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THE POWER OF THREE³

PHARMCO-AAPER

AND COMMERCIAL ALCOHOLS

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

Manufacturer: PHARMCO-AAPER
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n-Decane

1. CHEMICAL PRODUCT IDENTIFICATION

Product Name: n-Decane
Synonyms: Decane, Decyl hydride
Molecular Weight: 142.29
Molecular Formula: $\text{CH}_3(\text{CH}_2)_8\text{CH}_3$

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No	Percent	Hazardous
n-Decane	124-18-5	99-100%	Yes

3. HAZARDS IDENTIFICATION

WARNING! FLAMMABLE LIQUID. HARMFUL IF INHALED. MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. ASPIRATION HAZARD. POISON! CAUSES EYE AND SKIN IRRITATION. CAUSES DIGESTIVE AND RESPIRATORY TRACT IRRITATION. HARMFUL OR FATAL IF SWALLOWED.

NFPA Hazard Ratings: Health - 0, Flammability - 2, 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: Causes skin irritation. May be absorbed through the skin in harmful amounts. Prolonged and/or repeated

contact may cause defatting of the skin and dermatitis.

Ingestion: Aspiration hazard. May cause irritation of the digestive tract.

Inhalation: Inhalation of vapor may cause respiratory tract irritation. May cause narcotic effects. Aspiration may cause respiratory swelling and pneumonitis.

Chronic: Prolonged or repeated skin contact may cause defatting and dermatitis.

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. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

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

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.

Antidote: No specific antidote exists.

5. FIRE FIGHTING MEASURES

Fire:

Autoignition Temperature: 410 deg F (210.00 deg C)

Flash Point: 115 deg F (46.11 deg C)

Explosion Limits, Lower: 0.8 Upper: 5.4

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 may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media: Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water. For small fires, use dry chemical, carbon dioxide, water spray or regular foam. Cool containers with flooding quantities of water until well after fire is out. For large fires, use water spray, fog or regular foam.

6. ACCIDENTAL RELEASE MEASURES

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

Spills/Leaks: Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.

7. HANDLING AND STORAGE

Handling: Wash thoroughly after handling. Use with adequate ventilation. 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. Keep container tightly closed. 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 heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

ACGIH: none listed

NIOSH: none listed

OSHA - Final PELs: none listed

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

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: mild odor - gasoline-like

pH: Not available.

Vapor Pressure: 1.43 mm Hg @ 25C

Vapor Density: 4.9 (air=1)

Evaporation Rate:

Viscosity: 0.92 cP

Boiling Point: 345 deg F

Freezing/Melting Point: -29.7 deg C

Decomposition Temperature: Not available.

Solubility: Insoluble in water.

Specific Gravity/Density: 0.73 (water=1)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: High temperatures, incompatible materials, ignition sources.
Incompatibilities with Other Materials: Oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Has not been reported.

11. TOXICOLOGICAL INFORMATION

RTECS#: CAS# 124-18-5: HD6550000
LD50/LC50: CAS# 124-18-5: Inhalation, mouse: LC50 =72300 mg/m3/2H;
Carcinogenicity: CAS# 124-18-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Neurotoxicity: No information available.
Mutagenicity: No information available.
Other Studies: None.

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Environmental Fate: In soil and water, substance undergoes volatilization, adsorption and biodegradation. In water, bioconcentration may occur. Substance is not predicted to undergo hydrolysis or photolysis.

Physical/Chemical: No information available.

Other: Please refer to the Handbook of Environmental Fate and Exposure Data for additional information.

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: n-Decane
Hazard Class: 3
UN/NA: UN2247
Packing Group: III

International (Water, I.M.O.)
Proper Shipping Name: n-Decane
Hazard Class: 3.3

UN/NA: UN2247
Packing Group: III

15. REGULATORY INFORMATION

US FEDERAL

TSCA: CAS# 124-18-5 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 # 124-18-5: 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# 124-18-5 can be found on the following state right to know lists: New Jersey, Pennsylvania.
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: F
Risk Phrases: R 10 Flammable.
Safety Phrases: S 16 Keep away from sources of ignition - No smoking. S 23 Do not inhale gas/fumes/vapour/spray.
S 24 Avoid contact with skin. S 33 Take precautionary measures against static discharges.
WGK (Water Danger/Protection)
CAS# 124-18-5: No information available.
Canada
CAS# 124-18-5 is listed on Canada's DSL/NDSL List.
This product has a WHMIS classification of B3, D2B.
CAS# 124-18-5 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: **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.