

## Chemical Safety Data Sheet MSDS / SDS

**4-Nitrobenzyl hydrogen malonate**Revision Date:2026-05-31 Revision Number:1

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

Product name : 4-Nitrobenzyl hydrogen malonate  
CBnumber : CB1714632  
CAS : 77359-11-6  
Synonyms : Mono-4-nitrobenzyl Malonate,4-nitrobenzylmalonate

**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

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**SECTION 2: Hazards identification****GHS Label elements, including precautionary statements**

Symbol(GHS)



Signal word

Warning

**Precautionary statements**

P501 Dispose of contents/container to.....  
P405 Store locked up.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P202 Do not handle until all safety precautions have been read and understood.  
P201 Obtain special instructions before use.

**Hazard statements**

H341 Suspected of causing genetic defects

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**SECTION 3: Composition/information on ingredients**

## Substance

Product name	: 4-Nitrobenzyl hydrogen malonate
Synonyms	: Mono-4-nitrobenzyl Malonate,4-nitrobenzylmalonate
CAS	: 77359-11-6
MF	: C <sub>10</sub> H <sub>9</sub> NO <sub>6</sub>
MW	: 239.18

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## SECTION 4: First aid measures

### Description of first aid measures

#### General advice

Consult a physician if necessary. Remove to fresh air.

#### Inhalation

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

#### Eye contact

Wash with plenty of water.

#### Skin contact

Wash skin with soap and water.

#### Ingestion

Never give anything by mouth to an unconscious person. Clean mouth with water.

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

#### Symptoms

No information available.

### Indication of any immediate medical attention and special treatment needed

#### Note to physicians

Treat symptomatically.

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## SECTION 5: Firefighting measures

### Suitable Extinguishing Media

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable extinguishing media

No information available.

### Specific hazards arising from the chemical

#### Specific hazards arising from the chemical

No information available.

#### Hazardous combustion products

No information available.

## **Explosion data**

### **Sensitivity to mechanical impact**

No information available.

### **Sensitivity to static discharge**

No information available.

## **Special protective equipment for fire-fighters**

### **Special protective equipment for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

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## SECTION 6: Accidental release measures

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

#### **Personal precautions**

Ensure adequate ventilation, especially in confined areas.

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

#### **Methods for containment**

Prevent further leakage or spillage if safe to do so.

#### **Methods for cleaning up**

Pick up and transfer to properly labeled containers.

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## SECTION 7: Handling and storage

### **Precautions for safe handling**

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

Handle in accordance with good industrial hygiene and safety practice.

### **Conditions for safe storage, including any incompatibilities**

#### **Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place.

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## SECTION 8: Exposure controls/personal protection

### **Control parameters**

#### **Exposure Limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### **Appropriate engineering controls**

## Engineering controls

Showers

Eyewash stations

Ventilation systems.

## Individual protection measures, such as personal protective equipment

### Eye/face protection

Wear safety glasses with side shields (or goggles).

### Skin and body protection

Wear protective gloves and protective clothing.

### Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

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## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

Physical State	powder to crystal
Appearance	No information available
Color	White to Almost white
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point	109 °C
Boiling point/boiling range	455.8 °C
Flash point	229.5 °C
Evaporation rate	No information available
Flammability	(solid, gas) No information available
Flammability	Limits in Air
Upper flammability limits	No information available
Lower flammability limit	No information available
Vapor pressure	0.0
Vapor density	No information available
Relative density	1.447±0.06 g/cm <sup>3</sup> (Predicted)
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	1.15
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available

Dynamic viscosity	No information available
Explosive properties	No information available.
Oxidizing properties	No information available.
Softening point	No information available
VOC Content (%)	No information available
Liquid Density	1.4 g/cm <sup>3</sup>
Bulk density	No information available
Solubility	soluble in Methanol

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## SECTION 10: Stability and reactivity

### Reactivity

Not applicable.

### Stability

Stable under normal conditions.

### Possibility of hazardous reactions

None under normal processing.

### Hazardous polymerization

No information available.

### Conditions to avoid

Extremes of temperature and direct sunlight.

### Incompatible materials

Strong oxidizing agents.

### Hazardous Decomposition Products

None known based on information supplied.

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## SECTION 11: Toxicological information

### Information on likely routes of exposure

#### Inhalation

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

#### Eye contact

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

#### Skin Contact

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

#### Ingestion

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

## **Symptoms related to the physical, chemical and toxicological characteristics**

### **Symptoms**

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

### **Numerical measures of toxicity**

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

#### **Unknown acute toxicity**

100 % of the mixture consists of ingredient(s) of unknown toxicity

100 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

## **Delayed and immediate effects as well as chronic effects from short and long-term exposure**

### **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**

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

### **Germ cell mutagenicity**

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.

### **Aspiration hazard**

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

### **Carcinogenicity**

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

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## **SECTION 12: Ecological information**

### **Ecotoxicity**

May cause long lasting harmful effects to aquatic life.

### **Persistence and degradability**

No information available.

### **Bioaccumulation**

No information available.

### **Mobility**

No information available.

### **Other adverse effects**

No information available.

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## SECTION 13: Disposal considerations

### **Waste treatment methods**

#### **Waste from residues/unused products**

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

#### **Contaminated packaging**

Do not reuse empty containers.

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## SECTION 14: Transport information

### **TDG**

Not regulated

### **IATA**

Not regulated

### **IMDG**

Not regulated

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## SECTION 15: Regulatory information

### **International Regulations**

#### **The Montreal Protocol on Substances that Deplete the Ozone Layer**

Not applicable

#### **The Stockholm Convention on Persistent Organic Pollutants**

Not applicable

#### **The Rotterdam Convention**

Not applicable

### **International Inventories**

All of the components in the product are on the following Inventory lists

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

ENCS (Japan)

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
mono-4-Nitrobenzyl malonate	-	-	-	-	-	X	-	-	-	-

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## SECTION 16: Other information

### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

#### 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.