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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

MATERIAL SAFETY DATA SHEETS

Manufacturer: PHARMCO-AAPER
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Decyl Alcohol

1. CHEMICAL PRODUCT IDENTIFICATION

Product Name: Decyl Alcohol
Synonym(s): 1-Decanol; Capric alcohol; Decylalcohol; n-Decatyl Alcohol, Nonyl Carbinol, capric alcohol.
Molecular Formula: $\text{CH}_3(\text{CH}_2)_9\text{OH}$
Molecular Weight: 158.29

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No	Percent	Hazardous
1-Decanol	112-30-1	100%	Yes

3. HAZARDS IDENTIFICATION

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES SEVERE EYE IRRITATION AND SKIN IRRITATION. CAUSES RESPIRATORY TRACT IRRITATION. COMBUSTIBLE LIQUID AND VAPOR.

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

Inhalation: Inhalation of vapors irritates the respiratory tract and mucous membranes. Symptoms may include headache, dizziness, and other central nervous system effects.

Ingestion: Low oral toxicity. Small amounts of liquid aspirated into the respiratory system during ingestion, or from vomiting, may cause bronchiopneumonia or pulmonary edema.

Skin Contact: A skin irritant. Prolonged skin contact may cause dermatitis.

Eye Contact: An eye irritant. Will injure eye tissue if not removed promptly.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders or impaired respiratory function may be more susceptible to the effects of the substance.

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion: If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately. Aspiration hazard.

Skin Contact: Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Fire:

Flash point: 82C (180F) OC

Autoignition temperature: 288C (550F)

Combustible Liquid and Vapor!

Explosion: Above the flash point, explosive vapor-air mixtures may be formed.

Fire Extinguishing Media: Dry chemical, alcohol foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool. Do not use heavy stream of water; material will float, and spread fire.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

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. 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

Airborne Exposure Limits: None established.

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to the substance is apparent, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to light yellow, viscous refractive liquid.

Odor: Odor of oranges.

Solubility: Insoluble in water.

Specific Gravity: 0.83

pH: No information found.

% Volatiles by volume @ 21C (70F): No information found.

Boiling Point: 231C (448F)

Melting Point: 7C (45F)

Vapor Density (Air=1): 5.3

Vapor Pressure (mm Hg): 0.0085 @ 25C (77F)

Evaporation Rate (BuAc=1): <0.2

10. STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition.

May produce acrid smoke and irritating fumes when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: Strong oxidizing agents, inorganic acids, aldehydes, monomers and polymerizable esters, alkylene oxides, halogens, acid anhydrides.

Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

11. TOXICOLOGICAL INFORMATION

Oral rat LD50: 4720 mg/Kg Skin rabbit LD50: 3560 mg/kg Investigated as a tumorigen and a reproductive effector.

-----\Cancer Lists\-----

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
1-Decanol (112-30-1)	No	No	None

12. ECOLOGICAL INFORMATION

Environmental Fate: When released into the soil, this material is expected to readily biodegrade. When released into water, this material is expected to readily biodegrade. When released into water, this material may evaporate to a moderate extent. This material has a log octanol-water partition coefficient of greater than 3.0. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life between 1 and 10 days.

Environmental Toxicity: The LC50/96-hour values for fish are between 1 and 10 mg/l. This material is expected to be toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

Not regulated.

15. Regulatory Information

-----\Chemical Inventory Status - Part I\-----

Ingredient	TSCA	EC	Japan	Australia
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1-Decanol (112-30-1) Yes Yes Yes Yes

-----\Chemical Inventory Status - Part 2\-----

--Canada--

Ingredient	Korea	DSL	NDSL	Phil.
1-Decanol (112-30-1)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----

-SARA 302- -----SARA 313-----

Ingredient	RQ	TPQ	List	Chemical Catg.
1-Decanol (112-30-1)	No	No	No	No

-----\Federal, State & International Regulations - Part 2\-----

-RCRA- -TSCA-

Ingredient	CERCLA	261.33	8(d)
1-Decanol (112-30-1)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No
Reactivity: No (Pure/Liquid)

Australian Hazchem Code: No information found.
Poison Schedule: No information found.

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.