

## 1. Identification

**Product identifier**

**NICOTINE GUM**

**Other means of identification**

**Synonyms**

NIQUITIN CQ GUM (EXTRA MINT) \* NICORETTE FRUIT CHILL \* NICORETTE CINNAMON SURGE \* NICORETTE \* NICORETTE DS \* NICORETTE MINT \* NICORETTE FRESH MINT \* NICORETTE WHITE ICE MINT \* NICORETTE ORIGINAL \* COATED NICOTINE GUM 2MG AND 4MG \* BULK NUMBER 1001820, 1001822 \* NICOTINE POLACRILEX, FORMULATED PRODUCT

**Recommended use**

Medicinal Product.

This safety data sheet is written to provide health, safety and environmental information for people handling this formulated product in the workplace. It is not intended to provide information relevant to medicinal use of the product. In this instance patients should consult prescribing information/package insert/product label or consult their pharmacist or physician. For health and safety information for individual ingredients used during manufacturing, refer to the appropriate safety data sheet for each ingredient.

**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	%
CALCIUM CARBONATE	CARBONIC ACID, CALCIUM SALT * CALCIUM MONOCARBONATE * PRECIPITATED CALCIUM CARBONATE * CHALK	471-34-1	0 - < 25
SODIUM CARBONATE	CARBONIC ACID, DISODIUM SALT * BISODIUM CARBONATE * DISODIUM CARBONATE * SODA ASH	497-19-8	2 - < 5
OPTAMINT FLAVOUR		Unassigned	0 - 2
MINT FLAVOUR		Unassigned	0 - < =1.1

Chemical name	Common name and synonyms	CAS number	%
GLYCERIN	GLYCEROL * GLYCERIN ANHYDROUS * GLYCERINE * GLYCERITOL * GLYCYL ALCOHOL * 1,2,3-PROPANETRIOL * PROPANETRIOL * GLYROL * GLYSANIN * TRIHIDROXYPROPANE * 1,2,3-TRIHIDROXYPROPANE * OSMOGLYN	56-81-5	0 - < =1
L-MENTHOL	CYCLOHEXANOL, 5-METHYL-2-(1-METHYLETHYL)-, (1R-(1ALPHA,2BETA,5ALPHA))- * (1R-(1ALPHA,2BETA,5ALPHA))-5-METHYL- 2-(1-METHYLETHYL) -CYCLOHEXANOL * LEVOMENTHOL * L-MENTHOL * (L)-MENTHOL	2216-51-5	0 - < =1
SODIUM BICARBONATE	BAKING SODA * BICARBONATE OF SODA * CARBONIC ACID MONOSODIUM SALT * CARBONIC ACID SODIUM SALT (1:1) * MONOSODIUM CARBONATE * MONOSODIUM HYDROGEN CARBONATE * RTECS VZ0950000 * SODIUM ACID CARBONATE * SODIUM HYDROGEN CARBONATE	144-55-8	0 - < =1
SUCRALOSE	MICRONIZED SUCRALOSE * POWDERED SUCRALOSE * NEAT SUCRALOSE	56038-13-2	0 - < =1
TITANIUM DIOXIDE	TITANIUM OXIDE * TITANIUM(IV) OXIDE * TITANIUM PEROXIDE (TiO2) * PIGMENT WHITE 6	13463-67-7	0 - < =1
NICOTINE	1-METHYL-2-(3-PYRIDYL) PYRROLIDONE * NICOCIDE * NICO-FUME * L-3-(1-METHYL 1-2-PYRROLIDYL) PYRIDINE * BLACK LEAF * BETA-PYRIDYL-ALPHA-N-METHYLPYRRO LIDINE * NICOTINE ALKALOID * O-3825 * RCRA P075 * OHS16430 * RTECS QS5250000 * 3-(N-METHYL-2-PYRROLIDINYL)PYRIDINE * 3-(N-METYYLI-2-PYRROLIDINYLI)PYRIDII NI	54-11-5	0.15 - < 0.5
TUTTI FRUTTI	TUTTI FRUTTI 51880/A * TUTTI FRUTTI FLAVOUR	Unassigned	< 0.2
MAGNESIUM OXIDE	GI197895X * MAGNESIA * MAGNESIUM MONOXIDE * CALCINED MAGNESIA * CALCINATED MAGNESIA * CAUSTIC MAGNESITE * MAGNESA PREPRATA * MAGNESIUM (II) OXIDE * SYNTHETIC PERICLASE * BURNT MAGNESIA * CI 77711 * LIGHT MAGNESIA * OXIDO DE MAGNESIO * ÓXIDO DE MAGNESIO,	1309-48-4	< 0.1
MAGNESIUM STEARATE	STEARIC ACID, MAGNESIUM SALT * MAGNESIUM DISTEARATE * DIBASIC MAGNESIUM STEARATE * MAGNESIUM DISTEARATE, PURE	557-04-0	0 - < 0.1

Chemical name	Common name and synonyms	CAS number	%
2,6-DI-TERT-BUTYL-P-CRESOL	BUTYLATED HYDROXYTOLUENE * 4-METHYL-2,6-DI-TERT-BUTYLPHENOL * BUTYLHYDROXYTOLUENE * DIBUTYLATED HYDROXYTOLUENE * 2,6-DI-TERT-BUTYL-1-HYDROXY-4-METHYLBENZENE * 3,5-DI-TERT-BUTYL-4-HYDROXYTOLUENE * 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYLPHENOL * 2,6-DI-TERT-BUTYL-4-METHYLPHENOL * 2,6-TERT-BUTYL-4-METHYLPHENOL * 2,6-DI-TERT-BUTYL-PARA-CRESOL	128-37-0	0 - < = 0.05
ACESULFAME K	1,2,3-OXATHIAZIN-4(3H)-ONE, 6-METHYL-, 2,2-DIOXIDE, POTASSIUM SALT (9CI) * ACESULFAM	55589-62-3	0 - < = 0.05
TALC	TALCUM, NON-ASBESTOS FORM * TALC * HYDROUS MAGNESIUM SILICATE	14807-96-6	0 - < 0.01
Other components below reportable levels			>70.0

#### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. If breathing is difficult, trained personnel should give oxygen. Call a physician if symptoms develop or persist. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin contact</b>	Immediately flush skin with plenty of water. Take off contaminated clothing and wash before reuse. Get medical attention if symptoms occur.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>Ingestion</b>	If swallowed, rinse mouth with water (only if the person is conscious). If ingestion of a large amount does occur, call a poison control center immediately. Do not induce vomiting without advice from poison control center.
<b>Most important symptoms/effects, acute and delayed</b>	The possible consequences of overexposure include: increased heart rate; increased blood pressure; salivation; abdominal pain; headache; depression; respiratory depression.
<b>Indication of immediate medical attention and special treatment needed</b>	No specific antidotes are recommended. Treat according to locally accepted protocols. For additional guidance, refer to the current prescribing information or to the local poison control information center.
<b>General information</b>	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.
Never return spills to original containers for re-use. 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** Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### GSK

Components	Type	Value	Note
ACESULFAME K (CAS 55589-62-3)	OHC	1	
L-MENTHOL (CAS 2216-51-5)	OHC	1	SKIN SENSITISER
NICOTINE (CAS 54-11-5)	15 MIN STEL	200 mcg/m3	
	8 HR TWA	70 mcg/m3	
	OHC	3	REPRODUCTIVE HAZARD SKIN
SODIUM BICARBONATE (CAS 144-55-8)	8 HR TWA	5000 mcg/m3	
	OHC	1	
SODIUM CARBONATE (CAS 497-19-8)	8 HR TWA	5000 mcg/m3	
	OHC	1	
SUCRALOSE (CAS 56038-13-2)	OHC	1	
TUTTI FRUTTI (CAS Unassigned)	8 HR TWA	5000 mcg/m3	
	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.
GLYCERIN (CAS 56-81-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
MAGNESIUM OXIDE (CAS 1309-48-4)	PEL	15 mg/m3	Total particulate.
		15 mg/m3	Total dust.
NICOTINE (CAS 54-11-5)	PEL	0.5 mg/m3	
TITANIUM DIOXIDE (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.

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

Components	Type	Value	Form
TALC (CAS 14807-96-6)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		20 mppcf	
		2.4 mppcf	Respirable.

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
2,6-DI-TERT-BUTYL-P-CR ESOL (CAS 128-37-0)	TWA	2 mg/m3	Inhalable fraction and vapor.
MAGNESIUM OXIDE (CAS 1309-48-4)	TWA	10 mg/m3	Inhalable fraction.
MAGNESIUM STEARATE (CAS 557-04-0)	TWA	10 mg/m3	
NICOTINE (CAS 54-11-5)	TWA	0.5 mg/m3	
TALC (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
TITANIUM DIOXIDE (CAS 13463-67-7)	TWA	10 mg/m3	

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
2,6-DI-TERT-BUTYL-P-CR ESOL (CAS 128-37-0)	TWA	10 mg/m3	
CALCIUM CARBONATE (CAS 471-34-1)	TWA	5 mg/m3	Respirable.
NICOTINE (CAS 54-11-5)	TWA	10 mg/m3	Total
TALC (CAS 14807-96-6)	TWA	0.5 mg/m3 2 mg/m3	Respirable.

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Exposure guidelines****US - California OELs: Skin designation**

NICOTINE (CAS 54-11-5) Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

NICOTINE (CAS 54-11-5) Skin designation applies.

**US - Tennessee OELs: Skin designation**

NICOTINE (CAS 54-11-5) Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

NICOTINE (CAS 54-11-5) Can be absorbed through the skin.

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**

NICOTINE (CAS 54-11-5) Can be absorbed through the skin.

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

NICOTINE (CAS 54-11-5) Can be absorbed through the skin.

**Appropriate engineering controls**

General ventilation normally adequate. An Exposure Control Approach (ECA) is established for operations involving this material based upon the OEL/Occupational Hazard Category and the outcome of a site- or operation-specific risk assessment.

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

**Eye/face protection** Not normally needed. If contact is likely, safety glasses with side shields are recommended.

**Skin protection**

**Hand protection** Not normally needed. For prolonged or repeated skin contact use suitable protective gloves.

**Other** Not normally needed. Wear suitable protective clothing as protection against splashing or contamination.

**Respiratory protection** No personal respiratory protective equipment normally required. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. For advice on suitable monitoring methods, seek guidance from a qualified environment, health and safety professional.

**9. Physical and chemical properties****Appearance**

**Physical state** Solid.  
**Form** Gum.  
**Color** Not available.

**Odor** Not available.

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not available.

**Flash point** Not available.

Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
<b>Upper/lower flammability or explosive limits</b>	
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.
<b>Solubility(ies)</b>	
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	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Nitrogen oxides (NOx).

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	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	Health injuries are not known or expected under normal use. May be irritating to eyes.
Ingestion	Health injuries are not known or expected under normal use. May be harmful if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics** The possible symptoms of overexposure include: increased heart rate; increased blood pressure; salivation; abdominal pain; headache; depression; respiratory depression; dizziness.

NICOTINE nervous system

### Information on toxicological effects

**Acute toxicity** Health injuries are not known or expected under normal use. May be harmful if swallowed.

Components	Species	Test Results
2,6-DI-TERT-BUTYL-P-CRESOL (CAS 128-37-0)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	890 mg/kg
ACESULFAME K (CAS 55589-62-3)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg

Components	Species	Test Results
CALCIUM CARBONATE (CAS 471-34-1)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	6450 mg/kg
GLYCERIN (CAS 56-81-5)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg
L-MENTHOL (CAS 2216-51-5)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	3300 mg/kg
MAGNESIUM STEARATE (CAS 557-04-0)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg
NICOTINE (CAS 54-11-5)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	140 mg/kg
<i>Oral</i>		
LD50	Rat	188 mg/kg
SODIUM BICARBONATE (CAS 144-55-8)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	4220 mg/kg
SUCRALOSE (CAS 56038-13-2)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	10 g/kg
TITANIUM DIOXIDE (CAS 13463-67-7)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	6820 mcg/m3
<i>Oral</i>		
LD50	Rat	> 24 g/kg
<b>Chronic</b>		
<i>Inhalation</i>		
LOEC	Rat	8.6 mg/m3, 1 years TiO2 accumulated in interstitial macrophages, aggregated interstitial cells and particle laden macrophages in lymphoid tissue.
NOAEC	Rat	250 mg/m3, 2 years Highest dose 5 mg/m3, 24 months
<b>Subacute</b>		
<i>Inhalation</i>		
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.

Components	Species	Test Results
<i>Oral</i> NOAEL	Rat	100000 ppm, 14 Day Dietary study, highest dose tested.
<b>Subchronic</b> <i>Inhalation</i> LOEC	Rat	3.2 - 20 mg/m <sup>3</sup> , 8 min Accumulation of TiO <sub>2</sub> in macrophages and evidence of pulmonary inflammation.

\* 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. Prolonged skin contact may cause temporary irritation.

**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**

MAGNESIUM STEARATE

0

SUCRALOSE

0

**Serious eye damage/eye irritation** Health injuries are not known or expected under normal use. Direct contact with eyes may cause temporary irritation.

**Eye**

SODIUM CARBONATE

Acute ocular irritation; OECD 405  
Result: Moderate Irritant  
Species: Rabbit

TITANIUM DIOXIDE

OECD 405, Literature data  
Result: Mild irritant  
Species: Rabbit

**Eye / Kay and Calandra class - Intact**

SUCRALOSE

4

MAGNESIUM STEARATE

4

Recovery Period: 2 days

**Respiratory or skin sensitization**

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

**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**

NICOTINE

Ames  
Result: Negative

TITANIUM DIOXIDE

Ames, Literature data  
Result: Negative

NICOTINE

In vitro cytogenetics assay  
Result: Negative

TITANIUM DIOXIDE

Micronucleus Assay in vitro, CHO cells, Literature data  
Result: Negative



**Mutagenicity**

TITANIUM DIOXIDE

Micronucleus Assay in vitro, cultured human peripheral lymphocytes, Literature data

Result: Positive

NICOTINE

Mouse micronucleus test

Result: Negative

TITANIUM DIOXIDE

Syrian Hamster Embryo (SHE) cell transformation assay

Result: Negative

WIL2-NS HPRT/ t-Thioguanidine - Human B-Cell

lymphoblastoid, Literature data

Result: Positive

NICOTINE

in vitro micronucleus assay

Result: Positive

Organ: gingivum

sister chromatid exchange

Result: Positive

**Carcinogenicity**

Contains a material (Titanium Dioxide) classified as a carcinogen by external agencies. High concentrations or doses administered over an extended period of time were required to produce adverse effects. Health injuries are not known or expected under normal use.

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

NICOTINE

Inhalation

Result: Negative

Species: Rat

oral

Result: Negative

Species: Rat

tumour promotor

Species: Mouse

**IARC Monographs. Overall Evaluation of Carcinogenicity**

2,6-DI-TERT-BUTYL-P-CRESOL (CAS 128-37-0)

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.

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects. Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. These effects are linked only to high doses of this substance; low doses did not produce this adverse effect.

**Reproductivity**

NICOTINE

Result: Developmental effects including cleft palate.

Species: Mouse

Result: Developmental toxicity.

Species: Rabbit

Result: Developmental toxicity.

Species: Rat

<b>Specific target organ toxicity - single exposure</b>	nervous system
NICOTINE	nervous system
<b>Specific target organ toxicity - repeated exposure</b>	Causes damage to organs (Circulatory System) through prolonged or repeated exposure.
NICOTINE	cardiovascular system
<b>Aspiration hazard</b>	Not available.
<b>Further information</b>	Caution - Pharmaceutical agent. Occupational exposure to the substance or mixture may cause adverse effects.

## 12. Ecological information

**Ecotoxicity** No information is available about the potential of this product to produce adverse environmental effects. Contains a substance which causes risk of hazardous effects to the environment.

Components	Species	Test Results
<b>2,6-DI-TERT-BUTYL-P-CRESOL (CAS 128-37-0)</b>		
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	EC50	Water flea (Daphnia magna) 1.44 mg/l, 48 hours Static test
Fish	EC50	Orange-red killfish (Adult Oryzias latipes) 5.3 mg/l, 48 hours Static test
<b>ACESULFAME K (CAS 55589-62-3)</b>		
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	NOEC	Water flea (Daphnia magna) > 1000 mg/l, 24 hours
Fish	EC50	Zebra fish (Adult Brachydanio rerio) > 1000 mg/l, 96 hours
<i>Chronic</i>		
Other	LC50	Bacteria > 10000 mg/l
<b>CALCIUM CARBONATE (CAS 471-34-1)</b>		
<b>Aquatic</b>		
Fish	LC50	Western mosquitofish (Gambusia affinis) > 56000 mg/l, 24 hours
<b>L-MENTHOL (CAS 2216-51-5)</b>		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50	Green algae (Desmodesmus subspicatus) 21.4 mg/l, 72 hours OECD 201
Crustacea	EC50	Water flea (Daphnia magna) 37.7 mg/l, 24 hours OECD 202
Fish	LC50	Zebra danio (Danio rerio) 15.6 mg/l, 96 hours EU Method C.1
<i>Chronic</i>		
Algae	NOEC	Green algae (Desmodesmus subspicatus) 9.65 mg/l, 72 hours OECD 201
<b>MAGNESIUM STEARATE (CAS 557-04-0)</b>		
<b>Aquatic</b>		
<i>Acute</i>		
Fish	EC50	Orange-red killfish (Adult Oryzias latipes) 130 mg/l, 96 hours
<b>NICOTINE (CAS 54-11-5)</b>		
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	EC50	Water flea (Daphnia pulex) 0.242 mg/l, 48 hours Static renewal test
Fish	EC50	Rainbow trout (Adult Oncorhynchus mykiss) 4 mg/l, 96 hours

Components	Species	Test Results
<b>SODIUM BICARBONATE (CAS 144-55-8)</b>		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50	Algae ( <i>Nitscheria linearis</i> ) 650 mg/l, 5 days
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> ) 2350 mg/l, 48 hours Static test
Fish	EC50	Bluegill sunfish (Adult <i>Lepomis macrochirus</i> ) 8250 - 9000 mg/l, 96 hours Static test
		Mosquito fish (Adult <i>Gambusia affinis</i> ) 7550 mg/l, 96 hours Static test
<b>SODIUM CARBONATE (CAS 497-19-8)</b>		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50	Green algae ( <i>Selenastrum capricornutum</i> ) > 800 mg/l
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> ) 265 mg/l, 48 hours Static test
Fish	EC50	Bluegill sunfish (Adult <i>Lepomis macrochirus</i> ) 300 mg/l, 96 hours Static test
		Fathead minnow (Juvenile <i>Pimephales promelas</i> ) < 850 mg/l, 96 hours Static test
		Mosquito fish (Adult <i>Gambusia affinis</i> ) 740 mg/l, 96 hours Static test
<b>SUCRALOSE (CAS 56038-13-2)</b>		
<i>Acute</i>		
	IC50	Activated sludge > 1000 mg/l, 3 hours
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> ) > 100 mg/l, 48 hours Static test
	NOEC	Water flea ( <i>Daphnia magna</i> ) 100 mg/l, 48 hours Static test
<b>TALC (CAS 14807-96-6)</b>		
<b>Aquatic</b>		
<i>Acute</i>		
Fish	EC50	Zebra fish (Adult <i>Brachydanio rerio</i> ) > 100 g/l, 24 hours Static renewal test
<b>TITANIUM DIOXIDE (CAS 13463-67-7)</b>		
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> ) > 1000 mg/l, 48 hours Static test

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

#### Persistence and degradability

##### Photolysis

###### Half-life (Photolysis-atmospheric)

L-MENTHOL 16 Hours Estimated  
MAGNESIUM STEARATE 17 Hours Estimated

###### UV/visible spectrum wavelength

MAGNESIUM STEARATE 210 nm

##### Biodegradability

###### Percent degradation (Aerobic biodegradation-inherent)

ACESULFAME K 0 - 8 %, 25 days Batch activated sludge (BAS), Activated sludge  
MAGNESIUM STEARATE 77 %, 28 days BOD  
SUCRALOSE 1 %, 28 days Modified Zahn-Wellens, Activated sludge

###### Percent degradation (Aerobic biodegradation-soil)

MAGNESIUM STEARATE 50 %, 13 days

#### Bioaccumulative potential

##### Partition coefficient n-octanol / water (log Kow)

GLYCERIN -1.76

**Partition coefficient n-octanol / water (log Kow)**

L-MENTHOL	3.3
NICOTINE	1.17

**Bioconcentration factor (BCF)**

2,6-DI-TERT-BUTYL-P-CRESOL	230 - 2500 Measured, Cyprinus carpio, carp
L-MENTHOL	1 - 15 Measured, Cyprinus carpio, carp
MAGNESIUM STEARATE	> 9999 Estimated
NICOTINE	5

**Mobility in soil****Adsorption****Soil/sediment sorption - log Koc**

L-MENTHOL	3.18 Estimated
MAGNESIUM STEARATE	5.86 Estimated
NICOTINE	2 Estimated

**Mobility in general****Volatility****Henry's law**

2,6-DI-TERT-BUTYL-P-CRESOL	0.000004, 25 Estimated
L-MENTHOL	0.000015 atm m <sup>3</sup> /mol Estimated
NICOTINE	0 atm m <sup>3</sup> /mol Estimated

**Other adverse effects** Not available.

**13. Disposal considerations**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not discharge into drains, water courses or onto the ground. Dispose in accordance with all applicable 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.

**US RCRA Hazardous Waste P List: Reference**

NICOTINE (CAS 54-11-5)	P075
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**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). Avoid discharge into water courses or onto the ground.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. 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)**

NICOTINE (CAS 54-11-5)	Listed.
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**SARA 304 Emergency release notification**

NICOTINE (CAS 54-11-5)	100 LBS
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**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**

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
NICOTINE	54-11-5	100	100 lbs		

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
NICOTINE	54-11-5	0.15 - < 0.5

**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**

2,6-DI-TERT-BUTYL-P-CRESOL (CAS 128-37-0)  
 CALCIUM CARBONATE (CAS 471-34-1)  
 GLYCERIN (CAS 56-81-5)  
 MAGNESIUM OXIDE (CAS 1309-48-4)  
 NICOTINE (CAS 54-11-5)  
 TALC (CAS 14807-96-6)  
 TITANIUM DIOXIDE (CAS 13463-67-7)

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

2,6-DI-TERT-BUTYL-P-CRESOL (CAS 128-37-0)  
 CALCIUM CARBONATE (CAS 471-34-1)  
 GLYCERIN (CAS 56-81-5)  
 MAGNESIUM OXIDE (CAS 1309-48-4)  
 NICOTINE (CAS 54-11-5)  
 TALC (CAS 14807-96-6)  
 TITANIUM DIOXIDE (CAS 13463-67-7)

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

2,6-DI-TERT-BUTYL-P-CRESOL (CAS 128-37-0)  
 CALCIUM CARBONATE (CAS 471-34-1)  
 GLYCERIN (CAS 56-81-5)  
 MAGNESIUM OXIDE (CAS 1309-48-4)  
 NICOTINE (CAS 54-11-5)  
 TALC (CAS 14807-96-6)  
 TITANIUM DIOXIDE (CAS 13463-67-7)

**US. Rhode Island RTK**

NICOTINE (CAS 54-11-5)

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

TITANIUM DIOXIDE (CAS 13463-67-7) Listed: September 2, 2011

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

NICOTINE (CAS 54-11-5) Listed: April 1, 1990

## 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
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

<b>Issue date</b>	12-11-2014
<b>Revision date</b>	12-11-2014
<b>Version #</b>	07
<b>Further information</b>	HMIS® is a registered trade and service mark of the NPCA.
<b>HMIS® ratings</b>	Health: 1* Flammability: 1 Physical hazard: 0
<b>NFPA ratings</b>	Health: 1 Flammability: 1 Instability: 0
<b>References</b>	GSK Hazard Determination
<b>Disclaimer</b>	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.
<b>Revision Information</b>	This document has undergone significant changes and should be reviewed in its entirety.