SAFETY DATA SHEET
nedMag C® magnesium chloride flakes/pellets

0. General
Version number: 2.1
Date of issue: 09-02-2015
Supersedes version: Version 2.0, 18-12-2012
Based on: REACH Regulation EC 1907/2006 and Commission Regulation EU 453/2010

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
Magnesium chloride flakes/pellets

Product name: nedMag C® Magnesium chloride flakes/pellets
Chemical name/ synonyms: Magnesium chloride hexahydrate, MgCl\(\text{2}\)-6H\(\text{2}\)O
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
Most common uses for nedMag C® Magnesium chloride flakes/pellets are: raw material for industrial applications such as oxychloride cement, drilling fluids, textiles, sponges, detergents, animal feed, de-icing, dust-control, paramedical/cosmetic products.

No uses advised against are identified.

1.3 Details of the supplier of the safety data sheet
Name: NEDMAG INDUSTRIES Mining & Manufacturing B.V.
Address: Billitonweg 1, P.O. Box 241
9640 AE Veendam, the Netherlands
Telephone: +31 598 651 911
Fax: +31 598 651 205
E-mail: sds@nedmag.nl

1.4. Emergency telephone number
UK: NHS Direct for Health Advice and Reassurance, 24 hours a day, 365 days a year
Telephone +44 (0)845 46 47, www.nhsdirect.nhs.uk

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
According to Regulation (EC) No. 1278/2008 (CLP):
Not classified.
According to Directive 67/548/EEC:
Not classified.

2.2 Label elements
According to CLP regulation:
GHS hazard pictogram: No pictogram
Signal word: No signal word
Hazard statement: None
Precautionary statements: None

2.3 Other hazards
None

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Constituent</th>
<th>EC-number</th>
<th>CAS-number</th>
<th>Concentration w/w</th>
<th>Classification Regulation (EC) No. 1278/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium chloride hexahydrate (MgCl₂·6H₂O)</td>
<td>232-094-6</td>
<td>7791-18-6</td>
<td>100 %</td>
<td>None</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

4.1 Description of 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 case large quantities have 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.
SECTION 5: FIREFIGHTING 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 the 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.

SECTION 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
Environmental precaution: Prevent uncontrolled discharges into the environment (rivers, water courses, sewers etc.).
Clean-up procedure: Carefully scoop up spilt product and flush remnant away with water.

SECTION 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
SECTION 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.
Hand protection: Wear protective (butyl) rubber gloves. Use a high fat protective cream after cleaning skin.
Eye protection: Safety glasses with side shields.
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.

SECTION 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
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Explosive properties: None
Oxidizing properties: None. The product can facilitate corrosion of steel.

9.2 Other information
Not applicable

SECTION 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 oxidizing 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.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Classification: Magnesium chloride was not classified according to Council Directive 67/548/EEC or Council Regulation 1272/2008/EC

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.
SECTION 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 Bioaccumulation 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

SECTION 13: DISPOSAL CONSIDERATIONS

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.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number: not applicable
14.2 UN proper shipping name: not applicable
14.3 Transport hazard class(es): not applicable
14.4 Packing group: not applicable
14.5 Environmental hazards: not applicable
14.6 Special precautions for users: not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: not applicable

SECTION 15: REGULATORY INFORMATION

Revision of this safety data sheet
This safety data sheet is fully revised according to the CLP and REACH regulations. This safety data sheet supersedes all previous issues.