

Isopropyl Alcohol

Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name Isopropyl Alcohol

Product Code VW5520

Manufacturer EMD Chemicals Inc.

P.O. Box 70
480 Democrat Road
Gibbstown, NJ 08027

Prior to January 1, 2003 EMD Chemicals Inc. was
EM Industries, Inc. or EM Science, Division of
EM Industries, Inc.

Effective Date 3/3/2003

For More Information Call

856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call

800-424-9300 CHEMTREC
(USA)
613-996-6666 CANUTEC
(Canada)
24 Hours/Day: 7 Days/Week

Synonym ISOPROPANOL; 2-PROPANOL

Material Uses Analytical reagent.

Chemical Family Alcohol. (Solvent.)

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
ISOPROPYL ALCOHOL	67-63-0	100

Section 3. Hazards Identification

Physical State and Appearance Liquid. (Colorless.)

Emergency Overview

WARNING!
FLAMMABLE LIQUID AND VAPOR.
VAPOR MAY CAUSE FLASH FIRE.
HARMFUL IF INHALED OR SWALLOWED.
CAUSES SEVERE EYE IRRITATION.
CAUSES DAMAGE TO THE FOLLOWING ORGANS:
RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM,
EYE, LENS OR CORNEA.
MAY CAUSE SKIN IRRITATION.

Routes of Entry Absorbed through skin. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

Eyes Extremely hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.

Skin May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Non-permeator by skin.

Inhalation Hazardous in case of inhalation.

Ingestion Hazardous in case of ingestion.

Potential Chronic Health Effects

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Carcinogenic This material is not known to cause cancer in animals or humans.

Effects

Additional information See Toxicological Information (section 11)

Medical Conditions Aggravated by Overexposure: Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention immediately.

Skin Contact In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flammability of the Product Product will burn.

Auto-ignition Temperature 399.05°C (750.3°F)

Flash Points Open cup: 11.9°C (53.4°F).

Flammable Limits Not available.

Products of Combustion These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances Highly flammable in presence of open flames, sparks and static discharge, of shocks, of heat, of oxidizing materials.

Explosion Hazards in Presence of Various Substances **Risks of explosion of the product in presence of static discharge:**
Highly flammable in presence of open flames, sparks and static discharge.
Highly explosive in presence of open flames, sparks and static discharge.

Risks of explosion of the product in presence of mechanical impact:
Highly flammable in presence of shocks.
Highly explosive in presence of shocks.

Fire Fighting Media and Instructions Flammable liquid, soluble or dispersed in water.
SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

Protective Clothing (Fire) Be sure to use an approved/certified respirator or equivalent.

Special Remarks on Fire Hazards Vapor may travel considerable distance to source of ignition and flash back.

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Special Remarks on Not available.

Explosion Hazards

Section 6. Accidental Release Measures

Small Spill and Leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill and Leak	Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
Spill Kit Information	The following EMD Chemicals Inc. SpillSolv® absorbent is recommended for this product: SX1330 Solvent Treatment Kit

Section 7. Handling and Storage

Handling	Keep away from heat, sparks and flame. Keep container closed. Do not get in eyes, on skin, or on clothing. Do not ingest. Do not breathe gas/fumes/ vapor/spray.
Storage	Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	
Eyes	Splash goggles.
Body	Lab coat.
Respiratory	Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
Hands	Gloves.
Feet	Not applicable.
Protective Clothing (Pictograms)	
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Product Name	Exposure Limits
ISOPROPYL ALCOHOL	EH40-OES (United Kingdom (UK), 1997).
	STEL: 1250 mg/m ³
	STEL: 500 ppm
	MEL: 999 mg/m ³
	MEL: 400 ppm
	ACGIH (United States, 1994).
	STEL: 1230 mg/m ³
	STEL: 500 ppm

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TWA: 983 mg/m³

TWA: 400 ppm

NIOSH REL (United States, 1994).

STEL: 1225 mg/m³

STEL: 500 ppm

TWA: 980 mg/m³ Period: 10 hour(s).

TWA: 400 ppm Period: 10 hour(s).

OSHA Final Rule (United States, 1989).

STEL: 1225 mg/m³

STEL: 500 ppm

TWA: 980 mg/m³

TWA: 400 ppm

Section 9. Physical and Chemical Properties

Odor	Characteristic.
Color	Colorless.
Physical State and Appearance	Liquid. (Colorless.)
Molecular Weight	60.11 g/mole
Molecular Formula	C ₃ -H ₈ -O
pH	Not available.
Boiling/Condensation Point	82.55°C (180.6°F)
Melting/Freezing Point	-88.83°C (-127.9°F)
Specific Gravity	0.785 (Water = 1)
Vapor Pressure	Not available.
Vapor Density	2.07 (Air = 1)
Odor Threshold	Not available.
Evaporation Rate	1.7 compared to (n-BUTYL ACETATE=1)
LogKow	Not available.
Solubility	Soluble in water.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Highly reactive with oxidizing agents.
Rem/Incompatibility	Not available.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

RTECS Number:

iso-Propyl Alcohol

NT8050000

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Toxicity	Acute oral toxicity (LD50): 3600 mg/kg [Mouse]. Acute dermal toxicity (LD50): 12800 mg/kg [Rabbit].
Chronic Effects on Humans	Not available.
Acute Effects on Humans	Extremely hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Non-permeator by skin. Hazardous in case of inhalation. Hazardous in case of ingestion.
Synergetic Products (Toxicologically)	Not available.
Irritancy	Draize Test (Rabbit): Eyes: 100 mg/24h. Reaction: Moderate.
Sensitization	Not available.
Carcinogenic Effects	This material is not known to cause cancer in animals or humans.
Toxicity to Reproductive System	Tests on laboratory animals for reproductive effects are cited in Registry of Toxic Effects on Chemical Substances (RTECS).
Teratogenic Effects	Not available.
Mutagenic Effects	Tests on laboratory animals for mutagenic effects are cited in Registry of Toxic Effects of Chemical Substances (RTECS).

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations

EPA Waste Number	D001
Treatment	Incineration, fuels blending or recycle. Contact your local permitted waste disposal site (TSD) for permissible treatment sites. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.

Section 14. Transport Information

DOT Classification	Proper Shipping Name: ISOPROPANOL Hazard Class: 3 UN number: UN1219 Packing Group: II RQ: Not applicable.
TDG Classification	Not available.
IMO/IMDG Classification	Proper Shipping Name: ISOPROPANOL Hazard Class: 3 UN number: UN1219 Packing Group: II RQ: Not applicable.

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**ICAO/IATA
Classification** Not available.

Section 15. Regulatory Information

**U.S. Federal
Regulations** TSCA 4(a) final test rules: ISOPROPYL ALCOHOL
TSCA 8(b) inventory: ISOPROPYL ALCOHOL
TSCA 8(d) H and S data reporting: ISOPROPYL ALCOHOL: 1986
TSCA 12(b) one time export: ISOPROPYL ALCOHOL
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: ISOPROPYL ALCOHOL
SARA 311/312 MSDS distribution – chemical inventory – hazard identification: ISOPROPYL ALCOHOL: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard
SARA 313 toxic chemical notification and release reporting: ISOPROPYL ALCOHOL
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 accidental release prevention: No products were found.
Clean air act (CAA) 112 regulated flammable substances: No products were found.
Clean air act (CAA) 112 regulated toxic substances: No products were found.

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).
CEPA DSL: ISOPROPYL ALCOHOL
This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

**International
Regulations**

EINECS ISOPROPYL ALCOHOL 200–661–7
DSCL (EEC) R11– Highly flammable.
R36/37– Irritating to eyes and respiratory system.

**International
Lists** Australia (NICNAS): ISOPROPYL ALCOHOL
Japan (MITI): ISOPROPYL ALCOHOL
Japan (MOL): ISOPROPYL ALCOHOL
Korea (TCCL): ISOPROPYL ALCOHOL
Philippines (RA6969): ISOPROPYL ALCOHOL
China: No products were found.

State Regulations Pennsylvania RTK: ISOPROPYL ALCOHOL: (environmental hazard, generic environmental hazard)
Massachusetts RTK: ISOPROPYL ALCOHOL

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New Jersey: ISOPROPYL ALCOHOL
California prop. 65: No products were found.

Section 16. Other Information

National Fire Protection Association (U.S.A.)	3	Fire
	10	Hazard
	Health	Reactivity
		Specific Hazard

**Changed Since Last
Revision** +

Notice to Reader

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