

Safety Data Sheet

ISOPROPYL ALCOHOL

Section 1 - Chemical Product and Company Identification

SDS Name: Isopropyl Alcohol (Isopropanol)

Catalog Numbers: SO-600

Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H225-Flammable Liquids: 2

H303-Acute toxicity, oral: 5

H319-Serious eye damage/eye irritation: 2A

H336-Specific target organ toxicity, single exposure; Narcotic effects: 3

H373-Specific target organ toxicity, repeated exposure: 2

Pictograms or Hazard symbols and Hazard Statement(s):



Signal Word: Danger

Hazard Statements:

H225-Highly flammable liquid and vapour

H303-May be harmful if swallowed

H319-Causes serious eye irritation

H336-May cause drowsiness or dizziness

H373-May cause damage to organs through prolonged or repeated exposure (target organs: kidney and liver)

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.
P260-Do not breathe dust/fume/gas/mist/vapours/spray.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P264-Wash thoroughly after handling.
P271-Use only outdoors or in a well-ventilated area.
P280-Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.
P303+P361+P353-If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340-If inhaled: Remove person to fresh air and keep 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.
P312-Call a Poison Center/doctor if you feel unwell.
P314-Get medical advice/attention if you feel unwell.
P337+P313-If eye irritation persists: Get medical advice/attention.
P370+P378-In case of fire: Use dry chemical, carbon dioxide, dry sand, water spray or alcohol-resistant foam for extinction.
P403+P233-Store in a well-ventilated place. Keep container tightly closed.
P403+P235-Store in a well-ventilated place. Keep cool.
P405-Store locked up.
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
67-63-0	Isopropyl Alcohol	>99

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Get medical attention.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention.

Oral Exposure: If swallowed, get immediate medical attention. Do NOT induce vomiting. Rinse mouth with water.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Hazardous Combustion Products: Carbon oxides, peroxides, irritating and toxic fumes and gases.

Flash Point: 18.3°C (64°F) (CC)

Auto ignition Temperature: 399°C

Explosion Limits, Lower: 2 vol %

Upper: 12 vol %

NFPA Rating: (estimated) Health: 2; Flammability: 3; Instability: 0

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation. Keep away from heat. Eliminate all sources of ignition. Take precautionary measures against static discharges.

Methods for Cleaning up: Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Use with adequate ventilation. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Store in a tightly closed container in a cool, dry, and well-ventilated area. Keep away from incompatible materials. Keep away from open flames, hot surfaces, and sources of ignition. Store away from direct sunlight. Use spark-proof tools and explosion-proof equipment. Properly ground metal parts of equipment. Take precautionary measures against static discharges. Vapors heavier than air may travel considerable distance and ignite or explode.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Isopropyl Alcohol CAS#67-63-0	200 ppm TWA 400 ppm STEL	400 ppm TWA 980 mg/m ³ TWA 500 ppm STEL 1225 mg/m ³ STEL 2000 ppm IDLH	400 ppm TWA 980 mg/m ³ TWA

OSHA Vacated PELs: Isopropyl Alcohol: 400 ppm TWA; 980 mg/m³ TWA; 500 ppm STEL; 1225 mg/m³ STEL

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: Colorless

Odor: Alcohol-like

Vapor Pressure: 43 mmHg at 20°C

Odor Threshold: Not available

Vapor Density: 2.1 at 20°C

pH: 7 for 1% Aqueous Solution

Relative Density: 0.785 g/cm³ at 25°C

Melting point/freezing point: -89.5°C

Solubility: Miscible with water

Boiling Point: 81-83°C

Flash Point: 18.3°C (64°F) (CC)

Evaporation Rate: 1.7

Flammability (solid, gas): Not available

Partition coefficient: n-octanol/water: log Pow: 0.05

Auto-ignition Temperature: 399°C

Decomposition Temperature: Not available

Viscosity: 2.27 mPa.s at 20°C

Specific Gravity/Density: 0.785

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat, hot surfaces, open flames, and oxidizers. Direct sunlight.

Incompatibilities with Other Materials: Oxidizing agents, acids, halogens, halogenated compounds, acid anhydrides, aluminum.

Hazardous Decomposition Products: Carbon oxides, peroxides, irritating and toxic fumes and gases.

Section 11 - Toxicological Information

CAS#67-63-0 Isopropyl Alcohol: RTECS#: NT8050000

LD50 Oral: 5045 mg/kg (rat)

LD50 Oral: 3600 mg/kg (mouse)

LD50 Dermal: 12800 mg/kg (rat)

LD50 Inhalation: 72.6 mg/L 4h (rat)

Tumorigen, mutagen, reproductive effector per RTECS.

Carcinogenicity: Isopropyl Alcohol CAS#67-63-0 is not listed by NTP, ACGIH, OSHA, or California Prop 65. Isopropyl Alcohol is listed by IARC (group 3, unclassifiable as to carcinogenicity in humans).

Epidemiology: Not available.

Teratogenicity: Not available.

Reproductive Effects: Not available.

Developmental Effects: Not available.

Neurotoxicity: Not available.

Mutagenicity: Not available.

Specific Target Organ Toxicity, Single Exposure: Respiratory system, and Central nervous system.

Specific Target Organ Toxicity, Repeated Exposure: Kidney and liver.

Symptoms Associated with Exposure:

Ingestion may cause nausea, vomiting, gastrointestinal pain, cramps, diarrhea, respiratory depression, drowsiness, and death. Inhalation overexposure may cause respiratory tract irritation, dizziness, drowsiness, headache, staggering, unconsciousness, and death. Skin exposure may cause irritation, redness, and pain. Eye exposure may cause serious irritation, possible corneal burns and damage. Absorption may cause central nervous system depression, nausea, headache, dizziness, vomiting, narcosis, drowsiness, unconsciousness, coma, liver damage, kidney irregularities, irregularities in liver and blood composition.

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains.

CAS#67-63-0 Isopropyl Alcohol:

EC50, freshwater algae: >1000 mg/L 72h (desmodesmus subspicatus)(green algae)

EC50, freshwater algae: >1000 mg/L 96h (desmodesmus subspicatus)(green algae)

LC50, freshwater fish: 11130 mg/L 96h static (pimephales promelas)

LC50, freshwater fish: >1400000 µg/L 96h (lepomis macrochirus)

LC50, freshwater fish: 9640 mg/L 96h flow-through (pimephales promelas)

EC50, water flea: 13299 mg/L 48h (daphnia magna)

EC50, water flea: 9714 mg/L 24h

EC50, microtox: 35390 mg/L 5min (photobacterium phosphoreum)

Persistence and degradability: When released into the soil, this material may biodegrade to a moderate extent. When released into water, this material may biodegrade to a moderate extent. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals.

Bio-accumulative potential: This material is not expected to significantly bioaccumulate.

Mobility: Will likely be mobile in the environment due to its volatility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 - Transport Information

DOT

Proper shipping name: Isopropyl Alcohol

UN1219

PG II

Hazard class 3 (flammable)

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 11/19/12

Revision #1: 6/2/14 YM Cosign CF 7/1/14

Revision #2: 11-29-18

Revision #3: 1-4-22

Revision #4: 8-26-22

Revision #5: 7-10-23

Revision #6: 1-5-26

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