

Chemical Safety Data Sheet MSDS / SDS

bis[4,4'-dimethoxy-alpha,alpha'-stilbenedithiolato(2-)]nickel

Revision Date:2026-05-31 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking**Product identifier**

Product name	: bis[4,4'-dimethoxy-alpha,alpha'-stilbenedithiolato(2-)]nickel
CBnumber	: CB2877192
CAS	: 38951-97-2
EINECS Number	: 254-212-5
Synonyms	: WJDQFPDQIBNMCX-JZONXAMZSA-J; Bis[4,4'-dimethoxy(dithiobenzil)]nickel(II)

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

- P501 Dispose of contents/container to....
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P270 Do not eat, drink or smoke when using this product.
- P202 Do not handle until all safety precautions have been read and understood.
- P201 Obtain special instructions before use.
- P264 Wash skin thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P284 Wear respiratory protection.
- P302+P352 IF ON SKIN: wash with plenty of soap and water.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

P405 Store locked up.

Hazard statements

H372 Causes damage to organs through prolonged or repeated exposure

H317 May cause an allergic skin reaction

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H350 May cause cancer

SECTION 3: Composition/information on ingredients

Substance

Product name	: bis[4,4'-dimethoxy-alpha,alpha'-stilbenedithiolato(2-)]nickel
Synonyms	: WJDQFPDQIBNMCX-JZONXAMZSA-J; Bis[4,4'-dimethoxy(dithiobenzil)]nickel(II)
CAS	: 38951-97-2
EC number	: 254-212-5
MF	: C32H30NiO4S4
MW	: 665.542

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 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. Get medical advice/ attention.

If swallowed

Get medical advice/ attention. 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

No information available.

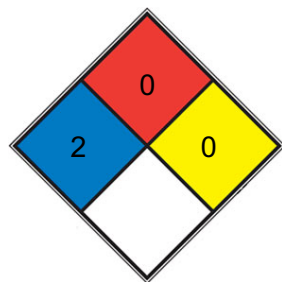
Specific extinguishing methods

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

Special protective equipment for fire-fighters

Use personal protective equipment.

NFPA 704



☒ HEALTH 2 Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. [diethyl ether](#), ammonium phosphate, iodine)

☒ FIRE 0 Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)

☒ REACT 0 Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,[N2](#))

☐ SPEC.

☐ HAZ.

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

Prevent product from entering drains.

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.

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. Wash hands and face thoroughly after handling.

Avoidance of contact

Oxidizing agents

Storage**Conditions for safe storage**

Keep container tightly closed. Store in a cool and shaded area. Store locked up. Avoid exposure to light.

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

black

Odor

No data available

Odor Threshold

No data available

pH

No data available

Melting point/freezing point

No data available

Boiling point/boiling range

No data available

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

No data available

Solubility(ies)**Water solubility**

No data available

Solubility in other solvents

No data available

Partition coefficient: n-octanol/water

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

663.51 g/mol

Physical state

powder to crystal

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Exposure to light.

Incompatible materials

Oxidizing agents

Hazardous decomposition products

Carbon monoxide, Carbon dioxide (CO₂), Sulfur oxides, Metal oxides

SECTION 11: Toxicological information

Acute toxicity

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

Skin corrosion/irritation

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

Serious eye damage/eye irritation

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

Respiratory or skin sensitization

Product

Assessment

May cause sensitization by inhalation.

Components

Bis[4,4'-dimethoxy(dithiobenzil)]nickel(II)

Assessment

May cause sensitization by inhalation.

Assessment

May cause sensitization by skin contact.

Germ cell mutagenicity

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

Carcinogenicity

Product

Carcinogenicity - Assessment

Human carcinogen.

Components

Bis[4,4'-dimethoxy(dithiobenzil)]nickel(II)

Carcinogenicity - Assessment

Human carcinogen.

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

Product

Target Organs

Respiratory system

Assessment

Causes damage to organs through prolonged or repeated exposure.

Components

Bis[4,4'-dimethoxy(dithiobenzil)]nickel(II)

Target Organs

Respiratory system

Assessment

Causes damage to organs through prolonged or repeated exposure.

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.

SECTION 12: Ecological information

Ecotoxicity

No data available

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. 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.

Not applicable

Proper shipping name

Not applicable

Class

Not applicable

Subsidiary risk

Not applicable

Packing group

Not applicable

IMDG-Code

UN number

Not applicable

Proper shipping name

Not applicable

Class

Not applicable

Subsidiary risk

Not applicable

Packing group

Not applicable

EmS Code

Not applicable

Domestic regulation

GB 6944/12268

UN number

Not applicable

Proper shipping name

Not applicable

Class

Not applicable

Subsidiary risk

Not applicable

Packing group

Not applicable

SECTION 15: Regulatory information

CH BAGREG

On the inventory, or in compliance with the inventory

TSCA

All substances listed as active on the TSCA inventory

AICS

Not in compliance with the inventory

DSL

None of the components of this product are on the Canadian DSL, but all are on the NDSL

Bis[4,4'-dimethoxy(dithiobenzil)]nickel(II)

ENCS

Not in compliance with the inventory

ISHL

Not in compliance with the inventory

KECI

Not in compliance with the inventory

PICCS

Not 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.