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**PHARMCO-AAPER**

AND COMMERCIAL ALCOHOLS

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

## **MATERIAL SAFETY DATA SHEETS**

Manufacturer: PHARMCO-AAPER  
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### Cyclopentane

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#### 1. CHEMICAL PRODUCT IDENTIFICATION

Product Name: Cyclopentane  
Synonyms: Pentamethylene, , methylcyclopentane  
Molecular Formula: C<sub>5</sub>H<sub>10</sub>  
Molecular Weight: 70.14

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
Cyclopentane	287-92-3	100.0

#### 3. HAZARDS IDENTIFICATION

WARNING! EXTREMELY FLAMMABLE LIQUID. MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION.ASPIRATION HAZARD. MAY CAUSE EYE AND SKIN IRRITATION. MAY CAUSE RESPIRATORY AND DIGESTIVE TRACT IRRITATION.

NFPA Hazard Ratings: Health - 1, Flammability - 3, Reactivity - 0

NOTE: NFPA ratings involve data and 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.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: May cause irritation of the digestive tract. May cause central nervous system depression.

Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, unconsciousness and coma. May cause respiratory tract irritation. May cause drowsiness, unconsciousness, and central nervous system depression.

Chronic: Not available.

Target Organs: Central nervous system.

#### **4. FIRST AID MEASURES**

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid.

Skin: Get medical aid if irritation develops or persists. Flush skin with plenty of soap and water.

Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Possible aspiration hazard. Get medical aid.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

#### **5. FIRE FIGHTING MEASURES**

Autoignition Temperature: 380 deg C (716.00 deg F)

Flash Point: -37 deg C (32.00 deg F)

Explosion Limits, Lower: 1.50 vol % Upper: 8.70 vol %

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Extremely flammable. Material will readily ignite at room temperature.

Extinguishing Media: Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide.

#### **6. ACCIDENTAL RELEASE MEASURES**

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container. Remove all sources of ignition.

#### **7. HANDLING AND STORAGE**

Handling: Wash thoroughly after handling. Use only in a well ventilated area. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from sources of ignition. Store in a tightly closed container. Flammables-area.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

ACGIH: 600 ppm; 1720 mg/m<sup>3</sup>

NIOSH: 600 ppm TWA; 1720 mg/m<sup>3</sup> TWA

OSHA - Final PELs none listed

OSHA Vacated PELs: 600 ppm TWA; 1720 mg/m<sup>3</sup> TWA

### 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: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Appearance: clear, colorless

Odor: Petroleum-like

pH: Not available.

Vapor Pressure: 400 mm Hg @31C

Vapor Density: 2.42

Evaporation Rate:

Viscosity: 0.44 mPas 20 de

Boiling Point: 50760.00 deg C

Freezing/Melting Point: -94 deg C

Decomposition Temperature: Not available.

Solubility: insoluble

Specific Gravity/Density: 0.7510g/cm<sup>3</sup>

## 10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources.

Incompatibilities with Other Materials: Strong oxidizing agents

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

## 11. TOXICOLOGICAL INFORMATION

RTECS#: CAS# 287-92-3: GY2390000

LD50/LC50: Not available.

Carcinogenicity: CAS# 287-92-3: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Neurotoxicity: No data available.

Mutagenicity: No data available.

Other Studies: No data available.

## 12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

Environmental Fate: Not available.

Physical/Chemical: Not available.

Other: Not available.

## 13. DISPOSAL CONSIDERATION

Dispose of in a manner consistent with federal, state, and local regulations.

RCRA D-Series Maximum Concentration of Contaminants: None listed.

RCRA D-Series Chronic Toxicity Reference Levels: None listed.

RCRA F-Series: None listed.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

## 14. TRANSPORT INFORMATION

Domestic (Land, D.O.T.)

Proper Shipping Name: Cyclopentane

Hazard Class: 3

UN/NA: UN1146

Packing Group: II

International (Water, I.M.O.)

Proper Shipping Name: Cyclopentane

Hazard Class: 3.1

UN/NA: UN1146

Packing Group: II

International (Air, I.C.A.O.)

Proper Shipping Name: Cyclopentane

Hazard Class: 3

UN/NA: UN1146

Packing Group: II

## 15. REGULATORY INFORMATION

### US FEDERAL

TSCA: CAS# 287-92-3 is listed on the TSCA inventory.

Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.

Section 12b: None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

### SARA

Section 302 (RQ): None of the chemicals in this material have an RQ.

Section 302 (TPQ): None of the chemicals in this product have a TPQ.

SARA Codes: CAS # 287-92-3: flammable.

Section 313: No chemicals are reportable under Section 313.

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

### STATE

CAS# 287-92-3 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: F

Risk Phrases: R 11 Highly flammable.

Safety Phrases: S 16 Keep away from sources of ignition - No smoking. S 29 Do not empty into drains. S 33 Take precautionary measures against static discharges. S 9 Keep container in a well-ventilated place.

WGK (Water Danger/Protection)

CAS# 287-92-3: 1

Canada

CAS# 287-92-3 is listed on Canada's DSL/NDL List.

This product does not have a WHMIS classification.

CAS# 287-92-3 is not listed on Canada's Ingredient Disclosure List.

### Exposure Limits

CAS# 287-92-3: OEL-AUSTRALIA:TWA 600 ppm (1720 mg/m<sup>3</sup>) OEL-BELGIUM:TWA 600 ppm (1720 mg/m<sup>3</sup>) OEL-DENMARK:TWA 300 ppm (850 mg/m<sup>3</sup>) OEL-FRANCE:TWA 600 ppm (1720 mg/m<sup>3</sup>) OEL-THE NETHERLANDS:TWA 600 ppm (1720 mg/m<sup>3</sup>) JAN9 OEL-SWITZERLAND:TWA 600 ppm (1720 mg/m<sup>3</sup>) OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are: **NONE**

## 16. OTHER INFORMATION

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. 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 and disposal of these materials and the safety and health of employees and customers and the protection of the environment.