

SAFETY DATA SHEET

Microsit Polar

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued 03.10.2007

Revision date 14.10.2016

1.1. Product identifier

Product name Microsit Polar

Formula Formulated product.

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

Product group Cleaning/washing agent

1.3. Details of the supplier of the safety data sheet

Downstream user

Company name NorKem AS

Office address Lagerveien 12B

Postal address Postboks 77

Postcode 4064

City STAVANGER

Country Norway

Tel +47 51951830

Fax +47 51951831

E-mail post@norkem.no



1.4. Emergency telephone number

Emergency telephone Toxic Information: +47 22 59 13 00

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to Eye Irrit. 2; H319

Regulation (EC) No 1272/2008
[CLP/GHS]

Substance / mixture hazardous properties Irritating to eyes.

2.2. Label elements

Hazard Pictograms (CLP)



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. P280 Wear protective gloves / protective clothing / eye protection / face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P313 Get medical advice / attention.

Other Label Information (CLP)

Contents:
Alcholethoxylate
Potassium hydroxide
2-(2-Butoxyethoxy)ethanol

2.3. Other hazards

PBT / vPvB

This product is not classified as PBT or vPvB.

Description of hazard

Irritating to eyes.

SECTION 3: Composition/information on ingredients**3.1. Substances**

Substance	Identification	Classification	Contents
C9-11 Alcohol ethoxylat	CAS no.: 68439-46-3	Eye Irrit. 2;H319;	5 - 10 %
Tetrapotassium pyrophosphate	CAS no.: 7320-34-5 EC no.: 230-785-7 Registration number: 01-2119489369-18-xxxx	Eye Irrit. 2; H319	1 - 5 %
2-(2-Butoxyethoxy)ethanol	CAS no.: 112-34-5 EC no.: 203-961-6 Index no.: 603-096-00-8 Registration number: 01-2119475104-44-xxxx	Eye Irrit. 2;H319	1 - 5 %
Alkyl glucoside	CAS no.: 54549-24-5 EC no.: 259-217-6 Registration number: 01-2119492545-29	Eye Dam. 1; H318	< 2,5 %
Potassium hydroxide	CAS no.: 1310-58-3 EC no.: 215-181-3 Index no.: 019-002-00-8 Registration number: 01-2119487136-33-xxxx	Skin Corr 1A;H314; Acute tox. 4;H302; Met. Corr. 1;H290;	< 0,2 %
Substance comments	For a complete list of risk phrases, look at section 16.		

SECTION 4: First aid measures**4.1. Description of first aid measures**

General	Immediately remove the patient from further exposure. General first aid if necessary. If in doubt, get medical advice. General first aid in the form of symptomatic treatment should always be given if there is uncertainty regarding specific treatment.
Inhalation	General first aid, rest, warmth and fresh air.
Skin contact	Remove contaminated clothing immediately and rinse skin with rinsing cream. After this, apply a fatty cream.
Eye contact	Promptly rinse eyes with plenty of water for at least 15 minutes. Remove contact lenses and open eyes wide apart. Get medical advice/attention.
Ingestion	DO NOT INDUCE VOMITING! Drink a few glasses of water or milk. Consult a physician for specific advice.

4.2. Most important symptoms and effects, both acute and delayed

Information for health personnel

Treat Symptomatically.

Acute symptoms and effects	Inhalation: Gas or vapour may irritate respiratory system.
	Skin contact: Defatting, drying and cracking of skin.
	Eye contact: Irritating to eyes.
	Ingestion: Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.

4.3. Indication of any immediate medical attention and special treatment needed

Other Information	When seeking medical advice, bring the safety data sheet or label.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Improper extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	This product is not flammable.
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5.3. Advice for firefighters

Personal protective equipment	General: Evacuate all personnel, use protective equipment for fire-fighting. Use self-contained breathing apparatus when the product is involved in fire.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures	Wear protective clothing as described in Section 8 of this safety data sheet.
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6.1.1. For non-emergency personnel

Personal precautions	Wear protective equipment as described in Section 8 of this safety data sheet.
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6.1.2. For emergency responders

For emergency responders	Wear protective equipment as described in Section 8 of this safety data sheet.
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6.2. Environmental precautions

Environmental precautionary measures	Avoid discharge into drains, water courses or onto the ground. Contain spillages with sand, earth or any suitable adsorbent material.
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6.3. Methods and material for containment and cleaning up

Cleaning method	Absorb in vermiculite, dry sand or earth and place into containers. Flush area with water.
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6.4. Reference to other sections

Other instructions	See section 8 and 13 for further information.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	For personal protection see section 8.
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Protective Safety Measures

Advice on general occupational hygiene	Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site.
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7.2. Conditions for safe storage, including any incompatibilities

Storage	Store above freezing.
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7.3. Specific end use(s)

Specific use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

Substance	Identification	Value	TWA Year
2-(2-Butoxyethoxy)ethanol	CAS no.: 112-34-5	8-hour TWA: 10 ppm	2015
	EC no.: 203-961-6	8-hour TWA: 68 mg/m ³	
	Index no.: 603-096-00-8	E	
	Registration number: 01-2119475104-44-xxxx		
Potassium hydroxide	CAS no.: 1310-58-3	8-hour TWA: 2 mg/m ³ , T	2013
	EC no.: 215-181-3		
	Index no.: 019-002-00-8		
	Registration number: 01-2119487136-33-xxxx		

DNEL / PNEC from substances

Substance	2-(2-Butoxyethoxy)ethanol
DNEL	Group: Worker Exposure route: Dermal Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 20 mg/kg bodyweight/day
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Short term (acute) Type of effect: Local effect Value: 101,2 mg/m ³
DNEL	Group: Consumer Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Local effect Value: 34 mg/m ³
DNEL	Group: Consumer Exposure route: Oral Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 1,3 mg/kg bodyweight/day
DNEL	Group: Consumer Exposure route: Dermal Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 10 mg/kg bodyweight/day
DNEL	Group: Consumer Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Local effect Value: 34 mg/m ³
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Local effect Value: 10 ppm
DNEL	Group: Worker

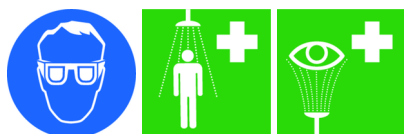
	Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 10 ppm
PNEC	Exposure route: Soil Value: 0,4 mg/l
PNEC	Exposure route: Sewage treatment plant STP Value: 200 mg/l
PNEC	Exposure route: Sediment Value: 4 mg/l
PNEC	Exposure route: Water Value: 1 mg/l
Other Information about threshold limit values	References (laws/regulations): Norwegian regulation on exposure limits: "FOR-2011-12-06-1358. Explanation of the notations: E = The substance has an EU workplace exposure limit T = Ceiling value is an instantaneous value which indicates the maximum concentration of a chemical in the breathing zone that should not be exceeded.

8.2. Exposure controls

Limitation of exposure on workplace

All handling to take place in well-ventilated area. Personal protecting equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Provide eyewash, quick drench. Avoid contact with eyes and prolonged skin contact. Avoid eating, drinking and smoking when using the product.

Safety signs



Respiratory protection

Respiratory protection

In case of inadequate ventilation: Use respiratory equipment with combination filter, type A/P2.

Use CE-labeled protecting equipment. Use EN 140 for half face mask, EN 136 for full face mask. Particle filter: EN 143, Gasfilter: EN 14387.

Hand protection

Hand protection

Material : Nitrile rubber
Glove thickness : 0,4 mm
Breakthrough time: : > 480 min

Material : Fluorinated rubber
Glove thickness : 0,4 mm
Breakthrough time: : > 480 min

Use CE-labeled gloves according to EN 374.

Hand protection comments

Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer

Eye / face protection

Eye protection

Use CE-labeled safety goggles or face shield. EN 166

Skin protection

Skin protection (except hands)

Overall suit shall be used where the work involves smudging to such an

extent that ordinary working clothes do not protect the skin against contact with the product. Use CE-labeled protection equipment.

Other Information

Other Information Not known.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Light yellow.
Odour	Characteristic.
pH (as supplied)	Value: ~ 11
pH (aqueous solution)	Value: ~ 10,9 Method of testing: 20%
Melting point/melting range	Value: ~ 0 °C
Flash point	Value: > 100 °C
Specific gravity	Value: ~ 1000 kg/m ³
Solubility in water	Water soluble.

9.2. Other information

Other physical and chemical properties

Physical and chemical properties No data recorded.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Not known.

10.2. Chemical stability

Stability Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not known.

10.4. Conditions to avoid

Conditions to avoid Avoid contact with acids.

10.5. Incompatible materials

Materials to avoid Not known.

10.6. Hazardous decomposition products

Hazardous decomposition products In case of fire, toxic gases (CO, CO₂, NO_x) may be formed. Phosphorus.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological data for substances

Substance	C9-11 Alcohol ethoxylat
LD50 oral	Value: > 5000 mg/kg Animal test species: Rat
LD50 dermal	Value: > 2000 mg/kg Animal test species: Rabbit
Substance	Tetrapotassium pyrophosphate
LD50 oral	Value: > 2000 mg/kg Animal test species: Mouse
LD50 dermal	Value: > 7940 mg/kg Animal test species: Rabbit
Substance	2-(2-Butoxyethoxy)ethanol

LD50 oral	Value: > 2000 mg/kg Animal test species: Rat
LD50 oral	Value: 2410 mg/kg Animal test species: Mouse Comments: OECD 401
LD50 dermal	Value: 2764 mg/kg Animal test species: Rabbit Test reference: OECD 402
LC50 inhalation	Value: > 29 ppm Animal test species: Rat Duration: 2 h Test reference: OECD 403
Substance	Alkyl glucoside
LD50 oral	Value: > 2000 mg/kg Animal test species: Rat
LD50 dermal	Value: > 2000 mg/kg Animal test species: Rabbit
Substance	Potassium hydroxide
LD50 oral	Value: 365 mg/kg Animal test species: rat

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic, fish, Comments	Not known.
Acute aquatic, fish LCLo, Comments	Not known.
Acute aquatic, algae, Comments	Not known.
Acute aquatic, algae, LCLo Comments	Not known.
Acute aquatic, Daphnia, Comments	Not known.
Ecotoxicity	The product is not expected to be toxic to aquatic organisms.

Toxicological data for substances

Substance	C9-11 Alcohol ethoxylat
Acute aquatic, fish	Value: > 1-10 mg/l Method of testing: LC50 Species: Oncorhynchus mykiss Duration: 96 h Test reference: OECD Test-retningslinje 203
Acute aquatic, algae	Value: > 1-10 mg/l Method of testing: EC50 Species: Skeletonema costatum Duration: 72 h
Acute aquatic, Daphnia	Value: > 1-10 mg/l Method of testing: EC50 Species: Daphnia magna Duration: 48 h
Result of PBT assessment for the substance	Not Classified as PBT/vPvB by current EU criteria.
Substance	Tetrapotassium pyrophosphate
Acute aquatic, fish	Value: > 100 mg/l Method of testing: LC50 Species: Onchorhynchus mykiss Duration: 96 h
Acute aquatic, Daphnia	Value: > 100 mg/l

	Method of testing: LC50 Species: daphnia magna Duration: 48 h Test reference: OECD 202
Substance	2-(2-Butoxyethoxy)ethanol
Acute aquatic, fish	Value: > 100 mg/l Method of testing: LC50 Species: Leusiscus idus
Acute aquatic, algae	Value: > 100 mg/l Method of testing: EC50 Species: Scenedesmus quadric Duration: 96 h
Acute aquatic, Daphnia	Value: > 100 mg/l Method of testing: EC50 Species: Daphnia magna Duration: 48 h
Bioaccumulation	Bioaccumulation: Is not expected to be bioaccumulable.
Result of PBT assessment for the substance	This substance is not classified as PBT or vPvB.
Substance	Alkyl glucoside
Acute aquatic, fish	Value: > 100 mg/l Method of testing: LC50 Species: Oncorhynchus mykiss Duration: 96 h
Acute aquatic, algae	Value: > 100 mg/l Method of testing: EC50 Species: Scenedesmus quadricauda Duration: 72 h
Acute aquatic, Daphnia	Value: > 100 mg/l Method of testing: EC50 Species: Daphnia magna Duration: 48 h
Substance	Potassium hydroxide
Acute aquatic, fish	Value: 125 mg/l Method of testing: LC50 Species: Gambusia affinis Duration: 96 h
Acute aquatic, Daphnia	Value: 40-240 mg/l Method of testing: EC50 Species: Daphnia magna Duration: 96 h
Result of PBT assessment for the substance	This substance is not classified as PBT or vPvB.

12.2. Persistence and degradability

Persistence and degradability	The product contains only readily biodegradable substances. The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.
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12.3. Bioaccumulative potential

Bioaccumulative potential	Will not bio-accumulate.
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12.4. Mobility in soil

Mobility	The product is soluble in water.
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12.5. Results of PBT and vPvB assessment

PBT assessment results	This product does not contain any PBT or vPvB substances.
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12.6. Other adverse effects

Other adverse effects / Remarks	Much phosphorus give's growth of algae. This give lack of oxygen, and difficulties for the fish to survive.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product classified as hazardous waste	Yes
EWC waste code	EWC: 070604 other organicsolvents, washing liquids and mother liquors
NORSAS	7133
Other Information	Dispose of in accordance with local authority requierments.

SECTION 14: Transport information

14.1. UN number

Comments	Not relevant.
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14.2. UN proper shipping name

Comments	Not relevant.
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14.3. Transport hazard class(es)

Comments	Not relevant.
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14.4. Packing group

Comments	Not relevant.
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14.5. Environmental hazards

IMDG Marine pollutant	No
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14.6. Special precautions for user

Special safety precautions for user	No data recorded.
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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Additional information.

Additional information.	No other information noted.
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ADR / RID - Other information

Tunnel restriction code	Not relevant.
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SECTION 15: Regulatory information

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

Declaration no.	170621
References (laws/regulations)	EC-directives 67/548/EEC and 1999/45/EC. Regulation (EC) No. 648/2004 on detergents. Regulation on classification, labeling and packaging of substances and mixtures (CLP). Commission Regulation (EU) No 453/2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex II. Administrative norms for pollution of the atmosphere, the latest edition, from Norwegian labour inspection authority. Norwegian regulations on waste, no. 930/2004. Dangerous Goods regulations.

15.2. Chemical safety assessment

Chemical safety assessment performed	No
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SECTION 16: Other information

CLP Classification, Comments	Classification procedure: calculation method.
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]	Eye Irrit. 2; H319;
List of relevant H-phrases (Section 2 and 3).	H318 Causes Serious eye damage. H302 Harmful if swallowed. H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H319 Causes serious eye irritation.
Information which has been added, deleted or revised	REVISIONS: ----- 07.04.2016: Changes in section 3.1 and 8.2. 13.09.2016: Changes in section 8. 14.10.2016: New classification. Changes in section 2, 3 and 4.
Version	5
Responsible for safety data sheet	NorKem AS