



SAFETY DATA SHEET

ISOBUTYL ALCOHOL

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name: ISOBUTYL ALCOHOL

Recommended use: Chemical for industry.

Manufacturer/Supplier: **MODERN CHEMICAL CO.,LTD.**
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2. HAZARDS IDENTIFICATION

Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

- 1.) Highly flammable liquid and vapour.
- 2.) Causes skin irritation.
- 3.) May be fatal if swallowed and enters airways.
- 4.) May cause drowsiness or dizziness.
- 5.) Toxic to aquatic life with long lasting effects.
- 6.) May damage the unborn child. Suspected of damaging fertility.

Precautionary statement(s)

- 1.) Keep away from heat/sparks/open flames/hot surfaces. - No smoking.



- 2.) Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- 3.) Avoid release to the environment.
- 4.) IF SWALLOWED: call a doctor/physician. Do NOT induce vomiting.
- 5.) IF IN EYES: Rinse cautiously with water for 15 minutes.
- 6.) IF ON SKIN Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonym: Isobutanol,2-Methyl-1-propanol, Isopropyl carbinol, IBA

Ingredients	% (w/w)	CAS NO.
ISOBUTYL ALCOHOL	100	78-83-1

4. FIRST AID MEASURES

General advice:

Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation:

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

Skin contact:

Wash off with soap and plenty of water. Consult a physician.

Eye contact:

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion:

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media:

No data available

Specific hazards arising from Chemicals:

No data available

Special protective equipment for fire-fighters:

Wear self contained breathing apparatus for fire fighting if necessary.



6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions: Do not let product enter drains.

Methods and Material for Containment and Clean Up:

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling & Product Transfer:

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for Safe Storage & Unsuitable Materials:

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits: TWA 10 ppm (55 mg/m³), OEL 10 ppm (50 mg/m³)

Appropriate Engineering Controls: The product should only be used in ventilation hoods and fans.

Individual Protection Measures

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.



Handle with gloves.

Eye protection:

Safety glasses with side-shields conforming to EN166

Skin and body protection:

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form, Color and Odor : liquid, colourless characteristic	Evaporation rate : 80 (n-BA=100)
Melting Point : -108 °C	Specific gravity : 0.800-0.810 g/cm ³ at 20 °C
pH : N/A	Solubility in water : Soluble
Boiling point: 108 °C	Viscosity : 4.7 mPa.sec
Vapour pressure : 8.8 mHg at 20 °C	Vapour density : 2.6 g/l
Lower explosive limits: 1.6 %Vol	Upper explosive limits: 10.9 % Vol
Auto-ignition temperature: 427 °C	Flash Point: 28 °C
Odour threshold: N/A	Flammability (solid, gas): N/A
Decomposition temperature: N/A	Solubility in other solvents: N/A
n-octanol/water partition coefficient (log P_{ow}): N/A	

10. STABILITY AND REACTIVITY**Chemical stability:**

Stable under recommended storage conditions.

Reactions:

No data available

Possibility of Hazardous Reactions: No data available

Conditions to avoid:

Heat, flames and sparks.

Materials to avoid:

Strong oxidizing agents, Acid chlorides, Acid anhydrides. Strong oxidizing agents, Acid chlorides, Acid Anhydrides

Hazardous decomposition products:Hazardous decomposition products formed under fire conditions

11. TOXICOLOGICAL INFORMATION**Acute toxicity:**

LD50 Oral - rat - 2.460 mg/kg

LD50 Oral - rat - 2.500 - 6.400 mg/kg



LC50 Inhalation - rat - 4 h - 8000 ppm

LD50 Dermal - rabbit - 3.400 mg/kg

LD50 Dermal - rabbit - 4.240 mg/kg

LD50 Intraperitoneal - mouse - 544 mg/kg

LD50 Intravenous - mouse - 417 mg/kg

LD50 Intraperitoneal - rabbit - 323 mg/kg

LD50 Intraperitoneal - guinea pig - 1.201 mg/kg

LD50 Intraperitoneal - Hamster - 1.401 mg/kg

Sensitization:

May be harmful if inhaled. Causes respiratory tract irritation. Vapours may cause drowsiness and dizziness. Ingestion May be harmful if swallowed. May be harmful if absorbed through skin. May cause skin irritation. Causes eye irritation.

Chronic toxicity:

No data available

Further toxicological information: No data available

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish: LC50 - Pimephales promelas (fathead minnow) - 1,220 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h

Toxicity to algae IC50 - Desmodesmus subspicatus (green algae) - > 100 mg/l - 24 h

Toxicity to bacteria LC50 - Pseudomonas putida - 1.170 mg/l - 16 h

Biodegradability Remarks: According to the results of tests of biodegradability this product is considered as being readily biodegradable.

Bioaccumulative potential: Does not bioaccumulate.

Mobility: No data available

Affected in any other way: No data available

13. DISPOSAL CONSIDERATIONS

Material Disposal: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. This combustible material may be burned in a chemical incinerator equipped with



an afterburner and scrubber. Observe all federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Container Disposal: Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

UN-No: 1212 Class: 3 Packing group: III
Proper shipping name: ISOBUTYL ALCOHOL

IMDG

UN-No: 1212 Class: 3 Packing group: III
EMS-No: F-E, S-D Marine pollutant: No
Proper shipping name: ISOBUTANOL

IATA

UN-No: 1212 Class: 3 Packing group: III
Proper shipping name: Isobutanol

15. REGULATORY INFORMATION

GHS - Labelling:

Hazard statement(s)

- H315 Causes skin irritation.
- H226 Flammable liquid and vapour.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.

Precautionary statement(s)

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/eye protection/face protection.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



Hazard symbol(s)

Xi Irritant

R-phrases(s)

R10 Flammable.

R37/38 Irritating to respiratory system and skin.

R41 Risk of serious damage to eyes.

R67 Vapours may cause drowsiness and dizziness.

S-phrases(s)

S 7/9 Keep container tightly closed and in a well-ventilated place.

S13 Keep away from food, drink and animal feedingstuffs.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37/39 Wear suitable gloves and eye/face protection.

S46 If swallowed, seek medical advice immediately and show this container or label.

16. OTHER INFORMATION

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