

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

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**1.1. Product identifier**

<b>Name of the substance</b>	MAGNESIUM STEARATE
<b>Identification number</b>	557-04-0 (CAS number)
<b>Registration number</b>	-
<b>Synonyms</b>	STEARIC ACID, MAGNESIUM SALT * Octadecanoic acid, magnesium salt
<b>SDS number</b>	M0230
<b>Issue date</b>	08-November-2016
<b>Version number</b>	03
<b>Revision date</b>	01-December-2017
<b>Supersedes date</b>	08-November-2016

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

<b>Identified uses</b>	Laboratory reagent or process chemical.
<b>Uses advised against</b>	None known.

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

<b>Company name</b>	Mallinckrodt Chemical Limited
<b>Address</b>	Perth House, Millennium Way, Chesterfield, Derbyshire S41 8ND United Kingdom
<b>Telephone</b>	Customer Service +44 1246 263 050 (EU) Customer Service +1-314-654-2000 (Worldwide)
<b>e-mail</b>	Not available
<b>Emergency telephone number</b>	CHEMTREC +1-703-741-5970 (Worldwide)
<b>General in EU</b>	112 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Item code</b>	1277, 1726, 1729, 2254, 2255, 2256, 2257, 2279, 3508, 4024, 5705, 5712, 5716, 5774, 5777, 6504, 7205, 7807

**SECTION 2: Hazards identification**

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**Classification according to Regulation (EC) No 1272/2008 as amended****2.2. Label elements****Label according to Regulation (EC) No. 1272/2008 as amended**

<b>Contains:</b>	MAGNESIUM STEARATE
<b>Hazard pictograms</b>	None.
<b>Signal word</b>	None.
<b>Hazard statements</b>	The substance does not meet the criteria for classification.

**Precautionary statements**

<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash hands after handling.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.

**Supplemental label information** None.**2.3. Other hazards**

May form combustible dust concentrations in air. Dust accumulation from this product may present an explosion hazard in the presence of an ignition source.

Not a PBT or vPvB substance or mixture.

**SECTION 3: Composition/information on ingredients**

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**3.1. Substances**

## General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
MAGNESIUM STEARATE	<= 100	557-04-0 209-150-3	-	-	
<b>Classification:</b>	-				

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## SECTION 4: First aid measures

**General information** Call a POISON CENTRE or doctor/physician if you feel unwell. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 4.1. Description of first aid measures

<b>Inhalation</b>	If dust from the material is inhaled, remove the affected person immediately to fresh air. Oxygen or artificial respiration if needed. Call a POISON CENTRE or doctor/physician if you feel unwell.
<b>Skin contact</b>	Remove contaminated clothing. Wash off with soap and water. Wash clothing separately before reuse. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. Rinse mouth thoroughly. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**4.2. Most important symptoms and effects, both acute and delayed** Dusts may irritate the respiratory tract, skin and eyes.

**4.3. Indication of any immediate medical attention and special treatment needed** Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen.

## SECTION 5: Firefighting measures

**General fire hazards** Dust may form explosive mixture with air.

### 5.1. Extinguishing media

**Suitable extinguishing media** Water spray. Alcohol foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>). Addition of water or foam to the fire may cause frothing.

**Unsuitable extinguishing media** None known.

**5.2. Special hazards arising from the substance or mixture** Melted fatty acid can give "grease" type fire. Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed such as: Carbon oxides. May include oxides of Magnesium.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**Special fire fighting procedures** In the event of fire, cool tanks with water spray. Move containers from fire area if you can do so without risk. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Specific methods** In the event of fire and/or explosion do not breathe fumes. Cool containers exposed to flames with water until well after the fire is out.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** Ensure adequate ventilation. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits. Ventilate closed spaces before entering them.

**For emergency responders** Keep unnecessary personnel away.

**6.2. Environmental precautions** No special environmental precautions required.

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

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Collect spillage. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Collect dust using a vacuum cleaner equipped with HEPA filter. Use only non-sparking tools. Following product recovery, flush area with water.

### 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

DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Minimise dust generation and accumulation. Keep formation of airborne dusts to a minimum. Dust may form explosive mixture with air. Provide appropriate exhaust ventilation at places where dust is formed. Take precautionary measures against static discharges. Static electricity and formation of sparks must be prevented. All equipment used when handling the product must be grounded. Ground and bond containers when transferring material. Use non-sparking tools and explosion-proof equipment. Avoid breathing dust. Avoid contact with skin and eyes. When using, do not eat, drink or smoke. Wash thoroughly after handling. Handle and open container with care.

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

For storage condition, see finished product label. Keep container tightly closed. Store in a well-ventilated place. Guard against dust accumulation of this material. Keep away from heat and sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Use care in handling/storage.

### 7.3. Specific end use(s)

Laboratory reagent or process chemical.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Ireland. Occupational Exposure Limits Material

##### Type

##### Value

MAGNESIUM STEARATE  
(CAS 557-04-0)

TWA

10 mg/m3

#### Biological limit values

No biological exposure limits noted for the ingredient(s).

#### Recommended monitoring procedures

Follow standard monitoring procedures.

#### Derived no-effect level (DNEL)

Not available.

#### Predicted no effect concentrations (PNECs)

Not available.

### 8.2. Exposure controls

#### Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Ensure adequate ventilation, especially in confined areas.

#### Individual protection measures, such as personal protective equipment

##### General information

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Eye wash fountain is recommended. Keep working clothes separately.

##### Eye/face protection

Use tight fitting goggles if dust is generated. Provide eyewash station and safety shower.

##### Skin protection

###### - Hand protection

Wear protective gloves. Gloves of nitrile rubber, PVA or Viton are recommended.

###### - Other

Wear suitable protective clothing.

##### Respiratory protection

Wear respirator with dust filter.

##### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

#### Hygiene measures

When using, do not eat, drink or smoke. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Wash hands after handling and before eating. Handle in accordance with good industrial hygiene and safety practices.

## SECTION 9: Physical and chemical properties

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

<b>Appearance</b>	Powder.
<b>Physical state</b>	Solid.
<b>Form</b>	Powder.
<b>Colour</b>	White or Yellow.
<b>Odour</b>	Slight.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	120 - 130 °C (248 - 266 °F)
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not applicable.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapour pressure</b>	< 0.0000001 kPa at 25 °C
<b>Vapour density</b>	Not available.
<b>Relative density</b>	1.028 g/cm <sup>3</sup>
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Insoluble in water.
<b>Solubility (other)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not available.
<b>Oxidising properties</b>	Not available.

### 9.2. Other information

<b>Bulk density</b>	0.3 g/ml
<b>Moisture</b>	3.5 %
<b>Molecular formula</b>	C18-H36-O2.1/2Mg
<b>Molecular weight</b>	591.27 g/mol
<b>Specific gravity</b>	1.03
<b>Dust Electrostatic Properties</b>	
<b>Minimum Ignition Energy (Cloud)</b>	3 - 10 mJ
<b>Dust explosion properties</b>	
<b>dP/dT</b>	955 bar/s
<b>Kst</b>	259 bar.m/s
<b>Limiting Oxygen Concentration</b>	12 - 13 %
<b>Minimum Explosible Concentration</b>	20 - 30 g/m <sup>3</sup>
<b>Minimum Ignition Temperature-Cloud</b>	440 - 460 °C (824 - 860 °F)
<b>Minimum Ignition Temperature-Layer</b>	380 - 390 °C (716 - 734 °F)
<b>Moisture</b>	1 %

Particle size	8 µm
Pmax	8.8 bar

## SECTION 10: Stability and reactivity

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<b>10.1. Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>10.2. Chemical stability</b>	Material is stable under normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	Hazardous polymerisation does not occur.
<b>10.4. Conditions to avoid</b>	Avoid dust formation. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Heat, flames and sparks. Contact with incompatible materials.
<b>10.5. Incompatible materials</b>	Strong oxidising agents. Acids.
<b>10.6. Hazardous decomposition products</b>	Carbon monoxide. May include oxides of magnesium.

## SECTION 11: Toxicological information

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<b>General information</b>	Occupational exposure to the substance or mixture may cause adverse effects.
<b>Information on likely routes of exposure</b>	
<b>Inhalation</b>	Inhalation of dusts may cause respiratory irritation. Coughing. Difficulty in breathing. Prolonged inhalation may be harmful.
<b>Skin contact</b>	May cause skin irritation.
<b>Eye contact</b>	Dust or powder may irritate eye tissue.
<b>Ingestion</b>	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
<b>Symptoms</b>	Dust or powder may irritate eye tissue. Inhalation of dusts may cause respiratory irritation. Coughing. Difficulty in breathing.
<b>11.1. Information on toxicological effects</b>	
<b>Acute toxicity</b>	Dusts may irritate the respiratory tract, skin and eyes.
<b>Skin corrosion/irritation</b>	May cause skin irritation.
<b>Serious eye damage/eye irritation</b>	Dust or powder may irritate eye tissue.
<b>Respiratory sensitisation</b>	Due to lack of data the classification is not possible.
<b>Skin sensitisation</b>	Not a skin sensitiser.
<b>Germ cell mutagenicity</b>	Due to lack of data the classification is not possible.
<b>Carcinogenicity</b>	Due to lack of data the classification is not possible.
<b>Reproductive toxicity</b>	Due to lack of data the classification is not possible.
<b>Specific target organ toxicity - single exposure</b>	Due to lack of data the classification is not possible.
<b>Specific target organ toxicity - repeated exposure</b>	Due to lack of data the classification is not possible.
<b>Aspiration hazard</b>	Due to lack of data the classification is not possible.
<b>Mixture versus substance information</b>	Not available.
<b>Other information</b>	Prolonged or repeated inhalation may cause: Pneumonitis (inflammation of lung tissue). Cyanosis (blue tissue condition, nails, lips, and/or skin). Inhalation of powder/dust may cause lung oedema.

## SECTION 12: Ecological information

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<b>12.1. Toxicity</b>	This product has no known eco-toxicological effects.
<b>12.2. Persistence and degradability</b>	No data is available on the degradability of this product.
<b>12.3. Bioaccumulative potential</b>	Not established.
<b>Partition coefficient n-octanol/water (log Kow)</b>	Not available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	Not available.
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture.
<b>12.6. Other adverse effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## SECTION 13: Disposal considerations

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### 13.1. Waste treatment methods

<b>Residual waste</b>	Dispose of in accordance with local regulations.
<b>Contaminated packaging</b>	Offer rinsed packaging material to local recycling facilities. Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>EU waste code</b>	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Disposal methods/information</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

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### ADR

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

### ADN

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code** Not available.

## SECTION 15: Regulatory information

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

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I**

Not listed.

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II**

Not listed.

**Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA**

Not listed.

#### Authorisations

**Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorisation**

Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use**

Not regulated.

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work**

Not regulated.

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding**

Not regulated.

## Other EU regulations

### Directive 2012/18/EU on major accident hazards involving dangerous substances

Not listed.

### Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Not regulated.

### Directive 94/33/EC on the protection of young people at work

Not regulated.

## Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

## National regulations

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work.

## 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

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### List of abbreviations

CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.

CAS: Chemical Abstract Service.

### References

IARC Monographs. Overall Evaluation of Carcinogenicity

National Toxicology Program (NTP) Report on Carcinogens

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

### Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

### Full text of any H-statements not written out in full under Sections 2 to 15

None.

### Revision information

Product and Company Identification: Product and Company Identification

SECTION 2: Hazards identification: Classification according to Regulation (EC) No 1272/2008

SECTION 2: Hazards identification: 2.3. Other hazards

SECTION 2: Hazards identification: Supplemental label information

SECTION 5: Firefighting measures: General fire hazards

SECTION 6: Accidental release measures: 6.3. Methods and material for containment and cleaning up

SECTION 7: Handling and storage: 7.1. Precautions for safe handling

SECTION 7: Handling and storage: 7.2. Conditions for safe storage, including any incompatibilities

Physical & Chemical Properties: Multiple Properties

SECTION 10: Stability and reactivity: 10.6. Hazardous decomposition products

Regulatory Information: United States

SECTION 15: Regulatory information: National regulations

SECTION 16: Other information: Disclaimer

GHS: Classification

### Training information

Not available.

### Disclaimer

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