

# SAFETY DATA SHEET

<b>Product:</b>	Bushman Repellent Repels Mosquitoes Sandflies Flies Ticks Leeches Up to 7.5 Hours Protection Against Mosquitoes Fragrance Free Lotion Family Friendly & Easy to Apply Non-greasy & Alcohol Free Personal Insect Repellent	<b>Date Prepared:</b> 2 August 2023
<b>Company:</b>	Juno Ltd	<b>Replaces:</b> New

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## 1 IDENTIFICATION

**Product Name:** Bushman Repellent Repels Mosquitoes Sandflies Flies Ticks Leeches Up to 7.5 Hours Protection Against Mosquitoes Fragrance Free Lotion Family Friendly & Easy to Apply Non-greasy & Alcohol Free Personal Insect Repellent

**Other Names:** Bushman Repellent Lotion Personal Insect Repellent

**Chemical Names:** Diethyltoluamide (DEET),

**Uses:** Personal insect repellent

**Supplier:**

**Name:** Juno Ltd  
**Address:** 68 Bond St West,  
Modialloc, Vic. 3195  
Australia

**Telephone:** +61 (0)3 9587 8514

**Email:** info@junolabs.com.au

**Emergency Telephone:** For ambulance, fire, police call: 000. For medical advice call: 13 11 26

**Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information"**

## 2 HAZARDS IDENTIFICATION

**Users of the product should refer to the APVMA approved label on the container for advice in relation to use and handling of the product.**

**The hazard information contained in this SDS is for people handling the product and its ingredients in the distribution and manufacturing environment.**

Classified as hazardous according to the criteria of the GHS as adopted in Australia. Not classified as a Dangerous Good according to ADG 7.8.

**Poisons Schedule:** Not Scheduled



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## 4 FIRST-AID MEASURES

**If poisoning occurs, contact a doctor or Poisons Information Centre.  
Phone 13 11 26.**

<b>First-Aid for handlers other than consumers. Consumers should follow label directions</b>	
<b>Inhalation</b>	Specific treatment not normally required. If breathing difficult move to fresh air and keep at rest in a position comfortable for breathing. Apply resuscitation if victim is not breathing.
<b>Skin Contact</b>	Intended for application to skin. If irritation occurs discontinue use. If irritation persists or skin sensitisation occurs seek medical advice.
<b>Eye Contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists obtain medical advice.
<b>Ingestion</b>	Drink 1 or 2 glasses of water. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Get medical attention. Contact a doctor or Poisons Information Centre. Phone 13 11 26.
<b>Special Advice/Treatment:</b>	No specific antidote. Treat symptomatically
<b>Symptoms caused by exposure</b>	The product is irritating to the skin, and eyes..

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## 5 FIRE-FIGHTING MEASURES

<b>Extinguishing Media:</b>	Use alcohol-resistant foam (preferred) or fine water spray, water fog, dry chemical or carbon dioxide for extinction.
<b>Specific hazards arising from the chemical:</b>	Emits toxic and corrosive fumes under fire conditions.
<b>Special protective equipment and precautions for firefighters:</b>	Wear self-contained breathing apparatus and protective clothing. Prevent run-off from entering drains, sewers and waterways.

## 6 ACCIDENTAL RELEASE MEASURES

### Emergency Procedures:

The consumer product is packaged in small containers. Large spills are unlikely.

In case of **small spill**, Mop or wipe up and if necessary spread an absorbent material such as soil or sand over the spilled product. **For large spills:** Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Stop leak if safe to do so.

### Environmental Precautions:

Do not allow material to enter waterways or sewer. If large quantities of this material enter the waterways contact the Environmental Protection Authority, or your local Waste Management Authority..

### Methods and materials for containment and cleaning up of spill:

In case of **small spill**, – sweep up absorbent material. Collect packaging and absorbent material, wrap in paper and dispose of in garbage. Wash area with water and detergent.

**For large spills:** Cover with absorbent material (e.g. sand, soil, vermiculite). Shovel material into clean, dry, labelled containers and close lids. See Section 13 for disposal of the absorbent material at a landfill.

Recycle any unused portion of the material for its approved use or return it to the manufacturer or supplier. Ultimate disposal of the chemical must consider: the material's impact on air quality; potential migration in air, soil or water; effects on animal, aquatic and plant life; and conformance with environmental and public health regulations.

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## 7 HANDLING AND STORAGE

### Precautions for Safe Handling:

The consumer product is designed for application to the skin. In the manufacturing and distribution environment avoid contact with skin and eyes. Wash hands before breaks and at the end of workday.

### Conditions for Safe Storage:

Store in dry, well-ventilated area out of reach of children and away from ignition sources, including flames and heat. Keep containers closed. Store away from oxidising materials.

## 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Limits: Exposure limits have not been established by Safe Work Australia for the components of this product.

### Engineering Controls:

Local exhaust and/or mechanical exhaust fittings recommended

### Personal Protective Equipment (Manufacturing environment):

#### Respiratory Protection:

Not normally required. Use respiratory protection in case of insufficient exhaust ventilation or prolonged exposure.

#### Eye and Face Protection:

Eye protection (face shield or chemical resistant goggles) should be worn where there is potential for product to be splashed onto face or into eyes. Note that DEET softens many plastics and face shields/goggles may be damaged if they come into contact with DEET.

#### Skin and Body Protection:

Chemical resistant gloves (butyl rubber) and footwear should be used when handling large quantities of the product.

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## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>physical state/colour</b>	White opaque mildly thixotropic lotion	<b>pH</b>	5.6 – 6.2
<b>odour</b>	Scented	<b>kinematic viscosity</b>	No data found
<b>melting point/freezing point</b>	Not applicable	<b>solubility</b>	Not soluble or miscible in water
<b>boiling point or initial boiling point and boiling range</b>	No data found	<b>partition coefficient: n-octanol/water (log value)</b>	No data found
<b>flammability</b>	Not flammable	<b>vapour pressure</b>	No data found
<b>lower and upper explosion limit/flammability limit</b>	Not applicable	<b>density and/or relative density</b>	0.98 ± 0.2 kg/L @ 22°C
<b>flash point</b>	Not applicable	<b>relative vapour density,</b>	No data found
<b>Auto-ignition temperature</b>	Not applicable	<b>particle characteristics</b>	Not applicable
<b>decomposition temperature</b>	No data found		

## 10 STABILITY AND REACTIVITY

<b>Reactivity:</b> Reactions with acids, alkalis and oxidising agents.
<b>Chemical Stability:</b> Stable under normal conditions.
<b>Possibility of hazardous reactions:</b> Not known to polymerise.
<b>Conditions to Avoid:</b> Keep away from oxidizing agents, strong bases and strong acids.
<b>Incompatible materials:</b> Not applicable.
<b>Hazardous decomposition products:</b> When handled and stored appropriately, no dangerous decomposition products are known

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## 11 TOXICOLOGICAL INFORMATION

<b>Acute Toxicity:</b>
<b>Oral:</b> Low toxicity. Estimated LD <sub>50</sub> > 5,000 mg/kg
<b>Inhalation:</b> Not a likely route of exposure. Low toxicity expected. Could cause irritation
<b>Dermal:</b> Low toxicity. Estimated LD <sub>50</sub> >2000 mg/kg
<b>Skin Corrosion/Irritation:</b> May cause irritation in some people.
<b>Eye Damage/Irritation:</b> Can cause eye irritation. Liquid put into the eye may cause severe irritation or damage to the eyes.
<b>Sensitisation:</b> Not a sensitiser.
<b>Germ cell mutagenicity:</b> No effects observed in laboratory animal studies.
<b>Carcinogenicity:</b> No components classified as a carcinogen
<b>Reproductive toxicity:</b> Components show no evidence of reproduction and developmental toxicity in laboratory animals.
<b>Specific Target Organ Toxicity:</b> No data are available for the product. Components show no evidence of specific target organ toxicity.
<b>Aspiration Hazard:</b> No aspiration toxicity classification.
<b>Information on possible routes of exposure:</b> Ingestion and dermal.
<b>Early onset symptoms related to exposure:</b> DEET: eye and mucous membrane irritation.

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## Delayed health effects from exposure:

DEET: No relevant occupational information found.

## Exposure levels and health effects:

DEET: No relevant occupational information found.

## Interactive Effects:

No information found.

## 12 ECOLOGICAL INFORMATION

### Ecotoxicity:

Based on information for the active constituent (DEET).

EC<sub>50</sub> *Daphnia magna*: > 100 mg/L.

LC<sub>50</sub> (96h) Rainbow trout: > 100 mg/L

LC<sub>50</sub> (96h) Fathead minnow: >100 mg/L

### Persistence and Degradability:

The active constituent (DEET) modelling suggests rapid to moderate degradation. DEET: degraded in the atmosphere photochemically.

Biodegradation in soil and water reached, 0% in 28 days,

### Bioaccumulation Potential:

DEET: BCFs of 0.8-2.4 measured in carp suggest bioconcentration in aquatic organisms is low.

### Mobility in soil:

DEET: expected to have moderate mobility based upon an estimated K<sub>oc</sub> of 115.

## 13 DISPOSAL CONSIDERATIONS

### Disposal Methods:

**Small quantities:** small quantities may be disposed of in household garbage. Do not incinerate.

**Large quantities:** If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. Do not incinerate.



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## 14 TRANSPORT INFORMATION

Not classified as Dangerous Goods for Transport within Australia by Road and Rail according to the criteria of ADG 7.8.

## 15 REGULATORY INFORMATION

<b>Poison Scheduling:</b>	Not Scheduled
<b>APVMA Registration No:</b>	92233

## 16 OTHER RELEVANT INFORMATION

Glossary:

**BCF: Bioconcentration Factor** - a measure for the characterization of the accumulation of a chemical in an organism. It is defined as the concentration of a chemical in an organism (plants, microorganisms, animals) divided by the concentration in a reference compartment (e.g. food, surrounding water).

**EC<sub>50</sub>:** Concentration of a substance in an environmental medium expected to produce a certain effect in 50% of test organisms in a given population under a defined set of conditions.

**Explosive Limits** - The range of concentrations (% by volume in air) of a flammable gas or vapour that can result in an explosion for ignition in a confined space.

**K<sub>oc</sub>** - the organic carbon partition coefficient (mL soil water /g organic carbon).

**LC<sub>50</sub>** - The concentration of chemical in air or water that will kill 50% of the test organisms.

**LD<sub>50</sub>** - The dose of a chemical that will kill 50% of the test animals receiving it.

**pH** - Measure of how acidic or alkaline a material is using a 1 - 14 scale. pH 1 is strongly acidic and pH 14 strongly alkaline.

**P<sub>ow</sub>** - The octanol-water partition coefficient. Commonly used to indicate potential the fate of chemicals in the environment.

**STEL** - Short Term Exposure Limit, The maximum concentration workers can be exposed to a contaminant in air for up to 15 minutes without suffering adverse effects.

**SWA:** Safe Work Australia.

**TWA** - Time Weighted Average. The average concentration of a chemical in air over the total exposure time - usually an 8 hour work day.

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## References:

Work Safe Australia Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (2020). The exposure standards comply with the Australian Workplace Exposure Standards for Airborne Contaminants. The Dangerous Goods Classification complies with the Australian Code for the Transport of Dangerous Goods by Road & Rail Edition 7.8, 2022. Other information from ChemIDPlus and linked databases and the European Chemicals Agency Classification and Labelling database.

**Sections Revised:** All

**Replaces revision:** New

## Disclaimer

This Safety Data Sheet (SDS) has been prepared in compliance with the Work Safe Australia Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice). The information in this SDS should be provided to all who will, handle, store, transport, or otherwise be exposed to this product. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Juno Limited shall not be held liable for any damage resulting from handling or from contact with the above product.

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