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Certified Company



THE POWER OF THREE³

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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Propionaldehyde

1. CHEMICAL PRODUCT IDENTIFICATION

Product Name: Propionaldehyde

Synonyms: Propanal; Aldehyde C-3; PROPYL ALDEHYDE; METHYLACETALDEHYDE; PROPIONIC ALDEHYDE; PROPYLIC ALDEHYDE; PROPALDEHYDE

Molecular Formula: C₂H₅CHO

Molecular Weight: 58.08

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No	Percent	Hazardous
Propionaldehyde	123-38-6	100%	Yes

3. HAZARDS IDENTIFICATION

WARNING! FLAMMABLE. CORROSIVE. CAUSES BURNS. AIR SENSITIVE.

NFPA Hazard Ratings: Health - 2, Flammability - 3, Reactivity - 2

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

The toxicological properties of this material have not been investigated. Use appropriate procedures to

prevent opportunities for direct contact with the skin or eyes and to prevent inhalation.

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 immediately.

Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

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

Notes to Physician: Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Fire:

Autoignition Temperature: 190 deg C (374.00 deg F)

Flash Point: -40 deg C (32.00 deg F)

Explosion Limits, Lower: 2.30 vol % Upper: 21.00 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. Flammable Liquid.

Extinguishing Media: Use agent most appropriate to extinguish fire.

6. ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., dry sand, earth), and place in a chemical waste container. Do not use clay-based absorbents, as this material reacts with clay. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

7. HANDLING AND STORAGE

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Wear special protective equipment (Sec. 8) for maintenance break-in or where exposures may exceed established exposure levels. Wash hands, face, forearms and neck when exiting restricted areas. Shower, dispose of outer clothing, change to clean garments at the end of the day. Avoid cross-contamination of street clothes. Wash hands before eating and do not eat, drink, or

smoke in workplace. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Exposure Limits

ACGIH: none listed

NIOSH: none listed

OSHA - Final PELs: none listed

OSHA Vacated PELs: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear chemical goggles. Wear safety glasses and chemical goggles if splashing is possible.

Skin: Wear appropriate protective gloves and clothing to prevent skin exposure. Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: A respiratory protection program that meets OSHA's 29 CFR '1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use. Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Not available.

Appearance: clear, colorless

Odor: None reported.

pH: Not available.

Vapor Pressure: 330 hPa @ 20 C

Vapor Density: Not available.

Evaporation Rate:

Viscosity: 0.4 MPA 20.00 d

Boiling Point: 46.0 - 50.0 deg C @ 760.00mm Hg

Freezing/Melting Point: -81.000.00 deg C

Decomposition Temperature: Not available.

Solubility: 350 g/l water (20 c)

Specific Gravity/Density: 0.8050g/cm³

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, strong oxidants.

Incompatibilities with Other Materials: Oxidizing agents - strong bases - strong reducing agents.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

11. TOXICOLOGICAL INFORMATION

RTECS#: CAS# 123-38-6: UE0350000

LD50/LC50: CAS# 123-38-6:

Inhalation, mouse: LC50 =21800 mg/m3/2H;

Oral, rat: LD50 = 1410 mg/kg;

Skin, rabbit: LD50 = 5040 mg/kg;

Carcinogenicity: CAS# 123-38-6: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

13. DISPOSAL CONSIDERATIONS

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: Propionaldehyde

Hazard Class: 3

UN/NA: UN1275

Packing Group: II

International (Water, I.M.O.)

Proper Shipping Name: Propionaldehyde

Hazard Class: 3.2

UN/NA: UN1275

Packing Group: II

15. REGULATORY INFORMATION

US FEDERAL

TSCA: CAS# 123-38-6 is listed on the TSCA inventory.

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

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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 # 123-38-6: acute, chronic, flammable, reactive.

Section 313: This chemical is not at a high enough concentration to be reportable under Section 313. No chemicals are reportable under Section 313.

Clean Air Act: CAS# 123-38-6 is listed as a hazardous air pollutant (HAP). 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# 123-38-6 can be found on the following state right to know lists: New Jersey, Florida, Pennsylvania, 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: XI F

Risk Phrases: R 11 Highly flammable. R 36/37/38 Irritating to eyes, respiratory system and skin.

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

WGK (Water Danger/Protection)

CAS# 123-38-6: 1

Canada

CAS# 123-38-6 is listed on Canada's DSL/NDL List.

This product has a WHMIS classification of B2, D2B.

CAS# 123-38-6 is not listed on Canada's Ingredient Disclosure List.

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:

Chemical Name	CAS Number	RQ
Propionaldehyde	123-38-6	1,000lb

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.