

PRODUCT SPECIFICATION	
Product Name	Magnesium Chloride Flake
Alternative Name	Magnesium Chloride Hexahydrate Flakes
Specification Reference	MACH/4 (20/04/IHJK)
SALES SPECIFICATION	
Property	Specification
Magnesium Chloride (MgCl ₂)	46.5% min
Calcium Chloride (CaCl ₂)	2.2% max 0.9%
Sodium Chloride (NaCl)	max
Potassium Chloride (KCl) Water of crystallisation	0.8% max
Magnesium Oxide (MgO)	Up to 100%
Iron (Fe)	0.1%
Heavy Metals (Pb, Hg)	15 ppm max
Arsenic (As)	0.1 ppm max 0.1
Cadmium (Cd)	ppm max
Other pH of aqueous solution	Typical Value 8.2
NOTES	
<p>Exclusion of Liability</p> <p>Information contained in this publication is accurate to the best of the knowledge and belief of Trade Chemicals</p> <p>Any information or advice obtained from Trade Chemicals otherwise than by means of this publication and whether relating to Trade Chemicals materials or other materials, is also given in good faith. However, it remains at all times the responsibility of the customer to ensure that Trade Chemicals materials are suitable for the particular purpose intended.</p> <p>Trade Chemicals accepts no liability whatsoever (except as otherwise provided by law) arising out of the use of information supplied, the application, adaptation or processing of the products described herein, the use of other materials in lieu of Trade Chemicals materials or the use of Trade Chemicals materials in conjunction with such other materials.</p> <p>Health and Safety</p> <p>A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on the handling precautions and emergency procedures. This must be consulted fully before handling, storage and use.</p>	

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

1.1 Product Identifier

Product Name Magnesium Chloride Flake
 Synonyms Magnesium chloride hexahydrate, MgCl₂-6H₂O
 REACH Registration Number Not applicable, product exempted from REACH registration (Annex V) as natural mineral not modified chemically
 CAS Number 7791-18-6 EC Number 232-094-6
 Index number CLP Annex VI Not classified

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

Identified use(s) Most common uses for magnesium chloride flakes/pellets are: raw material for industrial applications such as oxychloride cement, drilling fluids, textiles, sponges, detergents, animal feed, de-icing, dustcontrol.

1.3 Details of the supplier of the safety data sheet

Trade Chemicals Limited
 Thomas Street
 Blackpool
 Lancashire
 FY1 3HG
 Tel: 44(0) 333 800 2345

Email: sales@trade-chem.co.uk

1.4 Emergency telephone number

Tel 44(0)844 335 0001 (24 hours)

2. HAZARDS IDENTIFICATION

EC Classification:

No Significant Hazard

Indication of Danger (s) and Symbol (s)

No Significant Hazard

Hazards

No Significant Hazard

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Constituent	EC No.	CAS No.	Concentration w/w	Classification Regulation (EC) No. 1278/2008
Magnesium chloride hexahydrate (MgCl ₂ -6H ₂ O)	232-094-6	7791-18-6	100%	None

4. FIRST AID MEASURES

Inhalation

In case of dust inhalation or breathing fumes released from heated material, remove person to fresh air. Apply artificial respiration if necessary and get medical attention.

Skin contact

Wash with plenty of soap and water.

Eye contact

Remove contact lenses. Rinse copiously with water for at least 10-15 minutes. If eye irritation persists, get medical advice and (if needed) medical attention.

Ingestion

Rinse mouth and drink plenty of water afterwards. Do not induce vomiting. In the case of large quantities having been swallowed, get medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation:	Respiratory tract irritation
Skin contact:	Irritation
Eye contact:	Irritation
Ingestion:	If large quantities are swallowed, rarely irritation, nausea and gastrointestinal upset may occur.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Magnesium chloride is not combustible. Choose extinguishing media depending on surrounding conditions. All extinguishing media are allowed.

5.2 Special hazards arising from the substance or mixture No special hazards.

5.3 Advise for Fire fighters

Protective actions and/or special protective equipment depending on surrounding conditions. Use protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures Avoid contact with eyes and skin. Use personal protection (see section 8).

6.2. Environmental precautions

Prevent uncontrolled discharges into the environment (rivers, water courses, sewers etc.).

6.3. Methods and material for containment and cleaning up

Carefully scoop up spilt product and flush remnant away with water.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with eyes and skin. Ensure suitable personal protection equipment (see section 8). Do not eat, drink or smoke when handling the product. Wash hands after finishing working with the product. Do not inhale dust. Avoid dust formation and ensure sufficient ventilation or extraction in the work area.

7.2 Conditions for safe storage, including any incompatibilities

Keep packaging tightly sealed. Store in a dry area. Avoid contact with metals because of possible corrosion. Protect from humidity and water. Protect from heat and direct sunlight

7.3 Specific end use(s)

No specific end uses

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Exposure limits: Not determined

8.2 Exposure controls

Appropriate engineering controls Good general ventilation.

Respiratory protection

Under normal circumstances, no special protective equipment required. In case of significant or accidental dust or fumes emissions, dust mask should be worn.

Eye/face protection

Safety glasses with side shields.

Hand protection

Wear protective (butyl) rubber gloves. Use a high fat protective cream after cleaning skin.

Skin and body protection Wear protective clothing.

Hygienic measures

When using do not eat, drink or smoke.

Protective measures

Avoid contact with eyes, skin and clothing.

Environmental exposure controls

Prevent the material from entering rivers, water courses and sewers.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Solid flakes or half spheres

Colour: White to pale yellow/grey

Odour: Odourless pH: ca. 8.5
(aqueous solution 10%)

Melting point/range: ca. 117°C

Boiling point/range: ca. 163°C

Flash point: Not applicable

Flammability: Not flammable

Auto-flammability: Not applicable

Explosion hazards: Not explosive

Combustive properties: Not combustible

Vapour pressure: Not applicable

Vapour density: Not applicable (not volatile)

Relative density: Bulk density 800-900 kg/m³

Solubility(ies): Soluble in water and alcohol

Partition coefficient: n-octanol/water: Not applicable

Auto ignition temperature: None

Ignition temperature: Not applicable

Viscosity: Not determined

Explosive properties: None

Oxidising properties: None. The product can facilitate corrosion of steel.

9.2 Other information

Not applicable

10. STABILITY AND REACTIVITY

10.1 Reactivity Not applicable.

10.2 Chemical stability

Magnesium chloride is stable under normal conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions known under conditions of normal use.

10.4 Conditions to avoid None known.

10.5 Incompatible materials

Avoid oxidising agents. In contact with metals corrosion can occur.

10.6 Hazardous decomposition products

No decomposition is used as directed. If Magnesium chloride is heated above 180°C harmful vapours can develop (hydrochloric acid). Above 300°C toxic chloride vapours are formed.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Classification

Magnesium chloride was not classified according to Council Regulation 1272/2008/EC

PRODUCT: MAGNESIUM CHLORIDE FLAKE (MACH) REVISION: 4 DATED: 02/04/2020 PAGE 5 OF 6

Acute toxicity

By Oral route: Rat, Oral, LD50: 8100 mg/kg By

Inhalation: No data available.

Chronic toxicity

Germ cell mutagenicity: No known studies. Not considered to be mutagenic in general.

Carcinogenicity: Substance is not classified as carcinogenic under ACGIH, NIOSH, IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Magnesium chloride is an inorganic naturally occurring product that will not accumulate quickly in the environment under normal conditions of use. Significantly higher chloride concentrations in the soil and groundwater can harm plants and other vegetation.

12.2 Persistence and degradability

Not applicable for inorganic substances.

12.3 Bio accumulative potential

Bioaccumulation is unlikely: inorganic substance.

12.4 Mobility in soil

Magnesium chloride easily dissolves in water. Dependent on the pH and the ions available in natural surface water it can be involved in precipitation reactions (for example as magnesium sulphate).

12.5 Results of PBT and vPvB assessment

Magnesium chloride is not classified as PBT or vPvB substance

12.6 Other information

No further information

13. DISPOSAL CONSIDERATIONS

13.1 General Information

Dispose of substance in suitable containers in accordance with local, regional, national or international regulation. Do not dispose of in waterways or together with household waste.

14. TRANSPORT INFORMATION

ADR/RID/IMDG/IATA

This product is not classified as dangerous for carriage

15. REGULATORY INFORMATION

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

Not classified as dangerous according to Council Directive 1272/2008/EC.

Substance exempted from Regulation 1907/2006 (REACH): Annex V, paragraph 10.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out

16. OTHER INFORMATION

Source of key data used to compile the data sheet

Supplier information

Modifications from last revision

The Specification has been revised. The Safety Data Sheet has been revised throughout in accordance with current data

Date: 02/04/2020

Copyright© Trade Chemicals Distribution Limited (2020)

