

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 1-Methyl-3-nitro-1-nitrosoguanidine
Product Number : 05343
Brand : Fluka
Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone : +18003255832
Fax : +18003255052
Emergency Phone # : (314) 776-6555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C₂H₅N₅O₃
Molecular Weight : 147.09 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
1-Methyl-3-nitro-1-nitrosoguanidine			
70-25-7	200-730-1	612-083-00-6	-

3. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Flammable Solid, Carcinogen, Toxic by ingestion, Irritant

HMIS Classification

Health Hazard: 2
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 3

NFPA Rating

Health Hazard: 2
Fire: 0
Reactivity Hazard: 3

Potential Health Effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.
Ingestion Toxic if swallowed.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point no data available

Ignition temperature no data available

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: 2 - 8 °C

Light sensitive. May explode when heated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	crystalline
Colour	yellow

Safety data

pH	no data available
Melting point	118 °C (244 °F)
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Water solubility	slightly soluble

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat - 90 mg/kg

Remarks: Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Acute pulmonary edema. Gastrointestinal:Ulceration or bleeding from stomach.

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

IARC: 2A - Group 2A: Probably carcinogenic to humans (1-Methyl-3-nitro-1-nitrosoguanidine)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: Reasonably anticipated to be a human carcinogen (1-Methyl-3-nitro-1-nitrosoguanidine)

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

May alter genetic material.

Signs and Symptoms of Exposure

Cough, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Potential Health Effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	Toxic if swallowed.

Additional Information

RTECS: MF4200000

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

no data available

Further information on ecology

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

UN-Number: 1325 Class: 4.1 Packing group: II
 Proper shipping name: Flammable solids, organic, n.o.s. (1-Methyl-3-nitro-1-nitrosoguanidine)
 Reportable Quantity (RQ): 10 lbs
 Marine pollutant: No
 Poison Inhalation Hazard: No

IMDG

UN-Number: 1325 Class: 4.1 Packing group: II EMS-No: F-A, S-G
 Proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. (1-Methyl-3-nitro-1-nitrosoguanidine)
 Marine pollutant: No

IATA

UN-Number: 1325 Class: 4.1 Packing group: II
 Proper shipping name: Flammable solid, organic n.o.s. (1-Methyl-3-nitro-1-nitrosoguanidine)

15. REGULATORY INFORMATION**OSHA Hazards**

Flammable Solid, Carcinogen, Toxic by ingestion, Irritant

DSL Status

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

1-Methyl-3-nitro-1-nitrosoguanidine	CAS-No. 70-25-7
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SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

1-Methyl-3-nitro-1-nitrosoguanidine	CAS-No. 70-25-7	Revision Date 1993-04-24
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Pennsylvania Right To Know Components

1-Methyl-3-nitro-1-nitrosoguanidine	CAS-No. 70-25-7	Revision Date 1993-04-24
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New Jersey Right To Know Components

1-Methyl-3-nitro-1-nitrosoguanidine	CAS-No. 70-25-7	Revision Date 1993-04-24
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California Prop. 65 Components

WARNING! This product contains a chemical known in the State of	CAS-No.	Revision Date
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California to cause cancer.
1-Methyl-3-nitro-1-nitrosoguanidine

70-25-7

1992-11-09

16. OTHER INFORMATION

Further information

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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 Co., 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.