

According to Regulation (EC) No 1907/2006

# Magnesium turnings



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

### 1.1. Product identifier

**Trade name**

Magnesium turnings

**CAS number**

7439-95-4

**EC number**

231-104-6

**Index No.**

012-001-00-3

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

**Relevant identified uses**

Research and development.

**Not suitable for use in**

Not suitable for human consumption or veterinary purposes.

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

**Supplier**

Molekula Group

Street address

Molekula Ltd, Lingfield Way, Darlington,

DL1 4XX Darlington

United Kingdom

Telephone

+44 (0) 3302 000 333

Email

info@molekula.com

Web site

www.molekula.com

**Contact person**

Kevin Banks

**Email address**

+44 (0) 7769276927

### 1.4. Emergency telephone number

**Poison center/Additional emergency number**

0344 892 0111 - National Poisons Information Service (Newcastle Centre)

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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

#### Classification

Flammable solids, hazard category 1

Self-heating substances and mixtures, hazard category 1

Substances and mixtures, which in contact with water, emit flammable gases, hazard category 2

#### Hazard statements

H228, H252, H261

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

H228 Flammable solid.

H252 Self-heating in large quantities; may catch fire.

H261 In contact with water releases flammable gases.

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P222 Do not allow contact with air.

P223 Do not allow contact with water.

P240 Ground and bond container and receiving equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P403 + P235 Store in a well-ventilated place. Keep cool.

### 2.3. Other hazards

No data available

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## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
magnesium, powder or turnings	- 231-104-6 01-2119537203-49 012-002-00-9	100%	Flam. Sol. 1, Water react. 2, Self-heat. 1	H228, H252, H261 - -	T

#### Molecular weight

24.31

#### Substance additional information

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation

Move to fresh air if inhaled.

Get medical attention if any discomfort continues.

#### Skin contact

Rinse skin with water.

If skin irritation or rash occurs: Get medical advice/attention.

#### Eye contact

Remove contact lenses if present. Rinse eyes with water.

If eye irritation persists: Get medical advice/attention.

#### Ingestion

Rinse mouth.

Get medical advice/attention if you feel unwell.

#### Information for doctors

No data available.

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

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

#### Inhalation

May cause respiratory irritation.

#### Skin contact

Prolonged contact may cause dryness of the skin.

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## **Eye contact**

May be slightly irritating to the eyes.

## **Ingestion**

May cause discomfort if swallowed.

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

Treat symptomatically. No special treatment requirement.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Use dry sand or cement to extinguish.

#### **Unsuitable extinguishing media**

Foam. Water.

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

Specific hazards: FLAMMABLE. Water reactive material. Do not allow contact with water.  
Ambient fire may liberate hazardous vapours.

### **5.3. Advice for firefighters**

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

Evacuate area. Avoid breathing gas, fume, vapours or spray. Prevent skin contact by maintaining a safe distance and by wearing suitable protective equipment/ clothing.

## **SECTION 6: Accidental release measures**

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

Avoid inhalation of vapours and spray mist and contact with skin and eyes. For personal protection, see section 8. Provide adequate ventilation. Remove sources of ignition. Beware of the explosion danger. Take action to prevent static discharges.

### **6.2. Environmental precautions**

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

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

Collect with absorbent, non-combustible material into suitable containers. Remove sources of ignition. Beware of the explosion danger. Use spark-proof tools and explosion-proof equipment.

### **6.4. Reference to other sections**

For personal protection, see section 8. For waste disposal, see section 13.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

#### **Preventive handling precautions**

For precautions see section 2.2.

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

Store at room temperature. Store in a dry place. Store in a closed container.

Keep away from heat, sparks and open flame. Do not allow contact with water.

## 7.3. Specific end use(s)

No specific usage precautions noted.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits

No occupational exposure limit assigned.

#### DNEL/DMEL

Product/Substance name (CAS No./EC No.)	Type	Exposure	Value	Population	Effects
magnesium, powder or turnings (-/231-104-6)	DNEL	Acute (short term) Dermal	2.5 mg/cm <sup>2</sup>	Workers	Local
magnesium, powder or turnings (-/231-104-6)	DNEL	Acute (short term) Dermal	80 mg/kg bw/day	Workers	Systemic
magnesium, powder or turnings (-/231-104-6)	DNEL	Chronic (long term) Dermal	2.5 mg/cm <sup>2</sup>	Workers	Local
magnesium, powder or turnings (-/231-104-6)	DNEL	Chronic (long term) Dermal	5 mg/kg bw/day	Workers	Systemic
magnesium, powder or turnings (-/231-104-6)	DNEL	Acute (short term) Inhalation	10 mg/m <sup>3</sup>	Workers	Local
magnesium, powder or turnings (-/231-104-6)	DNEL	Acute (short term) Inhalation	10 mg/m <sup>3</sup>	Workers	Systemic
magnesium, powder or turnings (-/231-104-6)	DNEL	Chronic (long term) Inhalation	10 mg/m <sup>3</sup>	Workers	Local
magnesium, powder or turnings (-/231-104-6)	DNEL	Chronic (long term) Inhalation	10 mg/m <sup>3</sup>	Workers	Systemic

### 8.2. Exposure controls

#### Eye / face protection

Wear eye protection.

#### Hand protection

Wear protective gloves. No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

Wash contaminated skin thoroughly after handling.

#### Other skin protection

Wash skin thoroughly after handling.

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## **Respiratory protection**

Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided.

## **Environmental exposure controls**

Avoid discharge into drains. Risk of explosion.

## **SECTION 9: Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

#### **Physical state**

Solid

#### **Colour**

Grey.

#### **Odour**

Odourless.

#### **Melting point / freezing point**

648°C

#### **Boiling point or initial boiling point and boiling range**

No data available

#### **Flammability**

No data available

#### **Lower and upper explosion limit**

No data available

#### **Flash point**

No data available

#### **Auto-ignition temperature**

No data available

#### **Decomposition temperature**

No data available

#### **pH**

7.0

#### **Kinematic viscosity**

No data available

#### **Solubility**

Insoluble in water.

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

No data available

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**Vapour pressure**

No data available

**Density and/or relative density**

1.76

**Relative vapour density**

No data available

**Particle characteristics**

No data available

**9.2. Other information**

No data available

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

Self-heating: may catch fire. Water reactive material.

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

**10.2. Chemical stability**

Stable under normal temperature conditions. Stable under the prescribed storage conditions.

**10.3. Possibility of hazardous reactions**

Risk of dust explosion.

**10.4. Conditions to avoid**

Moisture. Heat, sparks, flames.

**10.5. Incompatible materials**

Strong oxidising agents. Water.

**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**

**Carcinogenicity**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**11.2. Information on other hazards**

No data available

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## SECTION 12: Ecological information

### 12.1. Toxicity

No data available

### 12.2. Persistence and degradability

No data available

### 12.3. Bioaccumulative potential

No data available

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

No data available

### 12.6. Endocrine disrupting properties

No data available

### 12.7. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal considerations

Dispose of contents/container in accordance with local regulations.

## SECTION 14: Transport information

### 14.1. UN number

1869

### 14.2. UN proper shipping name

#### ADR / RID / ADN proper shipping name

MAGNESIUM ALLOYS with more than 50% magnesium in pellets, turnings or ribbons

#### IMDG proper shipping name

MAGNESIUM or MAGNESIUM ALLOYS with more than 50% magnesium in pellets, turnings or ribbons

#### IATA proper shipping name

Magnesium alloys with more than 50% magnesium in pellets, turnings or ribbons



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## 14.3. Transport hazard class(es)

### Label

ADR/RID/ADN



4.1

IMDG



4.1

IATA



4.1



4.3

### ADR / RID Class

4.1

### ADR / RID Classification code

F3

### ADR / RID hazard identification number

40

### IMDG Class

4.1

### IATA Class

4.1

### ADN Class

4.1

### ADN Class Code

F3

## 14.4. Packing group

ADR / RID / ADN: III

IMDG: III

IATA: III

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## 14.5. Environmental hazards

### IMDG EmS

F-G, S-G

## 14.6. Special precautions for user

Tunnel restriction code: E

Transport category: 3

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

IBC Instruction: IBC08

## SECTION 15: Regulatory information

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

#### EU regulations

This SDS is not mandated under REACH Regulation (EC) No 1907/2006 and is provided for information only.

#### National regulations

No data available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

### Phrase meaning

Flam. Sol. 1 - Flammable solids, hazard category 1

Self-heat. 1 - Self-heating substances and mixtures, hazard category 1

Water react. 2 - Substances and mixtures, which in contact with water, emit flammable gases, hazard category 2

H228 Flammable solid.

H252 Self-heating in large quantities; may catch fire.

H261 In contact with water releases flammable gases.