

Safety Data Sheet

RMCC LLC

According to the European Commission Regulations (EU) 2020/878 Annex II



Valid from: 09-01-2023

Revision date: 03-08-2023

Version number: 6

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

1.1. Product identifier

| | |
|---------------------|---------------------------------|
| Trade name: | MagPro® , MagPro® XP |
| Product Form: | Powder |
| Synonyms: | Brucite, magnesium oxide |
| CAS number | 1309-48-4 |
| EC number | 215-171-9 |
| Molecular Weight: | 40,3 g/mol |
| Chemical Formula: | MgO |
| Registration number | not applicable (see section 15) |

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

| | |
|----------------------|---|
| Recommended Use | Acid acceptor for rubber compounds. Thickening agent for SMC/BMC composites Filler for rubber compounds |
| Uses advised against | No Information available |

1.3. Details of the supplier of the safety data sheet

| | |
|----------------|--|
| Company | Russian Mining Chemical Company LLC, 115093, Russia, Moscow, Pom. 1C, Pavlovskaya street 7, Intracity Territory of Federal City Danilovsky Municipal District. |
| E-mail address | info@brucite.plus |
| Website | https://brucite.plus/en/ |

1.4. Emergency telephone number

+7 (495) 789-65-30

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP] - Not Classified

2.2. Label elements

Label elements - Not required
Precautionary Statement - Prevention (inhalation) P260

2.3. Other hazards

Formation of dust is possible.
Results of PBT and vPvB assessment.
According to the results of its assessment, this substance is not a PBT or a vPvB.
This product does not contain any known or suspected endocrine disruptor.

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SECTION 3: Composition/information on ingredients

3.1. Substances

| Substance Name | CAS No | EC/List No | Content | R-phrases | Product identifier according to 1272/2008/EC | 1907/2006/EC (registration REACH) |
|-------------------------------------|---------------|---------------|---------|-----------|--|-----------------------------------|
| Magnesium oxide | 1309 – 48 – 4 | 215 – 171 – 9 | 94-98 % | none | none | Exempted in annex V |
| Oxides of calcium, iron and silicon | mixture | mixture | 2-6 % | none | none | none |

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---|---|
| General Advice | Avoid inhalation, ingestion and contact with skin and eyes. |
| Eye Contact | Rinse out with plenty of water. Do not rub eyes. |
| Skin Contact | Wash with plenty of water. Wash contaminated clothing. |
| Ingestion | Rinse out mouth with plenty of water and spit out the fluid. After swallowing large amounts: induce vomiting. |
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| Self-Protection of the First Aider | No special precautions required. |

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

| | |
|---------------------|--|
| Eye Contact | Can cause irritation, redness, tearing, burning |
| Skin Contact | Can cause irritation, drying, chapping |
| Ingestion | In large quantities causes irritation, nausea and gastrointestinal upset |
| Inhalation | Dust can cause temporary irritation of upper respiratory tract |

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

| | |
|---------------------------|-----------------------|
| Notes to Physician | Treat symptomatically |
|---------------------------|-----------------------|

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use water spray, dry powder, foam or carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

High volume water jet.

5.2. Special hazards arising from the substance or mixture

The substance is not combustible, not explosive and not flammable.

Water reacts exothermically with magnesium oxide to produce magnesium hydroxide and heat/steam. Avoid water contact in closed or restricted storage vessels as heat, swelling, and rupture of storage vessel may occur.

5.3. Advice for firefighters

Standard procedure for chemical fires.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. In the event of fire and/or explosion do not breathe fumes. Hazardous decomposition products formed under fire conditions. Use water spray to cool unopened containers.

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid generation of skin contact and eye contact. Contaminated surfaces will be extremely slippery.

6.2. Environmental precautions

Try to prevent the material from entering drains or water courses.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dispose of in accordance with local regulations.

6.4. Reference to other sections

Not appropriate

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation. Avoid dust formation.

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion:

Normal measures for preventive fire protection. Take precautionary measures against static discharge.

Advice on safe handling:

Wear personal protective equipment. Keep away from heat and sources of ignition.

Conditions for safe storage:

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Keep away from incompatible materials such as interhalogens and strong acids. Avoid contact with water - product reacts exothermically with water to form magnesium hydroxide and heat/steam. Water contact in closed or restricted storage vessels may cause heat, swelling, and possible rupture of storage vessel.

Materials to avoid:

No materials to be especially mentioned.

7.3. Specific end use(s)

Acid acceptor for rubber compounds. Thickening agent for SMC/BMC composites. Filler for rubber compounds.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits: No data available.

Biological limit values: No data available.

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Magnesium oxide – Exposure Limits

| OSHA (PEL-TWA) | ACGIH (TLV-TWA) | Alberta (TWA) |
|---|--|--|
| 5 mg/m ³ (Nuisance Particulate) | 10 mg/m ³ (Nuisance Particulate) | 10 mg/m ³ (Nuisance Particulate) |
| 5 mg/m ³ | 2 mg/m ³ | 2 mg/m ³ |
| 5 mg/m ³ (Total Particulate) | 10 mg/m ³ (Total Particulate) | 10 mg/m ³ (Total Particulate) |

Other countries: Please inform at your national authorities.

8.2. Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimize release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment:

| | |
|--------------------------|---|
| Eye Protection | Goggles complying with an approved standard |
| Hand Protection | Protective gloves complying with an approved standard. Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitization effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Remove gloves with care avoiding skin contamination. |
| Skin and body protection | Impervious clothing and shoes to prevent repeated or prolonged skin contact |
| Respiratory protection | Dust mask (minimum filter type P2) complying with an approved standard |

Environmental exposure controls: No information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|-----------------------------------|
| Physical state | Solid |
| Colour | White |
| Odour: | Odourless |
| Melting point/freezing point | 2.800°C |
| Boiling point or initial boiling point and boiling range | 3.600°C at 1.000 hPa |
| Flammability | No information available |
| Lower and upper explosion limit | No information available |
| Flash point | No information available |
| Auto-ignition temperature | No information available |
| Decomposition temperature | No information available |
| pH | 10.3 at 20°C (saturated solution) |
| Kinematic viscosity | No information available |

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Solubility:

- in water (20°C)

Almost insoluble

Partition coefficient:

- n-octanol/water (log value)

Not applicable

Vapour pressure

Not applicable

Relative density

3,58 g/ml at 25°C

Relative vapour density

No information available

Evaporation rate

Not applicable

Explosive limits

Not applicable

Viscosity

No information available

Explosive properties

No information available

Oxidizing properties

Not applicable

9.2. Other information

Ignition temperature: not combustible

Bulk density: ca.100 kg/m³

SECTION 10: Stability and reactivity

10.1. Reactivity

Hygroscopic. Air sensitive. No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Reacts vigorously with strong acids.

10.4. Conditions to avoid

Keep away from heat and sources of ignition.

10.5. Incompatible materials

Strong Acids, Interhalogens (eg. Bromine pentafluoride, chlorine tri-fluoride), phosphorous pentachloride

10.6. Hazardous decomposition products

Magnesium fume may be generated if heated to volatilization. Heat and Steam may be generated upon contact with water.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

No acute toxicity information is available for this product

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

(a) acute toxicity

Dermal: No data available

Inhalation: No data available

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|-------------------------|----------------------------|----------------------------|
| Magnesium oxide CAS No 1309 – 48 - 4 | LD50 > 5000 mg/kg (Rat) | No specific data available | No specific data available |

(b) skin corrosion/irritation

Not absorbed by intact skin.

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- (c) **serious eye damage/irritation** No eye irritation
- (d) **respiratory or skin sensitisation** Not a skin sensitizer
- (e) **germ cell mutagenicity** No data available
- (f) **carcinogenicity** Substance is not classified as carcinogenic under ACGIH, NIOSH, IARC, NTP or OSHA
- (g) **reproductive toxicity** No data available
- (h) **STOT-single exposure** No data available
- (i) **STOT-repeated exposure** No data available
- (j) **aspiration hazard** No data available

11.2. Information on other hazards

Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

SECTION 12: Ecological information

12.1. Toxicity

| Component | Freshwater Fish | Water Flea | Freshwater Algae |
|---|----------------------------|----------------------------|----------------------------|
| Magnesium oxide CAS No 1309 – 48 - 4 | No specific data available | No specific data available | No specific 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

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment.

The product should not be allowed to enter drains, water courses or the soil. This product has no known ecotoxicological effects.

12.6. Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

Persistent Organic Pollutant This product does not contain any known or suspected substance

Ozone Depletion This product does not contain any known or suspected substance

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from Residues/Unused Products

Dispose of in accordance with the European Directives on waste. Dispose of in accordance with local regulations. Do not discharge into drains or the environment. Do not dispose of domestic waste.

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Contaminated Packaging

Dispose of in accordance with local regulations.

European Waste Catalogue (EWC)

According to the European Waste Catalog, Waste Codes are not product specific, but application specific

Other Information

Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.

SECTION 14: Transport information

14.1. UN number or ID number

IMDG/IMO, ADR, IATA – Not regulated

14.2. UN proper shipping name

IMDG/IMO, ADR, IATA – Not regulated

14.3. Transport hazard class(es)

IMDG/IMO, ADR, IATA – Not regulated

14.4. Packing group

IMDG/IMO, ADR, IATA – Not regulated

14.5. Environmental hazards

No hazards identified

14.6. Special precautions for user

No special precautions required

14.7. Maritime transport in bulk according to IMO instruments

Not applicable, packaged goods

SECTION 15: Regulatory information

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

International Inventories

Europe

Magnesium oxide: CAS No 1309 – 48 – 4; EC No 215-171-9

Authorisation/Restrictions according to EU REACH (1907/2006) - Annex XIV – Substances Subject to Authorization, Annex XVII – Restrictions on Certain Dangerous Substances, article 59 - Candidate List of Substances of Very High Concern (SVHC)

Not applicable

Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification, Qualifying Quantities for Safety Report Requirements

Not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Not applicable

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Contains component(s) that meet a definition' of per & poly fluoroalkyl substance (PFAS)

Not applicable

**China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS).
US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)**

| Component | NZIoC | DSL | NDSL | IECSC | PICCS | TCSI | KECL | ENCS | ISHL | AICS | TSCA |
|---|-------|-----|------|-------|-------|------|----------------|----------------|------|------|------|
| Magnesium oxide CAS No 1309 - 48 - 4 | X | X | / | X | X | X | X ¹ | X ¹ | X | X | X |

Legend: X – Listed / - Not Listed

x¹ – Magnesium oxide:

Japan - ENCS No 1-465

Korea – KECL No KE-22728

Turkey

The substance is exempted from the obligation to register according to Registration, Evaluation, Authorisation and Restriction of Chemicals (KKDIK) forced on 23.12.2017 by Ministry of Environment and Urban Planning, Turkey as natural magnesium hydroxide is a mineral occurring in nature. See annex V.

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at Work.

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: Other information

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

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IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code
ATE - Acute Toxicity Estimate
VOC - (Volatile Organic Compound)
OECD - Organisation for Economic Co-operation and Development
BCF - Bioconcentration factor

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

<https://www.guidchem.com/msds/>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RT

Disclaimer

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End of Safety Data Sheet