

MSDS # 382.00

Isobutyl AlcoholScholar
Chemistry

Science Kit

Section 1: Product and Company Identification**Isobutyl Alcohol****Synonyms/General Names:** 2-Methyl-1-propanol; Isobutanol**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Colorless, mobile liquid; strong odor.***HMIS (0 to 4)**

Health	1
Fire Hazard	3
Reactivity	0

WARNING! Flammable liquid, slightly toxic by ingestion and inhalation. Body tissue irritant.

Flammable liquid, keep away from all ignition sources.

Target organs: Central nervous system, liver, kidneys.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Isobutyl alcohol (78-83-1), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. **Aspiration hazard.** Rinse mouth with cold water. Give victim 1-2 tbsp of activated charcoal mixed with 8 oz water.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Class IC Flammable Liquid. When heated to decomposition, emits acrid fumes

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact. Material is sensitive to static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Red****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Flammable Area [Red Storage] with other flammable materials and away from any strong oxidizers. Store in a dedicated flammables cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines: Isobutyl Alcohol: OSHA PEL: 300 mg/m³ and ACGIH TLV: 152 mg/m³, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	(CH ₃) ₂ CHCH ₂ OH.	Appearance	Colorless, mobile liquid.
Molecular weight	74.12.	Odor	Strong odor
Specific Gravity	0.80 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	2.55.	Solubility	N/A.
Melting Point	-108°C.	Evaporation rate	0.62 (<i>Butyl acetate = 1</i>).
Boiling Point/Range	108°C.	Partition Coefficient	0.76 (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	8.8 mm @ 20°C.	pH	N/A.
Flash Point:	28-30°C (82-86°F) CC.	LEL	1.7%.
Autoignition Temp.:	415°C (780°F).	UEL	10.6 %.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use. Avoid heat and ignition sources.

Incompatibility: Acids, strong oxidizers, copper and its alloys.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Stinging pain, watering of eyes, inflammation of eyelids and conjunctivitis. *Skin:* Insensitivity to pain, feel of coolness or cold, skin looks white and feels hard and cold. *Ingestion:* Breath has sweet, organic odor, mental confusion, drowsiness, nausea, vomiting and headache. *Inhalation:* Rapid irregular breathing, headache, fatigue, mental confusion, nausea and vomiting, giddiness and poor judgment, convulsions and death.

Chronic Effects: Repeated/prolonged skin contact may cause dryness or rashes.

Sensitization: none expected

Isobutyl Alcohol: LD50 [oral, rat]; 2460 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; 500 mg/severe

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial):

Ecological impact has not been determined

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Isobutanol.	Canada TDG:	Isobutanol.
DOT Hazard Class:	3, pg III.	Hazard Class:	3, pg III.
Identification Number:	UN1212.	UN Number:	UN1212.

Section 15: Regulatory Information

EINECS: Listed (201-148-0).

WHMIS Canada: B2, D2B: Flammable liquid, Toxic material-eye irritant.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

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