

Isopropyl Rubbing Alcohol

Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name Isopropyl Rubbing Alcohol

Product Code PX1837A

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 None.

Material Uses Analytical reagent.

Chemical Family Alcohol.

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
ISOPROPYL ALCOHOL	67-63-0	70
WATER	7732-18-5	30

Section 3. Hazards Identification

Physical State and Appearance Liquid.

Emergency Overview WARNING!
FLAMMABLE LIQUID AND VAPOR.
VAPOR MAY CAUSE FLASH FIRE.
HARMFUL IF INHALED OR SWALLOWED.
CAUSES SEVERE EYE IRRITATION.
CONTAINS MATERIAL WHICH 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.

Isopropyl Rubbing Alcohol

Potential Chronic Health Effects

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

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. Additional information See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. 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 The lowest known value is 399.05°C (750.3°F) (ISOPROPYL ALCOHOL).

Flash Points Closed cup: 11.667°C (53°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 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. (ISOPROPYL ALCOHOL)

Isopropyl Rubbing Alcohol

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 ingest. Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or spray mists.
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 occupational exposure limits. 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

ISOPROPYL ALCOHOL

Exposure Limits

EH40-OES (United Kingdom (UK), 1997).

STEL: 1250 mg/m³

STEL: 500 ppm

TWA: 999 mg/m³

TWA: 400 ppm

ACGIH (United States, 1994).

STEL: 1230 mg/m³

STEL: 500 ppm

Isopropyl Rubbing Alcohol

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

WATER

Not available.

Section 9. Physical and Chemical Properties

Odor	Characteristic.
Color	Colorless.
Physical State and Appearance	Liquid.
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
pH	Not available.
Boiling/Condensation Point	The lowest known value is 82.55°C (180.6°F) (ISOPROPYL ALCOHOL). Weighted average: 87.75°C (189.9°F)
Melting/Freezing Point	May start to solidify at -0.1°C (31.8°F) based on data for: WATER. Weighted average: -62.21°C (-80°F)
Specific Gravity	The only known value is 0.785 (Water = 1) (ISOPROPYL ALCOHOL).
Vapor Pressure	Not available.
Vapor Density	The highest known value is 2.07 (Air = 1) (ISOPROPYL ALCOHOL).
Odor Threshold	Not available.
Evaporation Rate	The highest known value is 1.7 (ISOPROPYL ALCOHOL) Weighted average: 1.3 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	Reactive with oxidizing agents, acids.
Rem/Incompatibility	Not available.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Isopropyl Rubbing Alcohol

RTECS Number:

Isopropyl Alcohol NT8050000
Water ZC0110000

Toxicity Acute oral toxicity (LD50): 5143 mg/kg (Mouse) (Calculated value for the mixture).
Acute dermal toxicity (LD50): 18286 mg/kg (Rabbit) (Calculated value for the mixture).

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: Not available.

Sensitization Not available.

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

Toxicity to Reproductive System Not available.

Teratogenic Effects Not available.

Mutagenic Effects Not available.

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: ISOPROPYL ALCOHOL SOLUTION

Hazard Class: 3

UN number: UN1219

Packing Group: II

RQ: Not applicable.

TDG Classification Not available.

IMO/IMDG Proper Shipping Name: ISOPROPYL

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Classification ALCOHOL SOLUTION
Hazard Class: 3
UN number: UN1219
Packing Group: II
RQ: Not applicable.

**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; WATER
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 70%
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; WATER
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
WATER 231–791–2

DSCL (EEC) R11– Highly flammable.
R36/37– Irritating to eyes and respiratory system.

**International
Lists** Australia (NICNAS): ISOPROPYL ALCOHOL; WATER

Japan (MITI): ISOPROPYL ALCOHOL; WATER

Japan (MOL): ISOPROPYL ALCOHOL

Korea (TCCL): ISOPROPYL ALCOHOL; WATER

Isopropyl Rubbing Alcohol

Philippines (RA6969): ISOPROPYL ALCOHOL; WATER

China: No products were found.

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

Massachusetts RTK: ISOPROPYL ALCOHOL

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

The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.
