

Chemical Safety Data Sheet MSDS / SDS

SEC-BUTYLMAGNESIUM CHLORIDE

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

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

Product name : SEC-BUTYLMAGNESIUM CHLORIDE
CBnumber : CB9302448
CAS : 15366-08-2
EINECS Number : 239-403-3
Synonyms : sec-butylmagnesium chloride,SEC-BUTYLMAGNESIUM CHLORIDE 25 WT% SOLUTION IN THF

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

P422 Store contents under ...
P370+P378 In case of fire: Use ... for extinction.
P231+P232 Handle under inert gas. Protect from moisture.
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P222 Do not allow contact with air.
P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

Hazard statements

H336 May cause drowsiness or dizziness
H314 Causes severe skin burns and eye damage
H302 Harmful if swallowed

H260 In contact with water releases flammable gases which may ignite spontaneously

H250 Catches fire spontaneously if exposed to air

H225 Highly Flammable liquid and vapour

SECTION 3: Composition/information on ingredients

Substance

Product name	: SEC-BUTYLMAGNESIUM CHLORIDE
Synonyms	: sec-butylmagnesium chloride, SEC-BUTYLMAGNESIUM CHLORIDE 25 WT% SOLUTION IN THF
CAS	: 15366-08-2
EC number	: 239-403-3
MF	: C4H9ClMg
MW	: 116.87

SECTION 4: First aid measures

First Aid Measures

General advice

Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact

Wash off immediately with plenty of water.

Inhalation

Remove to fresh air Call a physician If breathing is irregular or stopped, administer artificial respiration Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation

Ingestion

Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Do NOT induce vomiting.

Self-protection of the first aider

Remove all sources of ignition.

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.

SECTION 5: Firefighting measures

Suitable Extinguishing Media Use CO₂, dry chemical, or foam. In case of fire extinction. chemical can lead to release of toxic/corrosive gases an for firefighters (approved or equivalent) and full protective gea

Use CO₂, dry chemical, or foam for apors.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Take precautionary measures against static discharges.

Environmental precautions

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

See Section 12 for additional Ecological Information.

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. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Ensure adequate ventilation, especially in confined areas. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Contact with water liberates toxic, highly flammable gas. Thermal decomposition can lead to release of toxic/corrosive gases and vapors.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep in an area equipped with sprinklers. Store at room temperature.

Incompatible materials

None known based on information supplied.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure Guidelines

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Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Diethyl Ether 60-29-7	STEL: 500 ppm TWA: 400 ppm	TWA: 400 ppm TWA: 1200 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 1200 mg/m ³ (vacated) STEL: 1500 mg/m ³	IDLH: 1900 ppm

NIOSH IDLH Immediately Dangerous to Life or Health

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

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Physical State	liquid
Appearance	No information available
Odor	No information available
pH	No information available
Melting point/freezing point	No information available

Boiling point	35 °C
Flash point	-40 °C CC (closed cup)
Density	0.83 g/mL at 20 °C
Evaporation rate	No information available
Upper flammability limits	No information available
Lower flammability limit	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific gravity	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Colour	dark brown

SECTION 10: Stability and reactivity

Reactivity

Water

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Contact with water liberates toxic, highly flammable gas.

Hazardous polymerization

No information available.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents.

Hazardous Decomposition Products

Carbon oxides. Phosgene.

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.

Information on toxicological effects

Symptoms

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

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

Chronic Toxicity

Classified based on available data. For more details, see section 2. Target Organ Effects Central nervous system, Eyes, Respiratory system, Skin. Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name ACGIH IARC NTP OSHA

Diethyl Ether - Group

3 - - 60-29-7

Numerical measures of toxicity - Product Information

Unknown acute toxicity

30% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)

1215 mg/kg

ATEmix (dermal)

14200 mg/kg

SECTION 12: Ecological information

Ecotoxicity

May cause long lasting harmful effects to aquatic life

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Diethyl Ether 60-29-7	-	10000: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 2560: 96 h Pimephales promelas mg/L LC50 flow-through	-	165: 24 h <i>Daphnia magna</i> mg/L EC50

30% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Diethyl Ether -

10000: 96 h Lepomis - 165: 24 h Daphnia magna

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Diethyl Ether

0.82 60-29-7

SECTION 13: Disposal considerations

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

Other Information

Waste codes should be assigned by the user based on the application for which the product was used.

US EPA Waste Number

U117 D003

California Hazardous Waste Status

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Diethyl Ether 60-29-7	Ignitable Reactive

Diethyl Ether

Ignitable

SECTION 14: Transport information

DOT

UN/ID no

UN3399

Hazard Class

4.3

Subsidiary class

3

Packing Group

I

Proper shipping name

Organometallic substance, liquid, water-reactive, flammable

Description

UN3399, Organometallic substance, liquid, water-reactive, flammable (Diethyl ether), 4.3 (3), I

Emergency Response Guide Number

138

IMDG**UN/ID no**

UN3399

Hazard Class

4.3

Subsidiary hazard class

3

Packing Group

I

Proper shipping name

Organometallic substance, liquid, water-reactive, flammable

Description

UN3399, Organometallic substance, liquid, water-reactive, flammable (Diethyl ether), 4.3 (3), I, (-40°C c.c.)

Special Provisions

274

EmS-No

F-G, S-N

IATA**Description**

Forbidden BY PASSENGER AIR

UN/ID no

UN3399

Hazard Class

4.3

Subsidiary hazard class

3

Packing Group

I

Proper shipping name

Organometallic substance, liquid, water-reactive, flammable

Description

UN3399, Organometallic substance, liquid, water-reactive, flammable (Diethyl ether), 4.3 (3), I

SECTION 15: Regulatory information

International Inventories

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

TSCA (United States): Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP)

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

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Diethyl Ether	X	X	-	X	-	X	X	X	X	X
sec-Butylmagnesium chloride	X	-	X	X	-	-	-	-	-	-

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Diethyl Ether	X	X	-	X	-	X	X	X	X	X
sec-Butylmagnesium	X	-	X	X	-	-	-	-	-	chloride

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard

Yes

Chronic Health Hazard

No

Fire hazard

Yes

Sudden release of pressure hazard

No

Reactive hazard

Yes

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40

CFR 122.42).

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Diethyl Ether 60-29-7	X	X	X

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.