SAFETY DATA SHEET

1. Identification

Product identifier **SENSODYNE TOOTHPASTE (WITH TITANIUM DIOXIDE)**

Other means of identification

Synonyms IB0853 SENSODYNE LOW ABRASION * IB1674 GENTLE WHITENING * IB1850 SENSODYNE WITH VITAMINS * IB2079 TARTAR CONTROL PLUS WHITENING * MFC00858 PRONAMEL * MFC01788 PRONAMEL (SE ASIA & AUSTRALIA) * MFC01942 PRONAMEL FOR CHILDREN (EU) * MFC02284 PRONAMEL GENTLE WHITENING (EU) * MFC02141 EXTRA WHITENING (REPLACEMENT MINT FLAVOR) * MFC02559 FRESHMINT (INDIA) * MFC03145 SENSODYNE COMPLEX * SENSODYNE MULTI-CARE (WHITE 1450PPM FLUORIDE) * MFC03673 PRONAMEL EXTRA FRESHNESS (EU) * MFC03673 PRONAMEL 1426 PPM FLUORIDE * MFC03795 PRONAMEL ENAMEL CARE & GENTLE WHITENING * MFC03941 SENSODYNE PROTECT AND REPAIR (USA) * SENSODYNE REPAIR PROTECT US * MFC03925 PRONAMEL MULTI-ACTION * MFC04006 PRONAMEL (MISSISSIPPI FLAVOUR), 1450 PPM FLUORIDE * MFC04008 PRONAMEL (OPTAMINT 134601 FLAVOUR), 1450 PPM FLUORIDE * MFC04010 PRONAMEL GENTLE WHITENING TOOTHPASTE * MFC04143 TRUE WHITE EXTRA FRESH (1100 PPM FLUORIDE) * MFC04155 TRUE WHITE MINT (1100 PPM FLUORIDE) * MFC04156 TRUE WHITE MINT * MFC04254 PRONAMEL GENTLE WHITENING TOOTHPASTE 1000 PPM FLUORIDE * MFC04276 TRUE WHITE EXTRA FRESH TOOTHPASTE * MFC04281 PRONAMEL (SE ASIA & AUSTRALIA) WITH 1000 PPM FLUORIDE * MFC20026 MULTICARE TOOTHPASTE * MFC00556 GENTLE WHITENING (UK) * MFC50156 FRESH IMPACT * SODIUM FLUORIDE AND/OR POTASSIUM NITRATE, FORMULATED PRODUCT

Recommended use Cosmetic Product

Recommended restrictions No other uses are advised.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

GlaxoSmithKline US
5 Moore Drive
Research Triangle Park, NC 27709 USA
US General Information (normal business hours): +1-888-825-5249
Email Address: msds@gsk.com
Website: www.gsk.com
EMERGENCY PHONE NUMBERS -
TRANSPORT EMERGENCIES::
US / International toll call +1 703 527 3887
available 24 hrs/7 days; multi-language response

2. Hazard(s) identification

Classified hazards

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

Label elements

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

Hazard(s) not otherwise classified (HNOC)

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
NOVAMINT 507306T		Unassigned	0 - < = 1.2
FLAVOUR SLEEPY ED FS 2019		Unassigned	0 - < 1.0
SENSIDREAM FLAVOR 508915T		Unassigned	< 1
TIN (II) FLUORIDE	STANNOUS FLUORIDE * TIN BIFLUORIDE	7783-47-3	0 - < 0.5

Chemical name	Common name and synonyms	CAS number	%
EUCALYPTOL	1,8-CINEOL * CINEOLE * 1,8-CINEOLE * 1,8-EPOXY-P-MENTHANE * EUCALYPTOL * EUCALYPTOLE * EUKALYPTOL (CZECH) * NCI-C56575 * CAJEPUTOL * 2-OXABICYCLO(2.2.2)OCTANE, 1,3,3-TRIMETHYL- * 1,8-OXIDO-P-MENTHANE * TERPAN	470-82-6	< 0.2
CITRIC ACID ANHYDROUS	BETA-HYDROXYTRICARBALLYLIC ACID * ANHYDROUS CITRIC ACID * 2-HYDROXY-1,2,3-PROPANETRICARBOXYLIC ACID * CITIRIC ACID	77-92-9	< 0.1
TRISODIUM PHOSPHATE	PHOSPHORIC ACID, TRISODIUM SALT * PHOSPHORIC ACID SODIUM SALT (1:3) * SODIUM PHOSPHATE * SODIUM PHOSPHATE (NA3PO4) * SODIUM PHOSPHATE, TRIBASIC * SODIUM TERTIARY PHOSPHATE * TRIBASIC SODIUM ORTHOPHOSPHATE * TRIBASIC SODIUM PHOSPHATE * TRISODIUM ORTHOPHOSPHATE * TROMETE * TSP * TRISODIUM MONOPHOSPHATE, ANHYDROUS * OHS24480 * RTECS TC9490000	7601-54-9	< 0.1
BUTYLATED HYDROXYANISOLE	BHA * TENOX BHA * (1,1-DIMETHYLETHYL)-4-METHOXYPHENOL * TERT-BUTYL-4-METHOXYPHENOL * ANTIOXYNE B * BUTYLHYDROXYANISOLE * TERT-BUTYLHYDROXYANISOLE * EMBANOX * PROTEX * SUSTANE 1F * SUSTAN 1F * OHS03640 * RTECS SL1945000 * BUTYLHYDROXYANISOLE (BHA) * T-BUTYL HYDROXY ANISOLE (BHA) * TERT.-BUTYL-4-METHOXYPHENOL	25013-16-5	0 <= 0.01
CALCIUM CARBONATE	CARBONIC ACID, CALCIUM SALT * CALCIUM MONOCARBONATE * PRECIPITATED CALCIUM CARBONATE * CHALK	471-34-1	0 <= 10.0
COCOAMIDOPROPYL BETAINE	COCOAMIDO BETAINE * N-(COCO ALKYL) AMIDO PROPYL DIMETHYL BETAINE * COCONUT OIL AMIDOPROPYL BETAINE	61789-40-0	0 <= 2.1
D-PANTHENOL	BUTANAMIDE, 2,4-DIHYDROXY-N-(3-HYDROXYPROPYL)-3,3-DIMETHYL, (R)- * (R)-2,4-DIHYDROXY-N-(3-HYDROXYPROPYL)-3,3-DIMETHYL-BUTANAMIDE * BUTYRAMIDE, 2,4-DIHYDROXY-N-(3-HYDROXYPROPYL)-3,3-DIMETHYL-, D-(+)- * D-(+)-2,4-DIHYDROXY-N-(3-HYDROXYPROPYL)-3,3-DIMETYL-BUTYRAMIDE * DEXPANTHENOL * D(+)-PANTHENOL * PANTOTHENOL * D-PANTOTHENOL * D-PANTOTHENYL ALCOHOL * D(+)-PANTOTHENYL ALCOHOL * PANTHODERM * PANTHENOL * GW709768X	81-13-0	0 <= 0.1
DEVELOPMINT TP12995A			0 <= 0.7
FLAVOUR CONFIDENT WHITE 509321		Unassigned	0 <= 1.4
OPTAMINT FLAVOUR		Unassigned	0 <= 1.2

Chemical name	Common name and synonyms	CAS number	%
PEPPERMINT OIL	OIL OF PEPPERMINT * ESSENTIAL PEPPERMINT OIL * PEPPERMINT LEAF OIL * PEPPERMINT TERPENES	8006-90-4	0 <= 1.0
POLYETHYLENE GLYCOL STEARATE	POLY(OXY-1,2-ETHANEDIYL), ALPHA-(1-OXOOCTADECYL)-OMEGA-HYDROXY- * GLYCOLS, POLYETHYLENE, MONOSTEARATE * POLYOXYL 8 STEARATE * POLYETHYLENE GLYCOL 400 MONOSTEARATE * POLYETHOXYLATED MONOSTEARATE * POLYETHYLENE GLYCOL MONOSTEARATE * POLYETHYLENE OXIDE MONOSTEARATE	9004-99-3	0 <= 3.0
POTASSIUM CHLORIDE	POTASSIUM CHLORIDE (KCL) * POTASSIUM MONOCHLORIDE * SUPER K (SALT) * POTASSIUM MURIATE	7447-40-7	0 <= 3.75
POTASSIUM NITRATE	NITRIC ACID POTASSIUM SALT * NITRIC ACID POTASSIUM SALT (1:1)	7757-79-1	0 <= 5.0
POTASSIUM PYROPHOSPHATE, ANHYDROUS	TETRAPOTASSIUM PYROPHOSPHATE * PYROPHOSPHORIC ACID, TETRAPOTASSIUM SALT * DIPHOSPHORIC ACID, TETRAPOTASSIUM SALT * TETRAPOTASSIUM DIPHOSPHATE * POTASSIUM PYROPHOSPHATE, NORMAL * POTASSIUM PHOSPHATE(K4P2O7)	7320-34-5	0 <= 5.1
SILICON DIOXIDE	SILICA * SILICA GEL * AMORPHOUS SILICA * DIATOMACEOUS EARTH * INFUSORIAL EARTH * CAB-O-SIL M-5	7631-86-9	0 <= 10.5
SODIUM FLUORIDE	SODIUM MONOFLUORIDE * NATURAL VILLIAUMITE	7681-49-4	0 <= 0.3152
SODIUM TRIPOLYPHOSPHATE	TRIPHOSPHORIC ACID, PENTASODIUM SALT * PENTASODIUM TRIPHOSPHATE * PENTASODIUM TRIPOLYPHOSPHATE * SODIUM TRIPHOSPHATE * SODIUM POLYPHOSPHATE * SODIUM PHOSPHATE	7758-29-4	0 <= 5.0
TITANIUM DIOXIDE	TITANIUM OXIDE * TITANIUM(IV) OXIDE * TITANIUM PEROXIDE (TiO2) * PIGMENT WHITE 6	13463-67-7	0.10 <= 1.00
TOCOPHERYL ACETATE	DL-ALPHA TOCOPHERYL ACETATE * D-ALPHA TOCOPHERYL ACETATE * VITAMIN E ACETATE	7695-91-2	0 <= 0.2
TP 16430 JIAOLONG EC		Unassigned	0 <= 1.0
TP13980J ASWAN (JAP) FLAVOUR			0 <= 1.1
ZINC CITRATE		546-46-3	0 <= 1.0
Other components below reportable levels			>78.0

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

Skin contact Wash off with soap and plenty of water.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms/effects, acute and delayed Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

Suitable extinguishing media	Water. Carbon dioxide (CO2). Dry chemical powder. Foam.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Wear suitable protective equipment.
Fire fighting equipment/instructions	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	This product is non-flammable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Local authorities should be advised if significant spillages cannot be contained. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Ensure adequate ventilation.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Following product recovery, flush area with water. Collect spillage. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	No special control measures required for the normal handling of this product. Normal room ventilation is expected to be adequate for routine handling of this product. Observe good industrial hygiene practices. Provide adequate ventilation.
Conditions for safe storage, including any incompatibilities	Room temperature - normal conditions. Store in original tightly closed container.

8. Exposure controls/personal protection

Occupational exposure limits

GSK

Components	Type	Value	Note
BUTYLATED HYDROXYANISOLE (CAS 25013-16-5)	OHC	2	
CITRIC ACID ANHYDROUS (CAS 77-92-9)	8 HR TWA	5000 mcg/m3	
	OHC	1	
COCOAMIDOPROPYL BETAINE (CAS 61789-40-0)	OHC	1	PROVISIONAL
D-PANTHENOL (CAS 81-13-0)	OHC	2	PROVISIONAL
POTASSIUM CHLORIDE (CAS 7447-40-7)	8 HR TWA	5000 mcg/m3	
	OHC	1	
SODIUM TRIPOLYPHOSPHATE (CAS 7758-29-4)	OHC	1	
ZINC CITRATE (CAS 546-46-3)	OHC	1	

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
CALCIUM CARBONATE (CAS 471-34-1)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
SODIUM FLUORIDE (CAS 7681-49-4)	PEL	2.5 mg/m3	
TITANIUM DIOXIDE (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value	Form
SODIUM FLUORIDE (CAS 7681-49-4)	TWA	2.5 mg/m3	Dust.
TIN (II) FLUORIDE (CAS 7783-47-3)	TWA	2.5 mg/m3	Dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
SILICON DIOXIDE (CAS 7631-86-9)	TWA	0.8 mg/m3
		20 mppcf

US. ACGIH Threshold Limit Values

Components	Type	Value
SODIUM FLUORIDE (CAS 7681-49-4)	TWA	2.5 mg/m3
TITANIUM DIOXIDE (CAS 13463-67-7)	TWA	10 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
CALCIUM CARBONATE (CAS 471-34-1)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
SILICON DIOXIDE (CAS 7631-86-9)	TWA	6 mg/m3	
SODIUM FLUORIDE (CAS 7681-49-4)	TWA	2.5 mg/m3	

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
TRISODIUM PHOSPHATE (CAS 7601-54-9)	STEL	5 mg/m3

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
SODIUM FLUORIDE (CAS 7681-49-4)	3 mg/l	Fluoride	Urine	*
	2 mg/l	Fluoride	Urine	*
TIN (II) FLUORIDE (CAS 7783-47-3)	3 mg/l	Fluoride	Urine	*
	2 mg/l	Fluoride	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls No special ventilation requirements.

Individual protection measures, such as personal protective equipment

Eye/face protection Do not get in eyes. Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.

Skin protection

Hand protection Not normally needed.

Other No special protective equipment required.

Respiratory protection No personal respiratory protective equipment normally required.

Thermal hazards Not available.

General hygiene considerations	Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Paste.Pump/tube.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	9 - 10
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Expected to be non-flammable based on components present.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.

Solubility(ies)

Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Not available.
Conditions to avoid	None under normal conditions.
Incompatible materials	Not available.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.

11. Toxicological information

Information on likely routes of exposure

Inhalation	None known. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin contact	Health injuries are not known or expected under normal use.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Health injuries are not known or expected under normal use.

Symptoms related to the physical, chemical and toxicological characteristics None known. Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Health injuries are not known or expected under normal use.

Components	Species	Test Results
BUTYLATED HYDROXYANISOLE (CAS 25013-16-5)		
Acute		
Oral		
LD50	Rat	2 g/kg
CALCIUM CARBONATE (CAS 471-34-1)		
Acute		
Oral		
LD50	Rat	6450 mg/kg
CITRIC ACID ANHYDROUS (CAS 77-92-9)		
Acute		
Oral		
LD50	Rat	3000 mg/kg
COCOAMIDOPROPYL BETAINE (CAS 61789-40-0)		
Acute		
Oral		
LD50	Mouse	> 2000 mg/kg
D-PANTHENOL (CAS 81-13-0)		
Acute		
Oral		
LD50	Mouse	15 g/kg
EUCALYPTOL (CAS 470-82-6)		
Acute		
Oral		
LD50	Rat	2480 mg/kg
PEPPERMINT OIL (CAS 8006-90-4)		
Acute		
Oral		
LD50	Rat	2426 mg/kg
POTASSIUM CHLORIDE (CAS 7447-40-7)		
Acute		
Oral		
LD50	Rat	2600 mg/kg
POTASSIUM PYROPHOSPHATE, ANHYDROUS (CAS 7320-34-5)		
Acute		
Dermal		
LD50	Rabbit	> 4640 mg/kg
Oral		
LD50	Rat	4640 mg/kg
SODIUM TRIPOLYPHOSPHATE (CAS 7758-29-4)		
Acute		
Oral		
LD50	Rat	3120 mg/kg
TITANIUM DIOXIDE (CAS 13463-67-7)		
Acute		
Inhalation		
LC50	Rat	6820 mcg/m3

Components	Species	Test Results
Oral		
LD50	Rat	> 24 g/kg
Chronic		
Inhalation		
LOEC	Rat	8.6 mg/m3, 1 years TiO2 accumulated in interstitial macrophages, aggregated interstitial cells and particle laden macrophrages in lymphoid tissue.
NOAEC	Rat	250 mg/m3, 2 years Highest dose
		5 mg/m3, 24 months
Subacute		
Inhalation		
LOEL	Rat	0.1 - 35 mg/m3, 4 weeks Mild macrophage hyperplasia, no change in bronchio-alveolar lavage fluid.
NOAEC	Guinea pig	26 mg/m3, 3 weeks No evidence of significant inflammation in respiratory tract.
Oral		
NOAEL	Rat	100000 ppm, 14 Day Dietary study, highest dose tested.
Subchronic		
Inhalation		
LOEC	Rat	3.2 - 20 mg/m3, 8 min Accumulation of TiO2 in macrophages and evidence of pulmonary inflammation.
TRISODIUM PHOSPHATE (CAS 7601-54-9)		
Acute		
Oral		
LD50	Rat	7.4 g/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Health injuries are not known or expected under normal use.

Irritation Corrosion - Skin

TITANIUM DIOXIDE	0, Literature data Result: Non-irritant Species: Guinea pig 0, Literature data Result: Non-irritant Species: Human Acute dermal irritation; OECD 404, Literature data Result: Non-irritant Species: Rabbit

Irritation Corrosion - Skin: P.I.I. value

CITRIC ACID ANHYDROUS	OECD 404 Result: Mild to moderate irritant. Species: Rabbit

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Eye

CITRIC ACID ANHYDROUS	Acute ocular irritation; OECD 405 Result: Severe Irritant Species: Rabbit
TITANIUM DIOXIDE	OECD 405, Literature data Result: Mild irritant Species: Rabbit

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization Health injuries are not known or expected under normal use.

Sensitization

TITANIUM DIOXIDE	5 % Optimisation Test, Literature data - Vehicle: petrolatum Result: Negative Species: Guinea pig Test Duration: 48 hour exposure Patch test, Literature data Result: Negative Species: Human

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Mutagenicity

TITANIUM DIOXIDE	Ames, Literature data Result: Negative Micronucleus Assay in vitro, CHO cells, Literature data Result: Negative Micronucleus Assay in vitro, cultured human peripheral lymphocytes, Literature data Result: Positive Syrian Hamster Embryo (SHE) cell transformation assay Result: Negative WIL2-NS HPRT/ t-Thioguanidine - Human B-Cell lymphoblastoid, Literature data Result: Positive

Carcinogenicity Health injuries are not known or expected under normal use. Titanium Dioxide produced carcinogenic effects in a lifetime study in mice. High concentrations or doses administered over an extended period of time were required to produce adverse effects. Risk of cancer cannot be excluded with prolonged exposure.

TITANIUM DIOXIDE	0.5 mg/m3, Literature data Result: Negative Species: Rat Test Duration: 24 months 0.72 - 14.8 mg/m3, Literature data Result: Negative Species: Mouse 10 - 250 mg/m3, Dietary study - Literature data. Result: Inflammation at all doses with alveolar/bronchiolar adenoma at the highest concentration. Species: Rat Test Duration: 24 months 25000 - 50000 ppm, Dietary study Result: Negative Species: Mouse 25000 - 50000 ppm, Dietary study - Literature data. Result: Negative Species: Rat 7.2 - 14.8 mg/m3, Literature data Result: Lung tumour Species: Rat Test Duration: 24 months

IARC Monographs. Overall Evaluation of Carcinogenicity

BUTYLATED HYDROXYANISOLE (CAS 25013-16-5)	2B Possibly carcinogenic to humans.
SILICON DIOXIDE (CAS 7631-86-9)	3 Not classifiable as to carcinogenicity to humans.
SODIUM FLUORIDE (CAS 7681-49-4)	3 Not classifiable as to carcinogenicity to humans.
TIN (II) FLUORIDE (CAS 7783-47-3)	3 Not classifiable as to carcinogenicity to humans.
TITANIUM DIOXIDE (CAS 13463-67-7)	2B Possibly carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

BUTYLATED HYDROXYANISOLE (CAS 25013-16-5)	Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure None known.

Specific target organ toxicity - repeated exposure None known.

Aspiration hazard Not available.

12. Ecological information

Ecotoxicity Contains a substance which causes risk of hazardous effects to the environment.

Components		Species	Test Results
BUTYLATED HYDROXYANISOLE (CAS 25013-16-5)			
Aquatic			
Acute			
Fish	EC50	Orange-red killfish (Adult Oryzias latipes)	2.5 - 5.3 mg/L, 48 hours Static test
CALCIUM CARBONATE (CAS 471-34-1)			
Aquatic			
Fish	LC50	Western mosquitofish (Gambusia affinis)	> 56000 mg/l, 24 hours
CITRIC ACID ANHYDROUS (CAS 77-92-9)			
Aquatic			
Acute			
Algae	NOEC	Green algae (Scenedesmus quadricauda)	425 mg/l, 8 days Static Test
Crustacea	EC50	Water flea (Daphnia magna)	120 mg/l, 72 hours Static test
Fish	EC50	Bluegill sunfish (Adult Lepomis macrochirus)	1516 mg/l, 96 hours Static test
		Golden ide/orfe (Adult Leuciscus idus)	440 - 760 mg/l, 96 hours Static test
COCOAMIDOPROPYL BETAINE (CAS 61789-40-0)			
Aquatic			
Acute			
Algae	EC50	Green algae (Scenedesmus subspicatus)	0.55 mg/l, 96 hours
	NOEC	Green algae (Scenedesmus subspicatus)	0.09 mg/l, 96 hours
Crustacea	EC50	Water flea (Daphnia magna)	6.5 mg/l, 48 hours
	NOEC	Water flea (Daphnia magna)	1.6 mg/l, 48 hours
Fish	EC50	Zebra fish (Adult Brachydanio rerio)	2 mg/l, 96 hours semi-static test conditions
	NOEC	Zebra fish (Adult Brachydanio rerio)	1.7 mg/l, 96 hours semi-static test conditions
Microtox	MIC	Pseudomonas	> 3000 mg/l, 16 hours
Chronic			
Crustacea	LOEC	Water flea (Daphnia magna)	3.6 mg/l, 21 days
	NOEC	Water flea (Daphnia magna)	0.9 mg/l, 21 days
EUCALYPTOL (CAS 470-82-6)			
Aquatic			
Acute			
Fish	EC50	Fathead minnow (Adult Pimephales promelas)	102 mg/l, 96 hours Flow-through test
POTASSIUM CHLORIDE (CAS 7447-40-7)			
Aquatic			
Acute			
Algae	NOEC	Green algae (Chlorella vulgaris)	600 mg/l, 4 months
Crustacea	EC50	Water flea (Daphnia magna)	83 mg/l, 48 hours Static test
Fish	EC50	Bluegill sunfish (Adult Lepomis macrochirus)	951 mg/l, 96 hours Static test
		Channel catfish (Adult Ictalurus punctatus)	720 mg/l, 48 hours Static test

Components		Species	Test Results
		Fathead minnow (Adult Pimephales promelas)	880 mg/l, 96 hours Static test
		Mosquito fish (Adult Gambusia affinis)	435 mg/l, 96 hours Static test
POTASSIUM NITRATE (CAS 7757-79-1)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	490 mg/l, 48 hours Static test
Fish	EC50	Bluegill sunfish (Adult Lepomis macrochirus)	420 mg/l, 96 hours Static test
		Guppy (Juvenile Poecilia reticulata)	180 mg/l, 96 hours Static test
		Mosquito fish (Adult Gambusia affinis)	22.5 mg/l, 96 hours Static test
SILICON DIOXIDE (CAS 7631-86-9)			
Aquatic			
Acute			
Algae	EC50	Green algae (Selenastrum capricornutum)	440 mg/l, 72 hours
	NOEC	Green algae (Selenastrum capricornutum)	60 mg/l, 72 hours
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 24 hours Static test
Fish	EC50	Common carp (Juvenile Cyprinus carpio)	> 10000 mg/l, 72 hours
		Zebra fish (Adult Brachydanio rerio)	5000 mg/l, 96 hours Static test
Microtox	EC50	Microtox	8700 mg/l, 15 minutes
SODIUM FLUORIDE (CAS 7681-49-4)			
Acute			
	IC50	Activated sludge	2930 mg/L, 3 hours
Aquatic			
Acute			
Algae	EC50	Green algae (Selenastrum capricornutum)	272 mg/L, 96 hours
Crustacea	EC50	Water flea (Daphnia magna)	340 mg/L, 48 hours Static test
Fish	EC50	Fathead minnow (Juvenile Pimephales promelas)	180 mg/L, 96 hours Static renewal test
		Mosquito fish (Adult Gambusia affinis)	418 mg/L, 96 hours Static test
		Rainbow trout (Juvenile Oncorhyncus mykiss)	108 mg/L, 96 hours Static test
SODIUM TRIPOLYPHOSPHATE (CAS 7758-29-4)			
Acute			
	IC50	Activated sludge	> 1000 mg/l, 3 hours
Aquatic			
Acute			
Algae	EC50	Algae	60 - 120 mg/l
Crustacea	EC50	Water flea (Daphnia magna)	1089 mg/l, 50 hours
Fish	EC50	Golden ide/orfe (Adult Leuciscus idus)	1650 mg/l, 48 hours
		Orange-red killfish (Adult Oryzias latipes)	590 mg/l, 48 hours Static test
TITANIUM DIOXIDE (CAS 13463-67-7)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hours Static test

Components		Species	Test Results
TOCOPHERYL ACETATE (CAS 7695-91-2)			
Aquatic			
Acute			
Algae	EC50	Green algae (Selenastrum capricornutum)	> 25.5 mg/l, 72 hours
	NOEC	Green algae (Selenastrum capricornutum)	25.5 mg/l, 72 hours
Fish	EC50	Rainbow trout (Adult Oncorhyncus mykiss)	> 91.1 mg/l, 96 hours
	NOEC	Rainbow trout (Adult Oncorhyncus mykiss)	91.1 mg/l, 96 hours
ZINC CITRATE (CAS 546-46-3)			
Aquatic			
Acute			
Algae	EC50	Green algae (Selenastrum capricornutum)	0.13 mg/l, 24 hours Static test
Crustacea	EC50	Water flea (Daphnia magna)	0.59 mg/l, 48 hours Static test
Fish	EC50	Bluegill sunfish (Adult Lepomis macrochirus)	30.73 mg/l, 96 hours Static test
		Fathead minnow (Adult Pimephales promelas)	2.09 mg/l, 96 hours Static renewal test
		Mosquito fish (Adult Gambusia affinis)	439 mg/l, 96 hours Static test
		Rainbow trout (Adult Oncorhyncus mykiss)	2.1 mg/l, 96 hours Flow-through test

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Photolysis

Half-life (Photolysis-atmospheric)

BUTYLATED HYDROXYANISOLE	10.7 Hours Estimated
EUCALYPTOL	1.4 Days Estimated

Biodegradability

Percent degradation (Aerobic biodegradation-inherent)

CITRIC ACID ANHYDROUS	98 %, 2 days Modified Zahn-Wellens, Activated sludge
COCOAMIDOPROPYL BETAINE	97 %, 28 days Modified Zahn-Wellens, DOC removal., Activated sludge
	99 %, 28 days Modified Zahn-Wellens, DOC removal., Activated sludge
TOCOPHERYL ACETATE	84 %, 28 days Modified MITI (II) Test.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

EUCALYPTOL	2.74
TOCOPHERYL ACETATE	12.2 (Calculated).

Bioconcentration factor (BCF)

SODIUM FLUORIDE	2.3 Measured
ZINC CITRATE	> 1000 Measured

Mobility in soil

Adsorption

Soil/sediment sorption - log Koc

BUTYLATED HYDROXYANISOLE	3.14 Calculated

Mobility in general

Volatility

Henry's law

BUTYLATED HYDROXYANISOLE	0.000001 atm m3/mol Calculated
CITRIC ACID ANHYDROUS	< 0 atm m^3/mol Calculated, 25 °C
EUCALYPTOL	0.00011 atm m^3/mol, 25 C Estimated

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as a dangerous good.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code MARPOL Annex II applies to liquids used in a ship's operation that pose a threat to the marine environment. These materials may not be transported in bulk.

15. Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

SODIUM FLUORIDE (CAS 7681-49-4)	Listed.
SODIUM TRIPOLYPHOSPHATE (CAS 7758-29-4)	Listed.
TRISODIUM PHOSPHATE (CAS 7601-54-9)	Listed.
ZINC CITRATE (CAS 546-46-3)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
POTASSIUM NITRATE	7757-79-1	0 <= 5.0
ZINC CITRATE	546-46-3	0 <= 1.0

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

BUTYLATED HYDROXYANISOLE (CAS 25013-16-5)
CALCIUM CARBONATE (CAS 471-34-1)
POTASSIUM NITRATE (CAS 7757-79-1)
SILICON DIOXIDE (CAS 7631-86-9)
SODIUM FLUORIDE (CAS 7681-49-4)
SODIUM TRIPOLYPHOSPHATE (CAS 7758-29-4)
TITANIUM DIOXIDE (CAS 13463-67-7)
TRISODIUM PHOSPHATE (CAS 7601-54-9)

US. New Jersey Worker and Community Right-to-Know Act

BUTYLATED HYDROXYANISOLE (CAS 25013-16-5)
CALCIUM CARBONATE (CAS 471-34-1)
POTASSIUM NITRATE (CAS 7757-79-1)
SILICON DIOXIDE (CAS 7631-86-9)
SODIUM FLUORIDE (CAS 7681-49-4)
TIN (II) FLUORIDE (CAS 7783-47-3)
TITANIUM DIOXIDE (CAS 13463-67-7)
TRISODIUM PHOSPHATE (CAS 7601-54-9)
ZINC CITRATE (CAS 546-46-3)

US. Pennsylvania Worker and Community Right-to-Know Law

CALCIUM CARBONATE (CAS 471-34-1)
POTASSIUM NITRATE (CAS 7757-79-1)
SILICON DIOXIDE (CAS 7631-86-9)
SODIUM FLUORIDE (CAS 7681-49-4)
SODIUM TRIPOLYPHOSPHATE (CAS 7758-29-4)
TIN (II) FLUORIDE (CAS 7783-47-3)
TITANIUM DIOXIDE (CAS 13463-67-7)
TRISODIUM PHOSPHATE (CAS 7601-54-9)

US. Rhode Island RTK

POTASSIUM NITRATE (CAS 7757-79-1)
SODIUM FLUORIDE (CAS 7681-49-4)
SODIUM TRIPOLYPHOSPHATE (CAS 7758-29-4)
TRISODIUM PHOSPHATE (CAS 7601-54-9)
ZINC CITRATE (CAS 546-46-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

BUTYLATED HYDROXYANISOLE (CAS 25013-16-5)	Listed: January 1, 1990
TITANIUM DIOXIDE (CAS 13463-67-7)	Listed: September 2, 2011

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

Issue date	11-11-2014
Revision date	11-11-2014
Version #	11
Further information	HMIS® is a registered trade and service mark of the NPCA.
HMIS® ratings	Health: 2* Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 0 Instability: 0
References	GSK Hazard Determination
Disclaimer	The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create any warranty, express or implied. It is the responsibility of the user to determine the applicability of this information and the suitability of the material or product for any particular purpose.
Revision Information	Product and Company Identification: Synonyms Composition / Information on Ingredients: Ingredients