



# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 8/13/2019 Version: 1.0

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

1.1. Product identifier

Product form : Substance

Substance name : Magnesium, ribbon, 0.30 - 0.40 mm thick, 3.2 - 4.0 mm wide 99.8% (before extrusion)

. 012-001-00-3 FC Index-No. EC-No. : 231-104-6 CAS-No. : 7439-95-4 Product code 14445962 Formula : Mg Product group : Raw material

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

1.2.1. Relevant identified uses

: Laboratory use.Industrial use.Professional use Main use category

Industrial/Professional use spec : For professional use only Use of the substance/mixture : For analytical purposes

Scientific research and development

Not for human consumption or veterinary purposes.

#### 1.2.2. Uses advised against

No additional information available

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

#### Supplier

Scafell Organics Molekula Ltd Lingfield Way Darlington - England

T +44 (0) 1949 823777 / +44 (0) 7590 545705

info@molekula.com / kbowen@molekula.com - www.molekula.com

#### 1.4. Emergency telephone number

: +44 (0) 7590 545705 Emergency number

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable solids, Category 2 H228 H252 Self-Heating Substances and Mixtures, Category 2 Substances and Mixtures which, in contact with water, emit flammable H261 gases, Category 2

Full text of H statements: see section 16

#### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

Signal word (CLP) : Danger

Hazard statements (CLP) : H228 - Flammable solid.

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

H261 - In contact with water releases flammable gases.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P220 - Keep away from clothing and other combustible materials.

P223 - Do not allow contact with water.

P235 - Keep cool.

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#### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

# SECTION 3: Composition/information on ingredients

#### 3.1 Substances

o. i. oubstances		
Name	Product identifier	%
mm wide 99.8% (before extrusion)	(CAS-No.) 7439-95-4 (EC-No.) 231-104-6 (EC Index-No.) 012-001-00-3	100

Full text of H-statements: see section 16

#### 3.2. Mixtures

Not applicable

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

First-aid measures general : If possible show this sheet, if not available show packaging or label. Never give anything by mouth to an unconscious person. Do not leave affected person unattended.

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable

for breathing. Give oxygen or artificial respiration if necessary. If breathing difficulties persist: Get medical advice/attention.

First-aid measures after skin contact : After contact with skin, take off immediately all contaminated clothing, and wash

immediately with plenty of water. Do not remove clothing if it sticks to the skin. If irritation persists, consult a doctor.

: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth out with water. Do not induce vomiting. Get medical advice/attention.

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

Symptoms/effects after inhalation : May cause headache, nausea and irritation of respiratory tract.

Symptoms/effects after skin contact : May cause moderate irritation, including burning sensation, tearing, redness or swelling.

Symptoms/effects after eye contact : May cause eye irritation. Redness, pain.

Symptoms/effects after ingestion : Ingestion may cause nausea and vomiting.

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

Get immediate medical advice/attention.

First-aid measures after eye contact

#### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Sand.
Unsuitable extinguishing media : Do NOT use water jet.

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

Fire hazard : Flammable solid. Reacts violently with water. Self-heating: may catch fire.

Explosion hazard : May form flammable/explosive vapour-air mixture.

Hazardous decomposition products in case of fire : Magnesium oxide fumes.

#### 5.3. Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: seal off low-lying areas. Keep container tightly closed and away from

heat, sparks and flame. Keep away from combustible materials.

Firefighting instructions : Evacuate area. Eliminate all ignition sources if safe to do so. Fight fire from safe distance

and protected location. Keep upwind.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Use self-contained

breathing apparatus and chemically protective clothing.

Other information : Warn all persons of toxic hazard.

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

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

General measures : Do not handle until all safety precautions have been read and understood. Ventilate the area thoroughly, especially low lying areas (basements, workpits etc). Proper grounding

procedures to avoid static electricity should be followed.

# 6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

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Emergency procedures : Evacuate unnecessary personnel. Mark out the contaminated area with signs and prevent access to unauthorized personnel. Do not touch or walk on the spilled product. Avoid

contact with skin, eyes and clothing.

Measures in case of dust release : Keep upwind. Avoid creating or spreading dust. Ventilate the area thoroughly, especially

low lying areas (basements, workpits etc). Special attention should be given to low

areas/pits where flammable vapours can accumulate.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Use self-contained

breathing apparatus and chemically protective clothing.

Emergency procedures : All equipment used when handling the product must be grounded. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

Stop leak if safe to do so.

container for disposal.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

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

Methods for cleaning up : On land, sweep or shovel into suitable containers. Shovel or sweep up and put in a closed

# 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Additional hazards when processed : Self-heating: may catch fire. Reacts violently with water.

Precautions for safe handling : Avoid formation of dust. Avoid contact with skin, eyes and clothing. Do not handle until all

safety precautions have been read and understood. Ensure that there is a suitable ventilation system. Do not handle in a confined space. Handle under inert gas.

Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse. Contaminated

work clothing should not be allowed out of the workplace. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Do not eat, drink or smoke when using this product.

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

Technical measures : Ensure adequate ventilation, especially in confined areas. Proper grounding procedures to

avoid static electricity should be followed.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat

sources, Direct sunlight. Keep container closed when not in use. Air and moisture sensitive. Do not allow contact with water. Store contents under inert gas.

Incompatible products : Strong oxidizing agents. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources. open flames. sparks. Air and moisture

sensitive.

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

smoking.

Storage area : Keep away from combustible materials. Store below 20 °C. Store in dry protected location

to prevent any moisture contact.

Special rules on packaging : Never allow product to get in contact with water during storage.

#### 7.3. Specific end use(s)

For analytical purposes. Scientific research and development. Not for human consumption or veterinary purposes.

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

#### Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety procedures.

#### Personal protective equipment:

Avoid all unnecessary exposure.

# Materials for protective clothing:

Wear suitable protective clothing, gloves and eye/face protection

#### Hand protection:

The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard EN 374

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Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.11		EN 374

#### Eye protection:

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Use eye protection according to EN 166, designed to protect against powders and dusts.

Туре	Use	Characteristics	Standard
Safety goggles, Face shield	Fine dust, Dust	tightly fitting safety goggles, With side shields	EN 166

#### Skin and body protection:

Emergency safety showers should be available in the immediate vicinity of any potential exposure. Keep suitable chemically resistant protective clothing readily available for emergency use

Туре	Standard
Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product, Flame retardant antistatic protective clothing	EN ISO 13982

#### Respiratory protection:

Keep self contained breathing apparatus readily available for emergency use. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Device	Filter type	Condition	Standard
Respiratory protective device with a particle filter	Type P3	Dust protection	EN 14387

: Solid

#### Other information:

Do not eat, drink or smoke during use.

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

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

Physical state Appearance : Ribbons. Molecular mass : 24.3 g/mol Colour : Silver, Grev. Odour : No data available. Odour threshold : No data available : No data available pН Relative evaporation rate (butylacetate=1) : No data available Melting point : 648 °C lit. : No data available Freezing point Boiling point : 1090 °C lit. Flash point : No data available Auto-ignition temperature No data available Decomposition temperature : No data available Flammability (solid, gas) : Flammable Vapour pressure : No data available Relative vapour density at 20 °C : No data available : 1.74 g/cm3 Relative density Solubility : No data available

#### 9.2. Other information

Log Pow

Viscosity, kinematic Viscosity, dynamic

Explosive properties

Oxidising properties

**Explosive limits** 

No additional information available

: No data available

· No data available

: No data available

: No data available

No data available

: No data available

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# SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Flammable solid. Reacts violently with water. Self-heating: may catch fire.

#### 10.2. Chemical stability

Flammable solid. In use may form flammable/explosive vapour-air mixture.

#### 10.3. Possibility of hazardous reactions

Stable under normal conditions of use

#### 10.4. Conditions to avoid

Protect from sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Air and moisture sensitive.

#### 10.5. Incompatible materials

Strong oxidizers. Strong acids.

#### 10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. Thermal decomposition generates : Magnesium oxide fumes.

# **SECTION 11: Toxicological information**

# 11.1. Information on toxicological effects

Acute toxicity (oral): Not classifiedAcute toxicity (dermal): Not classifiedAcute toxicity (inhalation): Not classifiedSkin corrosion/irritation: Not classified

Additional information : Based on available data, the classification criteria are not met

Serious eye damage/irritation : Not classified

Additional information : Based on available data, the classification criteria are not met

Respiratory or skin sensitisation : Not classified

Additional information : Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-single exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-repeated exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

Additional information : Based on available data, the classification criteria are not met

Potential adverse human health effects and : Based on available data, the classification criteria are not met

symptoms

# **SECTION 12: Ecological information**

# 12.1. Toxicity

Acute aquatic toxicity : Not classified Chronic aquatic toxicity : Not classified

# 12.2. Persistence and degradability

Magnesium, ribbon, 0.30 - 0.40 mm thick, 3.2 - 4.0 mm wide 99.8% (before extrusion) (7439-95-4)

Persistence and degradability No data available

# 12.3. Bioaccumulative potential

Magnesium, ribbon, 0.30 - 0.40 mm thick, 3.2 - 4.0 mm wide 99.8% (before extrusion) (7439-95-4)

Bioaccumulative potential No data available

#### 12.4. Mobility in soil

No additional information available

# 12.5. Results of PBT and vPvB assessment

# Magnesium, ribbon, 0.30 - 0.40 mm thick, 3.2 - 4.0 mm wide 99.8% (before extrusion) (7439-95-4)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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#### 12.6. Other adverse effects

Additional information : Avoid release to the environment.

#### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Handle empty containers with care because residual vapours are flammable.

Ecology - waste materials : Avoid release to the environment.

# SECTION 14: Transport information In accordance with ADR / RID / IMDG / IATA / ADN

ADR	ADR IMDG IATA ADN RID				
ADIX	IIVIDG	IAIA	ADIN	Kib	
14.1. UN number					
1869	1869	1869	1869	1869	
14.2. UN proper shippin	g name				
MAGNESIUM	MAGNESIUM	Magnesium	MAGNESIUM	MAGNESIUM	
Transport document descr	iption				
UN 1869 MAGNESIUM (Magnesium, ribbon, 0.30 - 0.40 mm thick, 3.2 - 4.0 mm wide 99.8% (before extrusion)), 4.1, III, (E)	UN 1869 MAGNESIUM (Magnesium, ribbon, 0.30 - 0.40 mm thick, 3.2 - 4.0 mm wide 99.8% (before extrusion)), 4.1, III	UN 1869 Magnesium (Magnesium, ribbon, 0.30 - 0.40 mm thick, 3.2 – 4.0 mm wide 99.8% (before extrusion)), 4.1, III	UN 1869 MAGNESIUM (Magnesium, ribbon, 0.30 - 0.40 mm thick, 3.2 - 4.0 mm wide 99.8% (before extrusion)), 4.1, III	UN 1869 MAGNESIUM (Magnesium, ribbon, 0.30 - 0.40 mm thick, 3.2 - 4.0 mm wide 99.8% (before extrusion)), 4.1, III	
14.3. Transport hazard o	14.3. Transport hazard class(es)				
4.1	4.1	4.1	4.1	4.1	
14.4. Packing group					
III	III	III	III	III	
14.5. Environmental hazards					
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No	

# No supplementary information available

# 14.6. Special precautions for user

#### **Overland transport**

Classification code (ADR) : F3 Special provisions (ADR) : 59 Limited quantities (ADR) : 5kg : E1 Excepted quantities (ADR)

: P002, IBC08, LP02, R001 Packing instructions (ADR)

: TP33

Special packing provisions (ADR) Mixed packing provisions (ADR) : MP11 Portable tank and bulk container instructions : T1

Portable tank and bulk container special provisions

(ADR)

Tank code (ADR) : SGAV Vehicle for tank carriage : AT Transport category (ADR) : 3 Special provisions for carriage - Bulk (ADR) : VC1, VC2

Hazard identification number (Kemler No.) : 40

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Orange plates : 40 1869

Tunnel restriction code (ADR) : E EAC code : 1Z

Transport by sea

: 59, 920 Special provisions (IMDG) Packing instructions (IMDG) : P002, LP02 IBC packing instructions (IMDG) : IBC08 IBC special provisions (IMDG) : B3 Tank instructions (IMDG) · T1 Tank special provisions (IMDG) : TP33 : F-G EmS-No. (Fire) EmS-No. (Spillage) : S-G Stowage category (IMDG) . A Stowage and handling (IMDG) : H1

Segregation (IMDG) : SG17, SG32, SG35, SG36, SG52, SG25, SG26

Properties and observations (IMDG) : Silvery white metal. Burns with an intense white light and heat. In contact with water,

especially seawater, may evolve hydrogen, a flammable gas. Reacts readily with acids and caustic alkali, evolving hydrogen. Reacts readily with iron oxide, producing a thermite

effect. Forms explosive mixtures with oxidizing substances.

Air transport

PCA Excepted quantities (IATA) : E1 PCA Limited quantities (IATA) : Y443 PCA limited quantity max net quantity (IATA) : 10kg PCA packing instructions (IATA) : 446 PCA max net quantity (IATA) : 25kg : 449 CAO packing instructions (IATA) CAO max net quantity (IATA) : 100kg Special provisions (IATA) : A15, A803

ERG code (IATA) : 3L

Inland waterway transport

Classification code (ADN) : F3

Special provisions (ADN) : 59

Limited quantities (ADN) : 5 kg

Excepted quantities (ADN) : E1

Equipment required (ADN) : PP

Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : F3
Special provisions (RID) : 59
Excepted quantities (RID) : E1

Packing instructions (RID) : P002, IBC08, LP02, R001

Special packing provisions (RID) : B3

Mixed packing provisions (RID) : MP11

Portable tank and bulk container instructions (RID) : T1

Portable tank and bulk container special provisions : TP33

(RID)

Tank codes for RID tanks (RID) : SGAV

Transport category (RID) : 3

Special provisions for carriage – Packages (RID) : W1

Special provisions for carriage – Bulk (RID) : VC1, VC2

Colis express (express parcels) (RID) : CE11

Hazard identification number (RID) : 40

# 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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# **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

#### No REACH Annex XVII restrictions

Magnesium, ribbon, 0.30 - 0.40 mm thick, 3.2 - 4.0 mm wide 99.8% (before extrusion) is not on the REACH Candidate List Directive 2012/18/EU (SEVESO III)

#### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

#### **SECTION 16: Other information**

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16

December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:		
Flam. Sol. 2	Flammable solids, Category 2	
Self-heat. 2	Self-Heating Substances and Mixtures, Category 2	
Water-react. 2	Substances and Mixtures which, in contact with water, emit flammable gases, Category 2	
H228	Flammable solid.	
H252	Self-heating in large quantities; may catch fire.	
H261	In contact with water releases flammable gases.	

#### SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.