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THE POWER OF THREE<sup>3</sup>

**PHARMCO-AAPER**

AND COMMERCIAL ALCOHOLS

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

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**MATERIAL SAFETY DATA SHEETS**

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Manufacturer: PHARMCO-AAPER  
58 Vale Road  
Brookfield, Connecticut 06804, USA  
Phone (203) 740-3471  
Fax (203) 740-3481  
  
1101 Isaac Shelby Drive  
Shelbyville, KY 40065  
Phone (502) 633-0650  
Fax (502) 633-0685

Emergency Contact:  
CHEMTREC 1-800-424-9300

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PRODUCT NAME: ISOPROPYL ACETATE

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Isopropyl Acetate

Chemical Name ec-propyl acetate; acetic acid isopropyl ester; 2-propyl acetate; acetic acid 1-methylethyl ester; 2-acetoxypropane; 2-propylacetate; 2-methylethanoate; isopropyl ethanoate; 1-methylethyl acetate

Molecular Formula C<sub>5</sub>H<sub>10</sub>O<sub>2</sub>

Molecular Weight 102.13

Product Use Solvent

OSHA Status Hazardous

**2. COMPOSITION INFORMATION ON INGREDIENTS**

(Typical composition is given, and it may vary. A certificate of analysis can be provided.)

Weight % Component	CAS Registry No.
100% isopropyl acetate	108-21-4

**3. HAZARDS IDENTIFICATION**

WARNING!

FLAMMABLE LIQUID AND VAPOR

HIGH VAPOR CONCENTRATIONS MAY CAUSE DROWSINESS AND IRRITATION OF THE EYES OR RESPIRATORY TRACT PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE

DRYING,

CRACKING, OR IRRITATION

HMIS Hazard Ratings: Health - 1, Flammability -3, Chemical Reactivity - 0

NOTE: HMIS rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

**4. FIRST-AID MEASURES**

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Eyes: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. In case of irritation from airborne exposure, move to fresh air. Get medical attention if symptoms persist.

Skin: Wash with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before reuse.

Destroy or thoroughly clean contaminated shoes.

Ingestion: Seek medical advice.

## 5. FIRE FIGHTING MEASURES

Extinguishing Media: water spray, dry chemical, carbon dioxide, alcohol foam

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire.

Hazardous Combustion Products: carbon dioxide, carbon monoxide

Unusual Fire and Explosion Hazards: Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations.

Sensitivity to Static Discharge: Material is unlikely to accumulate a static charge which could act as an ignition source.

## 6. ACCIDENTAL RELEASE MEASURES

Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. For Large Spills: Use water spray to disperse vapors and dilute spill to a nonflammable mixture.

Prevent runoff from entering drains, sewers, or streams.

## 7. HANDLING AND STORAGE

Personal Precautionary Measures: Avoid breathing high vapor concentrations.

Use only with adequate ventilation. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep away from heat, sparks, and flame. Keep from contact with oxidizing materials. Use only with adequate ventilation.

Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids. Storage: Keep container tightly closed.

Additional Information: Keep container in a well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Country specific exposure limits have not been established or are not applicable unless listed below.

### ISOPROPYL ACETATE

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 250 ppm, 1,040 mg/m<sup>3</sup>

US. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 310 ppm, 1,290 mg/m<sup>3</sup>

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 250 ppm, 950 mg/m<sup>3</sup>

US. OSHA Table Z-1 -A (29 CFR 1910.1000)

Time Weighted Average (TWA): 250 ppm, 950 mg/m<sup>3</sup>

US. OSHA Table Z-1 -A (29 CFR 1910.1000)

Short Term Exposure Limit (STEL): 310 ppm, 1,185 mg/m<sup>3</sup>

US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values

Time Weighted Average (TWA): 100 ppm,

US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values

Short Term Exposure Limit (STEL): 200 ppm,

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

NOTE: Some countries might not have established exposure limits.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: organic vapor In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998.

Eye Protection: It is a good industrial hygiene practice to minimize eye contact.

Skin Protection: For operations where prolonged or repeated skin contact may occur, chemical resistant gloves should be worn. Contact glove manufacturer for specific information.

Recommended Decontamination Facilities: eye bath, washing facilities

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: liquid

Color: colorless

Odor: sweet, ester

Odor Threshold: 2.7 ppm

Specific Gravity: 0.872 (20 C)

Vapor Pressure: 20 C; 63.2 mbar

Vapor Density: 3.5

Viscosity: 0.60 mPa.s (20 C)

Solubility in Water: 29 g/l

pH: not applicable

Flash Point: 2 C (Tag closed cup)

Lower Flammable Limit: 1.76 %(V)

Upper Flammable Limit: 40 %(V)

Autoignition Temperature: 479 C

Thermal Decomposition Temperature: 88 C (DTA) (highest temperature tested; no exotherm observed)

## 10. STABILITY AND REACTIVITY

Stability: Stable.

Incompatibility: Material reacts violently with strong oxidizing agents

Hazardous Polymerization: Will not occur

## 11. TOXICOLOGICAL INFORMATION

Inhalation: High vapor concentrations may cause drowsiness and irritation.

Eyes: High vapor concentrations may cause irritation.

Skin: Prolonged or repeated contact may cause drying, cracking, or irritation.

Ingestion: Expected to be a low ingestion hazard.

Toxicity data are not available unless listed below.

Oral LD-50:(rat) 3,000 mg/kg

Oral LD-50:(rabbit) 6,950 mg/kg

Inhalation LC-50: (rat) 4 h: 16000 – 32000 ppm

Dermal LD-50: (rabbit) > 20 ml/kg

Skin Irritation (guinea pig) slight

Eye Irritation (rabbit) slight irritation

## 12. ECOLOGICAL INFORMATION

Oxygen Demand Data:

ThOD: 2,040 mg/g

Acute Aquatic Effects Data:

48 h LC-50 (golden orfe): 265 – 360 mg/l

24 h LC-50 (daphnid): 1260 mg/l

24 h EC-50 (daphnid): NOEC: 4150 mg/l

## 13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Mix with compatible chemical which is less flammable and incinerate.

Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container.

#### 14. TRANSPORT INFORMATION

Marine pollutant components: none unless listed below

DOT (USA): Class 3 Packing group II

ICAO Status: Class 3 Packing group II

IMDG Status: Class 3.2 Packing group II

#### 15. REGULATORY INFORMATION

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: B/2

SARA 311–312 Hazard Classification(s): immediate (acute) health hazard fire hazard

SARA 313: none, unless listed below

Carcinogenicity Classification (components present at 0.1% or more): none, unless listed below

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL or otherwise complies with CEPA new substance notification requirements.

EINECS (European Inventory of Existing Commercial Chemical Substances): This product is listed on EINECS.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): All components of this product are listed in the Handbook or have been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): All components of this product are listed on the Korean inventory or otherwise comply with the Korean Toxic Substances Control Act.

**Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA):** No chemicals on this material with known CAS numbers are subject to the reporting requirements of CERCLA.

#### 16. OTHER INFORMATION

The information contained herein is based on data considered to be accurate based on the material as packaged. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It is the user's obligation to determine the conditions of safe use of the product. While this MSDS is based on technical data judged to be reliable, PHARMCO-AAPER assumes not responsibility for the completeness or accuracy of the information contained herein.