

Material Safety Data Sheet

Product: Bushman Plus – Water Resistant Insect Repellent
Date Prepared: 18 January 2010

Company: North Queensland Laboratories Pty Ltd
Replaces: 22 September 2008

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1 Identification

Product Name: Bushman Plus – Water Resistant Insect Repellent
Other Names: 75g Plus Gel Repellent; 1kg Plus Gel Repellent

Manufacturer's Product Code: BP75G, BP1000G
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

Not classified as dangerous goods according to criteria published in the Australian Dangerous Goods Code.

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

Risk Phrases:

R22: Harmful if swallowed.
R36/38: Irritating to eyes and skin.

Safety Phrases:

S(2): Keep out of reach of children.

3 Composition / Ingredients

<u>Identity (Other Names)</u>	<u>CAS Number</u>	<u>Proportion</u>
DEET (Diethyltoluamide)	134-62-3	80%
Other non-hazardous ingredients	-	20%

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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.
Advice to Doctor:	Treat symptomatically

5 Fire Fighting Measures

Extinguishing Media:	Foam, dry chemical, CO ₂ or water spray
Hazardous Combustion Products:	Gases evolved in fire could include carbon monoxide, carbon dioxide and nitrous oxides.
Precautions for Fire Fighters:	Normal fire-fighting procedures can be used. Avoid contamination with oxidising materials (e.g. pool chlorine) as ignition may occur.
Hazchem Code:	None allocated

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6 Accidental Release Measures

Emergency Procedures: Product is packaged in small containers. Large spills are unlikely.

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 **large 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 plastic.

Conditions for Safe Storage: Store in original container and out of reach of children.

8 Exposure Controls / Personal Protection

Engineering Controls: None applicable. Normal ventilation is usually adequate.

Personal Protective Equipment: Not normally required. Product is intended for application to skin.

9 Physical and Chemical Properties

Appearance: Clear viscous liquid

Solubility in water: Insoluble

pH: 5.5 – 6.5

Specific Gravity / Density: 0.99 – 1.10

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10 Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Incompatible Materials: Oxidising or reducing agents, strong acids and strong alkalis.

Hazardous Decomposition Products: In fire, carbon monoxide, carbon dioxide and nitrogen oxides may be produced.

11 Toxicological Information

Acute

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

In Eyes: Irritant.

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

Inhaled: None

Chronic None known.

12 Ecological Information

Environmental Data: Not available.

13 Disposal Considerations

Disposal Methods: **Small quantities** can be disposed of in household garbage.

Large quantities should be disposed of in accordance with local regulations.

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14 Transport Information

Not a dangerous good for transport purposes.

UN Number: None allocated.
Proper Shipping Name: None allocated.
Class (Subsidiary Risk): Not a dangerous good.

15 Regulatory Information

Poison Scheduling: S5
Registration/Notification: Registered by the Australian Pesticides and Veterinary Medicines Authority (**APVMA No. 47107**).

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.

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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).

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 publicly available information sources including NOHSC and NIOSH.