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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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N,N-Dimethylacetamide

1. CHEMICAL PRODUCT IDENTIFICATION

Product Name: N,N-Dimethylacetamide
Synonym(s): Acetic Acid, Dimethylamide; Dimethylacetone Dmide; DMAC; Acetyl Dimethylamide;
Acetdimethylamide
Molecular Formula: $\text{CH}_3\text{CON}(\text{CH}_3)_2$
Molecular Weight: 87.12

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No	Percent	Hazardous
N,N-Dimethylacetamide	127-19-5	99 - 100%	Yes

3. HAZARDS IDENTIFICATION

WARNING! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. COMBUSTIBLE LIQUID AND VAPOR. AFFECTS CENTRAL NERVOUS SYSTEM AND LIVER.

Potential Health Effects

Inhalation: Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath. Excessive

inhalation of vapor may cause symptoms that parallel ingestion, depending upon the duration and level of the exposure.

Ingestion: Causes irritation to the gastrointestinal tract. May cause abdominal spasm, vomiting, sweating, weakness, and headache. Large oral doses may cause depression, lethargy, disorientation, visual and auditory hallucinations, perceptual distortions, delusions, emotional detachment, and kidney damage.

Skin Contact: Causes irritation to skin. Symptoms include redness, itching, and pain. Absorption through skin is rapid and a significant exposure hazard with symptoms paralleling ingestion.

Eye Contact: Causes irritation, redness, and pain.

Chronic Exposure: Prolonged or repeated exposure may cause liver damage with yellow jaundice. Reproductive effects from exposure have been induced in laboratory animals.

Aggravation of Pre-existing Conditions: Persons with pre-existing liver damage may be more susceptible to the effects of this material.

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

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

5. FIRE FIGHTING MEASURES

Fire:

Flash point: 66C (151F)

Autoignition temperature: 490C (914F)

Flammable limits in air % by volume: lel: 1.8; uel: 11.5

Combustible Liquid and Vapor! (lel @ 100C ; uel @ 160C)

Explosion: Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Sealed containers may rupture when heated. Contact with strong oxidizers may cause fire.

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool. Do not use halogenated extinguishing media. Direct stream of water can scatter and spread flames.

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

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Isolate from incompatible substances. 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:

-OSHA Permissible Exposure Limit (PEL): 10 ppm (TWA) skin

-ACGIH Threshold Limit Value (TLV): 10 ppm (TWA) skin

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. 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): If the exposure limit is exceeded, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus. The cartridges recommended for this material have a predicted service of less than 30 minutes at concentrations of ten times (10x) the exposure limits. Actual service life will vary considerably, depending on concentration levels, temperature, humidity, and work rate.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Recommended glove and clothing material: Butyl rubber.

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: Clear, colorless liquid.

Odor: Faint ammonia odor.

Solubility: Miscible in water.

Specific Gravity: 0.94

pH: No information found.

% Volatiles by volume @ 21C (70F): 100

Boiling Point: 166C (331F)

Melting Point: -20C (-4F)

Vapor Density (Air=1): 3.0

Vapor Pressure (mm Hg): 1.5 @ 20C (68F)

Evaporation Rate (BuAc=1): < 0.17

10. STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Burning may produce ammonia, carbon monoxide, carbon dioxide, nitrogen oxides. May also produce dimethylamine.

Hazardous Polymerization: Will not occur.

Incompatibilities: Carbon tetrachloride, oxidizing agents, halogenated compounds, iron plus halogenated compounds. Attacks plastic and rubber. Temperatures above 350C (622F) cause decomposition and development of pressure in closed containers.

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

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

N,N-Dimethylacetamide: oral rat LD50: 4300 mg/kg; skin rabbit LD50: 2240 mg/kg; inhalation rat LC50: 2475 ppm/1H; investigated as a mutagen, reproductive effector.

Reproductive Toxicity: Has shown some evidence of reproductive effects in laboratory animals.

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

Ingredient	---NTP Carcinogen---		
	Known	Anticipated	IARC Category
N,N-Dimethylacetamide (127-19-5)	No	No	None

12. ECOLOGICAL INFORMATION

Environmental Fate: When released into the soil, this material is expected to leach into groundwater. When released into water, this material is not expected to evaporate significantly. This material is not expected to significantly bioaccumulate. 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 of less than 1 day.

Environmental Toxicity: No information found.

13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal 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 1\-----

Ingredient	TSCA	EC	Japan	Australia
N,N-Dimethylacetamide (127-19-5)		Yes	Yes	Yes

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

Ingredient	Korea	--Canada--		Phil.
		DSL	NDSL	
N,N-Dimethylacetamide (127-19-5)		Yes	Yes	No

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

Ingredient		-SARA 302-		-----SARA 313-----	
		RQ	TPQ	List	Chemical Catg.
N,N-Dimethylacetamide (127-19-5)	No	No	No	No	

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

Ingredient		-RCRA-	-TSCA-	
		CERCLA	261.33	8(d)
N,N-Dimethylacetamide (127-19-5)	No	No	Yes	

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: Yes 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.