

SAFETY DATA SHEET

1. Identification

Product identifier MS0027 MOSQUITO SHIELD PIACTIVE INSECT REPELLENT

Other means of identification

Product code MS0027

Recommended use Insect repellent

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name KUUS INC.
Address 450 TAPSCOTT ROAD
SCARBOROUGH, ON M1B 1Y4
Canada
Telephone General Assistance 1-800-267-0455
E-mail Not available.
Emergency phone number Canutec 1-888-226-8832
1-613-996-6666

2. Hazard(s) identification

Physical hazards

Health hazards Flammable liquids Category 2

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor.

Precautionary statement

Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. (for 100% Icaridin) Rinse skin with water. In case of fire: Use appropriate media to extinguish.

Storage

Store in a well-ventilated place. Keep cool.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|-------------|---------|
| 1-piperidinecarboxylic Acid, 2-(2-hydroxyethyl)-2-methylpropyl Ester | | 119515-38-7 | 15 - 40 |
| Ethyl Alcohol | | 64-17-5 | 15 - 40 |

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|---------|
| Polyethylene Glycol | | 25322-68-3 | 10 - 30 |
| Other components below reportable levels | | | 15 - 40 |

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

| | |
|---|---|
| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. |
| Skin contact | Take off immediately all contaminated clothing. Rinse skin with water/shower. (for 100% Icaridin) |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. |
| Ingestion | Rinse mouth. Get medical attention if symptoms occur. |
| Most important symptoms/effects, acute and delayed | Headache. Direct contact with eyes may cause temporary irritation. Coughing. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. 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. |
| General information | Take off all contaminated clothing immediately. Wash contaminated clothing before reuse. |

5. Fire-fighting measures

| | |
|--|--|
| Suitable extinguishing media | Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| 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. |
| 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. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |
| General fire hazards | Highly 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. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. 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 | Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. 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. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination. |
| Environmental precautions | Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. |

7. Handling and storage

| | |
|--------------------------------------|---|
| Precautions for safe handling | Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Wear appropriate personal protective equipment. |
|--------------------------------------|---|

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. ACGIH Threshold Limit Values**

| Components | Type | Value |
|-----------------------------|------|----------|
| Ethyl Alcohol (CAS 64-17-5) | STEL | 1000 ppm |

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

| Components | Type | Value |
|-----------------------------|------|------------------------|
| Ethyl Alcohol (CAS 64-17-5) | TWA | 1880 mg/m3 1000 ppm |

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

| Components | Type | Value |
|-----------------------------|------|----------|
| Ethyl Alcohol (CAS 64-17-5) | STEL | 1000 ppm |

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

| Components | Type | Value |
|-----------------------------|------|----------|
| Ethyl Alcohol (CAS 64-17-5) | STEL | 1000 ppm |

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

| Components | Type | Value |
|-----------------------------|------|----------|
| Ethyl Alcohol (CAS 64-17-5) | STEL | 1000 ppm |

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

| Components | Type | Value |
|-----------------------------|------|------------------------|
| Ethyl Alcohol (CAS 64-17-5) | TWA | 1880 mg/m3 1000 ppm |

Biological limit values

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

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

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

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear suitable protective clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke.

9. Physical and chemical properties**Appearance**

| | |
|-----------------------|----------------|
| Physical state | Liquid. |
| Form | Liquid. |
| 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 | 212 °F (100 °C) estimated |
| Flash point | 86.0 °F (30.0 °C) estimated |
| 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 | 756.46 °F (402.48 °C) estimated |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Explosive properties | Not explosive. |
| Oxidizing properties | Not oxidizing. |

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 | 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. |
| Hazardous decomposition products | No hazardous decomposition products are known. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|--|
| Inhalation | No adverse effects due to inhalation are expected. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | Expected to be a low ingestion hazard. |

Symptoms related to the physical, chemical and toxicological characteristics Headache. Coughing.

Information on toxicological effects

Acute toxicity

| Components | Species | Test Results |
|-----------------------------|---------|-----------------------|
| Ethyl Alcohol (CAS 64-17-5) | | |
| <u>Acute</u> | | |
| Inhalation | | |
| LC50 | Cat | 85.41 mg/l, 4.5 Hours |

| Components | Species | Test Results |
|---------------------|---------|-------------------------|
| Oral LD50 | Mouse | 43.68 mg/l, 6 Hours |
| | | > 60000 ppm |
| | | 79.43 mg/l, 134 Minutes |
| | Rat | > 115.9 mg/l, 4 Hours |
| | | 51.3 mg/l, 6 Hours |
| | | |
| | Monkey | 6000 mg/kg |
| | Mouse | 10500 ml/kg |
| | Pig | > 5000 mg/kg |
| | Rat | 10470 mg/kg |
| | | 7800 ml/kg |

Polyethylene Glycol (CAS 25322-68-3)

Acute

Oral

| | | |
|------|-----|------------|
| LD50 | Rat | 4300 mg/kg |
|------|-----|------------|

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

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

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

Carcinogenicity

Canada - Manitoba OELs: carcinogenicity

ETHANOL (CAS 64-17-5) Confirmed animal carcinogen with unknown relevance to humans.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

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 |
|--------------------------------------|------|--------------------------------------|-----------------------------|
| Ethyl Alcohol (CAS 64-17-5) | | | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 7700 - 11200 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | > 100.1 mg/l, 96 hours |
| Polyethylene Glycol (CAS 25322-68-3) | | | |
| Aquatic | | | |
| Fish | LC50 | Atlantic salmon (Salmo salar) | > 1000 mg/l, 96 hours |

* 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.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Ethyl Alcohol

-0.31

Mobility in soil

No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations**Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. 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

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**TDG****UN number**

UN1170

UN proper shipping name

Ethyl Alcohol (mixture)

Transport hazard class(es)**Class**

3

Subsidiary risk

-

Packing group

III

Environmental hazards

Not available.

Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

IATA**UN number**

UN1170

UN proper shipping name

Ethyl Alcohol (mixture)

Transport hazard class(es)**Class**

3

Subsidiary risk

-

Packing group

III

Environmental hazards

No.

ERG Code

3H

Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

Other information**Passenger and cargo aircraft**

Allowed with restrictions.

Cargo aircraft only

Allowed with restrictions.

IMDG**UN number**

UN1170

UN proper shipping name

Ethyl Alcohol (mixture)

Transport hazard class(es)**Class**

3

Subsidiary risk

-

Packing group

III

Environmental hazards**Marine pollutant**

No.

EmS

F-E, S -E

Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not established.



15. Regulatory information

Canadian regulations

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

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) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| 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

Issue date 05-12-2023
Version # 03

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.

Revision information

Product and Company Identification: Alternate Trade Names