

SAFETY DATA SHEET

Product:	Bushman Plus Personal Insect Repellent	Date Prepared: 15 Dec 2016
Company:	Juno Ltd	Replaces: 28 May 2007

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1 Identification

Product Name: Bushman Plus Personal Insect Repellent
Other Names: 50 g Aerosol; 150 g Aerosol; 350 g Aerosol
Uses: Personal Insect Repellent
Supplier
Name: Juno Ltd
Address: 68 Bond St West,
Modialloc, Vic. 3195
Australia

Telephone: +61 (0)3 9587 8514

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 manufacturing environment.

Hazard Class and Category:

Extremely flammable Gas (Category 1)
Eye Irritation (Category 2)
Skin Irritation (Category 2)
Skin Sensitisation (Category 1)



Signal Word:

Danger

Hazard Statements:

Extremely flammable
Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction

Precautionary Statements:

Prevention

Keep away from heat/sparks/open flames/hot surfaces.— No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Wash exposed skin thoroughly after handling.
Wear protective gloves and eye protection/face protection.

Response

IF ON SKIN: Wash with plenty of soap and water. If exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. If skin

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irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
 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.

Storage

Protect from sunlight. Do not expose to temperatures exceeding 50°C

<u>Identity (Other Names)</u>	<u>CAS Number</u>	<u>Proportion (w/w)</u>
DEET (Diethyltoluamide)	134-62-3	20%
N-octyl bicycloheptene dicarboximide	113-48-4	1 - 5%
Ethanol	64-17-5	30 - 60%
Butane	106-97-8	10 - 30%
Other proprietary ingredients not individually contributing to hazard		<10%

3 First Aid Measures

First Aid		
-	Swallowed:	Give water to drink. Contact a doctor or Poisons Information Centre (Phone 13 11 26)
-	In Eye:	Wash continuously with water for 15 minutes. Seek prompt medical attention.
-	On Skin:	Intended for application to skin. Remove with soap and water if irritation occurs. Seek Medical advice if irritation persists.
-	Inhaled:	Remove to fresh air. If breathing difficulties are experienced, seek medical attention.
Advice to Doctor		Treat symptomatically

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

5 Fire Fighting Measures

Flammability	Highly Flammable
Extinguishing Media:	Foam, dry chemical, CO ₂ or water fog
Hazardous Combustion Products:	Aerosol containers can explode when heated.
Precautions for Fire Fighters:	Fight fire from maximum distance possible or from protected area. Wear self-contained breathing apparatus and protective clothing.

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Hazchem Code:	2Y
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6 Accidental Release Measures

Emergency Procedures:

Extinguish any sources of ignition. Do not puncture cans.

Containment of Spill:

In case of **small spill**, collect packaging, mop or wipe up, wrap packaging and material in paper and dispose of in garbage. Wash area with water and detergent.

In case of **larger spill**, cover with absorbent material. Shovel material into clean, dry, labelled containers and close lid. Do not allow material to enter waterways.

7 Handling and Storage

Precautions for Safe Handling:

Product is designed for application to the skin. Avoid contact with eyes and plastics. Do not intentionally concentrate and inhale.

Conditions for Safe Storage:

Store out of reach of children.

8 Exposure Controls / Personal Protection

Exposure Standards:

Ethanol:

SWA: TWA 1000 ppm (1880 mg/m³)

Butane:

SWA: TWA 800 ppm (1900 mg/m³)

Engineering Controls:

Local exhaust and/or mechanical exhaust, fitted with flame and explosion proof electrical fittings recommended.

Personal Protective Equipment:

Respiratory Protection:

Not normally required. If required use a respirator fitted a cartridge

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suitable for organic vapours/mists.

Eye and Face Protection:

In the manufacturing environment wear chemical resistant goggles or face shield.

Skin and Body Protection:

Not normally required. Product is intended for application equipment: to skin.

In the manufacturing environment wear chemical resistant gloves and coveralls covering arms and legs. Chemical resistant footwear is recommended.

9 Physical and Chemical Properties

Appearance:	Clear Liquid
pH:	7.5 - 8.0

10 Stability and Reactivity

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

Excessive heat

11 Toxicological Information

Acute Toxicity:

Oral:

Low toxicity. Estimated LD₅₀ > 5,000 mg/kg

Inhalation:

Not a likely route of exposure. Low toxicity expected. Could cause irritation

Dermal:

Low toxicity. Estimated LD₅₀ >2000 mg/kg

Skin Corrosion/Irritation:

May cause irritation in some people.

Eye Damage/Irritation:

Can cause eye irritation. Liquid or mists sprayed into the eye may cause severe irritation or damage to the eyes.

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Sensitisation:

May cause skin sensitivity in some people.

Carcinogenicity:

Not classified as a carcinogen although IARC has classified ethanol as a carcinogen based on the effects caused by drinking alcoholic beverages. Occupational exposure is not known to result in carcinogenic effects.

Target Organ Toxicity:

No data are available for the product. Long term ingestion of ethanol may cause changes in liver, kidneys, gastrointestinal tract and heart muscle.

12 Ecological Information

Ecotoxicity:

Based on DEET: Lowest acute aquatic LC50 = 75 mg/L.
Chronic NOEC = 0.5 mg/L

Persistence and Degradability:

The active constituent (DEET) is not expected to bioaccumulate. Modelling suggests rapid to moderate degradation.

Contains materials of mineral origin that are likely to persist in the environment.

13 Disposal Considerations

Disposal Methods:

Small quantities: Small quantities may be disposed of in household garbage. Do not puncture cans. Do not incinerate.

Large quantities: Do not puncture cans. Dispose of according to relevant regulations. Do not incinerate.

14 Transport Information

UN Number:	1950
Proper Shipping Name:	Aerosol
Class (Subsidiary Risk):	2

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Packing Group:	Not Applicable
Special Precautions for User:	Do not puncture cans. Keep away from sources of heat.
Hazchem Code:	2Y

15 Regulatory Information

Poison Scheduling:	Not Scheduled
Registration/Notification:	Registered by the Australian Pesticides and Veterinary Medicines Authority (APVMA Number 47106)

16 Other Information

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Glossary

ACGIH - American Conference of Governmental and Industrial Hygienists.

ASCC - Australian Safety and Compensation Commission.

BCF - Bioconcentration Factor - ability to accumulate a chemical in an organism to levels greater than in the surrounding medium. Calculated by dividing the concentration of a chemical in an organism by the concentration in the surrounding medium.

EC₅₀ - median effective concentration. The concentration of a substance that courses a specified response/effect in an organism or population.

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

K_{oc} - the organic carbon partition coefficient (mL soil water /g organic carbon).

LC₅₀ - Lethal Concentration 50%. The concentration of a substance that kills 50% of a target population.

LD₅₀ - Lethal Dose-50%. The dose of a substance that kills 50% of a target population.

NOAEL - The highest dose or concentration of a substance used in a test/study that does not produce any observable adverse effects in the target organism.

NOEL - The highest dose call concentration of a substance used in a test/study that does not produce any observable effects in the target organism.

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.

Polymerisation - a chemical reaction in which molecules (monomers) combine to form larger molecules (polymers). A hazardous polymerisation reaction is one that occurs at a fast rate and releases large amounts of energy.

P_{ow} - The octanol-water partition coefficient. The ratio of the concentration of octanol and in water at equilibrium and at a specified temperature used in environmental studies to indicate fate of chemicals and the environment.

STEL - Short-Term Exposure Limit. The maximum concentration of a substance that workers can be exposed to for periods up to 15 minutes without adverse effects e.g. irritation, tissue damage, narcosis (drowsiness or unconsciousness).

SWA - Safe Work Australia.

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TWA - Time Weighted Average. The time weighted average concentration of a substance that most workers may be repeatedly exposed to over a 8-hour or 40-hour week without adverse effect.

References

Prepared using data supplied by manufacturer and public databases.
Hazard classification conducted according to the Safe Work Australia Guidance on the Classification of Hazardous Chemicals under the WHS Regulations.