



SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 05/15/2004
Date Updated: 03/10/2004
Version 1.30

Section 1 - Product and Company Information

Product Name 2,6-Dinitrophenol, 97%
Product Number D198803
Brand Aldrich Chemical

Company Sigma-Aldrich
Street Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS, MO 63103 US
Technical Phone: 314 771 5765
Fax: 800 325 5052

Emergency Phone: 414 273 3850 Ext. 5996

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
2,6-DINITROPHENOL, MOISTENED WITH APPROX. 20% WATER	573-56-8	No	209-357-9	609-054-00-5

Formula C₆H₄N₂O₅
Synonyms o-Dinitrophenol, 2,6-Dinitrophenol (Czech), 2,6-Dinitrophenol, 2,6-DNP

Section 3 - Hazards Identification

Emergency Overview

Highly Toxic (USA) Toxic (EU). Dangerous for the environment. Explosive when dry. Toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Irritating to eyes, respiratory system and skin. Very toxic to aquatic organisms. Target organ(s): Liver. Central nervous system. Readily absorbed through skin.

HMS Rating

Health: 3* Flammability: 3 Reactivity: 1

NFPA Rating

Health: 3 Flammability: 3 Reactivity: 1

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

Inhalation Exposure

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Explosion Hazards

May explode when heated.

Autoignition Temp: N/A

Extinguishing Media

Suitable

Water spray, Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting

Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)

Flammable solid. Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure to be Followed In Case of Leak or Spill

Evacuate area.

Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling

User Exposure

Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Keep tightly closed.

Special Requirements

Light sensitive. Heat sensitive.

Section 8 - Exposure Controls / PPE

Engineering Controls

Safety shower and eye bath. Use only in a chemical fume hood.

Personal Protective Equipment

Respiratory

Government approved respirator.

Hand

Compatible chemical-resistant gloves.

Aldrich Chemical - D198803

Page 2

Sigma-Aldrich Corporation
www.sigma-aldrich.com

Eye
Chemical safety goggles.

General Hygiene Measures
Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance	Color	Form
	Yellow	Powder

Molecular Weight: 184.11 AMU

pH	N/A
BP/BP Range	N/A
MP/MP Range	61 °C
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	6.35 g/l
Saturated Vapor Conc.	N/A
SG/Density	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Partition Coefficient	N/A
Decomposition Temp.	N/A
Flash Point °F	N/A
Flash Point °C	N/A
Explosion Limits	N/A

Flammability	N/A
Autoignition Temp	N/A
Solubility	N/A

N/A = not available

Section 10 - Stability and Reactivity

Stability
Stable
Stable.
Conditions of Instability
Light sensitive. Heat sensitive.

Materials to Avoid
Strong oxidizing agents, Strong bases, Acid chlorides, Acid anhydrides.

Hazardous Decomposition Products
Hazardous Decomposition Products
Carbon monoxide, Carbon dioxide, Nitrogen oxides.

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

Route of Exposure
Skin Contact
Causes skin irritation.
Skin Absorption
Toxic if absorbed through skin.
Eye Contact
Causes eye irritation.
Inhalation
Toxic if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
Ingestion
Toxic if swallowed.

Target Organ(s) or System(s)
Liver, Central nervous system, Eyes, Kidneys, Blood, Lungs.

Signs and Symptoms of Exposure
Disrupts oxidative phosphorylation which results in increased metabolism, consumption of oxygen and production of heat. Exposure is characterized by sudden onset of fatigue, thirst, and sweating. Symptoms include nausea, vomiting, anorexia, weakness, dizziness, vertigo, headache, and sweating. Damage to the liver. Dermatitis. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: SL2975000

Toxicity Data

Intraperitoneal - Rat: 38 MG/KG (LD50)

Intraperitoneal - Mouse: 45 MG/KG (LD50)

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation
Contact a licensed professional waste disposal service to dispose of this material.
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: Dinitrophenol, wetted [with not less than 15 percent water, by mass]
UN#: 1320
Class: 4.1
Packing Group: Packing Group I
Hazard Label: Flammable solid
Hazard Label: Toxic substances.
PIH: Not PIH

IATA
Proper Shipping Name: Dinitrophenol, wetted
IATA UN Number: 1320
Hazard Class: 4.1
Packing Group: I

Section 15 - Regulatory Information

EU Directives Classification

Symbol of Danger: T N

Indication of Danger

Toxic, Dangerous for the environment.

Risk Statements R: 23/24/25 33 51/53

Toxic by inhalation, in contact with skin and if swallowed, Danger of cumulative effects, Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Statements S: 28 37 45 61

After contact with skin, wash immediately with plenty of water. Wear suitable gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/safety data sheets.

US Classification and Label Text

Indication of Danger

Highly Toxic (USA) Toxic (EU). Dangerous for the environment.

Risk Statements

Explosive when dry, Toxic by inhalation, in contact with skin and if swallowed, Danger of cumulative effects. Irritating to eyes, respiratory system and skin, Very toxic to aquatic organisms.

Safety Statements

After contact with skin, wash immediately with plenty of water. Wear suitable gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Keep wet with water. Avoid release to the environment. Refer to special instructions/safety data sheets.

US Statements

Target organ(s): Liver, Central nervous system, Readily absorbed through skin.

United States Regulatory Information

SARA Listed: No

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

