

Chemical Safety Data Sheet MSDS / SDS

4-Nitrosophenol

Revision Date:2026-05-31 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 : 4-nitrosophenol,Nitrosophenol

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

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

SECTION 3: Composition/information on ingredients

Substance

Product name	: 4-Nitrosophenol
Synonyms	: 4-nitrosophenol,Nitrosophenol
CAS	: 104-91-6
EC number	: 203-251-6
MF	: C6H5NO2
MW	: 123.11

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.

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.

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.

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.

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.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

solid

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

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 (CO₂), Nitrogen oxides (NO_x)

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)

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

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.

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

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

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.