

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

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

### 1.1 Product identifier

**Product name:**

VARISOFT BTMS PELLETS

**Chemical name:**

Preparation of alkyltrimethylammonium methyl sulphate

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

**Identified uses:** Industrial Use

**Uses advised against:** None known.

### 1.3 Details of the supplier of the safety data sheet

Company Name : Gracefruit Limited  
209 Glasgow Road  
Longcroft  
Bonnybridge  
FK4 1QQ

Telephone : 01324 841353

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

#### Classification according to Regulation (EC) No 1272/2008 as amended.

#### Health Hazards

Skin irritation	Category 2	H315: Causes skin irritation.
Serious Eye Damage/Eye Irritation	Category 1	H318: Causes serious eye damage.
Specific Target Organ Toxicity - Repeated Exposure (Oral) 1. Gastro-intestinal tract.	Category 2 <sup>1</sup> .	H373: May cause damage to organs through prolonged or repeated exposure if swallowed.

#### Environmental Hazards

Acute hazards to the aquatic environment	Category 1	H400: Very toxic to aquatic life.
Chronic hazards to the aquatic environment	Category 2	H411: Toxic to aquatic life with long lasting effects.

### 2.2 Label Elements

**Contains:**

Docosyltrimethylammonium methyl sulphate



**Signal Words:** Danger

**Hazard Statement(s):** H315: Causes skin irritation.  
 H318: Causes serious eye damage.  
 H373: May cause damage to organs through prolonged or repeated exposure if swallowed.  
 H410: Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

**Prevention:** P260: Do not breathe dust/fume/gas/mist/vapors/spray.  
 P262: Do not get in eyes, on skin, or on clothing.  
 P280: Wear eye protection/face protection.

**Response:** 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/doctor.  
 P332+P313: If skin irritation occurs: Get medical advice/attention.

**2.3 Other hazards** None known.

**SECTION 3: Composition/information on ingredients**

**Chemical name:**  
 Preparation of alkyltrimethylammonium methyl sulphate

**3.2 Mixtures**

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Docosyltrimethylammonium methyl sulphate	>=25 - <30%	81646-13-1	279-791-1	01-2119949051-44	No data available.	

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.  
 # This substance has workplace exposure limit(s).  
 ## This substance is listed as SVHC

**Classification**

Chemical name	Classification	Notes
Docosyltrimethylammonium methyl sulphate	Skin Irrit.: 2: H315; Eye Dam.: 1: H318; STOT RE: 2: H373; Aquatic Acute: 1: H400; Aquatic Chronic: 2: H411;	No data available.

CLP: Regulation No. 1272/2008.

The full text for all H-statements is displayed in section 16.

#### SECTION 4: First aid measures

**General:** Remove contaminated clothing.

##### 4.1 Description of first aid measures

**Inhalation:** Ensure supply of fresh air. In the event of symptoms take medical treatment.

**Skin Contact:** In case of contact with skin wash off immediately with plenty of water. Consult a doctor if skin irritation persists.

**Eye contact:** In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

**Ingestion:** Thoroughly clean the mouth with water. Do not induce vomiting. Call for medical advice immediately; show this safety data sheet.

**4.2 Most important symptoms and effects, both acute and delayed:** No information is on file to date regarding acute and/or delayed post-exposure symptoms and effects.

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

**Hazards:** No data available.

**Treatment:** Treat symptomatically.

#### SECTION 5: Firefighting measures

**General Fire Hazards:** Cool endangered containers with water spray jet. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations. Collect contaminated firefighting water separately, must not be discharged into the drains.

##### 5.1 Extinguishing media

**Suitable extinguishing media:** foam, carbon dioxide, dry powder, water spray.

**Unsuitable extinguishing media:** Full water jet

##### 5.2 Special hazards arising from the substance or mixture:

In the event of fire the following can be released: - carbon dioxide, carbon monoxide - Sulphur oxides - Nitrogen oxides (NOx) Under certain fire conditions, traces of other toxic products may occur.

##### 5.3 Advice for firefighters

**Special fire fighting procedures:** Keep away from sources of ignition - no smoking. Take action to prevent static discharges.

**Special protective equipment for fire-fighters:** Do not inhale explosion and/or combustion gases. Use self-contained breathing apparatus and wear protective suit.

#### SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Keep away from sources of ignition - no smoking. High risk of slipping due to leakage/spillage of product. Ensure adequate ventilation.

**6.1.1 For non-emergency personnel:** No data available.

- 6.1.2 For emergency responders:** No data available.
- 6.2 Environmental Precautions:** Do not allow to enter drains or waterways Do not discharge into the subsoil/soil.
- 6.3 Methods and material for containment and cleaning up:** Pick up mechanically Dispose of absorbed material in accordance with the regulations.
- 6.4 Reference to other sections:** For further information on exposure monitoring and disposal see sections 8 and 13.

**SECTION 7: Handling and storage:**

- 7.1 Precautions for safe handling:** Avoid contact with skin and eyes. Do not inhale vapours or dust Handle and open container with care. Provide good ventilation of working area (local exhaust ventilation if necessary). Provide good ventilation when handling large quantities. Avoid raising dust.
- 7.2 Conditions for safe storage, including any incompatibilities:** Keep container tightly closed, cool and dry
- 7.3 Specific end use(s):** No further recommendations.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control Parameters  
Occupational Exposure Limits**

Chemical name	Type	Exposure Limit Values	Source
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None of the components have assigned exposure limits.

**DNEL-Values**

Critical component	Type	Route of Exposure	Health Warnings	Remarks
Docosyltrimethylammonium methyl sulphate	Workers	Inhalation	Long-term systemic effects; 0.6 mg/m <sup>3</sup>	
	Workers	Dermal	Long-term systemic effects; 3 mg/kg bw/day	
	general populace	Inhalation	Long-term systemic effects;	No hazard identified
	general populace	Dermal	Long-term systemic effects;	No hazard identified
	general populace	Oral	Long-term systemic effects;	No hazard identified

**PNEC-Values**

Critical component	Environmental compartment	PNEC-Values	Remarks
Docosyltrimethylammonium methyl sulphate	Fresh water	13 µg/l	

	marine water	1.3 µg/l	
	intermittent release	14 µg/l	
	sewage treatment plant (STP)	0,43 mg/l	
	freshwater sediment	1.25 mg/kg sediment d.w.	
	Marine sediments	0.125 mg/kg sediment d.w.	
	soil	1 mg/kg (dry weight)	

## 8.2 Exposure controls

**Appropriate Engineering Controls:** No data available.

### Individual protection measures, such as personal protective equipment

**Eye/face protection:** Safety goggles

**Hand Protection:** Additional Information: gloves made of chloroprene (CR, e.g. Neoprene)

**Skin and Body Protection:** light protective clothing

**Respiratory Protection:** in case of formation of vapours/dusts: Short term: filter apparatus, Filter P2

**Hygiene measures:** Keep away from foodstuffs and beverages. Wash hands before breaks and immediately after handling the product. Remove soiled or soaked clothing immediately. Do not eat, drink or smoke when working.

**Environmental Controls:** The environmental regulations on the control and monitoring of environmental exposures are to be observed.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state:</b>	solid
<b>Form:</b>	Pellets
<b>Color:</b>	white to slightly yellow
<b>Odor:</b>	slight, typical
<b>Odor Threshold:</b>	not measured
<b>pH:</b>	no data available
<b>Melting Point:</b>	not measured
<b>Boiling Point:</b>	not measured
<b>Flash Point:</b>	> 93 °C
<b>Evaporation Rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	no data available
<b>Flammability Limit - Upper (%):</b>	not measured
<b>Flammability Limit - Lower (%):</b>	not measured
<b>Vapor pressure:</b>	0.01 hPa (30 °C)
<b>Vapor density (air=1):</b>	No data available.
<b>Density:</b>	approx. 0.87 g/cm <sup>3</sup>
<b>Relative density:</b>	No data available.
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	Insoluble
<b>Solubility (other):</b>	not measured
<b>Partition coefficient (n-octanol/water):</b>	not measured
<b>Self Ignition Temperature:</b>	not measured
<b>Decomposition Temperature:</b>	not measured

**Kinematic viscosity:** No data available.  
**Dynamic viscosity:** Not applicable

## 9.2 Other information

**Explosive properties:** not measured  
**Oxidizing properties:** not measured  
**Minimum ignition temperature:** not measured  
**Metal Corrosion:** not measured

## SECTION 10: Stability and reactivity

**10.1 Reactivity:** see section "Possibility of hazardous reactions"  
**10.2 Chemical Stability:** The product is stable under normal conditions.  
**10.3 Possibility of hazardous reactions:** Reactions with strong oxidizing agents.  
**10.4 Conditions to avoid:** Avoid contact with strong oxidants.  
**10.5 Incompatible Materials:** Unknown  
**10.6 Hazardous Decomposition Products:** None with proper storage and handling.

## SECTION 11: Toxicological information

### Information on likely routes of exposure

**Inhalation:** If handled correctly, not a 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.

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Oral

**Product:** no data available  
**Components:**  
Docosyltrimethylammonium methyl sulphate LD 50 (Rat): 3,190 mg/kg

##### Dermal

**Product:** no data available  
**Components:**  
Docosyltrimethylammonium methyl sulphate LD 50 (Rabbit): > 2,000 mg/kg

##### Inhalation

**Product:** no data available  
**Components:**  
Docosyltrimethylammonium methyl sulphate No data available.

#### Repeated dose toxicity

**Product:** No data available.  
**Components:**  
Docosyltrimethylammonium methyl sulphate NOAEL (Rat(male and female), oral: gavage, daily): 10 mg/kg No observed adverse effect level (Rat(male and female), oral: gavage, daily):

#### Skin Corrosion/Irritation:

**Product:** No data available.  
**Components:**  
Docosyltrimethylammonium methyl sulphate OECD 404 (Rabbit, 4 h): Irritating. Own test result.

#### Serious Eye Damage/Eye Irritation:

**Product:** No data available.  
**Components:**  
Docosyltrimethylammonium methyl sulphate Risk of serious damage to eyes. OECD 405 (Rabbit): Risk of serious damage to eyes. Own test result.

#### Respiratory or Skin

##### Sensitization:

**Product:** no data available  
**Components:**  
Docosyltrimethylammonium methyl sulphate Maximization Test (GPMT), OECD 406 (Guinea Pig): not sensitizing  
Own test result.

#### Germ Cell Mutagenicity

##### In vitro

**Product:** No data available.  
**Components:**  
Docosyltrimethylammonium methyl sulphate Ames test (OECD 471): negative The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).  
gene mutation test (OECD 476): negative The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).  
Cytogenetic Test (chromosome aberration) (OECD 487): negative The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

##### In vivo

**Product:** No data available.  
**Components:**  
Docosyltrimethylammonium methyl sulphate No data available.

#### Carcinogenicity

**Product:** No data available.  
**Components:**  
Docosyltrimethylammonium methyl sulphate No data available.

#### Reproductive toxicity

**Product:** No data available.

**Components:**

Docosyltrimethylammonium methyl sulphate No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** no data available

**Components:**

Docosyltrimethylammonium methyl sulphate No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** no data available

**Components:**

Docosyltrimethylammonium methyl sulphate Oral: Gastro-intestinal tract. - May cause damage to organs through prolonged or repeated exposure.

**Aspiration Hazard**

**Product:** Not classified

**Components:**

Docosyltrimethylammonium methyl sulphate No data available.

**Other adverse effects:**

Causes skin irritation. Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure.

**SECTION 12: Ecological information**

**12.1 Toxicity**

**Acute toxicity**

**Fish**

**Product:** LC 50 (Rainbow Trout, 96 h): 96 mg/l

**Components**

Docosyltrimethylammonium methyl sulphate LC 50 (Danio rerio (zebra fish), 96 h): 3.5 mg/l (OECD 203) river water 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): 55 mg/l

**Components**

Docosyltrimethylammonium methyl sulphate EC 50 (Daphnia magna (Water flea), 48 h): 1.39 mg/l (OECD 202) Stream water The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

**Toxicity to Aquatic Plants**

**Product:** EC 50 (Selenastrum capricornutum, 96 h): 0.25 mg/l

**Components**

Docosyltrimethylammonium methyl sulphate

**Toxicity to microorganisms**



**Product:** No data available.

**Components**

Docosyltrimethylammonium methyl sulphate EC 50 (activated sludge, 3 h): 43 mg/l (OECD 209) This information is derived from evaluation of or a test result for a similar compound (conclusion based on analogy).  
EC10 (Activated sludge, 3 h): 9.5 mg/l (OECD 209) This information is derived from evaluation of or a test result for a similar compound (conclusion based on analogy).

**Chronic Toxicity**

**Fish**

**Product:** No data available.

**Components**

Docosyltrimethylammonium methyl sulphate NOEC (Danio rerio (zebra fish), 9 d): 0.24 mg/l (OECD 212) This information is derived from evaluation of or a test result for a similar compound (conclusion based on analogy).

**Aquatic Invertebrates**

**Product:** No data available.

**Components**

Docosyltrimethylammonium methyl sulphate No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Components**

Docosyltrimethylammonium methyl sulphate No data available.

**12.2 Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**BOD/COD Ratio**

**Product** No data available.

**Components**

Docosyltrimethylammonium methyl sulphate No data available.

**12.3 Bioaccumulative potential**

**Product:** No data available.

**12.4 Mobility in soil:**

No data available.

**12.5 Results of PBT and vPvB assessment:**

No data available.

Docosyltrimethylammonium methyl sulphate Non-classified vPvB substance Non-classified PBT substance

**12.6 Other adverse effects:**

Do not allow to enter soil, waterways or waste water canal. The product is classified as extremely hazardous to waters (according to the German Regulation on the Classification of Substances Hazardous to Waters (WwSV).

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

<b>General information:</b>	No data available.
<b>Disposal methods:</b>	In accordance with local authority regulations, take to special waste incineration plant
<b>Contaminated Packaging:</b>	If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

## SECTION 14: Transport information

### 14.1 UN number

<b>ADR</b>	:	UN 3077
<b>RID</b>	:	UN 3077
<b>IMDG</b>	:	UN 3077
<b>IATA</b>	:	UN 3077

### 14.2 UN proper shipping name

<b>ADR</b>	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Alkyltrimethylammonium methyl sulphate)
<b>RID</b>	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Alkyltrimethylammonium methyl sulphate)
<b>IMDG</b>	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Alkyltrimethylammonium methyl sulphate)
<b>IATA</b>	:	Environmentally hazardous substance, solid, n.o.s. (Alkyltrimethylammonium methyl sulphate)

### 14.3 Transport hazard class(es)

<b>ADR</b>	:	9
<b>RID</b>	:	9
<b>IMDG</b>	:	9
<b>IATA</b>	:	9

### 14.4 Packing group

<b>ADR</b>		
Packing group	:	III
Classification Code	:	M7
Hazard Identification Number	:	90
Labels	:	9
<b>RID</b>		
Packing group	:	III
Classification Code	:	M7
Hazard Identification Number	:	90
Labels	:	9
<b>IMDG</b>		

Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Remarks : Stowage category A

**IATA (Cargo aircraft only)**

Packing instruction (cargo aircraft) : 956  
Packing instruction (LQ) : Y956  
Packing group : III  
Labels : 9MI  
Remarks : Environmentally hazardous

**IATA (Passenger and cargo aircraft)**

Packing instruction (passenger aircraft) : 956  
Packing instruction (LQ) : Y956  
Packing group : III  
Labels : 9MI  
Remarks : Environmentally hazardous

**14.5 Environmental hazards**

**ADR**

Environmentally hazardous : yes

**RID**

Environmentally hazardous : yes

**IMDG**

Marine pollutant : yes

**IATA (Passenger and cargo aircraft)**

Environmentally hazardous : yes

**IATA (Cargo aircraft only)**

Environmentally hazardous : yes

**14.6 Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable for product as supplied.

**SECTION 15: Regulatory information**

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

**EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I:**

E1. Hazardous to the aquatic environment 100 t 200 t

**National Regulations**

**15.2 Chemical safety**

No chemical safety assessment was carried out for this product.

assessment:

**International regulations**

**SECTION 16: Other information**

**Abbreviations and acronyms**

**ADR** - European Agreement concerning the International Carriage of Dangerous Goods by Road; **ADN** - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; **AGW** - Occupational exposure limit; **ASTM** - American Society for Testing and Materials; **AwSV** - Ordinance on facilities for handling substances that are hazardous to water; **BSB** - Biochemical oxygen demand; **c.c.** - closed cup; **CAS** - Chemical Abstract Services; **CESIO** - European Committee of Organic Surfactants and their Intermediates; **CSB** - Chemical oxygen demand; **DMEL** - Derived minimum effect level; **DNEL** - Derived no effect level; **EbC50** - median concentration in terms of reduction of growth; **EC** - Effective concentration; **EINECS** - European Inventory of Existing Commercial Chemical Substances; **EN** - European norm; **ErC50** - median concentration in terms of reduction of growth rate; **GGVSEB** - German ordinance for road, rail and inland waterway transportation of dangerous goods; **GGVSee** - German ordinance for sea transportation of dangerous goods; **GLP** - Good Laboratory Practice; **GMO** - Genetic Modified Organism; **IATA** - International Air Transport Association; **ICAO** - International Civil Aviation Organization; **IMDG** - International Maritime Dangerous Goods; **ISO** - International Organization For Standardization; **LD/LC** - lethal dose/concentration; **LOAEL** - Lowest observed adverse effect level; **LOEL** - Lowest observed effect level; **M-Factor** - multiplying factor; **NOAEL** - No observed adverse effect level; **NOEC** - no observed effect concentration; **NOEL** - no observed effect level; **o.c.** - open cup; **OECD** - Organisation for Economic Cooperation and Development; **OEL** - Occupational Exposure Limit; **PBT** - Persistent, bioaccumulative, toxic; **PNEC** - Predicted no effect concentration; **REACH** - REACH registration; **RID** - Convention concerning International Carriage by Rail; **SVHC** - Substances of Very High Concern; **TA** - Technical Instructions; **TRGS** - Technical Rules for Hazardous Substances; **vPvB** - very persistent, very bioaccumulative; **WGK** - Water Hazard Class

**Key literature references and sources for data:** No data available.

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]**

Classification according to Regulation (EC) No 1272/2008 as amended.	Classification procedure
Skin irritation, Category 2	Calculation method
Serious Eye Damage/Eye Irritation, Category 1	Calculation method
Specific Target Organ Toxicity - Repeated Exposure, Category 2 Oral	Calculation method
Acute hazards to the aquatic environment, Category 1	On basis of test data
Chronic hazards to the aquatic environment, Category 2	Calculation method

**Wording of the H-statements in section 2 and 3**

H315	Causes skin irritation.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure by ingestion.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

**Training information:** Comply with national laws regulating employee instruction.

**SDS No.:**  
**Disclaimer:**

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.