

Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300

MATERIAL SAFETY DATA SHEETS

SECTION I PRODUCT AND COMPANY IDENTIFICATION

Product: Isopropyl Alcohol, 99% (minimum) This MSDS is valid for all grades and catalog #'s at this minimum concentration

Synonyms: Isopropanol 99%

Formula: (CH3)2CHOH Manufacturer: Pharmco Products Inc. 58 Vale Road Brookfield, Connecticut 06804, USA Phone (203) 740-3471 Fax (203) 740-3481

Emergency Contact: CHEMTREC 1-800-424-9300

SECTION II COMPOSITION /INFORMATION ON INGREDIENTS

			Exposure Limits
%wt	Material	CAS	-
100%	Isopropanol	67-63-0	400ppm-OSHA/PEL; ACGIH/ TLV; 500ppm STEL

SECTION III HAZARDS IDENTIFICATION

Routes of Exposure:

Swallowing: Slightly toxic. May cause nausea, abdominal discomfort, vomiting, dizziness, and gastrointestinal irritation.

Skin Absorption: Exposure to small quantities is not expected to cause adverse health effects. Inhalation: Irritation of nose and throat with

coughing and chest discomfort.

Skin Contact: May cause irritation and dryness. Eye Contact: May cause irritation including stinging, tearing, and redness. May cause corneal injury. Effects of Repeated Overexposure: No adverse effects anticipated.

Other Health Hazards: None currently known.

Medical Conditions Aggravated by Overexposure:

Skin contact may aggravate an existing dermatitis.

SECTION IV FIRST AID

Obtain medical attention for all cases of over-exposure. Swallowing: If patient is fully conscious, induce vomiting. Obtain medical attention.

Skin: Wash skin with soap and water for at least 15 minutes Inhalation: Remove to fresh air; Give artificial respiration if not breathing; If breathing is difficult oxygen may be given by qualified personnel; Obtain medical assistance is discomfort persists.

Eye Contact: Flush eyes with water for at least 15 minutes. Obtain medical attention.

SECTION V FIRE FIGHTING MEASURES

Fire/Explosive Properties Flash Point: 53F (12C) Tag Closed Cup Flammable Limits in Air: 2.0 - 12.7% NFPARating: Health 1 Fire 3 Reactivity 0

1996 North American Emergency Response Guidebook: Guide 129

Extinguishing Media: Apply alcohol-type or all-purpose foam by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.

Special Fire Fighting Procedures: Use water spray to cool fire-exposed containers and structures; Use water spray to disperse vapors - re-ignition is possible; Use self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards:

Vapors may travel to source of ignition and flash back. Vapors may settle in low or confined spaces. May produce a floating fire hazard.

Static ignition hazard can result from handling and use.

SECTION VI SPILL/ACCIDENTAL RELEASE MEASURES

All spills: Eliminate all ignition sources; ground all equipment; do not walk through spill; stop spill if possible; prevent entry into sewers, confined spaces, etc.; use a vapor suppressing foam to reduce vapors; absorb spill with non-combustible matter and transfer to containers; use non-sparking tools to collect absorbed material.

SECTION VII HANDLING AND STORAGE

Flammable material - keep away from heat, sparks, and flame; sudden releases of hot organic vapors or mists from process equipment operating at elevated temperature may result in ignitions without the presence of obvious ignition sources. Avoid contact with eyes. Keep container closed. Use with adequate ventilation. Ground container when transferring product. Vapors may collect in containers; treat empty containers as hazardous. Wash thoroughly after handling Vapors may settle in low or confined areas SECTION VIII EXPOSURE CONTROLS /

PERSONAL PROTECTION

Ventilation: Special, local ventilation is needed where vapors escape to the workplace air Respiratory Protection: Use self-contained breathing apparatus in high vapor concentration Personal Protective Equipment: gloves, lab coat or uniform, safety glasses, eye wash, safety shower

SECTION IX PHYSICAL AND CHEMICAL PROPERTIES

Appearance: clear, colorless liquid Odor: characteristic Vapor pressure @ 20C: 33 mm Hg Vapor density: 2.1 (air =1) Boiling point @ 760mm Hg: 82.3C (180F) Freezing Point: -89C (-127F) Solubility in Water: complete @ 20C Specific Gravity @ 20C .787 Evaporation Rate: 2.9 (butyl acetate = 1) Percent Volatiles: 100%

SECTION X STABILITY/REACTIVITY INFORMATION

Stability: Stable

Conditions to avoid: Heat, flame, etc. Incompatibility/Materials to avoid: strong oxidizing agents; strong inorganic acids; halogens; aldehydes; and halogen compounds Hazardous Combustion/Decomposition Products: Carbon monoxide and/or carbon dioxide

Hazardous Polymerization: Will not occur

SECTION XI DISPOSAL CONSIDERATIONS

Vapors may collect in empty containers. Treat empty containers as hazardous.

Dispose of spill-clean up and other wastes in accordance with Federal, State, and local regulations.

SECTION XII TRANSPORTATION INFORMATION

Proper Shipping Name: Isopropanol Hazard Class: 3 UN Number: 1219 Packaging Group II

IMO Information: Isopropanol Label of Class: 3.2 Packaging Group II Intermediate flashpoint group

SECTION XIII REGULATORY INFORMATION

Federal EPA

Comprehensive Environmental Response Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release quantities of Hazardous Substances equal to or greater than the reportable quantities (RQs) in CFR. Components present in this product at a level which could require reporting under this statute are: Chemical CAS Number Upper Bound Conc. % None

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on threshold planning quantities and release reporting based on reportable quantities in 40 CFR 355 (used for SARA 302, 304, 311, and 312). Components present in this product at a level which could require reporting under this statute are: None

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS's that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are: None.

Toxic Substances Control Act (TSCA) Status: The ingredients of this product are on the TSCA inventory.

State Right to Know

This product contains no listed substances known to the State of California to cause cancer, birth defects or reproductive harm at levels which would require reporting under the statute. Massachussetts: Components present in this product at a level which could require reporting under the statute are: Hazardous Substances (>=1%)

Isopropanol (CAS 67-63-0) upper bound conc. 100% Pennsylvania Components present in this product at a level which could require reporting under the statute are: Hazardous Substances (>=1%)

Isopropanol (CAS 67-63-0) upper bound conc. 100%

California SCAQMD Rule 443.1 VOC's: 785 g/l; vapor pressure 33mm Hg @20C

The information contained herein is based on data considered to be accurate. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. It is the user's obligation to determine the conditions of safe use of the product.