

SAFETY DATA SHEET

1. Identification

Product identifier: MS0023 MOSQUITO SHIELD PIACTIVE LOTION – PCP# 33411

Other means of identification

MS0023

Recommended restrictions

Product Use: Pesticide

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: KUUS INC.
Address: 450 TAPSCOTT ROAD
Toronto, ON M1B 1Y4
Telephone: 416-298-7724
Fax:

Emergency telephone number: 1-866-836-8855

2. Hazard(s) identification

Global Harmonized System (GHS) classification in accordance to the Canadian Hazardous Product Regulations.

Hazard Classification

Flammable liquids : Category 3
Eye irritation : Category 2A

GHS Label Elements

Hazard Symbol:



Signal Word:

Warning

Hazard Statement:

Flammable liquid and vapor.
Eye irritant.

**Precautionary Statements
Prevention**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.
Take precautionary measures against static discharge. Wash skin thoroughly after handling.
Wear protective gloves/eye protection/face protection.

Response

IF ON CLOTHING: Take off immediately all contaminated clothing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye

irritation persists: Get medical advice/attention. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage
Disposal**

Store in a well-ventilated place.
Dispose of contents/container to an approved waste disposal plant.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Mixture

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
1-Piperidinecarboxylic Acid, 2-(2hydroxyethyl)-, 1-methylpropylester	Icaridin	119515-38-7	10 - 30%
Ethanol		64-17-5	1 - 5%
1,2,3-Propanetriol		56-81-5	1 - 5%

4. First-aid measures

Ingestion: Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Inhalation: If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Skin/Clothing Contact: Remove contaminated clothing and wash thoroughly with soap and water after work. (100% icaridin)

Eye contact: Immediately flush eye(s) with plenty of water. Continue to rinse for at least 20 minutes. Remove contact lenses. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Symptoms: Eye: Causes eye irritation with symptoms of reddening, tearing, stinging, and swelling.

Effects: Causes serious eye irritation.

Protection of first-aiders: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician: Treat symptomatically.

Indication of immediate medical attention and special treatment needed

Treatment: No data available.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: Do not use a high-volume water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products: Carbon dioxide, carbon monoxide

Further information: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Use a water spray to cool fully closed containers. Move containers from fire if this can be done without risk. Fight fire remotely due to the risk of explosion. If this is impossible, withdraw from area and allow fire to burn.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions protective equipment and emergency procedures: No action shall be taken involving any personal risk or without suitable training. Put on appropriate personal protection equipment. Do not touch or walk through spilled material. Evacuate necessary personnel. Keep unnecessary and unprotected personnel from entering. Remove all sources of ignition.

Methods and material for containment and cleaning up: Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent. Prevent product from entering drains. Dispose of wastes in an approved waste disposal facility. Non-sparking tools should be used.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

7. Handling and storage

Precautions for safe handling: Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. Store in original tightly closed container. Keep away from open flames, hot surfaces and sources of ignitions.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Ethanol	TWA	1,000 ppm 1,880 mg/m ³	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
Ethanol	15 MIN ACL	1,250 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Ethanol	STEL	1,000 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
Ethanol	STEL	1,000 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Ethanol	STEL	1,000 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	8 HR ACL	1,000 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Ethanol	TWA	1,000 ppm 1,880 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Ethanol	STEL	1,000 ppm	US. ACGIH Threshold Limit Values (2009)
1,2,3-Propanetriol - Mist.	TWA	10 mg/m ³	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
1,2,3-Propanetriol - Mist.	TWA	10 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2,3-Propanetriol - Respirable mist.	TWA	3 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2,3-Propanetriol - Mist.	8 HR ACL	10 mg/m ³	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	20 mg/m ³	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)

1,2,3-Propanetriol - Mist.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Sodium hydroxide (Na(OH))	Ceiling	2 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Sodium hydroxide (Na(OH))	CEILING	2 mg/m3	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
Sodium hydroxide (Na(OH))	CEILING	2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Sodium hydroxide (Na(OH))	CEILING	2 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
Sodium hydroxide (Na(OH))	CEV	2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (12 2007)
Sodium hydroxide (Na(OH))	CEILING	2 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Sodium hydroxide (Na(OH))	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values (2008)
2-Propanol, 2-methyl-	TWA	100 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
2-Propanol, 2-methyl-	TWA	100 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
2-Propanol, 2-methyl-	TWA	100 ppm 303 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
2-Propanol, 2-methyl-	8 HR ACL	100 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	125 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
2-Propanol, 2-methyl-	TWA	100 ppm 303 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
2-Propanol, 2-methyl-	TWA	100 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
2-Propanol, 2-methyl-	TWA	100 ppm	US. ACGIH Threshold Limit Values (2008)
Cyclohexane	TWA	100 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Cyclohexane	TWA	300 ppm 1,030 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Cyclohexane	TWA	100 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (12 2007)
Cyclohexane	8 HR ACL	100 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Cyclohexane	TWA	100 ppm 344 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Cyclohexane	TWA	100 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
	15 MIN ACL	150 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Cyclohexane	TWA	100 ppm	US. ACGIH Threshold Limit Values (2008)
Acetic acid ethyl ester	TWA	400 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Acetic acid ethyl ester	8 HR ACL	400 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Acetic acid ethyl ester	TWA	150 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Acetic acid ethyl ester	TWA	400 ppm 1,440 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
Acetic acid ethyl ester	TWA	400 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
	15 MIN ACL	500 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

			(05 2009)
Acetic acid ethyl ester	TWA	400 ppm 1,440 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Acetic acid ethyl ester	TWA	400 ppm	US. ACGIH Threshold Limit Values (2008)
2-Propenoic acid	TWA	2 ppm 5.9 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (10 2006)
2-Propenoic acid	TWA	2 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
2-Propenoic acid	TWA	2 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (12 2007)
2-Propenoic acid	TWA	2 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
2-Propenoic acid	15 MIN ACL	4 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	8 HR ACL	2 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
2-Propenoic acid	TWA	2 ppm 5.9 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
2-Propenoic acid	TWA	2 ppm	US. ACGIH Threshold Limit Values (2008)

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection: Wear goggles/face shield.

Skin Protection

Hand Protection: No data available.

Other: No data available.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

9. Physical and chemical properties

Appearance

Physical state: liquid

Form: thixotropic

Color: No data available.

Odor: No data available.

Odor threshold: No data available.

pH: 5.7

Melting point/freezing point: No data available.

Initial boiling point and boiling range: 207° F / 97° C
(1,013 hPa)

Flash Point: 130.1° F / 54.5° C
Method: closed cup.

Evaporation rate: No data available.

Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Density:	1 g/cm ³ (68° F / 20° C)
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Vapours may form explosive mixture with air.
Conditions to avoid:	Avoid heat, flames, sparks or contamination.
Incompatible Materials:	Oxidizing agents.
Hazardous Decomposition Products:	No data available.

11. Toxicological information

Information on likely routes of exposure

The most important known symptoms and effects are described in Section 2 and/or Section 4.

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye Contact:	Causes serious eye damage/irritation.

Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Ethanol LD 50 (Rat): 10,470 mg/kg

1,2,3-Propanetriol LD 50 (Rat): 27,200 mg/kg

Dermal

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Ethanol LD 50 (Rabbit): 17,100 mg/kg

1,2,3-Propanetriol LD 50: > 2,000 mg/kg

Inhalation

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Ethanol LC 50 (Rat): 124.7 mg/l
LC 50: > 5 mg/l

1,2,3-Propanetriol LC 50: > 20 mg/l
LC 50: > 5 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s):

Ethanol NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study

1,2,3-Propanetriol NOAEL (Rat(Female, Male), Oral, 90 d): 50,000 ppm(m) Oral Experimental result, Key study

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

Ethanol in vivo (Rabbit): Not irritant Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Ethanol Rabbit, 1 - 24 hrs: Not irritating
1,2,3-Propanetriol Rabbit, 24 hrs: Not irritating

Respiratory or Skin Sensitization**Product:** No data available.**Specified substance(s):**

Ethanol Skin sensitization:, in vivo (Guinea pig): Non sensitising

Carcinogenicity**Product:** No data available.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

ACGIH Carcinogen List:
No carcinogenic components identified**Germ Cell Mutagenicity****In vitro****Product:** No data available.**In vivo****Product:** No data available.**Reproductive toxicity****Product:** No data available.**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Aspiration Hazard****Product:** No data available.**Other effects:** No data available.**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**

Ethanol LC 50 (Pimephales promelas, 96 h): 15.3 g/l Experimental result, Key study

1,2,3-Propanetriol

LC 50 (Oncorhynchus mykiss, 96 h): 54,000 mg/l Experimental result, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Ethanol LC 50 (Ceriodaphnia dubia, 48 h): 5,012 mg/l Experimental result, Key study
1,2,3-Propanetriol LC 50 (Daphnia magna, 48 h): 1,955 mg/l Experimental result, Supporting study

Chronic hazards to the aquatic environment:**Fish**

Product: No data available.

Specified substance(s):

Ethanol NOAEL (Oryzias latipes): 7,900 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Ethanol LC 50 (Daphnia magna): 454 mg/l Experimental result, Key study
NOAEL (Daphnia magna): 9.6 mg/l Experimental result, Key study

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability**Biodegradation**

Product: No data available.

Specified substance(s):

Ethanol 95 % Detected in water. Experimental result, Key study

1,2,3-Propanetriol 86 % Detected in water. Experimental result, Key study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential**Bioconcentration Factor (BCF)**

Product: No data available.

Specified substance(s):

Ethanol Cyprinus carpio, Bioconcentration Factor (BCF): 4.5 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Icaridine	No data available.
Ethanol	No data available.
1,2,3-Propanetriol	No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal instructions: Wash before disposal. Dispose to controlled facilities.

Contaminated Packaging: No data available.

14. Transport information**TDG**

This product meets the exception requirements of Section 1.17 "Limited Quantity Exemption" as a Limited Quantity and may be shipped in a Limited Quantity.

UN number: UN1170
UN shipping name: Ethyl alcohol mixture
Transport hazard class(es):
Class: 3
Subsidiary risk -
Packing group: III

IMDG

Not regulated.

IATA

Not regulated.

15. Regulatory information**Canada Federal Regulations****List of Toxic Substances (CEPA, Schedule 1)**

Not Regulated

Export Control List (CEPA 1999, Schedule 3)

Not Regulated

National Pollutant Release Inventory (NPRI)**Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**

NPRI PT5	EthanolAcetic acid ethyl ester
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Canada. National Pollutant Release Inventory (NPRI) (Schedule 1, Parts 1-4)

NPRI	Not Regulated
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Greenhouse Gases

Not Regulated

Controlled Drugs and Substances Act

CA CDSI	Not Regulated
CA CDSII	Not Regulated
CA CDSIII	Not Regulated
CA CDSIV	Not Regulated
CA CDSV	Not Regulated
CA CDSVII	Not Regulated
CA CDSVIII	Not regulated

Precursor regulations: Not regulated

International regulations

Montreal protocol: Not applicable

Stockholm convention: Not applicable

Rotterdam convention: Not applicable

Kyoto protocol: Not applicable

Inventory Status:

Australia AICS:	Not in compliance with the inventory.
Canada DSL Inventory List:	Not in compliance with the inventory.
Canada NDSL Inventory:	Not in compliance with the inventory.
Ontario Inventory:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Mexico INSQ:	Not in compliance with the inventory.
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Philippines PICCS:	Not in compliance with the inventory.
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory
US TSCA Inventory:	Not in compliance with the inventory.
EINECS, ELINCS or NLP:	Not in compliance with the inventory.

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

Issue Date: 01/26/2026

Revision Date: No data available.

Version #: 1.0
Further Information: No data available.

Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.