No data available

- Breakthrough time: N.D.

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c) Eye protection:

- Safety glasses

d) Skin protection:

- Protective clothing
- Suitable materials: No data available

8.2.2 Environmental exposure controls: see headings 6.2, 6.3 and 13

9. Physical and chemical properties

9.1 General information:

Appearance (at 20°C)	: Liquid
Odour	: Pleasant
Colour	: Yellow to brown

9.2 Important health, safety and environmental information:

pH value (at %)	: N.D.	
Boiling point/boiling range	: N.D.	°C
Flash point/flammability	: N.A.	°C
Explosion limits (explosive properties)	: N.D.	vol%
Oxidising properties	: N.D.	
Vapour pressure (at 20°C)	: N.D.	hPa
Vapour pressure (at 50°C)	: N.D.	hPa
Relative density (at 20°C)	: N.D.	
Water solubility	: COMPLETELY	
Soluble in	: No data available	
Relative vapour density	: N.D.	
Viscosity (at 40°C)	: 3/4	Pa.s
Partition coefficient n-octanol/water	: N.D.	
Evaporation rate		
ratio to butyl acetate	: N.D.	
ratio to ether	: N.D.	

9.3 Other information:

Melting point/melting range	: 0	°C
Auto-ignition temperature	: N.D.	°C
Saturation concentration	: N.D.	g/m ³
Specific conductivity	: N.D.	ps/m

10. Stability and reactivity

10.1 Conditions to avoid:

- No data available

10.2 Materials to avoid:

- Keep away from: heat sources

10.3 Hazardous decomposition products:

- On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide) and formation of small quantities of sulphur oxides

11. Toxicological information

11.1 Acute toxicity:

2-(2-butoxyethoxy)ethanol		
LD50 oral rat	: 5660	mg/kg
LD50 dermal rabbit	: 2700	mg/kg
starch		
LD50 oral rat	: > 2000	mg/kg
sucrose		
LD50 oral rat	: 29700	mg/kg

11.2 Chronic toxicity:

2-(2-butoxyethoxy)ethanol
Teratogenicity (MAK) : C

starch
Carcinogenicity (TLV) : A4

sucrose
Carcinogenicity (TLV) : A4

11.3 Routes of exposure: ingestion, inhalation, eyes and skin

11.4 Acute effects/symptoms:

- Unlikely to cause harmful effects

11.5 Chronic effects:

- Contains a substance of group C (MAK-Schwangerschaftsgruppe) (2-(2-butoxyethoxy)ethanol: no teratogenic risk at exposure level lower than MAK value)

12. Ecological information

12.1 Ecotoxicity:

2-(2-butoxyethoxy)ethanol:

- LC50 (96 h) : 1300 ppm (LEPOMIS MACROCHIRUS)
- EC50 (48 h) : >100 mg/l (DAPHNIA MAGNA)
- EC50 (192 h) : 53 mg/l (ALGAE)

- **Effect on waste water purification** : harmless to activated sludge at sufficient dilution

12.2 Mobility:

- **Volatile organic compounds (VOC):** 0%
- Maximum concentration in drinking water: 200 mg/l (sodium) (Directive 98/83/EC)
- Soluble in water

For other physicochemical properties see heading 9

12.3 Persistence and degradability:

- **biodegradation BOD₅** : N.D. % COD
- **water** : - No data available
- **soil** : T $\frac{1}{2}$: N.D. days

12.4 Bioaccumulative potential:

- **log P_{ow}** : <3 (components)
- **BCF** : N.D.
- Slightly or not bioaccumulative (components)

12.5 Results of PBT assessment:

- Not applicable, based on available data.

12.6 Other adverse effects:

- **WGK** : 1 (Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)
- **Effect on the ozone layer** : Not dangerous for the ozone layer (1999/45/EC)
- **Greenhouse effect** : no data available

13. Disposal considerations

13.1 Provisions relating to waste:

- Waste material code (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 07 06 04* (other organic solvents, washing liquids and mother liquors)
- Hazardous waste (91/689/EEC)

13.2 Disposal methods:

- Dilute
- May be discharged to wastewater treatment installation or reed bed
- Contains no organic halogen which may add to the AOX value
- Discharge or disposal must be handled according to national or local legislation regulations

13.3 Packaging/Container:

- Waste material code packaging (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 10* (packaging containing residues of or contaminated by dangerous substances)

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14. Transport information

- 14.1 Classification of the substance in compliance with UN Recommendations
UN number : -
CLASS :
SUB RISKS :
PACKING GROUP :
- 14.2 ADR (transport by road)
CLASS : Not subject
PACKING GROUP :
CLASSIFICATION CODE :
DANGER LABEL TANKS :
DANGER LABEL PACKAGES :
PROPER SHIPPING NAME :
- 14.3 RID (transport by rail)
CLASS : Not subject
PACKING GROUP :
CLASSIFICATION CODE :
DANGER LABEL TANKS :
DANGER LABEL PACKAGES :
PROPER SHIPPING NAME :
- 14.4 ADNR (transport by inland waterways)
CLASS : Not subject
PACKING GROUP :
CLASSIFICATION CODE :
DANGER LABEL TANKS :
DANGER LABEL PACKAGES :
- 14.5 IMDG (maritime transport)
CLASS : Not subject
SUB RISKS :
PACKING GROUP :
MFAG :
EMS :
MARINE POLLUTANT :
- 14.6 ICAO (air transport)
CLASS : Not subject
SUB RISKS :
PACKING GROUP :
PACKING INSTRUCTIONS PASSENGER AIRCRAFT :
PACKING INSTRUCTIONS CARGO AIRCRAFT :
- 14.7 Special precautions : not restricted for any mode of international transport

15. Regulatory information

15.1 EU legislation:

Not classified as dangerous in compliance with Directive 67/548/EEC and/or Directive 1999/45/EC

NOT APPLICABLE

15.2 National provisions:

The Netherlands:
Waterbezwaarlijkheid: 11

Germany:
WGK : 1 (Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)

16. Other information

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

N.A. = NOT APPLICABLE
N.D. = NOT DETERMINED
(*) = INTERNAL CLASSIFICATION (NFPA)

PBT-substances = persistent, bioaccumulative and toxic substances

Exposure limits:

TLV : Threshold Limit Value - ACGIH USA
WEL : Workplace Exposure Limits - United Kingdom
TRGS 900 : Technische Regel für Gefahrstoffe 900 (Arbeitsplatzkonzentrationen) - Germany
MAK : Maximale Arbeitsplatzkonzentrationen - Germany
MAC : Maximale aanvaarde concentratie - The Netherlands
VME : Valeurs limites de Moyenne d'Exposition - France
VLE : Valeurs limites d'Exposition à court terme - France
GWBB : Grenswaarde beroepsmatige blootstelling - Belgium
GWK : Grenswaarde kortstondige blootstelling - Belgium
EC : Indicative occupational exposure limit values - directive 2000/39/EC

I : Inhalable fraction = **T**: Total dust = **E**: Einatembarer Aerosolanteil
R : Respirable fraction = **A**: Alveolengängiger Aerosolanteil/Alveolar dust
C : Ceiling limit

Chronic toxicity:

K : List of the carcinogenic substances and processes - The Netherlands

Full text of any R phrases referred to under headings 2 and 3:

R36 : Irritating to eyes
R36/38 : Irritating to eyes and skin
R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment