

# Chemical Safety Data Sheet MSDS / SDS

## CYCLOHEXYLMETHYLMAGNESIUM BROMIDE

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

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

#### Product identifier

Product name : CYCLOHEXYLMETHYLMAGNESIUM BROMIDE  
CBnumber : CB0493923  
CAS : 35166-78-0  
EINECS Number : 233-305-4  
Synonyms : Cyclohexylmethylmagnesium bromide, 0.25M solution in THF,  
AcroSeal,Magnesium,bromo(cyclohexylmethyl)-

#### 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

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.  
P370+P378 In case of fire: Use ... for extinction.  
P403+P235 Store in a well-ventilated place. Keep cool.

#### Hazard statements

H225 Highly Flammable liquid and vapour

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

H335 May cause respiratory irritation

H351 Suspected of causing cancer

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## SECTION 3: Composition/information on ingredients

### Substance

Product name : CYCLOHEXYLMETHYLMAGNESIUM BROMIDE  
Synonyms : Cyclohexylmethylmagnesium bromide, 0.25M solution in THF,  
AcroSeal,Magnesium,bromo(cyclohexylmethyl)-  
CAS : 35166-78-0  
EC number : 233-305-4  
MF : C7H13BrMg  
MW : 201.39

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## SECTION 4: First aid measures

### General advice

First aiders need to protect themselves. Show this safety data sheet to the doctor in attendance.

### If inhaled

After inhalation: fresh air. Call in physician.

### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

### If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

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

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

### Protection of first-aiders

For personal protection see section 8.

### Notes to physician

No data available

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## SECTION 5: Firefighting measures

### **Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>) Dry powder

### **Unsuitable extinguishing media**

Water Foam

### **Specific hazards during fire fighting**

Mixture with combustible ingredients. Pay attention to flashback. Vapours are heavier than air and may spread along floors. May not get in touch with: Water Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

### **Hazardous combustion products**

Carbon oxides Hydrogen bromide gas Magnesium oxide

### **Specific extinguishing methods**

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

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## SECTION 6: Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.

### **Environmental precautions**

Do not let product enter drains. Risk of explosion.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.

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## SECTION 7: Handling and storage

### **Handling**

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

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

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. Keep workplace dry. Do not allow product to come into contact with water.

#### **Avoidance of contact**

Oxidizing agents Oxygen

#### **Storage**

##### **Further information on storage conditions**

Keep container tightly closed in a dry and wellventilated place. Keep away from heat and sources of ignition.

##### **Materials to avoid**

Never allow product to get in contact with water during storage.

##### **Storage class**

3, Flammable liquids

##### **Recommended storage temperature**

Recommended storage temperature see product label.

##### **Further information on storage stability**

Test for peroxide formation periodically and before distillation.

##### **Packaging material**

Suitable material: Sure-Seal Bottles

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## SECTION 8: Exposure controls/personal protection

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

Biological occupational exposure limits

### **Engineering measures**

No data available

### **Personal protective equipment**

#### **Respiratory protection**

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### **Recommended Filter type**

Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Tightly fitting safety goggles

#### **Skin and body protection**

Flame retardant antistatic protective clothing.

**Hand protection****Remarks**

required

**Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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**SECTION 9: Physical and chemical properties****Information on basic physicochemical properties**

liquid

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**Color**

Colorless to yellow to brown

**Odor**

No data available

**Odor Threshold**

No data available

**pH**

No data available

**Melting point/ range**

No data available

**Boiling point/boiling range**

No data available

**Flash point**

-20 °C

**Evaporation rate**

No data available

**Flammability (solid, gas)**

No data available

**Flammability (liquids)**

No data available

**Burning rate**

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

**Relative vapor density**

No data available

**Relative density**

0.966 g/mL at 25 °C

**Density**

0.966 g/cm<sup>3</sup>

**Water solubility**

No data available

**Partition coefficient: n-octanol/water**

No data available

**Autoignition temperature**

No data available

**Decomposition temperature**

No data available

**Viscosity, dynamic**

No data available

**Viscosity, kinematic**

No data available

**Flow time**

No data available

**Explosive properties**

Not classified as explosive.

**Oxidizing properties**

none

**Molecular weight**

201.39 g/mol

## Particle characteristics Particle size

No data available

## Physical state

Solution

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## SECTION 10: Stability and reactivity

### Reactivity

Formation of peroxides possible. Vapours may form explosive mixture with air.

### Chemical stability

sensitive to moisture

### Possibility of hazardous

No data available reactions

### Conditions to avoid

Warming. Moisture.

### Incompatible materials

Oxidizing agents Oxygen

### Hazardous decomposition products

Peroxides : In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Mixture Acute toxicity

Oral: No data available

Inhalation: No data available

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:., damage of respiratory tract

Dermal: No data available

#### Skin corrosion/irritation

Remarks: Mixture causes burns.

#### Serious eye damage/eye irritation

Remarks: Mixture causes serious eye damage.

Risk of blindness!

#### 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

**Carcinogenicity**

Evidence of a carcinogenic effect.

**Reproductive toxicity**

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

**Specific target organ toxicity - single exposure**

Mixture may cause respiratory irritation.

Mixture may cause drowsiness or dizziness.

**Specific target organ toxicity - 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

**11.2 Additional Information**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache,

Nausea

Other dangerous properties can not be excluded.

This substance should be handled with particular care.

Handle in accordance with good industrial hygiene and safety practice.

**Components Tetrahydrofuran****Acute toxicity**

LD50 Oral - Rat - male and female - 1,650 mg/kg

Remarks: (ECHA)

Symptoms: Irritation of mucous membranes

LC50 Inhalation - Rat - male and female - 6 h - > 14.7 mg/l - vapour (US-EPA)

LD50 Dermal - Rat - male and female - > 2,000 mg/kg (OECD Test Guideline 402)

**Skin corrosion/irritation**

Skin - Rabbit

Result: No skin irritation - 72 h (Draize Test)

Remarks: Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Causes serious eye irritation.

Remarks: (IUCLID)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Respiratory or skin sensitization**

Local lymph node assay (LLNA) - Mouse

Result: negative (OECD Test Guideline 429)

**Germ cell mutagenicity**

Test Type: Ames test

Test system: S. typhimurium

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster ovary cells

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster ovary cells

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male and female - Red blood cells (erythrocytes)

Result: negative

### **Carcinogenicity**

Suspected of causing cancer.

### **Reproductive toxicity**

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

### **Specific target organ toxicity - single exposure**

Inhalation - May cause respiratory irritation. - Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

May cause drowsiness or dizziness.

Acute oral toxicity - Irritation of mucous membranes

### **Specific target organ toxicity - repeated exposure Aspiration hazard**

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

### **Cyclohexylmethylmagnesium bromide Acute toxicity**

Oral: No data available

Inhalation: No data available

Dermal: No data available

### **Skin corrosion/irritation**

Remarks: No data available

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

Remarks: No data available

### **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

### **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

### **Specific target organ toxicity - single exposure**

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

### **Specific target organ toxicity - 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

## SECTION 12: Ecological information

### Ecotoxicity

#### Components:

#### Tetrahydrofuran:

##### Toxicity to fish

LC50 (Pimephales promelas (fathead minnow)): 2,160 mg/l End point: mortality Exposure time: 96 h Test Type: flow-through test Analytical monitoring: yes Method: OECD Test Guideline 203

##### Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 3,485 mg/l End point: mortality Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202

##### Toxicity to fish (Chronic toxicity)

NOEC (Pimephales promelas (fathead minnow)): 216 mg/l End point: Growth inhibition Exposure time: 33 d Test Type: flow-through test Analytical monitoring: yes Remarks: (ECHA)

#### Cyclohexylmethylmagnesium bromide:

##### Toxicity to fish

Remarks: No data available

#### Persistence and degradability

#### Components:

#### Tetrahydrofuran:

##### Biodegradability

aerobic Inoculum: activated sludge Concentration: 2 mg/l Biochemical oxygen demand Result: Not readily biodegradable. Biodegradation: 39 % Exposure time: 28 d Method: OECD Test Guideline 301D

#### Cyclohexylmethylmagnesium bromide:

##### Biodegradability

Remarks: No data available

#### Bioaccumulative potential

#### Components:

#### Tetrahydrofuran:

##### Partition coefficient: noctanol/water

log Pow: 0.45 (25 °C) Method: OECD Test Guideline 107 Remarks: Bioaccumulation is not expected.

#### Cyclohexylmethylmagnesium bromide:

##### Bioaccumulation

Remarks: No data available

## Mobility in soil

### Components:

#### Cyclohexylmethylmagnesium bromide:

### Stability in soil

Remarks: No data available

### Other adverse effects

### Components:

#### Tetrahydrofuran:

### Results of PBT and vPvB assessment

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

#### Cyclohexylmethylmagnesium bromide:

### Additional ecological information

No data available

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## SECTION 13: Disposal considerations

### Disposal methods

#### Waste from residues

Offer surplus and non-recyclable solutions to a licensed disposal company.

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## SECTION 14: Transport information

### International Regulations

#### IATA-DGR

UN/ID No. : UN 2924

Proper shipping name : Flammable liquid, corrosive, n.o.s.

(Tetrahydrofuran, Cyclohexylmethylmagnesium bromide)

Class : 3

Subsidiary risk : 8

Packing group : II

Labels : Class 3 - Flammable liquids, Class 8 - Corrosive substances

Packing instruction (cargo aircraft) : 363

Packing instruction (passenger aircraft) : 352

#### IMDG-Code

UN number : UN 2924

Proper shipping name : FLAMMABLE LIQUID, CORROSIVE, N.O.S.

(Tetrahydrofuran, Cyclohexylmethylmagnesium bromide)

Class : 3

Subsidiary risk : 8

Packing group : II

Labels : 3 (8)

EmS Code : F-E, S-C

Marine pollutant : no

### **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

### **National Regulations**

#### **JT/T 617**

UN number : UN 2924

Proper shipping name : FLAMMABLE LIQUID, CORROSIVE, N.O.S.

(Tetrahydrofuran, Cyclohexylmethylmagnesium bromide)

Class : 3

Subsidiary risk : 8

Packing group : II

Labels : 3 (8)

Environmentally hazardous : no

### **Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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## **SECTION 15: Regulatory information**

Downstream users need to comply with the conditions of safe use of the chemical, understand the environmental and health hazard and risk management measures identified on the SDS as well as the local/national regulations concerning the chemical.

### **National regulatory information**

#### **Law on the Prevention and Control of Occupational Diseases**

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

#### **Catalogue of Hazardous Chemicals**

Listed

#### **Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)**

#### **No. / Code Chemical name / Category Threshold quantity**

## **W5.3 Flammable liquids 1,000 t**

### **Hazardous Chemicals for Priority Management**

Not listed under SAWS

### **Catalogue of Specially Controlled Hazardous**

Not listed Chemicals

### **List of Explosive Precursors**

Not listed

### **Regulations on Labour Protection in Workplaces where Toxic Substances are Used**

### **Catalogue of Highly Toxic Chemicals**

Not listed

### **Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals**

### **China Severely Restricted Toxic Chemicals for Import and Export**

Not listed

### **Measures on the Environmental Administration of New Chemical Substances Registration**

### **Registration/Notification number**

B1A222231953

### **Regulation on the Administration of Precursor Chemicals**

### **Catalogue and Classification of Precursor Chemicals**

Not listed

### **Regulations on the Administration of Controlled Chemicals**

### **List of Controlled Chemicals**

Not listed

### **Regulations of Ozone Depleting Substances Management**

### **List of Controlled Ozone Depleting Substances**

Not listed

### **List of Controlled Ozone Depleting Substances Import and Export**

Not listed

### **Environmental Protection Law**

## List of Priority Controlled Chemicals

Not listed

## List of Key Controlled New Pollutants

Not listed

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## SECTION 16: Other information

### Full text of other abbreviations

#### ACGIH

USA. ACGIH Threshold Limit Values (TLV)

#### ACGIH BEI

ACGIH - Biological Exposure Indices (BEI)

#### GBZ 2.1-2007

Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.

#### ACGIH / TWA

8-hour, time-weighted average

#### ACGIH / STEL

Short-term exposure limit

**GBZ 2.1-2007 / PC-TWA AIC - Australian Invent Transport by Land of Bra bw - Body weight; CMR Standard of the German List (Canada); ECx - Conc associated with x% respo Chemical Substances (Jap response; ERG - Emerge GLP - Good Laboratory P cer; IATA - International Construction and Equipm Half maximal inhibitory c tion; IECSC - Inventory o tional Maritime Dangerou Industrial Safety and H Standardization; KECl - K tration to 50 % of a test (Median Lethal Dose); MA lution from Ships; n.o.s. No Observed (Adverse) E fect Level; NOELR - No Norm; NTP - National Toxi icals; OECD - Organizatio fice of Chemical Safety a and Toxic substance; PIC stances; (Q)SAR - (Quant (EC) No 1907/2006 of th Registration, Evaluation, Accelerating Decompositi Chemical Substance Inve Thailand Existing Chemical States); UN - United Nat Transport of Dangerous WHMIS - Workplace Hazar**  
Permissible concentration - time weighted average ry of Industrial Chemicals

ANTT - National Agency for il

ASTM - American Society for the Testing of Materials

- Carcinogen, Mutagen or Reproductive Toxicant

DIN nstitute for Standardisation

DSL - Domestic Substances ntration associated with x% response

ELx - Loading rate se

EmS - Emergency Schedule

ENCS - Existing and New n)

ErCx - Concentration associated with x% growth rate cy Response Guide

GHS - Globally Harmonized System

actice

IARC - International Agency for Research on Can- ir Transport Association

IBC - International Code for the nt of Ships carrying Dangerous Chemicals in Bulk

IC50 ncentration

ICAO - International Civil Aviation Organiza- Existing Chemical Substances in China

IMDG - Interna- Goods  
IMO - International Maritime Organization  
ISHL alth Law (Japan)  
ISO - International Organisation for rea Existing Chemicals Inventory  
LC50 - Lethal Concenopulation  
LD50 - Lethal Dose to 50% of a test population POL - International Convention for the Prevention of PoI- Not Otherwise Specified  
Nch - Chilean Norm  
NO(A)EC fect Concentration  
NO(A)EL - No Observed (Adverse) Efbserveable Effect Loading Rate  
NOM - Official Mexican ology Program  
NZIoC - New Zealand Inventory of Chemfor Economic Co-operation and Development  
OPPTS - Ofd Pollution Prevention  
PBT - Persistent, Bioaccumulative S - Philippines Inventory of Chemicals and Chemical Subtative) Structure Activity Relationship  
REACH - Regulation European Parliament and of the Council concerning the uthorisation and Restriction of Chemicals  
SADT - Selfn Temperature  
SDS - Safety Data Sheet  
TCSI - Taiwan tory  
TDG - Transportation of Dangerous Goods  
TECI s Inventory  
TSCA - Toxic Substances Control Act (United ons  
UNRTDG - United Nations Recommendations on the oods  
vPvB - Very Persistent and Very Bioaccumulative  
ous Materials Information System

**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.