



SAFETY DATA SHEET

SECTION 1 IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Identifier	ISOBUTANOL
Other Names	2-Methyl-1-Propanol, Isobutyl Alcohol
Manufacturer's Product Code	16239
Recommended Use	Solvent, printing solvent, pigment dispersant

Details of Supplier/Manufacturer

Company:	Recochem Inc. ABN: 69 010 485 999
Address:	1809 Lytton Road, Lytton, Queensland 4178
Phone:	(07) 3308 5200 Fax: (07) 3308 5201
Website:	www.recochem.com.au



Emergency Telephone Numbers

Business Hours:	(07) 3308 5200
After Hours:	1300 131 001
Poisons Information:	Australia: 13 11 26 New Zealand: 0800 764 766

SECTION 2 HAZARDS IDENTIFICATION

Hazardous chemical	<i>according to classification by Safe Work Australia</i>
Dangerous goods	<i>according to the Australian Code for the Transport of Dangerous Goods by Road and Rail</i>

Signal Word	DANGER
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GHS Classification	Pictogram	Hazard statement
Flammable Liquids, Category 3	 FLAME	H226 Flammable liquid and vapour
Serious Eye Damage/Irritation, Category 1	 CORROSION	H318 Causes serious eye damage

Product: ISOBUTANOL

Skin Corrosion/Irritation, Category 2	 EXCLAMATION MARK	H315 Causes skin irritation
Specific Target Organ Toxicity (Single Exposure), Category 3		H335 May cause respiratory irritation H336 May cause drowsiness or dizziness

Precautionary statements:

<i>GENERAL</i>	
P101	If medical advice is needed, have product container or label at hand
P102	Keep out of reach of children
P103	Read label before use
<i>PREVENTATIVE</i>	
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilation/lighting equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P261	Avoid breathing mist/vapours/spray
P264	Wash thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/eye protection/face protection
<i>RESPONSE</i>	
P302 + P352	IF ON SKIN: Wash with plenty of soap and water
P303 + P361 + P353	IF ON SKIN (or hair): Take off contaminated clothing and wash before reuse. Rinse skin with water/shower
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310	Immediately call a POISON CENTER or doctor/physician
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P332 + P313	If skin irritation occurs: Get medical advice/attention
P362	Take off contaminated clothing and wash before reuse
P363	Wash contaminated clothing before reuse
P370 + P378	In case of fire: Use foam/water spray/fog for extinction
<i>STORAGE</i>	
P403 + P235	Store in a well-ventilated place. Keep cool
P403 + P233	Store in a well-ventilated place. Keep container tightly closed
P405	Store locked up
<i>DISPOSAL</i>	
P501	Dispose of contents/container in accordance with local regulations

SECTION 3 COMPOSITION AND INFORMATION ON INGREDIENTS**Ingredients Names and Proportions**

Chemical Entity	CAS Number	Proportion (%)
2-Methyl-1-Propanol (Isobutanol)	78-83-1	100

SECTION 4 FIRST AID MEASURES

Description of necessary first aid measures

Inhalation:	Keep victim calm and remove to fresh air if safe to do so. If rapid recovery does not occur, transport to nearest medical facility for additional treatment. Remove contaminated clothing.
Skin Contact:	If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water and follow by washing with soap if available. If symptoms occur, transport to nearest medical facility for additional treatment.
Eye Contact:	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. Transport to nearest medical facility for additional treatment.
Ingestion:	If swallowed, do NOT induce vomiting. Transport to nearest medical facility for additional treatment. Seek immediate medical assistance.

Symptoms caused by exposure

Inhalation:	Irritant to the respiratory system. May result in headaches, dizziness, drowsiness, and possible nausea.
Skin:	May include burning sensation, redness, swelling and/or blisters.
Eye:	May include burning sensation, redness, swelling and/or blurred vision. May result in permanent injury.
Ingestion:	May cause nausea, vomiting and central nervous system depression (similar to drunkenness).

Medical attention and special treatment

Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing equipment

Foam, dry agents (chemical powder, carbon dioxide).

Specific hazards arising from the chemical

Carbon monoxide and/or carbon dioxide may be evolved.

Special protective equipment and precautions for fire fighters

Wear full protective clothing and self-contained breathing apparatus. Hazchem code ●3Y.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled or released material. Shut off leaks, if possible without personal risks. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Remove all sources of ignition in the surrounding area. Take precautionary measure against static discharge. Ensure electrical continuity by bonding and earthing all equipment.

Environmental precautions

Do not empty into drains. Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway using sand, earth or other appropriate barriers.

Methods and materials for containment and cleaning up

For small spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal.

For larger spills (> 1 drum), transfer by means such as a vacuum truck to a salvage tank for recovery or disposal.

Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely. Wash area down with detergent and excess water.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Flammable product. Avoid breathing vapours. Handle and open containers with care in a well-ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in contaminated areas. Electrostatic charges may be generated during transfer. Electrostatic discharge may cause fire. Ensure electrical continuity by earthing all equipment.

Conditions for safe storage, including any incompatibilities

Store in a well-ventilated area, away from sunlight, ignition sources and other sources of heat. Do not store near strong oxidants.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure control measures

From National Occupational Health & Safety Commission (NOHSC) Worksafe Australia -
Isobutanol: 152mg/m³ (50ppm) TWA

Biological monitoring

No biological limit allocated.

Engineering controls

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

Individual protection measures

Eye and face protection:	Wear safety goggles.
Skin protection:	Use solvent resistant gloves, nitrile for longer term protection or PVC and neoprene for incidental splashes.
Respiratory protection:	If work practices do not maintain airborne level below the exposure standard, use appropriate respiratory protection equipment. When using respirators, select an appropriate combination of mask and filter. Select a filter for organic gases and vapours (boiling point > 65°C). Respirators should comply with AS1716 or an equivalent approved by a state/territory authority.
Thermal hazards:	Not applicable.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colourless clear liquid
Odour:	Alcoholic
Odour threshold (ppm):	Data not available
pH:	Data not available
Melting point/freezing point (°C):	-108
Initial boiling point and boiling range (°C):	108
Flash point (°C):	28 (CC)
Evaporation rate (Butyl acetate = 1):	0.6
Flammability:	Flammable
Upper/lower flammability or explosive limits (%):	1.7 - 10.6
Vapour pressure (mmHg @ 20°C):	8

Product: ISOBUTANOL

Vapour density (air = 1):	2.5
Density (g/ml @ 15°C):	0.801
Solubility (kg/m ³):	Data not available
Partition coefficient: n-octanol/water:	Data not available
Auto-ignition temperature (°C):	427
Decomposition temperature (°C):	Data not available
Kinematic viscosity (mm ² /s @ 20°C):	Data not available

SECTION 10 STABILITY AND REACTIVITY**Reactivity**

Stable under normal conditions of use.

Chemical stability

Stable under normal conditions of use.

Possibility of hazardous reactions

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, acid chlorides, acid anhydrides.

Hazardous decomposition products

Burning can produce carbon monoxide and/or carbon dioxide. Hazardous polymerisation will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity:	LD50 Oral (rat) = 2460mg/kg LD50 Skin (rabbit) = 3400mg/kg
Skin corrosion/irritation:	Irritating to skin. Prolonged contact may cause defatting of skin which can lead to dermatitis
Serious eye damage/irritation:	Severe irritant. Contamination of eyes can result in permanent injury
Respiratory or skin sensitisation:	Not expected to be a sensitiser
Germ cell mutagenicity:	Not expected to be mutagenic
Carcinogenicity:	Not expected to be carcinogenic
Reproductive toxicity:	Not expected to impair fertility
Specific Target Organ Toxicity (STOT) – single exposure:	May be harmful if inhaled. Inhalation of vapours or mists may cause irritation to the respiratory system. Breathing in high concentrations can produce central nervous system depression.
Specific Target Organ Toxicity (STOT) – repeated exposure:	Data not available
Aspiration hazard:	Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal

SECTION 12 ECOLOGICAL INFORMATION**Ecotoxicity**

Product: ISOBUTANOL

Acute toxicity: Avoid contaminating waterways

Fish –	96hr LC50 (fish) = 1520mg/l
Aquatic invertebrate –	Data not available
Algae –	Data not available
Microorganisms –	Data not available

Chronic toxicity:

Fish –	Data not available
Aquatic invertebrate –	Data not available
Algae –	Data not available
Microorganisms –	Data not available

Persistence and degradability

Data not available.

Bioaccumulative potential

Data not available.

Mobility in soil

Flo Data not available.

Other adverse effects

Data not available.

SECTION 13 DISPOSAL CONSIDERATIONS

Ensure waste disposal conforms to local waste disposal regulations.

SECTION 14 TRANSPORT INFORMATION

UN number:	1212
Proper shipping name:	Isobutanol
Australian Dangerous Goods class:	3
Australian Dangerous Goods packing group:	III
Hazchem code:	●3Y

SECTION 15 REGULATORY INFORMATION

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poisons Schedule:	Not scheduled
Australian Inventory of Chemical Substances (AICS):	Listed
Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB76):	17

SECTION 16 OTHER INFORMATION

Date of preparation:	01/10/2015
Revision number:	5
Changes in this revision:	Update to GHS SDS standard

This SDS summarises product safety information at the date of issue, to the best of our knowledge, as a general guide. Recochem cannot anticipate or control the conditions under which the product is used, so prior to usage each user must assess and control the risks associated with their use of the product. Users should also consult the relevant legislation governing the use and storage of this product. We make no warranties, express or implied, and assume no liability in connection with any use of information contained within this document. If clarification or further information is needed, the user should contact Recochem on (07) 3308 5200.
