SAFETY DATA SHEET

1. Identification

Product identifier **PERMETHRIN CREME RINSE**

Other means of identification Not available.

Synonym(s) KWELL CREMA RINSE * KWELL CREMA DE ENJUAGUE * MFC 50279 * PERMETHRIN, FORMULATED PRODUCT * PERMETHRIN CREME RINSE (CONTAINING ISOPROPYL ALCOHOL)

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	%
ISOPROPYL ALCOHOL	ISOPROPANOL ETHYL CARBINOL DIMETHYLCARBINOL 2-PROPANOL ISOHOL SEC-PROPYL ALCOHOL PROPYL ALCOHOL UN 1219 DIMETHYL CARBINOL PROPANOL ISOPROPYL ALCOHOL A.R. 1-METHYLETHANOL 1-METHYLETHYL ALCOHOL 2-HYDROXYPROPANE 2-PROPYL ALCOHOL ISO-PROPANOL ISO-PROPYL ALCOHOL ISOPRANOL LUTOSOL N-PROPAN-2-OL SEC-PROPANOL PROPOL C3H8O OHS12090 RTECS NT8050000 IPA GR 95896X 206W94 85 (GW ACN)	67-63-0	20
BRIJ 30	3,6,9,12-TETRAOXATETRACOSAN-1-OL DODECYL TETRAETHYLENE GLYCOL ETHER POLYOXYETHYLENE(4) LAURYL ETHER TETRAETHYLENE GLYCOL DODECYL ETHER TETRA(OXYETHYLENE) DODECYL ETHER TETRAOXYETHYLENE MONODODECYL ETHER LAURETH-4	5274-68-0	8
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	5
STEARYL DIMETHYL BENZYL AMMONIUM	BENZENEMETHANAMINIUM, N,N-DIMETHYL-N-OCTADECYL-, CHLORID N,N-DIMETHYL-N-OCTADECYLBENZENE METHANAMINIUM CHLORIDE AMMONIUM, BENZYLDIMETHYLOCTADECYL-, CHLORIDE BENZYLDIMETHYLOCTADECYLAMMONIUM CHLORIDE STEARALKONIUM CHLORIDE C27H50ClN OHS72707 RTECS BO7000000	122-19-0	5

Chemical name	Common name and synonyms	CAS number	%
LAURYL ALCOHOL	1-DODECANOL 1-DODECYL ALCOHOL 1-HYDROXYDODECANE ALCOHOL C-12 DODECANOL DODECYL ALCOHOL LAURIC ALCOHOL LAURINIC ALCOHOL N-DODECAN-1-OL N-DODECYL ALCOHOL N-LAURYL ALCOHOL C12H26O OHS12500 RTECS JR5775000 X0795	112-53-8	2
PERMETHRIN	M-PHENOXYBENZYL 3-(2,2-DICHLOROVINYL)-2,2-DIMETHYLCY CLOPROPANECARBOXYLATE META-PHENOXYBENZYL 3-(2,2-DICHLOROVINYL)-2,2-DIMETHYLCY CLOPROPANECARBOXYLATE 3-(2,2-DICHLOROETHENYL)-2,2-DIMETHY L-CYCLOPROPANECARBOXYLIC ACID (3-PHENOXYPHENYL)METHYL ESTER 3-PHENOXYBENZYL 2-(2,2-DICHLOROVINYL)-3,3-DIMETHYLCY CLOPROPANE CARBOXYLATE 3-PHENOXYBENZYL 2,2-DIMETHYL-3-(2,2-DICHLOROVINYL)CY CLOPROPANE CARBOXYLATE 3-PHENOXYBENZYL 3-(2,2-DICHLOROVINYL)-2,2-DIMETHYLCY CLOPROPANE CARBOXYLATE CYCLOPROPANECARBOXYLIC ACID, 3-(2,2-DICHLOROETHENYL)-2,2-DIMETHY L-, (3-PHENOXYPHENYL)METHYL ESTER M-METHOXYBENZYL 3-(2,2-DICHLOROVINYL)-2,2-DIMETHYLCY CLOPROPANE CARBOXYLATE META-METHOXYBENZYL 3-(2,2-DICHLOROVINYL)-2,2-DIMETHYLCY CLOPROPANE CARBOXYLATE (3-PHENOXYPHENYL)METHYL (+/-)-CIS, TRANS-3-(2,2-DICHLOROETHENYL)-2, 2-DIMETHYLCYCLOPROPANECARBOXYL ATE 3-(2,2-DICHLOROVINYL)-2,2-DIMÉTHYLCY CLOPROPANECARBOXYLATE 3-(2,2-DICLOROVINIL)-2,2-DIMETILCICLO PROPANCARBOSSILATO 3-(2,2-DICLOROVINIL)-2,2-DIMETILCICLO PROPANOCARBOXILATO 3-(2,2-DICLOROVINIL)-2,2-DIMETILCICLO PROPANOCARBOXILATO PERMETHRIN PERMETRIINI PERMETRIN PERMETRINA PERMETRINE PERMÉTHRINE M-FENOXYBENZYL-3-(2,2-DICHLOORVINY L)-2,2-DIMETHYLCYCLOPROPAANCARBO XYLAAT M-PHENOXYBENZYL-3-(2,2-DICHLORVINY L)-2,2-DIMETHYLCYCLOPROPANCARBOX YLAT	52645-53-1	1

Chemical name	Common name and synonyms	CAS number	%
POLYQUATERNIUM 10	POLY(OXY-1,2-ETHANDIYL), ALPHA-(2-HYDROXY-3-(TRIMETHYLAMMONIUM)PROPYL)-OMEGA-HYDROXY-, ETHER MIT CELLULOSE, CHLORID (<= 1 % QUATERNISIERTER STICKSTOFF) CELLULOSE, ETHER WITH ?-[2-HYDROXY-3-(TRIMETHYLAMMONIO)PROPYL]-O-HYDROXYPOLY(OXY-1,2-ETHANEDIYL), CHLORIDE CELLULOSE, OMEGA-ETHER WITH ETHOXYLATED 2-HYDROXY-3-(TRIMETHYLAMMONIO)PROPANOL, CHLORIDE POLY(OXY-1,2-ETHANDIYL), ALPHA-(2-HYDROXY-3-(TRIMETHYLAMMONIUM)PROPYL)-OMEGA-HYDROXY-, ETHER MIT CELLULOSE, CHLORID (>= 2 % QUATERNISIERTER STICKSTOFF)	68610-92-4	1
TRIETHANOLAMINE	2,2,2-TRIHYDROXYTRIETHYLAMINE TRIHYDROXYETHYL AMINE TRIS(2-HYDROXYETHYL)AMINE TROLAMINE TRIHYDROXYTRIETHYLAMINE ETHANOL, 2,2',2''-NITRILOTRI-	102-71-6	0.5
Other components below reportable levels			57.5

*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. Remove contaminated clothing. Wash contaminated clothing before reuse. Get medical attention if symptoms occur.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contact lenses, if present and easy to do. Call a physician or poison control center immediately.

Ingestion
Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed
Burning pain and severe corrosive skin damage. Causes serious eye damage. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. The possible consequences of overexposure include: symptoms similar to alcohol intoxication, symptoms of hypersensitivity (such as skin rash, hives, itching).

Indication of immediate medical attention and special treatment needed
Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. No specific antidotes are recommended. Treat according to locally accepted protocols. For additional guidance, refer to the local poison control information centre.

General information
Take off all contaminated clothing immediately. Wash contaminated clothing before reuse. 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. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media
Water.

Specific hazards arising from the chemical
Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. 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	In case of fire and/or explosion do not breathe fumes. 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	Flammable liquid and vapor.

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. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. 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	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. 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. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. 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 release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling	Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Do not get this material on clothing. Provide adequate ventilation. Avoid release to the environment. Do not empty into drains.
Conditions for safe storage, including any incompatibilities	Keep away from heat and sources of ignition. Avoid spark promoters. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

GSK

Components	Type	Value
PERMETHRIN (CAS 52645-53-1)	8 HR TWA	200 mcg/m3
	OHC	2
TRIETHANOLAMINE (CAS 102-71-6)	8 HR TWA	4000 mcg/m3
	OHC	1

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

Components	Type	Value
ISOPROPYL ALCOHOL (CAS 67-63-0)	PEL	980 mg/m3
		400 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
ISOPROPYL ALCOHOL (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
ISOPROPYL ALCOHOL (CAS 67-63-0)	STEL	1225 mg/m3
		500 ppm
	TWA	980 mg/m3
		400 ppm

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

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
ISOPROPYL ALCOHOL (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

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

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. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. 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.

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. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. 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 Viscous.

Color Off-white.

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 86 - 87.8 °F (30 - 31 °C) Closed Cup

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	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Isocyanates. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Health injuries are not known or expected under normal use. Do not ingest.
Inhalation	Health injuries are not known or expected under normal use.
Skin contact	Health injuries are not known or expected under normal use. May be irritating to the skin.
Eye contact	Health injuries are not known or expected under normal use. Avoid contact with eyes. May be irritating to eyes.
Symptoms related to the physical, chemical and toxicological characteristics	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. The possible consequences of overexposure include: symptoms similar to alcohol intoxication, symptoms of hypersensitivity (such as skin rash, hives, itching).

Information on toxicological effects

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

Components	Species	Test Results
ISOPROPYL ALCOHOL (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	12.8 g/kg
Inhalation		
LC50	Rat	39 mg/l 8-hr
Oral		
LD50	Rat	5045 mg/kg
Subchronic		
Inhalation		
LOEL	Mouse	1500 ppm
	Rat	1500 ppm
NOEL	Mouse	500 ppm, 13 weeks
	Rat	500 ppm, 13 weeks
LAURYL ALCOHOL (CAS 112-53-8)		
Acute		
Dermal		
LD50	Guinea pig	> 8.3 g/kg

Components	Species	Test Results
Oral		
LD50	Rat	> 12.8 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. May be irritating to the skin.

Irritation Corrosion - Skin

ISOPROPYL ALCOHOL
Acute dermal irritation; OECD 404
Result: Non-irritant
Notes: UN SIDS evaluation: 2-Propanol

Serious eye damage/eye irritation Health injuries are not known or expected under normal use. May be irritating to eyes.

Eye

ISOPROPYL ALCOHOL
OECD 405
Result: Mild irritant
Species: Rabbit
Notes: UN SIDS evaluation: 2-Propanol

Respiratory or skin sensitization

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

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

Germ cell mutagenicity Health injuries are not known or expected under normal use.

Mutagenicity

ISOPROPYL ALCOHOL
Ames
Result: Negative
In vivo Micronucleus
Result: Negative
Species: Mouse
SA7 - Sister Chromatid Exchange
Result: Negative
Sister Chromatid Exchange, V79 cells
Result: Negative
mammalian cell mutation assay (CHO/HGPRT forward mutation assay)
Result: Negative

Carcinogenicity Health injuries are not known or expected under normal use.

ISOPROPYL ALCOHOL
2 year bioassay, Inhalation study
Result: Negative
Species: Rat
Notes: UN SIDS evaluation: 2-Propanol
Inhalation study
Result: Negative
Species: Mouse
Notes: UN SIDS evaluation: 2-Propanol

IARC Monographs. Overall Evaluation of Carcinogenicity

PERMETHRIN (CAS 52645-53-1) 3 Not classifiable as to carcinogenicity to humans.
TRIETHANOLAMINE (CAS 102-71-6) 3 Not classifiable as to carcinogenicity to humans.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

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

Reproductivity

ISOPROPYL ALCOHOL
< 1200 mg/kg/day Embryo-foetal development, Developmental neurotoxicity
Result: Foetal NOAEL
Species: Rabbit
Notes: UN SIDS evaluation: 2-Propanol
< 240 mg/kg/day Epidemiology
Result: Maternal NOAEL
Species: Human
< 400 mg/kg/day Embryo-foetal development
Result: Maternal NOAEL
Species: Rabbit
Notes: UN SIDS evaluation: 2-Propanol
< 480 mg/kg/day Epidemiology
Result: Foetal NOAEL
Species: Human

Reproductivity

ISOPROPYL ALCOHOL

< 500 mg/kg/day Two generation study
Result: Maternal toxicity; adverse effects on offspring.
Species: Rat
Notes: UN SIDS evaluation: 2-Propanol

Specific target organ toxicity - single exposure Narcotic effects.

ISOPROPYL ALCOHOL

Result: Narcosis
Organ: Central Nervous System.

Specific target organ toxicity - repeated exposure None known.

Aspiration hazard Not an aspiration hazard.

12. Ecological information

Ecotoxicity The product contains a substance which may cause long-term adverse effects in the environment.

Components		Species	Test Results
ISOPROPYL ALCOHOL (CAS 67-63-0)			
Aquatic			
Acute			
Activated Sludge Respiration	IC50	Industrial sludge	> 1000 mg/l, 3 hours
Algae	EC50	Green algae (Scenedesmus subspicatus)	> 1000 mg/l, 72 hours
Crustacea	EC50	Water flea (Daphnia magna)	13299 mg/l, 48 hours Static test
Fish	EC50	Bluegill sunfish (Juvenile Lepomis macrochirus)	> 1400 mg/l, 96 hours Static test
		Fathead minnow (Juvenile Pimephales promelas)	6550 - 10400 mg/l, 96 hours Flow-through test
		Mosquito fish (Juvenile Gambusia affinis)	> 1400 mg/l, 96 hours Static test
LAURYL ALCOHOL (CAS 112-53-8)			
Aquatic			
Acute			
Fish	EC50	Fathead minnow (Adult Pimephales promelas)	1.01 mg/l, 96 hours Flow-through test
PERMETHRIN (CAS 52645-53-1)			
Aquatic			
Acute			
Algae	EC50	Green algae (Scenedesmus subspicatus)	> 1.9 mcg/l, 72 hours Measured
	NOEC	Algae	1.9 mcg/l
Crustacea	EC50	Water flea (Daphnia magna)	1.25 mcg/l, 48 hours Static test
Fish	EC50	Bluegill sunfish (Adult Lepomis macrochirus)	0.79 mcg/l, 96 hours Flow-through test
		Fathead minnow (Adult Pimephales promelas)	3 mcg/l, 96 hours Static renewal test
		Rainbow trout (Adult Oncorhyncus mykiss)	0.62 mcg/l, 96 hours Flow-through test
Microtox	EC50	Microtox	0.56 mg/l, 5 minutes
Chronic			
Fish	Growth test LOEC	Fathead minnow (Juvenile Pimephales promelas)	1.4 mcg/l, 32 days Flow-through test
	Growth test NOEC	Fish	0.66 mcg/l, 32 days
PROPYLENE GLYCOL (CAS 57-55-6)			
Acute			
	IC50	Activated sludge	> 1000 mg/l, 3 hours

Components		Species	Test Results
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

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

Persistence and degradability

Photolysis

Half-life (Photolysis-aqueous)

PERMETHRIN	33 Days Estimated
PROPYLENE GLYCOL	1.3 - 2.3 Years Estimated

Half-life (Photolysis-atmospheric)

ISOPROPYL ALCOHOL	3.1 - 14.5 Days Measured
LAURYL ALCOHOL	22 Hours Estimated
PERMETHRIN	9.8 Hours Estimated
PROPYLENE GLYCOL	32 Hours Estimated

Half-life (Photolysis-soil)

PERMETHRIN	30 Days Estimated

Hydrolysis

Half-life (Hydrolysis-basic)

PERMETHRIN	50 Days

Biodegradability

Percent degradation (Aerobic biodegradation-soil)

PERMETHRIN	> 50 %, 28 days

Percent degradation (Anaerobic biodegradation)

PROPYLENE GLYCOL	100 %, 9 days

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

ISOPROPYL ALCOHOL	0.26
LAURYL ALCOHOL	5.13
PERMETHRIN	6.5
PROPYLENE GLYCOL	-0.92 -1.35
STEARYL DIMETHYL BENZYL AMMONIUM	3.23
TRIETHANOLAMINE	-1

Bioconcentration factor (BCF)

LAURYL ALCOHOL	2.5 - 3.7 Estimated
PERMETHRIN	2800 Measured, Pimephales promelas, fathead minnow
PROPYLENE GLYCOL	< 1 Estimated

Mobility in soil

Adsorption

Soil/sediment sorption - log Koc

LAURYL ALCOHOL	5.16 Estimated
PERMETHRIN	4.02 - 4.93 Measured

Mobility in general

Volatility

Henry's law

ISOPROPYL ALCOHOL	0.000008 atm m^3/mol Measured, 25 °C

Volatility

Henry's law

PERMETHRIN	0 atm m^3/mol, 25 C Estimated
PROPYLENE GLYCOL	0 atm m^3/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 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. Dispose in accordance with all applicable regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F
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

UN number	UN1987
UN proper shipping name	Alcohols, n.o.s. (PERMETHRIN CREME RINSE (CONTAINING ISOPROPYL ALCOHOL)), MARINE POLLUTANT
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Special precautions for user	Not available.
Special provisions	172, B1, IB3, T4, TP1, TP29
Packaging exceptions	4b, 150
Packaging non bulk	203
Packaging bulk	242
Qty limits cargo	220 L
Qty limits passenger	60 L

IATA

UN number	UN1987
UN proper shipping name	Alcohols, n.o.s. (PERMETHRIN CREME RINSE (CONTAINING ISOPROPYL ALCOHOL))
Transport hazard class(es)	3
Subsidiary class(es)	-
Packaging group	III
Labels required	3
Environmental hazards	Yes
ERG Code	Not available.
Special precautions for user	Not available.
Other information	
Cargo aircraft only	Forbidden.

IMDG

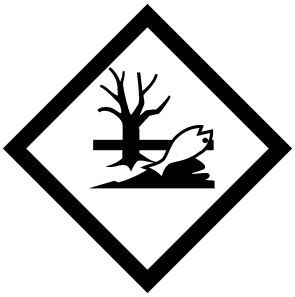
UN number	UN1987
UN proper shipping name	ALCOHOLS, N.O.S. (PERMETHRIN CREME RINSE (CONTAINING ISOPROPYL ALCOHOL))
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes

EmS	F-E, S-D
Special precautions for user	Not available.
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.

DOT

IATA; IMDG

Marine pollutant



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)

ISOPROPYL ALCOHOL (CAS 67-63-0) Listed.

SARA 304 Emergency release notification

Not regulated.

US. 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 - Yes
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.
ISOPROPYL ALCOHOL	67-63-0	20
PERMETHRIN	52645-53-1	1

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. Massachusetts RTK - Substance List

ISOPROPYL ALCOHOL (CAS 67-63-0)
PERMETHRIN (CAS 52645-53-1)
TRIETHANOLAMINE (CAS 102-71-6)

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

ISOPROPYL ALCOHOL (CAS 67-63-0)	500 lbs
PERMETHRIN (CAS 52645-53-1)	500 lbs

US. Pennsylvania RTK - Hazardous Substances

ISOPROPYL ALCOHOL (CAS 67-63-0)
PROPYLENE GLYCOL (CAS 57-55-6)
TRIETHANOLAMINE (CAS 102-71-6)

US. Rhode Island RTK

ISOPROPYL ALCOHOL (CAS 67-63-0)
PERMETHRIN (CAS 52645-53-1)

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)	Yes
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	06-16-2014
Revision date	06-16-2014
Version #	05
Further information	HMIS® is a registered trade and service mark of the NPCA.
HMIS® ratings	Health: 2* Flammability: 3 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 3 Instability: 0
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: Transport Information: Proper Shipping Name/Packing Group Regulatory Information: Risk Phrases - Class. GHS: Classification