

## Chemical Safety Data Sheet MSDS / SDS

## 4-Nitrosophenol

Revision Date:2026-03-20 Revision Number:1

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

## Product identifier

Product name : 4-Nitrosophenol  
CBnumber : CB9182464  
CAS : 104-91-6  
EINECS Number : 203-251-6  
Synonyms : Nsc3124;Aids159812

## Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

## Company Identification

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 010-86108875

## SECTION 2: Hazards identification

## GHS Label elements, including precautionary statements

Symbol(GHS)



Signal word

Danger

## Precautionary statements

P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.  
P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

## Hazard statements

H411 Toxic to aquatic life with long lasting effects  
H341 Suspected of causing genetic defects  
H318 Causes serious eye damage  
H315 Causes skin irritation  
H302 Harmful if swallowed  
H228 Flammable solid

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## SECTION 3: Composition/information on ingredients

### Substance

|              |                      |
|--------------|----------------------|
| Product name | : 4-Nitrosophenol    |
| Synonyms     | : Nsc3124;Aids159812 |
| CAS          | : 104-91-6           |
| EC number    | : 203-251-6          |
| MF           | : C6H5NO2            |
| MW           | : 123.11             |

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## SECTION 4: First aid measures

### If inhaled

Remove person to fresh air and keep comfortable for breathing. Get medical advice/ attention.

### In case of skin contact

Take off all contaminated clothing immediately. Wash off with soap and plenty of water. Get medical advice/ attention.

### In case of eye contact

Rinse with plenty of water. If easy to do, remove contact lens, if worn. Immediately call a POISON CENTER or doctor/ physician.

### If swallowed

Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

### Most important symptoms and effects, both acute and delayed

None known.

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## SECTION 5: Firefighting measures

### Suitable extinguishing media

Dry powder, Foam, Water spray, Carbon dioxide (CO2)

### Specific hazards during fire fighting

May explode in fire. Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.

### Specific extinguishing methods

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Cool closed containers exposed to fire with water spray. Remove undamaged containers from fire area if it is safe to do so.

### Special protective equipment for fire-fighters

Use personal protective equipment.

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## SECTION 6: Accidental release measures

### **Personal precautions, protective equipment and emergency procedures**

Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

### **Environmental precautions**

Should not be released into the environment.

### **Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust.

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## SECTION 7: Handling and storage

### **Handling**

#### **Technical measures**

Prevent dispersion of dust. Take precautionary measures against static discharge. Use explosion-proof equipment.

#### **Local/Total ventilation**

Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation.

#### **Advice on safe handling**

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash hands and face thoroughly after handling.

#### **Avoidance of contact**

Oxidizing agents, Strong bases

### **Storage**

#### **Conditions for safe storage**

Keep container tightly closed. Store in a refrigerator. Use explosion-proof equipment. Store locked up. Avoid shock and friction.

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## SECTION 8: Exposure controls/personal protection

### **Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

### **Engineering measures**

Install a closed system or local exhaust.

Also install safety shower and eye bath.

### **Personal protective equipment**

#### **Respiratory protection**

Dustproof gas mask

Self-contained breathing apparatus

**Eye/face protection**

Safety glasses

Safety goggles

Face-shield

**Skin and body protection**

Impervious protective clothing

**Hand protection**

Impervious gloves \*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

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## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

solid

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**Color**

yellow - orange

**Odor**

No data available

**Odor Threshold**

No data available

**pH**

No data available

**Melting point/freezing point**

No data available

**Boiling point/boiling range**

229.19°C (rough estimate)

**Flash point**

No data available

**Evaporation rate**

No data available

**Flammability**

No data available

**Upper explosion limit / Upper flammability limit**

No data available

**Lower explosion limit / Lower flammability limit**

No data available

**Vapor pressure**

0.003Pa at 20°C

**Solubility(ies)**

soluble in Methanol

**Water solubility**

<0.1 g/100 mL at 21 °C

**Solubility in other solvents**

soluble Solvent: Methanol

**Partition coefficient: n-octanol/water (log value)**

No data available

**Autoignition temperature**

No data available

**Decomposition temperature**

No data available

**Viscosity**

**Viscosity, dynamic**

No data available

**Viscosity, kinematic**

No data available

**Molecular weight**

123.11 g/mol

**Density and/or relative density**

1.3147 (rough estimate)

**Physical state**

powder to crystal

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## SECTION 10: Stability and reactivity

**Reactivity**

No data available

### **Chemical stability**

Stable under normal conditions.

### **Possibility of hazardous reactions**

May explosively decompose on heating, shock, friction, etc.

### **Conditions to avoid**

Heat. Electrical spark Open flame Electrostatic discharge Avoid shock and friction.

### **Incompatible materials**

Oxidizing agents, Strong bases

### **Hazardous decomposition products**

Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>)

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## **SECTION 11: Toxicological information**

### **Acute toxicity**

#### **Product**

#### **Acute oral toxicity**

Assessment: The component/mixture is moderately toxic after single ingestion.

### **Skin corrosion/irritation**

#### **Product**

#### **Result**

Skin irritation

### **Serious eye damage/eye irritation**

#### **Product**

#### **Result**

Irreversible effects on the eye

### **Respiratory or skin sensitization**

Classified based on available data. For more details, see section 2.

### **Germ cell mutagenicity**

## Product

### Germ cell mutagenicity - Assessment

Suspected of inducing heritable mutations in the germ cells of humans.

### Carcinogenicity

Classified based on available data. For more details, see section 2.

### Reproductive toxicity

Classified based on available data. For more details, see section 2.

### STOT-single exposure

Classified based on available data. For more details, see section 2.

### STOT-repeated exposure

Classified based on available data. For more details, see section 2.

### Repeated dose toxicity

Classified based on available data. For more details, see section 2.

### Aspiration toxicity

Classified based on available data. For more details, see section 2.

### RTECS No.

SM4725000 (4-Nitrosophenol)

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## SECTION 12: Ecological information

### Ecotoxicity

Product:

#### Ecotoxicology Assessment

##### Acute aquatic toxicity

Toxic to aquatic life.

##### Chronic aquatic toxicity

Toxic to aquatic life with long lasting effects.

##### Persistence and degradability

No data available

##### Bioaccumulative potential

No data available

##### Mobility in soil

No data available

## Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### Disposal methods

#### Waste from residues

Disposal in accordance with local and national regulations. Take precautions against ignition or explode. Entrust disposal to a licensed waste disposal company.

#### Contaminated packaging

Disposal in accordance with local and national regulations. Before disposal of used container, remove contents completely.

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## SECTION 14: Transport information

### International Regulations

#### IATA-DGR

##### UN/ID No.

UN 1325

##### Proper shipping name

Flammable solid, organic, n.o.s.

##### Class

4.1

##### Packing group

II

#### IMDG-Code

##### UN number

UN 1325

##### Proper shipping name

FLAMMABLE SOLID, ORGANIC, N.O.S.

##### Class

4.1

##### Packing group

II

##### EmS Code

F-A, S-G

### Domestic regulation

**GB 6944/12268**

**UN number**

UN 1325

**Proper shipping name**

FLAMMABLE SOLID, ORGANIC, N.O.S.

**Class**

4.1

**Packing group**

II

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## SECTION 15: Regulatory information

**Regulations on Safety Management of Hazardous Chemicals****Catalogue of Hazardous Chemicals**

Listed

**The ingredients of this product are reported in the following inventories****CH BAGREG**

On the inventory, or in compliance with the inventory

**TSCA**

All substances listed as active on the TSCA inventory

**AICS**

On the inventory, or in compliance with the inventory

**DSL**

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

4-Nitrosophenol

**ENCS**

On the inventory, or in compliance with the inventory

**ISHL**

On the inventory, or in compliance with the inventory

**KECI**

On the inventory, or in compliance with the inventory

**PICCS**

On the inventory, or in compliance with the inventory

**IECSC**

On the inventory, or in compliance with the inventory

**NZIoC**

Not in compliance with the inventory

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## SECTION 16: Other information

**Abbreviations and acronyms**

CAS: Chemical Abstracts Service

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

EC50: Effective Concentration 50%

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

DOT: US Department of Transportation

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

**Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.