SAFETY DATA SHEET

1. Identification

Product identifier **ZIAGEN ORAL SOLUTION**

Other means of identification

Synonyms ZIAGEN ORAL SOLUTION 20 MG/ML * ZIAGEN ORAL SOLUTION 100 MG/5 ML * ZIAGEN DRANK * ZIAGEN ORAL LOSNING * ZIAGEN ORAL OPLOSNING * ZIAGEN ORAL SOLUSYON * ZIAGEN SKIDUMS IEKSKIGAI LIETOSANAI * ZIAGEN SOLUCAO ORAL * ZIAGEN SOLUCION * ZIAGEN SOLUCION ORAL * ZIAGEN SOLUTIE * ZIAGEN SOLUTION BUVABLE * ZIAGEN SOLUZIONE ORALE * ZIAGEN TRINKLOSUNG * ZIAGEN LOSUNG ZUM EINNEHMEN * ZIAGENAVIR ORAL SOLUTION * NDC NO. 0173-0664-00 * ABACAVIR HEMISULPHATE, 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

ViiV Healthcare
Five Moore Drive
Research Triangle Park
North Carolina, USA
27709-3398
US General Information (normal business hours): +1-877-844-8872 (+1 877 ViiVUSA)

Email Address: msds@gsk.com
Website: www.viivhealthcare.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	%
PROPYLENE GLYCOL	1,2-PROPANEDIOL 1,2-DIHYDROXYPROPANE 2-HYDROXYPROPANOL ISOPROPYLENE GLYCOL METHYLETHYLENE GLYCOL METHYLETHYL GLYCOL MONOPROPYLENE GLYCOL 2,3-PROPANEDIOL ALPHA-PROPYLENE GLYCOL 1,2-PROPYLENE GLYCOL (RS)-1,2-PROPANEDIOL 1,2-(RS)-PROPANEDIOL 1,2-PROPANDIOL DL-1,2-PROPANEDIOL DL-PROPYLENE GLYCOL PROPANE-1,2-DIOL (PROPYLENE GLYCOL) PROPANE-1-2-DIOL PROPANEDIOL,1,2-	57-55-6	8.2
ABACAVIR HEMISULPHATE	(1S,4R)-CIS-4-(2-AMINO-6-(CYCLOPROPYLAMINO)-9H-PURIN-9-YL)-2-CYCLOPENTENE-1 -METHANOL HEMISULFATE SALT 1592U89 HEMISULPHATE GI265235F ABACAVIR HEMISULFATE ABACAVIR SULPHATE ABACAVIR SULFATE	188062-50-2	3.98
CITRIC ACID ANHYDROUS	BETA-HYDROXYTRICARBALLYLIC ACID ANHYDROUS CITRIC ACID 2-HYDROXY-1,2,3-PROPANETRICARBOXYLIC ACID CITIRIC ACID	77-92-9	1.19
HYDROCHLORIC ACID	HYDROCHLORIC ACID SOLUTIONS RTECS MW4025000 MURIATIC ACID AQUEOUS HYDROGEN CHLORIDE CHLOROHYDRIC ACID HCL	7647-01-0	0.2
SODIUM HYDROXIDE	CAUSTIC SODA SODIUM HYDRATE	1310-73-2	0.07
PROPYL PARABEN	PROPYL P-HYDROXYBENZOATE PROTABEN 4-HYDROXYBENZOIC ACID, PROPYL ESTER P-HYDROXYBENZOIC ACID, PROPYL ESTER PASEPTOL PARASEPT PROPYL ASEPTOFORM PROPYL P-OXYBENZOATE	94-13-3	0.03
Other components below reportable levels			86.33

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

4. First-aid measures

Inhalation 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.

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). If ingestion of a large amount does occur, call a poison control center immediately. Do not induce vomiting without advice from poison control center.

Most important symptoms/effects, acute and delayed	May cause an allergic skin reaction. Irritation of eyes and mucous membranes.
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 current prescribing information or to the local poison control information center.
General information	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

Suitable extinguishing media	Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Water.
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	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	This material will support combustion at elevated temperatures.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. 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	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. 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	Keep away from heat, sparks and open flame. Do not get this material in contact with eyes. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Provide adequate ventilation. Wash hands thoroughly after handling.
Conditions for safe storage, including any incompatibilities	Keep away from heat, sparks and open flame. 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
ABACAVIR HEMISULPHATE (CAS 188062-50-2)	8 HR TWA	600 mcg/m3	SKIN SENSITISER, CARCINOGEN
	OHC	2	SKIN SENSITISER, CARCINOGEN
CITRIC ACID ANHYDROUS (CAS 77-92-9)	8 HR TWA	5000 mcg/m3	
	OHC	1	
PROPYL PARABEN (CAS 94-13-3)	8 HR TWA	5000 mcg/m3	

GSK

Components	Type	Value	Note
	OHC	1	

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

Components	Type	Value
HYDROCHLORIC ACID (CAS 7647-01-0)	Ceiling	7 mg/m3 5 ppm
SODIUM HYDROXIDE (CAS 1310-73-2)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
HYDROCHLORIC ACID (CAS 7647-01-0)	Ceiling	2 ppm
SODIUM HYDROXIDE (CAS 1310-73-2)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
HYDROCHLORIC ACID (CAS 7647-01-0)	Ceiling	7 mg/m3 5 ppm
SODIUM HYDROXIDE (CAS 1310-73-2)	Ceiling	2 mg/m3

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
PROPYLENE GLYCOL (CAS 57-55-6)	TWA	10 mg/m3	Aerosol.

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

Exposure guidelines

Appropriate engineering controls General ventilation normally adequate.

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 Liquid.

Form Solution.

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	> 203 °F (> 95 °C) Closed Cup (Estimation based on components).
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
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	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	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	None known. Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

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. Direct contact with eyes may cause temporary irritation.
Ingestion	Health injuries are not known or expected under normal use. May be harmful if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of eyes and mucous membranes. May cause an allergic skin reaction.

Information on toxicological effects

Acute toxicity May be harmful if swallowed. May cause an allergic skin reaction.

Components	Species	Test Results
ABACAVIR HEMISULPHATE (CAS 188062-50-2)		
Acute		
Oral		
LD50	Rat	> 2000 mg/kg

Components	Species	Test Results
CITRIC ACID ANHYDROUS (CAS 77-92-9)		
Acute		
Oral		
LD50	Rat	3000 mg/kg
HYDROCHLORIC ACID (CAS 7647-01-0)		
Acute		
Inhalation		
LC50	Mouse	1108 ppm, 1 Hours
	Rat	3124 ppm, 1 Hours
LCL0	Guinea pig	4416 ppm, 30 minutes
	Human	3000 ppb, 5 minutes
		1300 ppm, 30 minutes
	Rabbit	4416 ppm, 30 minutes
NOEL	Human	<= 1.8 ppm, 45 minutes No effect on respiratory function in asthmatics.
Oral		
LD50	Rabbit	900 mg/kg
	Rat	700 mg/kg
Chronic		
Inhalation		
LOAEL	Rat	10 ppm, 128 weeks
Subacute		
Oral		
LD	Rat	34.1 mg/kg/day, 9 weeks
LOEL	Rat	10.2 mg/kg/day, 9 weeks
Subchronic		
Inhalation		
LOEC	Rat	10 ppm, 3 months Inflammation of lips and nasal cavity.
NOAEC	Rat	20 ppm, 3 months
PROPYL PARABEN (CAS 94-13-3)		
Acute		
Oral		
LD50	Rat	> 2000 mg/kg
SODIUM HYDROXIDE (CAS 1310-73-2)		
Acute		
Dermal		
LD50	Rabbit	1350 mg/kg
Oral		
LD50	Rat	104 - 340 mg/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.

Corrosivity

SODIUM HYDROXIDE	Literature search Result: Causes severe burns.
HYDROCHLORIC ACID	OECD 404 Result: Corrosive Species: Rabbit Test Duration: 1 Hours

Irritation Corrosion - Skin

ABACAVIR HEMISULPHATE	Acute dermal irritation; OECD 404, Primary irritation index = 0.0 Result: Negative 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 Irritating to eyes.

Eye

CITRIC ACID ANHYDROUS	Acute ocular irritation; OECD 405 Result: Severe Irritant Species: Rabbit
ABACAVIR HEMISULPHATE	Acute ocular irritation; OECD 405, Overall mean score following 0.1 mL (weight equivalent) = 77; mean score following 10 mg = 12 Result: Severe Irritant Species: Rabbit
SODIUM HYDROXIDE	Literature search Result: Causes severe burns.
HYDROCHLORIC ACID	OECD 405 Result: Corrosive effects/irritation Species: Rabbit

Respiratory or skin sensitization

Respiratory sensitization No studies have been conducted.

Skin sensitization May cause an allergic skin reaction.

Sensitization

ABACAVIR HEMISULPHATE	Clinical Use and Occupational Exposure Result: Sensitisation may occur in susceptible individuals Species: Human Maximisation assay (Magnusson and Kligman) Result: Negative Species: Guinea pig

Germ cell mutagenicity Suspected of causing genetic defects. Contains components that produced genotoxicity in laboratory tests.

Mutagenicity

HYDROCHLORIC ACID	<= 10 mmol/L Chromosomal Aberration Assay In Vitro, CHO cells, IUCLID Result: Positive
ABACAVIR HEMISULPHATE	Ames Assay, GLP assay Result: Negative
HYDROCHLORIC ACID	Ames, IUCLID Result: Negative
ABACAVIR HEMISULPHATE	Chromosomal Aberration Assay In Vitro, human lymphocytes Result: Positive
HYDROCHLORIC ACID	E coli Pol-A repair assay, IUCLID Result: Negative L5178Y mouse lymphoma thymidine kinase locus assay, IUCLID Result: Negative
ABACAVIR HEMISULPHATE	Micronucleus Assay, Positive response only in male at maximum dose of 1000 mg/kg; negative at lower doses and in females Result: Positive Species: Mouse Mouse Lymphoma Cell (L5178Y) Mutation Assay, GLP assay Result: Positive SOS/umu Assay Result: Negative
HYDROCHLORIC ACID	Yeast Mutation Assay, IUCLID Result: Negative

Carcinogenicity Carcinogenic effects are not expected as a result of occupational exposure. Contains a material (abacavir hemisulphate) classified as a carcinogen by external agencies. These effects are linked only to high doses of this substance; lower doses did not cause this adverse effect.

HYDROCHLORIC ACID	10 ppm Inhalation Result: Negative Species: Rat Observation Period: 128 months Notes: IUCLID
ABACAVIR HEMISULPHATE	2 year bioassay Result: Positive Species: Mouse 2 year bioassay Result: Positive Species: Rat

IARC Monographs. Overall Evaluation of Carcinogenicity

HYDROCHLORIC ACID (CAS 7647-01-0) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Contains no ingredient listed as toxic to reproduction

Fertility effects - Males and females

ABACAVIR HEMISULPHATE	Result: Negative Species: Rat

Reproductivity

HYDROCHLORIC ACID	302 ppm Embryo-foetal development, IUCLID Result: Maternal toxicity, resorptions, foetal malformations. Species: Rat
ABACAVIR HEMISULPHATE	Embryo-foetal development - Oral Result: NOAEL = 160 mg/kg/day; with a dose of 500 mg/kg/day evidence of maternal adverse effects; decreased foetal weight and length, increased incidence of skelatal efects and foetal oedema Species: Rat Embryo-foetal development - Oral Result: NOAEL = 700 mg/kg/day (maximum dose); no evidence of foetal malformation or teratogenicity Species: Rabbit

Specific target organ toxicity - single exposure Not assigned.

HYDROCHLORIC ACID Result: Respiratory irritation/corrosion.

Specific target organ toxicity - repeated exposure Not assigned.

Aspiration hazard Not established.

Chronic effects Prolonged inhalation may be harmful.

Further information Caution - Pharmaceutical agent. Occupational exposure to the substance or mixture may cause adverse effects.

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
ABACAVIR HEMISULPHATE (CAS 188062-50-2)			
Aquatic			
Acute			
Activated Sludge Respiration	IC50	Residential sludge	> 71.4 mg/l, 3 hours
Algae	EC50	Green algae (Selenastrum capricornutum)	57.4 mg/l, 72 hours Static test, OECD 201
	NOEC	Green algae (Selenastrum capricornutum)	30 mg/l, 72 hours Static test
Crustacea	EC50	Water flea (Daphnia magna)	139 mg/l, 48 hours Static test, OECD 202

Components		Species	Test Results
	NOEC	Water flea (Daphnia magna)	70.9 mg/l, 48 hours Static test
Fish	EC50	Rainbow trout (Adult Oncorhyncus mykiss)	> 120 mg/l, 96 hours Static test, OECD 203
	NOEC	Rainbow trout (Adult Oncorhyncus mykiss)	120 mg/l, 96 hours Static test
Chronic			
Crustacea	LOEC	Water flea (Ceriodaphnia dubia)	10 mg/l, 7 days 7 day static renewal, EPA 1002
	NOEC	Water flea (Ceriodaphnia dubia)	5.6 mg/l, 7 days 7 day static renewal
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
PROPYLENE GLYCOL (CAS 57-55-6)			
Acute			
	IC50	Activated sludge	> 1000 mg/l, 3 hours
Aquatic			
Acute			
Algae	EC50	Green algae (Selenastrum capricornutum)	19000 mg/l, 14 days
	NOEC	Green algae (Selenastrum capricornutum)	15000 mg/l, 14 days
Crustacea	EC50	Daphnia	43500 mg/l, 48 hours
	NOEC	Daphnia	28500 mg/l, 48 hours
Fish	EC50	Fathead minnow (Adult Pimephales promelas)	51400 mg/l, 96 hours Static test
		Rainbow trout (Adult Oncorhyncus mykiss)	51600 mg/l, 96 hours Static test
	NOEC	Fathead minnow (Adult Pimephales promelas)	41000 mg/l, 96 hours Static test
		Rainbow trout (Adult Oncorhyncus mykiss)	42000 mg/l, 96 hours Static test
Microtox	EC50	Microtox	51400 mg/l, 30 minutes
SODIUM HYDROXIDE (CAS 1310-73-2)			
Aquatic			
Acute			
Fish	EC50	Mosquito fish (Adult Gambusia affinis)	125 mg/l, 96 hours Static test
		Rainbow trout (Adult Oncorhyncus mykiss)	45.4 mg/l, 96 hours Static test

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

Persistence and degradability

Photolysis

Half-life (Photolysis-aqueous)

PROPYLENE GLYCOL 1.3 - 2.3 Years Estimated

Half-life (Photolysis-atmospheric)

PROPYLENE GLYCOL 32 Hours Estimated

Photolysis

UV/visible spectrum wavelength

ABACAVIR HEMISULPHATE	285 nm, pH 7

Hydrolysis

Half-life (Hydrolysis-acidic)

ABACAVIR HEMISULPHATE	> 1 Years Measured, pH 4 buffer solution

Half-life (Hydrolysis-basic)

ABACAVIR HEMISULPHATE	> 1 Years Measured, pH 9 buffer solution

Half-life (Hydrolysis-neutral)

ABACAVIR HEMISULPHATE	> 1 Years Measured, pH 7 Buffer Solution

Biodegradability

Percent degradation (Aerobic biodegradation-inherent)

ABACAVIR HEMISULPHATE	96 %, 2 days Modified Zahn-Wellens, Activated sludge
CITRIC ACID ANHYDROUS	98 %, 2 days Modified Zahn-Wellens, Activated sludge
PROPYLENE GLYCOL	62 %, 5 days BOD5, Activated sludge 79 %, 20 Days BOD20, Activated sludge

Percent degradation (Anaerobic biodegradation)

PROPYLENE GLYCOL	100 %, 9 days

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

ABACAVIR HEMISULPHATE	1.08
PROPYL PARABEN	3.04
PROPYLENE GLYCOL	-1.35

Bioconcentration factor (BCF)

PROPYLENE GLYCOL	< 1 Estimated

Mobility in soil

Adsorption

Sludge/biomass distribution coefficient - log Kd

ABACAVIR HEMISULPHATE	1.89 - 2.7 Estimated

Soil/sediment sorption - log Koc

ABACAVIR HEMISULPHATE	2.17 - 2.97 Measured

Mobility in general

Volatility

Henry's law

ABACAVIR HEMISULPHATE	0 atm m^3/mol Measured, 25 C
CITRIC ACID ANHYDROUS	< 0 atm m^3/mol Calculated, 25 °C
PROPYLENE GLYCOL	0 atm m^3/mol Estimated

Distribution

Octanol/water distribution coefficient log DOW

ABACAVIR HEMISULPHATE	0.9, pH 5 1.2, pH 7 1.2, pH 9
PROPYL PARABEN	3.04

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.

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 Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

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 Not established.

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)

HYDROCHLORIC ACID (CAS 7647-01-0)	Listed.
SODIUM HYDROXIDE (CAS 1310-73-2)	Listed.

SARA 304 Emergency release notification

HYDROCHLORIC ACID (CAS 7647-01-0)	5000 LBS

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
HYDROCHLORIC ACID	7647-01-0	5000	500 lbs		

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

HYDROCHLORIC ACID (CAS 7647-01-0)

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

HYDROCHLORIC ACID (CAS 7647-01-0)

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2)

HYDROCHLORIC ACID (CAS 7647-01-0)

DEA Essential Chemical Code Number

HYDROCHLORIC ACID (CAS 7647-01-0)	6545

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

HYDROCHLORIC ACID (CAS 7647-01-0)	20 %WV

DEA Exempt Chemical Mixtures Code Number

HYDROCHLORIC ACID (CAS 7647-01-0)	6545

US state regulations

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

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

HYDROCHLORIC ACID (CAS 7647-01-0)
PROPYL PARABEN (CAS 94-13-3)
SODIUM HYDROXIDE (CAS 1310-73-2)

US. Massachusetts RTK - Substance List

HYDROCHLORIC ACID (CAS 7647-01-0)
SODIUM HYDROXIDE (CAS 1310-73-2)

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

HYDROCHLORIC ACID (CAS 7647-01-0)
PROPYLENE GLYCOL (CAS 57-55-6)
SODIUM HYDROXIDE (CAS 1310-73-2)

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

HYDROCHLORIC ACID (CAS 7647-01-0)
PROPYLENE GLYCOL (CAS 57-55-6)
SODIUM HYDROXIDE (CAS 1310-73-2)

US. Rhode Island RTK

HYDROCHLORIC ACID (CAS 7647-01-0)
SODIUM HYDROXIDE (CAS 1310-73-2)

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	09-25-2015
Revision date	09-25-2015
Version #	10
Further information	HMIS® is a registered trade and service mark of the NPCA.
HMIS® ratings	Health: 2 Flammability: 1 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 1 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: Product and Company Identification
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties:
Ecological Information: Ecotoxicity
Transport Information:
Regulatory Information: United States