



SIGMA-ALDRICH

## Material Safety Data Sheet

Date Printed: 09/12/2008  
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Version 1.30

### Section 1 - Product and Company Information

**Product Name** 1,3-Dinitropyrene, 99%  
**Product Number** 284335  
**Brand** Aldrich Chemical  
**Company** Sigma-Aldrich  
**Street Address** 3050 Spruce Street  
**City, State, Zip, Country** SAINT LOUIS, MO 63103 US  
**Technical Phone:** 800-325-5832  
**Fax:** 800-325-5052  
**Emergency Phone:** 314-776-6555

### Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
1,3-DINITROPYRENE	75321-20-9	No		
<b>Formula</b>	C16H8N2O4			
<b>Synonyms</b>	1,3-Dinitropyrene			

### Section 3 - Hazards Identification

#### Emergency Overview

Harmful.  
Harmful by inhalation, in contact with skin and if swallowed.  
Possible carcinogen.

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

### Section 4 - First Aid Measures

#### Immediate Treatment- Work Site

In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.

#### Oral Exposure

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

#### Inhalation Exposure

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

### Section 5 - Fire Fighting Measures

**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)

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/Wear disposable coveralls and discard them after use.

#### Methods for Cleaning Up

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

### Section 7 - Handling and Storage

#### Handling

##### User Exposure

Do not breathe dust. Avoid all contact. Avoid prolonged or repeated exposure.

#### Storage

##### Suitable

Keep tightly closed. Store in a cool dry place.

### Section 8 - Exposure Controls / PPE

#### Engineering Controls

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

#### Personal Protective Equipment

##### Other

Wear appropriate government approved respirator, chemical resistant gloves, safety goggles, other protective clothing.

#### General Hygiene Measures

Wash thoroughly after handling. Discard contaminated clothing and shoes.

### Section 9 - Physical/Chemical Properties

**Molecular Weight** 292.25 AMU

**pH** N/A  
**BP/BP Range** N/A  
**MP/MP Range** N/A  
**Freezing Point** N/A  
**Vapor Pressure** N/A  
**Vapor Density** N/A  
**Saturated Vapor Conc.** N/A  
**SG/Density** N/A  
**Bulk Density** N/A

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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**  
**Materials to Avoid**  
Strong oxidizing agents, Strong bases

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

## Section 11 - Toxicological Information

**Route of Exposure**  
**Multiple Routes**  
Harmful if swallowed, inhaled, or absorbed through skin. May cause irritation.

**Signs and Symptoms of Exposure**  
To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**RTECS Number:** UR2454000

### Chronic Exposure - Carcinogen

Rat - Intraperitoneal: 23 MG/KG 4W I  
Result: Tumorigenic: Carcinogenic by RTECS criteria. Skin and Appendages: Other: Tumors.  
Rat - Subcutaneous: 16 MG/KG 10W I  
Result: Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic: Tumors at site or application.  
Rat - Intraperitoneal: 35071 UG/KG 4W I  
Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.

### IARC Carcinogen List

**Rating**  
Group 3

### Chronic Exposure - Mutagen

Species	Dose
Human	500 UMOL/L
Human	1 UMOL/L
Human	110 UG/L
Human	1 UMOL/L
Human	58 UG/L
Rat	110 UG/L
Mouse	1100 UG/L
Mouse	1 MG/KG
Hamster	2 MG/L (+S9)
Hamster	2 MG/L
Hamster	2500 UG/L
Hamster	500 UG/L

Cell Type	Mutation test
mammary gland	DNA
Other cell types	Unscheduled DNA synthesis
liver	Unscheduled DNA synthesis
Other cell types	Mutation in mammalian somatic cells.
lymphocyte	Mutation in mammalian somatic cells.
liver	Unscheduled DNA synthesis
liver	Unscheduled DNA synthesis
S. typhimurium	Host-mediated assay
ovary	Mutation in microorganisms
lung	Cytogenetic analysis
lung	Mutation in mammalian somatic cells.
ovary	Mutation in mammalian somatic cells.

## Section 12 - Ecological Information

No data available.

## Section 13 - Disposal Considerations

**Appropriate Method of Disposal of Substance or Preparation**  
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:** None  
**Non-Hazardous for Transport** This substance is considered to be nonhazardous for transport.  
**IATA**  
**Non-Hazardous for Air Transport** Non-hazardous for air transport.

## Section 15 - Regulatory Information

### EU Additional Classification

**Symbol of Danger:** Xn

**Indication of Danger**

Harmful.

**Risk Statements** R: 20/21/22

Harmful by inhalation, in contact with skin and if swallowed.

**Safety Statements** S: 36

Wear suitable protective clothing.

### US Classification and Label Text

**Indication of Danger**

Harmful.

**Risk Statements**

Harmful by inhalation, in contact with skin and if swallowed.

**Safety Statements**

Wear suitable protective clothing.

**US Statements**

Possible carcinogen.

### 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

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**Section 16 - Other Information**

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**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. SigmaAldrich 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 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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