# Safety Data Sheet

**#90029013** · Full 16-section SDS

According to Regulation (EC) No 1907/2006
According to Regulation (EC) No 2020/878

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| PRODUCT | CAS NUMBER | FORMULA | VERSION | REVISION DATE |
|---|---|---|---|---|
| **Isopropylmagnesium bromide, 3M solution in 2-MeTHF** | **920-39-8** | **C3H7BrMg** | **10** | **04 Sep 2026** |

SECTION 1

## Identification

### 1.1 Product identifier

| | |
|---|---|
| **Product name** | Isopropylmagnesium bromide, 3M solution in 2-MeTHF |
| **CAS number** | 920-39-8 |
| **EC / EINECS number** | 213-056-8 |
| **UFI code** | 1972-5FXQ-1C8T-W018 |
| **Chemical formula** | C3H7BrMg |
| **Molecular weight** | 147.31 |
| **SMILES** | C[CH-]C.[Mg+2].[Br-] |

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

For research use, laboratory use, manufacture of chemicals only. Not for human or veterinary use

### 1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

### 1.4 Emergency telephone number

**0344 892 0111** — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

## Hazard identification

### 2.1 Classification of the substance or mixture

Flam. Liq. 1; H224
Water-react. 1; H260
Acute Tox. 4; H302
Skin Corr. 1B; H314
STOT SE 3; H335
STOT SE 3; H336

### 2.2 Label elements

**DANGER**

| CODE | HAZARD STATEMENT |
|---|---|
| EUH014 | Reacts violently with water |
| EUH019 | May form explosive peroxides |
| H224 | Extremely flammable liquid and vapour |
| H260 | In contact with water releases flammable gases which may ignite spontaneously |
| H302 | Harmful if swallowed |
| H314 (sub cat. 1B) | Causes severe skin burns and eye damage |
| H335 | May cause respiratory irritation |
| H336 | May cause drowsiness or dizziness |

| CODE | PRECAUTIONARY STATEMENT |
|---|---|
| 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 |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing |
| P305+P351+P338 | IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing |

### 2.3 Other hazards

Does not meet PBT or vPvB criteria under REACH Annex XIII. Does not contain components considered to have endocrine-disrupting properties

SECTION 3

## Composition / information on ingredients

### 3.1 Substances

| | |
|---|---|
| **Name** | Isopropylmagnesium bromide, 3M solution in 2-MeTHF |
| **CAS number** | 920-39-8 |
| **EC number** | 213-056-8 |
| **Concentration / purity** | c. 40.9% Isopropylmagnesium bromide (CAS: 920-39-8): H224, H260, H302, H314b, H336, EUH014<br>c. 59.1% 2-Methyltetrahydrofuran (CAS: 96-47-9): H225, H302, H315, H318, EUH019 |
| **Classification according to Regulation (EC) No 1272/2008** | Flam. Liq. 1; H224<br>Water-react. 1; H260<br>Acute Tox. 4; H302<br>Skin Corr. 1B; H314<br>STOT SE 3; H335<br>STOT SE 3; H336 |
| **Hazard statements** | EUH014, EUH019, H224, H260, H302, H314 (sub cat. 1B), H335, H336 |
| **Acute toxicity estimate (ATE)** | *No data available* |
| **Impurities / stabilising additives** | None |

SECTION 4

## First-aid measures

### 4.1 Description of first aid measures

| | |
|---|---|
| **Inhalation** | Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. |
| **Skin contact** | Wash with plenty of water. Continue to rinse for at least 15 minutes and seek medical attention. |
| **Eye contact** | Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues. |
| **Ingestion** | After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise. |

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

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

See Section 11

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

*No data available*

SECTION 5

## Fire-fighting measures

### 5.1 Extinguishing media

| | |
|---|---|
| **Suitable extinguishing media** | Carbon dioxide ($CO_2$). Dry chemical / dry powder. Sand |
| **Unsuitable extinguishing media** | Do not use a heavy water stream. Do not use a water jet. Foam. Water |

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides
Combustible.
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.
Peroxides

### 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6

## Accidental release measures

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

Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. For personal protection, see section 8.

### 6.2 Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

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

Absorb spillage with a suitable absorbent material.

### 6.4 Reference to other sections

*For specific precautions, see Section 8 and Section 13.*

SECTION 7

## Handling & storage

### 7.1 Precautions for safe handling

Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs.
Wash contaminated skin thoroughly after handling. Do not eat, drink or smoke when using this product.
Remove contaminated clothing and launder thoroughly before re-use.

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

| | |
|---|---|
| **Storage temperature** | Ambient |
| **Conditions for safe storage (incompatibilities)** | Dry residue is explosive. Test for peroxide formation periodically. Hygroscopic. Store under inert gas. Never allow contact with water during storage. Reacts violently with water. |

### 7.3 Specific end use(s)

*See Section 1.2.*

SECTION 8

## Exposure controls / personal protection

### 8.1 Control parameters

| | |
|---|---|
| **Occupational exposure limits (OEL / WEL)** | *Not applicable* |
| **DNEC/PNEC data** | 2-Methyltetrahydrofuran:<br>Acute effects systemic (Dermal)- 30.5228 mg/kg bw/day<br>Chronic effects systemic (Dermal)- 30.5228 mg/kg bw/day<br>Acute effects systemic (Inhalation)- 200.196 mg/m3<br>Chronic effects systemic (Inhalation)- 200.196 mg/m3 |

### 8.2 Exposure controls

| | |
|---|---|
| **Eye / face protection** | Safety glasses<br>Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022. |
| **Skin / hand protection** | Gloves (Splash): Butyl Rubber, 0.3mm (10 mins) |
| **Respiratory protection** | Full-face respirator<br>Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387. |
| **Other protection** | *No data available* |
| **Environmental exposure controls** | *No data available* |

SECTION 9

## Physical & chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| **Appearance / physical state** | Liquid<br>DERIVED FROM: LITERATURE |
| **Colour** | Colourless<br>DERIVED FROM: LITERATURE |
| **Odour** | Odourless<br>DERIVED FROM: LITERATURE |
| **Melting / freezing point** | *Not applicable* |

| | |
|---|---|
| **Boiling point** | *Not applicable* |
| **Flammability** | *No data available* |
| **Lower and upper explosion limit** | *No data available* |
| **Flash point** | -11 °C<br>DERIVED FROM: LITERATURE |
| **Auto-ignition temperature** | *Not applicable* |
| **Decomposition temperature** | *No data available* |
| **pH** | *Not applicable* |
| **Acidity** | Base<br>DERIVED FROM: LITERATURE |
| **Kinematic viscosity** | *No data available* |
| **Solubility** | *Not applicable* |
| **Partition coefficient n-octanol/water (log value)** | *Not applicable* |
| **Vapour pressure** | *Not applicable* |
| **Density (g/mL)** | 1.08 g/mL<br>DERIVED FROM: LITERATURE |
| **Relative vapour density** | *No data available* |
| **Particle characteristics** | *No data available* |

### 9.2 Other information

*No data available*

SECTION 10

## Stability & reactivity

### 10.1 Reactivity

*No data available*

### 10.2 Chemical stability

Stable under the prescribed storage conditions

### 10.3 Possibility of hazardous reactions

*No data available*

### 10.4 Conditions to avoid

Avoid moisture. Air sensitive. Heat, sparks, flames.

### 10.5 Incompatible materials

Water. Strong oxidising agents. Strong acids. Strong bases (alkalis)

### 10.6 Hazardous decomposition products

See section 5

SECTION 11

## Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

| | |
|---|---|
| **Acute toxicity (LD50 / LC50)** | Information on hazard classes as defined in Regulation (EC) No 1272/2008.<br>Acute Toxicity Estimate (ATE): LD50 > 300 mg/kg < 2000 mg/kg |
| **Skin corrosion / irritation** | Causes severe burns |
| **Eye corrosion / irritation** | Causes serious eye damage |
| **Respiratory / skin sensitisation** | Not classified |
| **Carcinogenicity** | Not classified |
| **Mutagenicity** | Not classified |
| **Reproductive toxicity** | Not classified |
| **STOT (single / repeated exposure)** | Causes drowsiness or dizziness. Single exposure: May cause respiratory irritation |
| **Aspiration hazard** | Not classified |

### 11.2 Information on other hazards

Not classified

SECTION 12

## Ecological information

### 12.1 Toxicity

2-Methyltetrahydrofuran (Ref: External SDS):
semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 100 mg/l - 96 h
semi-static test EC50 - Daphnia magna (Water flea) - > 139 mg/l - 48 h
static test ErC50 - Desmodesmus subspicatus (green algae) - > 104 mg/l - 72 h
static test EC50 - activated sludge - > 1,000 mg/l - 3 h
semi-static test NOEC - Daphnia magna (Water flea) - >= 120 mg/l - 21 d

### 12.2 Persistence and degradability

*Not applicable*

### 12.3 Bioaccumulative potential

*Not applicable*

### 12.4 Mobility in soil

*Not applicable*

### 12.5 Results of PBT and vPvB assessment

*Not applicable*

### 12.6 Endocrine disrupting properties

*See Section 11.2.*

### 12.7 Other adverse effects

*No data available*

SECTION 13

## Disposal considerations

### 13.1 Waste treatment methods

Dispose of in accordance with local/national regulations

SECTION 14

## Transport information

### 14.1 UN number or ID number

UN3399

### 14.2 UN proper shipping name

ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE

### 14.3 Transport hazard class(es)

4.3 (3)


### 14.4 Packing group

I

### 14.5 Environmental hazards

Not a marine pollutant

### 14.6 Special precautions for user

| | |
|---|---|
| **Special precautions for user** | Handle in accordance with good industrial hygiene and safety practice |
| **Transport category** | 0 |
| **Tunnel code** | (B/E) |
| **Packing instruction (ADR)** | P402 |
| **Packing instruction (IMDG)** | P402 |

### 14.7 Maritime transport in bulk according to IMO instruments

*No data available*

SECTION 15

## Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

| | |
|---|---|
| **Substance-specific regulations (e.g. licences)** | *No data available* |
| **REACH code** | Y110 |
| **ECHA notification** | *Not applicable* |

### 15.2 Chemical safety assessment

*Not applicable*

SECTION 16

## Other information

| | |
|---|---|
| **Revision notes / other information** | Previous SDS ver. 1 published 11th February 2026<br>Hazard classification and labelling according to Regulation (EC) 1272/2008<br>All eye/face protection should comply with EN ISO 16321-1:2022<br>Respiratory equipment: Reusable air-purifying respirator (APR)<br>Filter Type: ABEK<br>Standard: EN 14387<br>National Regulations:<br>-Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances<br>Other regulations, limitations and legal regulations:<br>-Directive 94/33/EC- The protection of young people at work |

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