Grosafe CHEMICALS LTD

SAFETY DATA SHEET

1. Identification of the substance and supplier

Product name: BioSpread®
Recommended Use: Agricultural / horticultural surfactant /super spreader

Chemical name: Polyethersiloxane

Recommended use: Industrial use
Recommended restrictions: None known.

Manufacturer/Importer/Distributor Information

Company:	Grosafe Chemicals Ltd.
Address:	20 Jean Batten Drive, Mt Maunganui 3116 (P.O. Box 14450 Tauranga 3143)
Email:	info@grosafe.co.nz
Telephone Toll Free Number:	0800 820 002
Emergency Telephone Number: (EMERGENCIES ONLY)	0800 CHEMCALL (0800 243622)
Date of Issue:	February 2020

Emergency telephone number:
24-Hour Health Emergency

2. Hazard(s) identification

6.1E - Substances that are acutely toxic - Oral 6.1E - Substances that are acutely toxic - Dermal 6.1D - Substances that are acutely toxic - Inhalation - vapours, dusts or mists 6.4A - Substances that are irritating to the eye 9.1D - Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action

3. Composition/information on ingredients

Chemical name:	**CAS No.**	**Proportion**
Polyethersiloxane		
Chemical Identity	134180-76-0	>60%
Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)o xy]-1-disiloxanyl]propyl] ether		

4. First-aid measures

Description of necessary first-aid measures

General information:	Remove soiled or soaked clothing immediately
Inhalation:	If inhalated remove from side of exposure to fresh air, seek medical advice.
Skin Contact:	In case of contact with skin wash off with soap and water. Seek medical advice if symptoms occur.
Eye contact:	In case of contact with eyes rinse thoroughly with plenty of water. If symptoms persist, seek medical advice.
Ingestion:	Thoroughly clean the mouth with water Seek medical advice if symptoms occur.
Personal Protection for First-aid Responders:	Do not inhale explosion and/or combustion gases, Self-contained breathing apparatus.

Most important symptoms/effects, acute and delayed

Symptoms:	Serious eye irritation
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	Treat symptomatically.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	foam, carbon dioxide, dry powder, water spray.
Unsuitable extinguishing media:	Full water jet
Specific hazards arising from the chemical:	In the event of fire the following can be released: - Carbon monoxide, carbon dioxide, silicon dioxide Under certain conditions of combustion traces of other toxic substances cannot be excluded

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	No specific precautions.
Special protective equipment for fire-fighters:	Do not inhale explosion and/or combustion gases Self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment.
Methods and material for containment and cleaning up:	Take up with absorbent material (eg sand, kieselguhr, acid binder, universal binder, sawdust). Dispose of absorbed material in accordance with the regulations.
Environmental Precautions:	Do not allow to enter drains or waterways Do not discharge into the subsoil/soil.

7. Handling and storage

Precautions for safe handling:	Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Provide good ventilation of working area (local exhaust ventilation if necessary).
Conditions for safe storage, including any incompatibilities:	Keep container tightly closed in a cool, well-ventilated place.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Observe national threshold limit values.

Biological Limit Values

Observe national threshold limit values.

Appropriate Engineering Controls	No data available.

Individual protection measures, such as personal protective equipment

General information:	No data available.
Eye/face protection:	safety glasses
Skin Protection	
Hand Protection:	Material: Nitrile rubber. Break-through time: 480 min
Other:	protective clothing
Respiratory Protection:	in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2
Hygiene measures:	Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when working. Remove soiled or soaked clothing immediately.

9. Physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	light yellow
Odor:	Characteristic
Odor Threshold:	not measured
pH:	6 - 8 (40 g/l, 25 °C) in Water
Freezing point:	< 0 °C
Boiling Point:	> 200 °C
Flash Point:	> 149 °C (DIN EN ISO 2719)
Evaporation Rate:	not measured
Flammability (solid, gas):	not measured
Flammability Limit - Upper (%):	not measured
Flammability Limit - Lower (%):	not measured
Vapor pressure:	not measured
Vapor density (air=1):	not measured
Density:	1,0 - 1,1 g/cm3 (25 °C) (DIN 51757)
Relative density:	not measured
Solubility(ies)	
Solubility in Water:	Soluble
Solubility (other):	not measured
Partition coefficient (n-octanol/water):	not measured
Autoignition Temperature:	not measured
Decomposition Temperature:	not measured
Kinematic viscosity:	not measured
Dynamic viscosity:	50 - 100 mPa.s (25 °C, DIN 53019)
Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Other information	
Dust Explosion Limit, Upper:	not measured
Dust Explosion Limit, Lower:	not measured
Minimum ignition temperature:	335 °C
Metal Corrosion:	Does not corrode metal.
Self Ignition Temperature:	not measured

10. Stability and reactivity

Reactivity:	see section "Possibility of hazardous reactions"
Chemical Stability:	The product is stable under normal conditions.
Possibility of hazardous reactions:	No hazardous reactions with proper storage and handling.
Conditions to avoid:	None with proper storage and handling.

Incompatible Materials: Not known.

Hazardous Decomposition Products: None with proper storage and handling.

11. Toxicological information

Information on likely routes of exposure

Inhalation: Relevant route of exposure. Information on effects are given below.

Skin Contact: Relevant route of exposure. Information on effects are given below.

Eye contact: Relevant route of exposure. Information on effects are given below.

Ingestion: If handled correctly, not a relevant route of exposure. Information on effects are given below.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: LD 50 (Rat): > 2.000 mg/kg
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

Dermal

Product: LD 50 (Rat): > 2.000 mg/kg
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

Inhalation

Product: LC 50 (Rat): 1,08 mg/l
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
Dusts, mists and fumes

Repeated dose toxicity

Product: No observed adverse effect level (Rat, oral: gavage, daily): 200 mg/kg The

	data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
Skin Corrosion/Irritation	Not irritating
Product	Not irritating The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
Serious Eye Damage/Eye Irritation	Irritating.
Product:	(Rabbit): Irritating. The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
Respiratory or Skin Sensitization	Not a skin sensitizer.
Product:	(Guinea Pig)Not a skin sensitizer. The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
Carcinogenicity	
Product:	No data available.
Germ Cell Mutagenicity	
In vitro	
Product:	Chromosome aberration test in vitro (OECD 473): Non clastogenic The data are derived from the evaluations or test results achieved with the individual substances.
In vivo	
Product:	In vivo micronucleus test (US-EPA-method) Intraperitoneal (Mouse): negative The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
Reproductive toxicity	
Product:	No data available.
Specific Target Organ Toxicity - Single Exposure	
Product:	No data available.
Specific Target Organ Toxicity - Repeated Exposure	
Product:	No data available.
Aspiration Hazard	
Product:	Not classified
Other effects:	The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification"

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish **Product:**	LC 50 (Oncorhynchus mykiss (rainbow trout), 96 h): 2,1 mg/l The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
Aquatic Invertebrates **Product:**	EC 50 (Daphnia magna, 48 h): 34,9 mg/l Own test result.

Chronic hazards to the aquatic environment:

Fish **Product:**	No data available.
Aquatic Invertebrates **Product:**	No data available.
Toxicity to Aquatic Plants **Product:**	EbC50 (Scenedesmus subspicatus, 72 h): 28,2 mg/l The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). ErC50 (Scenedesmus subspicatus, 72 h): 152,2 mg/l The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

Persistence and Degradability

Biodegradation **Product:**	aerobic (28 d, OECD 301 F): > 60 % Readily biodegradable Own study
BOD/COD Ratio **Product:**	No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: Log Kow: not measured

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]-1-disiloxanyl]propyl] ether	No data available.

Other adverse effects: Do not allow to enter soil, waterways or waste water canal.

13. Disposal considerations

Disposal methods: In accordance with local authority regulations, take to special waste incineration plant

Contaminated Packaging: If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

14. Transport information

UN No.: 3082
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID (polyether siloxane)

Dangerous Goods Class: 9
Packing group: III
Marine Pollutant: yes

Do not carry more than 3 kg. on a passenger service vehicle.
Transport according to the requirements of the Land Transport Rule 45001: Dangerous Goods 1999, the Maritime Rule 24A Carriage of Cargoes-Dangerous Goods and Civil Aviation Rule 92: Carriage of Dangerous Goods is deemed to comply with certain requirements of the Hazardous Substances (Identification) and (Emergency Management) Regulations (2001).

15. Regulatory information

Approved pursuant to HSNO Act 1996, Approval code: HSR 002503
See www.epa.govt.nz for approval conditions

16.Other information, including date of preparation or last revision

Issue Date: 17/02/2020

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. No warranty, express or implied is made since we cannot anticipate or control the conditions under which the product may be used.
If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact Grosafe Chemicals Ltd.