SAFETY DATA SHEET

1. Identification

Product identifier **TUMS TABLETS**

Other means of identification

Synonyms MFC50899 TUMS FRESHERS COOLMINT AND PLACEBO * CALCIUM CARBONATE, FORMULATED PRODUCT * MFC 51081 TUMS FRESHERS SPEARMINT * MFC 51126A TUMS REGULAR PEPPERMINT 500MG * MFC 51126B TUMS EXTRA PEPPERMINT 750MG * MFC 51126C TUMS ULTRA PEPPERMINT 1000MG * MFC 51127A TUMS REGULAR CHERRY 500MG * MFC 51127B TUMS EXTRA CHERRY 750MG * MFC 51127C TUMS ULTRA CHERRY 1000MG * MFC 51128A TUMS REGULAR ORANGE 500MG * MFC 51128B TUMS EXTRA ORANGE 750MG * MFC 51128C TUMS ULTRA ORANGE 1000MG * MFC 51129A TUMS REGULAR LEMON 500MG * MFC 51129B TUMS EXTRA LEMON 750MG * MFC 51129C TUMS ULTRA LEMON 1000MG * MFC 51130A TUMS REGULAR LIME 500MG * MFC 51130B TUMS EXTRA LIME 750MG * MFC 51130C TUMS ULTRA LIME 1000MG * ANDREWS TUMS ANTACID MIXED FRUIT FLAVOURED TABLETS * ACD-128 ANDREWS ANTACID REFRESHING (UK) * TUMS ASSORTED FRUIT (UK) * TUMS ASSORTED FRUIT ANTACID TABLETS 500MG * ANDREWS ANTACID FRUIT (UK) * CALCIUM CARBONATE 600MG AND MAGNESIUM CARBONATE 125MG TABLETS * FORMULA NUMBERS: 3001111-0017, 300111-0018, 3001111-0019 AND 3001111-0020 TUMS ULTRA ASSORTED FRUIT (US) * FORMULA NUMBERS: 3001111-0017, 3001111-0018, 3001111-0019 AND 3001111-0020 TUMS ULTRA STRENGTH ASSORTED FRUIT (CANADA) * FORMULA NUMBERS: 3001111-0023, 3001111-0024, 3001111-0025 AND 3001111-0026 TUMS ULTRA ASSORTED TROPICAL (US AND CANADA) * FORMULA NUMBERS: 3001109-0018, 3001109-0019, 3001109-0020 AND 3001109-0021 TUMS EXTRA STRENGTH TROPICAL FRUIT * FORMULA NUMBERS: 3001109-0018, 3001109-0019, 3001109-0020 AND 3001109-0021 TUMS TROPICAL FRUIT 750MG * FORMULA NUMBERS: 3001101-0047, 3001101-0048, 3001101-0049 AND 3001101-0050 TUMS ASSORTED FRUIT * FORMULA NUMBERS: 3001101-0047, 3001101-0048, 3001101-0049 AND 3001101-0050 TUMS REGULAR STRENGTH ASSORTED FRUIT (CANADA AND COLUMBIA) * FORMULA NUMBERS: 10499-001-0006, 10499-001-0007 AND 10499-001-0008 TUMS EXTRA STRENGTH ASSORTED BERRIES * FORMULA NUMBERS: 3001111-0036, 3001111-0037 AND 3001111-0038 TUMS ULTRA ASSORTED BERRIES (US AND CANADA) * FORMULA NUMBER: 3001109-0021 TUMS EX BANANA BERRY * FORMULA NUMBER: 3001104-0043 ANDREWS TUMS ORANGE TABLETS * MFC 3001101-0048 ENO TUMS ORANGE * FORMULA NUMBERS: 3001101-0047 AND 3001101-0048 ENO TUMS ASSORTED FRUIT

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	%
D-SORBITOL	SORBITOL * L-GULITOL * 1,2,3,4,5,6-HEXANEHEXOL * D-SORBOL	50-70-4	0 - 83
CALCIUM CARBONATE	CARBONIC ACID, CALCIUM SALT * CALCIUM MONOCARBONATE * PRECIPITATED CALCIUM CARBONATE * CHALK	471-34-1	0 - 75
TALC	TALCUM, NON-ASBESTOS FORM * TALC * HYDROUS MAGNESIUM SILICATE	14807-96-6	0 - <12
MAGNESIUM CARBONATE	CARBONIC ACID, MAGNESIUM SALT * CARBONATE MAGNESIUM	546-93-0	0 - < 9
MALIC ACID	HYDROXYSUCCINIC ACID * HYROXYBUTANEDIOIC ACID	6915-15-7	0 - < 6
STARCH	ARROWROOT STARCH * CORN STARCH * POTATO STARCH * RICE STARCH	9005-25-8	0 - 6
CALCIUM STEARATE	CALCIUM DISTEARATE	1592-23-0	0 -3.5
CITRIC ACID ANHYDROUS	BETA-HYDROXYTRICARBALLYLIC ACID * ANHYDROUS CITRIC ACID * 2-HYDROXY-1,2,3-PROPANETRICARBOXYLIC ACID * CITIRIC ACID	77-92-9	< 1
Other components below reportable levels			25 - 60

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

4. First-aid measures

Inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. If breathing is difficult, trained personnel should give oxygen. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Skin contact

Immediately flush skin with plenty of water. Take off contaminated clothing and wash before reuse. Get medical attention if symptoms occur.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion

If swallowed, rinse mouth with water (only if the person is conscious).

Most important symptoms/effects, acute and delayed

Irritant effects.

Indication of immediate medical attention and special treatment needed

No specific antidotes are recommended. Treat according to locally accepted protocols. For additional guidance, refer to the local poison control information centre.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Pre-placement and periodic health surveillance is not usually indicated. The final determination of the need for health surveillance should be determined by local risk assessment.

5. Fire-fighting measures

Suitable extinguishing media

Alcohol resistant foam. Water spray. Water fog. Dry chemical powder. Carbon dioxide (CO2).

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

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Use water spray to cool unopened containers.

Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Expected to be non-combustible.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	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. 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	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. 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
CITRIC ACID ANHYDROUS (CAS 77-92-9)	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.
MAGNESIUM CARBONATE (CAS 546-93-0)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
STARCH (CAS 9005-25-8)	PEL	5 mg/m3	Respirable fraction.
		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
CALCIUM STEARATE (CAS 1592-23-0)	TWA	10 mg/m3	
STARCH (CAS 9005-25-8)	TWA	10 mg/m3	
TALC (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.

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

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
MAGNESIUM CARBONATE (CAS 546-93-0)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
STARCH (CAS 9005-25-8)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
TALC (CAS 14807-96-6)	TWA	2 mg/m3	Respirable.

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

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection For prolonged or repeated skin contact use suitable protective gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

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.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Tablet.

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.

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.

Other information

Dust explosion properties	
St class	No studies have been conducted.
Minimum ignition energy (MIE) - dust cloud	No studies have been conducted.
Train fire	No studies have been conducted.

10. Stability and reactivity

Reactivity	Not available.
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	Acids. Fluorine.
Hazardous decomposition products	None known. Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Health injuries are not known or expected under normal use. Inhalation of dusts may cause respiratory irritation.
Skin contact	Health injuries are not known or expected under normal use. Dust or powder may irritate the skin.
Eye contact	Health injuries are not known or expected under normal use. Dust or powder may irritate eye tissue.
Ingestion	Health injuries are not known or expected under normal use.
Symptoms related to the physical, chemical and toxicological characteristics	Irritant effects.

Information on toxicological effects

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

Components	Species	Test Results
CALCIUM CARBONATE (CAS 471-34-1)		
Acute		
Oral		
LD50	Rat	6450 mg/kg
CALCIUM STEARATE (CAS 1592-23-0)		
Acute		
Oral		
LD50	Rat	> 2000 mg/kg
CITRIC ACID ANHYDROUS (CAS 77-92-9)		
Acute		
Oral		
LD50	Rat	3000 mg/kg

Components	Species	Test Results
D-SORBITOL (CAS 50-70-4)		
Acute		
Oral		
LD50	Rat	15.9 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. Prolonged skin contact may cause temporary irritation.

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

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

Serious eye damage/eye irritation Health injuries are not known or expected under normal use. Dust or powder may irritate eye tissue.

Eye

CITRIC ACID ANHYDROUS — Acute ocular irritation; OECD 405
Result: Severe Irritant
Species: Rabbit

Respiratory or skin sensitization

Respiratory sensitization Not applicable.

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

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

Carcinogenicity Health injuries are not known or expected under normal use. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Contains a material (talc) classified as a carcinogen by external agencies. These effects are suspected to be due to impurities that are not expected to be present in purified material used in this product.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Health injuries are not known or expected under normal use. Contains no ingredient listed as toxic to reproduction

Specific target organ toxicity - single exposure None known.

Specific target organ toxicity - repeated exposure None known.

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

Further information Not available.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
CALCIUM CARBONATE (CAS 471-34-1)			
Aquatic			
Fish	LC50	Western mosquitofish (Gambusia affinis)	> 56000 mg/l, 24 hours
CALCIUM STEARATE (CAS 1592-23-0)			
Aquatic			
Acute			
Fish	EC50	Orange-red killfish (Adult Oryzias latipes)	266 mg/l, 96 hours
Microtox	EC50	Microtox	25.6 mg/l, 15 minutes

Components		Species	Test Results
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
TALC (CAS 14807-96-6)			
Aquatic			
Acute			
Fish	EC50	Zebra fish (Adult Brachydanio rerio)	> 100 g/l, 24 hours Static renewal 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-aqueous)

MALIC ACID	940 Days Estimated

Half-life (Photolysis-atmospheric)

CALCIUM STEARATE	17 Hours Estimated
MALIC ACID	2 Days Estimated

Biodegradability

Percent degradation (Aerobic biodegradation-inherent)

CALCIUM STEARATE	77 %, 28 days BOD
CITRIC ACID ANHYDROUS	98 %, 2 days Modified Zahn-Wellens, Activated sludge
MALIC ACID	68 %, 5 days BOD5, Activated sludge

Percent degradation (Aerobic biodegradation-soil)

CALCIUM STEARATE	> 50 %, 13 days

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

D-SORBITOL	-2.2

Bioconcentration factor (BCF)

CALCIUM STEARATE	> 1000 Estimated
D-SORBITOL	1 Estimated
MALIC ACID	0.1 - 0.3 Estimated

Mobility in soil

Adsorption

Soil/sediment sorption - log Koc

CALCIUM STEARATE	5.86 Estimated
D-SORBITOL	0.3 Estimated

Mobility in general

Volatility

Henry's law

CITRIC ACID ANHYDROUS	< 0 atm m^3/mol Calculated, 25 °C
D-SORBITOL	0 atm m^3/mol Estimated
MALIC ACID	0 atm m^3/mol, 25 C 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 allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. 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	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.

Read safety instructions, SDS and emergency procedures before handling.

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 One or more components are not listed on TSCA.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not 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)

Not regulated.

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

CALCIUM CARBONATE (CAS 471-34-1)
MAGNESIUM CARBONATE (CAS 546-93-0)
STARCH (CAS 9005-25-8)
TALC (CAS 14807-96-6)

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

CALCIUM CARBONATE (CAS 471-34-1)
MAGNESIUM CARBONATE (CAS 546-93-0)
TALC (CAS 14807-96-6)

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

CALCIUM CARBONATE (CAS 471-34-1)
STARCH (CAS 9005-25-8)
TALC (CAS 14807-96-6)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

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

Issue date	11-11-2014
Revision date	11-11-2014
Version #	05
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 Hazard(s) identification: Prevention Stability and reactivity: Hazardous decomposition products Toxicological information: Carcinogenicity Ecological information: Bioaccumulative potential Ecological information: Mobility in soil Ecological information: Mobility in general Other information, including date of preparation or last revision: References