



Alpha Chemika



ISO 9001 QUALITY SYSTEM CERTIFIED ORGANIZATION

MATERIAL SAFETY DATA SHEET

MSDS

Savgan Heights ; 102 ,B Wing ; R.T.D. Lane ,Andheri (West) Mumbai - 400053 , INDIA

Section 1 - Chemical Product and Company Identification

Product Name : 2,4-DINITROPHENYL HYDRAZINE

Synonyms: Hydrazine, (2,4-dinitrophenyl)-; 2,4 DNPH

CAS No.: 119-26-6

Molecular Weight: 198.14

Chemical Formula: C₆H₆N₄O₄

Section 2 - Composition, Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
2,4-Dinitrophenylhydrazine	119-26-6	70%	Yes
Water	7732-18-5	30%	No

Section 3 - Hazardous Identification

Emergency Overview

WARNING! FLAMMABLE SOLID. KEEP WET. EXPLOSIVE IF DRY. HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO EYES AND SKIN. MAY CAUSE CYANOSIS. MAY CAUSE ALLERGIC SKIN REACTION.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 3 - Severe

Flammability Rating: 3 - Severe (Flammable)

Reactivity Rating: 3 - Severe (Explosive)

Contact Rating: 3 - Severe (Life)

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER

Storage Color Code: Red (Flammable)

Potential Health Effects

Inhalation:

Harmful if inhaled. Absorption into the body may cause cyanosis.

Ingestion:

Harmful if swallowed. May cause cyanosis.

Skin Contact:

Causes irritation to skin. Symptoms include redness, itching, and pain. May cause allergic skin reactions. Absorption into body may cause cyanosis.

Eye Contact:

Causes irritation, redness, and pain.

Chronic Exposure:

Lengthy exposures may affect the ability of blood to carry oxygen (methemoglobinemia), resulting in bluish discoloration of lips and tongue (cyanosis).

Aggravation of Pre-existing Conditions:

No information found.

Section 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:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact:

Immediately flush skin with plenty of soap and 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 lower and upper eyelids occasionally. Get medical attention immediately.

Section 5 - Fire Fighting Measures

Fire:

Flammable solid. May explode when heated. Classified as an explosive when dry. Fire fighting should be done from a remote position. Moist solid contains ca. 30% water.

Explosion:

Dangerous explosion hazard when dry. Sensitive to mechanical impact. Sensitive to static discharge.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide.

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.

Section 6 - Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

Section 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 (dust, solids); observe all warnings and precautions listed for the product. Do Not attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

Section 8 - Exposure Controls, Personal Protection

Airborne Exposure Limits:

For related compound phenylhydrazine (may be used as a reference):

-OSHA Permissible Exposure Limit (PEL):

5 ppm (TWA), 10 ppm (STEL) skin

-ACGIH Threshold Limit Value (TLV):

0.1 ppm (TWA) skin, category A2, suspect human carcinogen.

-NIOSH recommended exposure limit (REL):

0.6 mg/m³/2H, ceiling concentration

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 and engineering controls are not feasible, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus. Breathing air quality must meet the requirements of the OSHA respiratory protection standard (29CFR1910.134).

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 full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Section 9 - Physical and Chemical Properties

Appearance:

Wet, red or orange, crystalline powder.

Odor:

No information found.

Solubility:

Slightly soluble in water.

Specific Gravity:

No information found.

pH:

No information found.

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

0

Boiling Point:

No information found.

Melting Point:

198 - 202C (388 - 396F) Decomposes.

Vapor Density (Air=1):
No information found.
Vapor Pressure (mm Hg):
No information found.
Evaporation Rate (BuAc=1):
No information found.

Section 10 - Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage. Unstable above 160C (320F).
Hazardous Decomposition Products:
Burning may produce carbon monoxide, carbon dioxide, nitrogen oxides.
Hazardous Polymerization:
Will not occur.
Incompatibilities:
Oxidizing agents, heat.
Conditions to Avoid:
Heat, flame, ignition sources, shock, dryness, and incompatibles.

Section 11 - Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure. Irritation Data (rabbit, std Draize, 500mg/24H): Eye, mild. Investigated as a mutagen.

-----\Cancer Lists\-----
---NTP Carcinogen---

Ingredient	Known	Anticipated	IARC Category
2,4-Dinitrophenylhydrazine (119-26-6)	No	No	None
Water (7732-18-5)	No	No	None

Section 12 - Ecological Information

Environmental Fate: No information found.
Environmental Toxicity:
No information found

Section 13 - Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to 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.

Section 14 - Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: FLAMMABLE SOLID, ORGANIC, N.O.S. (2,4-DINITROPHENYLHYDRAZINE)
Hazard Class: 4.1
UN/NA: UN1325
Packing Group: II

Information reported for product/size: 100G

International (Water, I.M.O.)

Proper Shipping Name: FLAMMABLE SOLID, ORGANIC, N.O.S. (2,4-DINITROPHENYLHYDRAZINE)

Hazard Class: 4.1

UN/NA: UN1325

Packing Group: II

Information reported for product/size: 100G

Section 15 - Regulatory Information

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
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2,4-Dinitrophenylhydrazine (119-26-6)	Yes	Yes	Yes	Yes
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Water (7732-18-5)	Yes	Yes	Yes	Yes
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-----\Chemical Inventory Status - Part 2\-----

--Canada--

Ingredient	Korea	DSL	NDSL	Phil.
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2,4-Dinitrophenylhydrazine (119-26-6)	Yes	Yes	No	Yes
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Water (7732-18-5)	Yes	Yes	No	Yes
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-----\Federal, State & International Regulations - Part 1\-----

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

Ingredient	RQ	TPQ	List	Chemical Catg.
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2,4-Dinitrophenylhydrazine (119-26-6)	No	No	No	No
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Water (7732-18-5)	No	No	No	No
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-----\Federal, State & International Regulations - Part 2\-----

-RCRA- -TSCA-

Ingredient	CERCLA	261.33	8(d)
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2,4-Dinitrophenylhydrazine (119-26-6)	No	No	No
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Water (7732-18-5)	No	No	No
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Chemical Weapons Convention: No TSCA 12(b): No CDTA: No

SARA 311/312: Acute: Yes Chronic: Yes Fire: Yes Pressure: No

Reactivity: No (Mixture / Solid)

Section 16 - Additional Information

NOT AVAILABLE