



# MATERIAL SAFETY DATA SHEET

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## SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

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### Product Name: n-BUTANOL

Company: Recochem Inc. ABN: 69 010 485 999  
Address : 1809 Lytton Road, Lytton, Queensland 4178  
Phone: (07) 3308 5200 Fax: (07) 3308 5201  
Emergency Telephone Number: (07) 3308 5200 Day, After Hours 1300 131 001

Other Names: n-Butyl alcohol, Butan-1-ol, 1-Butanol, Normal butyl alcohol  
Manufacturer's Product Code: 16752  
Recommended Use: Solvent, printing solvent, pigment dispersant

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## SECTION 2 HAZARDS IDENTIFICATION

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**CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA  
DANGEROUS ACCORDING TO THE CRITERIA OF THE ADG CODE**

**Symbols:** Xn Harmful  
Xi Irritant

**Risk Phrases:** R10 - Flammable  
R22 - Harmful if swallowed  
R37/38 - Irritating to respiratory system and skin.  
R41 - Risk of serious damage to eyes  
R67 - Vapours may cause drowsiness and dizziness

**Safety Phrases:** S2 - Keep out of the reach of children  
S7/9 Keep container tightly closed and in a well ventilated place  
S16 - Keep away from sources of ignition - No smoking  
S24/25 - Avoid contact with skin and eyes  
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
S36/37/39 Wear suitable protective clothing/ gloves and eye/face protection  
S46 If swallowed, seek medical advice immediately and show this container or label.

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## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

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### Hazardous Ingredients

<i>Chemical Entity</i>	<i>CAS Number</i>	<i>Proportion (%)</i>
n-Butyl alcohol	71-36-3	100%

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## SECTION 4 FIRST AID MEASURES

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### FIRST AID TREATMENT

**Swallowed:** If swallowed, do NOT induce vomiting. Rinse mouth with water Seek immediate medical assistance.

**Eye:** If in eyes, hold eyes open, flood with water for at least 15 minutes or until advised to do so by the Poisons Information Centre or a doctor.

**Skin:** If skin or hair contact occurs, remove contaminated clothing and wash skin thoroughly with water and follow by washing with soap if available. If swelling, redness, blistering or irritation occurs seek medical assistance.

**Inhaled:** Remove victim from exposure if safe to do so. If rapid recovery does not occur, transport to nearest medical facility for additional treatment. Remove contaminated clothing

**First Aid facilities:** Potable water should be available to rinse eyes or skin. Provide eye baths and safety showers.

**Advice to Doctor:** Treat symptomatically. Can cause corneal burns.

**Additional Information:** None available.

**Product: n-BUTANOL**

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**SECTION 5 FIRE FIGHTING MEASURES**

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**Suitable Extinguishing Media:** Foam, dry agents (chemical powder, carbon dioxide).

**Hazards from combustion products:** Carbon monoxide and/or Carbon dioxide may be evolved.

**Precautions for Fire Fighters and Special Protective Equipment:** Flammable liquid. Wear full protective clothing and self-contained breathing apparatus.

**Additional Information:** Hazchem code 3(Y)

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**SECTION 6 ACCIDENTAL RELEASE MEASURES**

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Observe all local and national regulations

**Spills and Disposal:** Avoid contact with spilled or released material. Shut off leaks, if possible without personal risks. Remove all sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway using sand, earth or other appropriate barriers. Take precautionary measure against static discharge. Ensure electrical continuity by bonding and earthing all equipment. Collect and seal in properly labelled containers or drum for disposal. Wash area down with detergent and excess water.

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**SECTION 7 HANDLING AND STORAGE**

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**Precautions for Safe Handling and Storage:** Avoid breathing of or contact with material. Use in well ventilated areas. Wash thoroughly after handling. Avoid contact with skin and eyes and clothing. Handle open containers in well ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. Do not empty into drains. Do not eat, drink or smoke in contaminated areas. Before eating, drinking or smoking, remove contaminated clothing and wash hands. Do not store near strong oxidants. Store away from heat or sources of ignition.

**Dispensing:** Electrostatic charges may be generated during transfer. Electrostatic discharge may cause fire. Ensure electrical continuity by earthing all equipment.

**Flammability:** Flammable

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**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

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**Exposure Standards:** National Occupational Health & Safety Commission (NOHSC) Worksafe Australia has set an exposure standard 152mg/m<sup>3</sup> (50ppm) TWA Sk.

**Biological Limit Values:** No biological limit allocated

**Personal Protective Equipment:**

**Respiratory Protection:** In instances where ethanol concentrations are likely to exceed 500ppm, an approved organic vapour respirator (AS/NZS 1715 and 1716) should be worn.

**Hand Protection:** Use solvent resistant gloves. Nitrile, PVC or neoprene.

**Eye Protection:** Wear safety Goggles.

**Protective Clothing:** Use chemical resistant glove/gauntlets, boots and apron. Skin protection not ordinarily required beyond standard issue work clothes.

**Engineering Controls:** Ensure that adequate ventilation is provided. Maintain air concentrations below recommended exposure standards. Avoid generating and inhaling mists. Keep containers closed when not in use.

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**SECTION 9 IDENTIFICATION**

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**PHYSICAL DESCRIPTION / CHEMICAL PROPERTIES**

Appearance	Colourless Clear Liquid
Odour	Alcoholic
pH:	N/A
Vapour Pressure (kPa @ 20°C):	0.56
Vapour Density (air = 1)	2.6
Boiling Point (°C):	117.7
Freezing/Melting Point (°C):	-89
Solubility in Water	7.45% @ 25°C
Specific Gravity (g/ml @ 20°C):	0.81
Flashpoint (°C):	35 (CC)

**Product: n-BUTANOL**

Flammability Limits (%):	1.4 – 11.2
Auto Ignition Temperature (°C):	343
Percent Volatiles	100
Evaporation Rate (Butyl Acetate = 1)	0.4

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**SECTION 10 STABILITY AND REACTIVITY**

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**Chemical Stability:** Stable under normal conditions of use.

**Conditions to Avoid:** Avoid heat, sparks, open flames and other ignition sources.

**Incompatible Materials:** Strong oxidising agents and strong mineral acids

**Hazardous Decomposition Products:** Burning can produce carbon monoxide and/or carbon dioxide.

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**SECTION 11 TOXICOLOGICAL INFORMATION**

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**HEALTH EFFECTS**

*Acute:*

**Swallowed:** Accidental swallowing is unlikely in the workplace setting. Swallowing can cause nausea, vomiting and central nervous system depression (similar to drunkenness). If vomiting occurs aspiration into lungs may cause pneumonitis.

**Eye:** A severe eye irritant. Contamination of eyes can result in permanent injury.

**Skin:** Contact with skin will result in irritation. Prolonged contact may cause defatting of skin which can lead to dermatitis. Can be absorbed through skin with resultant toxic effects.

**Inhaled:** Material is an irritant to the respiratory tract. Inhalation of the vapour may result in headaches, dizziness, drowsiness, and possible nausea. Breathing in high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness.

**Chronic:** No information available for product.

Oral LD50 (rat) 800mg/kg

Skin Moderate irritant (rabbit)

Eyes Severe irritants (rabbit)

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**SECTION 12 ECOLOGICAL INFORMATION**

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**Ecotoxicity:**

Avoid contaminating waterways

96hr LC50 (fathead minnow) 1400mg/l

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**SECTION 13 DISPOSAL CONSIDERATIONS**

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**Disposal Methods:** Ensure waste disposal conforms to local waste disposal regulations.

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**SECTION 14 TRANSPORT INFORMATION**

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UN Number:	1120	Proper Shipping Name:	1-BUTANOL
Class:	3	Subsidiary Risk:	None allocated
Packing Group:	III	Hazchem Code:	3[Y]
Special Precautions for User:	None		

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**SECTION 15 REGULATORY INFORMATION**

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Poisons Schedule : Non allocated

AICS : Listed

Dangerous Goods Initial Emergency Response Guide(SA HB76:2004) : 16

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**SECTION 16 OTHER INFORMATION**

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Further Information may be obtained by contacting Recochem on (07) 3308 5200

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product.