

Safety Data Sheet (SDS)

Isopropyl Alcohol

Issue date 02/14/2017

Reviewed on 10/11/2018

1. Identification

- **Product Identifier**
- **Name of the product:** Isopropyl Alcohol
- **Synonyms:** Dimethyl carbinol, Isopropanol
- **Uses:** Industrial use

- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Ramsay Browne Chemical & Company
PO Box 6425
Moraga, CA 94570
General Number: (925) 280-1661
- **Emergency telephone number: (925) 280-1661**

2. Hazard(s) Identification

- **GHS Hazards**
- Flammable liquids Category 2
- Eye irritation Category 2A
- Specific target organ toxicity (single exposure) Category 3 (Narcotic effects)



- **Signal word:** Danger
- **Hazard statements:**
- **H225** Highly flammable liquid and vapor
- **H319** Causes serious eye irritation
- **H336** May cause drowsiness or dizziness

- **Precautionary statements:**
- **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/ventilating/lighting/equipment
- **P242** Use only non-sparking tools
- **P243** Take precautionary measures against static discharge
- **P280** Wear protective gloves/eye protection/face protection
- **P264** Wash skin thoroughly after handling
- **P261** Avoid breathing dust/fume/gas/mist/vapor/spray

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2. Hazard(s) Identification (continued)

- **P271** Use only outdoors or in a well-ventilated area
- **Response:**
- **P303+P361+P353** IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- **P370+P378** In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
- **P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P337+P313** If eye irritation persists: Get medical advice/attention.
- **P304+P340** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- **P312** Call a POISON CENTER/doctor if you feel unwell.
- **Storage:**
- **P403+P405+P235** Store locked up in a well-ventilated place. Keep cool.

3. Composition / Information on ingredients

CAS #	Weight Percentage	Chemical Name
67-63-0	100	2-Propanol

4. First-aid measures

- **Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- **Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.
- **Inhalation:** Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.
- **Ingestion:** If swallowed, call a poison control center or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

5. Emergency response procedures

- **Flammable Properties**
- **Fire/explosion:** Vapors may form explosive mixture with air. Flash back possible over considerable distance. Use water spray to disperse the vapors. NFPA Class 1B flammable liquid.

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5. Emergency response procedures (continued)

- **Suitable Extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- **Protective equipment and precautions for firefighters:** In the event of fire, wear self-contained breathing apparatus
- **Further information:** Keep containers and surroundings cool with water spray. Beware of vapors accumulating to form explosive concentration. Vapors can accumulate in low areas.

6. Accidental Release Measures

- **Methods and materials for containment and cleaning up:** Evacuate personnel to safe areas. Remove all sources of ignition. 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). Do not flush into surface water or sanitary sewer system.

7. Handling and Storage

- **Safe handling advice:** Ensure all equipment is electrically grounded before beginning transfer operations. Keep away from heat and sources of ignition.
- **Storage/Transport pressure:** Ambient
- **Load/Unload temperature:** Ambient

8. Exposure Controls / Personal Protection

- **Engineering Measures:** Air contaminant levels should be controlled below the PEL or TLV for this product (see Exposure Guidelines). Ensure adequate ventilation, especially in confined areas. Use explosion-proof equipment.
- **Personal protective equipment:**
- **Eyes:** Chemical resistant goggles must be worn, face-shield.
- **Skin:** Wear suitable protective clothing, gloves and eye/face protection.
- **Inhalation:** Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

- **Exposure Guidelines:**

Components	Exposure limit(s)
2-Propanol	OSHA PEL 400 ppm 980 mg/m ³ ACGIH TLV (8-hour) 200 ppm ACGIH STEL 400 ppm

- PEL = Permissible Exposure Limits
- TLV = Threshold Limit Value

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8. Exposure Controls / Personal Protection (continued)

- EL = Excursion Limit
- TWA = Time Weighted Average (8 hr)
- STEL = Short Term Exposure Limit (15 min)
- WEEL = Workplace Environmental Exposure Level

9. Physical and Chemical Properties

- **Appearance:** liquid
- **Color:** Clean, colorless
- **Form:** liquid
- **Odor:** alcohol-like
- **Odor Threshold:** no data available
- **Flash point:** 13°C (55°F)
- **Flammability:**
 - **Upper explosion limit:** 19% (V)
 - **Lower explosion limit:** 3.3% (V)
- **Boiling point/boiling range:** 82°C (180°F)
- **Melting point/range:** -92°C (-134°F)
- **Auto-ignition temperature:** 363°C (685°F)
- **Decomposition temperature:** no data available
- **Flammability (solid, gas):** no data available
- **Vapor pressure:** no data available
- **Vapor density:** no data available
- **Density:** 0.79 g/cm³ @ 20°C (68°F)
- **Specific gravity:** no data available
- **Water solubility:** completely miscible
- **Viscosity:** no data available
- **Viscosity, dynamic:** no data available
- **pH:** 7
- **Evaporation rate:** no data available
- **Partition coefficient, n-octanol/water:** no data available
- **Volatile organic compounds (VOC) content:** 100%

10. Stability and Reactivity

- **Reactivity:** No decomposition if stored and applied as directed.
- **Chemical stability:** Stable under recommended storage conditions.
- **Conditions to avoid:** Heat, flames and sparks. Avoid temperatures above 35°C, direct sunlight and contact with sources of heat.

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10. Stability and Reactivity (continued)

- **Hazardous decomposition products:** Combustion products include carbon dioxide, carbon monoxide and possibly other unidentified organic compounds.
- **Materials to avoid:** Strong acids and oxidizing agents. Acid anhydrides. Aluminum. Halogenated compounds.
- **Hazardous polymerization:** Vapors may form explosive mixture with air.

11. Toxicological Information

- **Acute dermal toxicity:**
- **LD50, Rabbit:** >2,000 mg/kg (literature value)

- **Acute inhalation toxicity:**
- **LC50, Rat (8 hours):** >20 mg/l (literature)

- **Acute oral toxicity:**
- **LD50, Rat:** >2,000 mg/kg (literature value)

- **Skin corrosion/irritation:** Rabbit, not irritating (literature value)
- **Eye damage/irritation:** Rabbit, irritating (literature value)
- **Respiratory or skin sensitization:** Guinea pig, not sensitizing; Buehler Test (literature value)

- **Germ cell mutagenicity:**
- **Genotoxicity in vitro:**
 - **Type:** Ames testing
 - **System:** Salmonella typhimurium; with and without metabolic activation
 - **Result:** In vitro tests did not show mutagenic effects (literature value)
- **Genotoxicity in vivo:** no data available
- **Assessment Mutagenicity:** Based on available data, the classification criteria are not met.

- **Reproductive toxicity:** no data available
- **Assessment Reproductive toxicity:** no data available
- **Teratogenicity:** no data available
- **Assessment teratogenicity:** no data available

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11. Toxicological Information (continued)

- **STOT - single exposure:** The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.
- **STOT- repeated exposure:**
 - **Rat, oral:** 90 day
 - **NOAEL:** 1,730 mg/kg
 - **LOAEL:** 3,160 mg/kg
 - Based on available data, the classification criteria are not met.
- **Aspiration toxicity:** no data available
- **Carcinogenicity:** Contains no ingredient listed as a carcinogen.

12. Ecological Information

- **Toxicity to fish:** LC50 (Pimephales promelas (fathead minnow)) 96 hours; >100 mg/l; flow-through test (literature value)
- **Toxicity to aquatic invertebrates:** EC50 (Daphnia magna (Water flea)) 24 hours; >100 mg/l; static test (literature value)
- **Toxicity to algae:** EC50 (Scenedesmus quadricauda (gree algae)) 7 d; >100 mg/l; static test (literature value)
- **Chronic toxicity to fish:** no data available
- **Chronic toxicity to aquatic invertebrates:** no data available
- **Biodegradation:** Readily biodegradable, BOD5 (5 d); 53% (literature value)
- **Bioaccumulation:** No bioaccumulation is to be expected (log Pow <+ 4)
- **Mobility in soil:** No data available
- **Other adverse effects:** This substance is not considered to be persistent, bioaccumulating and toxic (PBT)

13. Disposal Considerations

- **Waste Code:** D001 - Ignitability (RQ 100 LB). This product has the RCRA characteristic of ignitability. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination and spillage may change the classification.
- **Disposal methods:** Dispose of only in accordance with local, state and federal regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.
- **Empty containers:** Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

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14. Transport Information

- **DOT (US):** UN1219, Isopropanol, 3 , II
- **IMDG:** UN1219, Isopropanol, 3 , II
- **IATA:** UN1219, Isopropanol, 3 , II
- Transport in bulk according to Annex II or MARPOL 73/78 and the IBC Code
- **Remarks:** no data available

15. Regulatory Information

- **OSHA Hazards (HCS 1994):** no data available
- **TSCA Inventory Listing:** 2-Propanol (CAS No 67-63-0)
- **SARA 302 Status:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- **SARA 311/312 Classification:** "Fire hazard", "Immediate (acute) health hazard"
- **SARA 313 Chemical:** 2-Propanol (CAS No 67-63-0), Weight percent -100%
- **US EPA CERCLA Hazardous Substances (40 CFR 302):** none

- **International Regulations:**
- **WHMIS Classification:**
- **Class B, Division 2:** Flammable liquid
- **Class D, Division 2, Subdivision B:** Toxic material
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- **European Union:**
- Classification according to Regulation (EU) 1272/2008
- Flammable liquids, Category 2
- Eye irritation, Category 2
- Specific target organ toxicity – single exposure, Category 3 (Narcotic effects)

- **Australia. Inventory of Chemical Substances (AICS):** Listed
- **Japan. Inventory of Existing and New Chemical Substances (ENCS):** Listed
- **Japan. Industrial Safety & Health Law (ISHL) Inventory:** Listed
- **Canada. Domestic Substances List (DSL) Inventory:** Listed
- **Canadian Non-Domestic substance Listing (NDSL):** Not listed
- **European Inventory of Existing Commercial Chemical Substances (EINECS) Listing:** Listed
- **Philippines. Inventory of Chemicals/Chemical Substances (PICCS):** Listed
- **Korea. Existing Chemicals Inventory (KECI):** Listed
- **China. Inventory of Existing Chemical Substances (IECSC):** Listed
- **Mexico. National Inventory of Chemical Substances (INSQ):** Listed
- **New Zealand. Inventory of Chemicals (NZIoC):** Listed
- **Switzerland. Inventory of Notified New Substances (CHINV):** Listed

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15. Regulatory Information (continued)

- **Taiwan. National Existing Chemical Inventory (NECI):** Listed
- **Please note:** The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.
- **State Regulations:** California Prop 65 - none

16. Other Information

- HMIS Rating:
- Health hazard: 2
- Flammability: 3
- Physical hazard: 0

Disclaimer of Responsibility

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