

ALLIANCE CHEMICAL

Safety Data Sheet

Isobutyl Alcohol

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Isobutyl Alcohol

Synonyms/Generic Names: Isobutanol; 2-Methyl-1-propanol

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Alliance Chemical
204 S. Edmond St.
Taylor, TX 76574

For More Information Call: 512-365-6838 (Monday-Friday 8:00-4:00)

In Case of Emergency Call: CHEMTEL (800) 255-3924 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Flammable liquid, Target Organ Effect, Irritant

Target Organs: Central nervous system, Liver, Kidney

Signal Word: Danger

Pictograms:



GHS Classification:

Flammable liquids	Category 3
Acute toxicity, Oral	Category 5
Acute toxicity, Inhalation	Category 5
Acute toxicity, Dermal	Category 5
Skin irritation	Category 2
Serious eye damage	Category 1
Specific target organ toxicity - single exposure	Category 3
Acute aquatic toxicity	Category 2

GHS Label Elements, including precautionary statements:

Hazard Statements:

H226	Flammable liquid and vapor.
H303 + H313	May be harmful if swallowed or in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H333	May be harmful if inhaled.
H335 + H336	May cause respiratory irritation, and drowsiness or dizziness.
H401	Toxic to aquatic life.

Precautionary Statements:

P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ 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.

Potential Health Effects

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

NFPA Ratings

Health	1
Flammability	3
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	1
Fire	3
Reactivity	0
Personal	H

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Isobutyl Alcohol	100	78-83-1	201-148-0	C ₄ H ₁₀ O	74.12 g/mol

4. FIRST-AID MEASURES

Eyes	In case of eye contact, rinse with plenty of water and seek medical attention.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is flammable. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use appropriate media for adjacent fire. Cool containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Neutralize spill with sodium bicarbonate or lime. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers.

Component	Exposure Limits	Basis	Entity
Isobutyl Alcohol	50 ppm 152 mg/m ³	TLV	ACGIH
	100 ppm 300 mg/m ³	PEL	OSHA
	50 ppm 150 mg/m ³	REL	NIOSH

TWA: Time Weighted Average over 8 hours of work.
 TLV: Threshold Limit Value over 8 hours of work.
 REL: Recommended Exposure Limit
 PEL: Permissible Exposure Limit
 STEL: Short Term Exposure Limit during x minutes.
 IDLH: Immediately Dangerous to Life or Health
 WEEL: Workplace Environmental Exposure Levels
 CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Liquid.
Odor	Sweetish and musty. Slightly suffocating.
Odor threshold	40 ppm
pH	Not Available
Melting point/freezing point	-108°C (-162.4°F)
Initial boiling point and boiling range	108°C (226.4°F)
Flash point	CLOSED CUP: 28°C (82.4°F) OPEN CUP: 37.7°C (99.9°F)
Evaporation rate	0.6
Flammability (solid, gas)	Flammable liquid.
Upper/lower flammability or explosive limit	LOWER: 1.2% UPPER: 10.9%
Vapor pressure	1.2 kPa (@ 20°C)
Vapor density	2.56 (Air = 1)
Density	0.806 @ 15 C (Water = 1)
Solubility (ies)	Miscible in alcohol or in diethyl ether. Partially soluble in cold water, hot water.
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	415.56°C (780°F)
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Heat, flames, sparks.
Incompatible Materials	Strong oxidizing agents, acid chlorides, acid anhydrides.
Hazardous Decomposition Products	Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	LD50 Dermal - rabbit - 3,400 mg/kg
Eyes	Not Available
Respiratory	NLC50 Inhalation - rat - 4 h - 8000 ppm
Ingestion	LD50 Oral - rat - 2,460 mg/kg
Other	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

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Irritation, redness, itchiness.
Eyes	Irritation, redness, watering eyes, itchiness.
Respiratory	Irritation, coughing, wheezing, shortness of breath.
Ingestion	Irritation, nausea, vomiting, diarrhea, central nervous system depression.

Chronic Toxicity	Not Available
Teratogenicity	Passes through the placental barrier in human.
Mutagenicity	Mutagenic for bacteria and/or yeast.
Embryotoxicity	Not Available
Specific Target Organ Toxicity	May cause respiratory irritation. May cause drowsiness or dizziness
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	LC50 - Pimephales promelas (fathead minnow) - 1.220 mg/l - 96 h
Aquatic Invertebrate	Not Available
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN1212, Isobutanol, 3, pg III
TDG	UN1212, ISOBUTANOL, 3, pg III
IMDG	UN1212, ISOBUTANOL, 3, pg III
Marine Pollutant	No
IATA/ICAO	UN1212, Isobutanol, 3, pg III

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	Not Lited
SARA 304	Not listed
SARA 311	Isobutyl Alcohol
SARA 312	Isobutyl Alcohol
SARA 313	Not Listed
WHMIS Canada	CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-2B: Material causing other toxic effects (TOXIC).

16. OTHER INFORMATION

Disclaimer: ALLIANCE CHEMICAL believes that the information on this SDS was obtained from reliable sources. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, ALLIANCE CHEMICAL does not assume responsibility and expressly disclaims liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable. Information is correct to the best of our knowledge at the date of the SDS publication.