

Material Safety Data Sheet

Product: Bushman Personal Insect Repellent
Company: North Queensland Laboratories Pty Ltd

Date Prepared: 18 January 2010
Replaces: 22 September 2008

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1 Identification

Product Name: Bushman Personal Insect Repellent
Other Names: Bushman 40%
Uses: Personal Insect Repellent
Supplier
Name: North Queensland Laboratories Pty Ltd
Address: 63 Koppen Tce, Cairns, Qld 4870 Australia
Telephone: (07) 4054 6020 (24 hours)

2 Hazards Identification

Classified as hazardous according to the criteria of NOHSC.

Classified as dangerous goods according to criteria published in the Australian Dangerous Goods Code.

Harmful (Xi): May cause irritation to skin in rare cases. May cause mild irritation to the eyes.

Risk Phrases:

R36/38: Irritating to eyes and skin

Safety Phrases:

S2: Keep out of reach of children

3 Composition / Ingredients

<u>Identity (Other Names)</u>	<u>CAS Number</u>	<u>Proportion (w/w)</u>
DEET (Diethyltoluamide)	134-62-3	40%
Ethanol	64-17-5	40 – 60%
Butane	106-97-8	0 – 40%
Propane	74-98-6	0 – 40%
Other ingredients not contributing to hazard		5 – 20%

4 First Aid Measures

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. Remove contact lenses, if present and easy to do. Continue rinsing. 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.

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Advice to Doctor Treat symptomatically

5 Fire Fighting Measures

Flammability Highly Flammable

Extinguishing Media: Foam, dry chemical, CO₂ 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.

Hazchem Code: 2Y

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:
NOHSC:TWA 1000 ppm (1880 mg/rn³)
NIOHS REL:TWA 1000 ppm (1900 mg/m³)
OSHA PEL:TWA 1000 ppm (1900 mg/rn³)
Butane:
NOHSC: TWA 800 ppm (1900 mg/rn³)
Propane:
NOHSC: None allocated

Engineering Controls: Local exhaust and/or mechanical exhaust,

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fitted with flame and explosion proof electrical fittings recommended.

Personal Protective Equipment:

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

9 Physical and Chemical Properties

Appearance: Clear Liquid
pH: 5.5 – 6.5

10 Stability and Reactivity

Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Excessive heat

11 Toxicological Information

Acute

Swallowed: Slightly hazardous. Estimated LD₅₀ >2,000 mg/kg

In Eyes: Irritant.

On Skin: No effects likely - in rare cases, may cause irritation.

Inhaled: Product has relatively low toxicity but can irritate eyes and mucous membranes. Inhalation of high concentrations can result in dizziness, disorientation, nausea and, in extreme cases, asphyxiation.

12 Ecological Information

Ecotoxicity: Not available

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.

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14 Transport Information

UN Number: 1950
Proper Shipping Name: Aerosol
Class (Subsidiary Risk): 2
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:	S5
Registration/Notification:	Registered by the Australian Pesticides and Veterinary Medicines Authority (APVMA No. 60969)

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.

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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).

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.