

# Safety Data Sheet

RMCC LLC

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



Valid from: 04-10-2021

Revision date: 12-02-2024

Version number: 12

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

### 1.1. Product identifier

Trade name: **Ecopiren C, Ecopiren CA, Ecopiren CN, Ecopiren CR, Ecopiren LC, Ecopiren LCA, Ecopiren LCR**

Product Form: Powder

Synonyms: Brucite, magnesium hydroxide

CAS number: not applicable

EC number: not applicable

Molecular Weight: not applicable

Chemical Formula: not applicable

Registration number: not applicable (see section 15)

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

Recommended Use: Flame retardant

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](mailto: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.

## 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)
Brucite	1317 - 43 - 7	215-274-9	97.5 – 99.5 %	none	none	Exempted in annex V
Stearic acid	67701-03-5	266-928-5	0.5 – 2.5%	none	none	No 01-2119543709-29-0053

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General Advice</b>	Seek medical assistance if feeling unwell.
<b>Eye Contact</b>	Rinse out with plenty of water. Do not rub eyes.
<b>Skin Contact</b>	Wash with plenty of water. Wash contaminated clothing.
<b>Ingestion</b>	Rinse out mouth with plenty of water and spit out the fluid. After swallowing large amounts: induce vomiting.
<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>Self-Protection of the First Aider</b>	No special precautions required.

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

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

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

<b>Notes to Physician</b>	Treat symptomatically
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

No limitations. Coordinate firefighting measures to the fire surroundings

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

The substance is not combustible, not explosive and not flammable.  
Magnesium hydroxide has a flame retardant effect.

### 5.3. Advice for firefighters

Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

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

Use personal protective equipment as required. Ensure adequate ventilation. Do not inhale dust. Avoid generation of dust, skin contact and eye contact.

### 6.2. Environmental precautions

Avoid to enter large quantities in sewerage system.

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

Sweep up and shovel into suitable containers. Keep in suitable, closed containers. Clean up surface with dry method (or flush with water). Avoid generation of dust. Dispose in accordance with official regulations.

### 6.4. Reference to other sections

Not appropriate

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## 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

Dry storage required. Hygroscopic solid. Protect from moisture. Keep containers closed.

Storage temperature: no restrictions.

Avoid contact with incompatibles mentioned under item 10.

### 7.3. Specific end use(s)

Flame retardant

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

### CONTROL PARAMETERS GENERATION OF DUST

#### *Magnesium hydroxide – Exposure Limits*

OSHA (PEL-TWA)	ACGIH (TLV-TWA)	Netherlands (MAC)
15 mg/m <sup>3</sup> (Total Dust)	10 mg/m <sup>3</sup> (Total Dust)	10 mg/m <sup>3</sup> (Nuisance Particulate)
5 mg/ m <sup>3</sup> (Respirable Dust)	5 mg/ m <sup>3</sup> (Respirable Dust)	5 mg/ m <sup>3</sup> (Respirable Dust)

**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

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	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
<b>Environmental exposure controls</b>	
No information available	

## SECTION 9: Physical and chemical properties

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

Physical state	powder solid or granule
Colour	white
Odour:	odourless
Melting point/freezing point	not applicable, decomposition at 350°C
Boiling point or initial boiling point and boiling range	not applicable, decomposition at 350°C
Flammability	not flammable
Lower and upper explosion limit	not applicable
Flash point	not applicable
Auto-ignition temperature	not applicable
Decomposition temperature	ca 350°C
pH	ca. 10 (10 % suspension in water)
Kinematic viscosity	not applicable (solid)
Solubility:	
- in water (20°C)	almost insoluble
- in alcohols	insoluble
Partition coefficient:	
- n-octanol/water (log value)	not applicable
Vapour pressure	not applicable (not volatile)
Relative density	Bulk (loose) density 350 - 1000 g/l (depending on the grade and grain-size)
Relative vapour density	not applicable (not volatile)
Evaporation rate	not applicable
Explosive limits	not applicable
Viscosity	not applicable (solid)
Explosive properties	not explosive

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## Oxidizing properties

not applicable

## 9.2. Other information

Molecular Weight

58.3 g/mol

Chemical Formula

Mg(OH)<sub>2</sub>

Evaporation Rate

not applicable - solid

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts vigorously with strong acids.

### 10.2. Chemical stability

Hygroscopic. Air sensitive. Chemically stable up to the decomposition temperature. Above 350°C decomposition to magnesium oxide and water.

### 10.3. Possibility of hazardous reactions

Reacts vigorously with strong acids.

### 10.4. Conditions to avoid

Avoid dust formation. Exposure to air. Exposure to moist air or water

### 10.5. Incompatible materials

Finely powdered metals. Strong oxidizing agents. Strong acid

### 10.6. Hazardous decomposition products

Decomposes to magnesium oxide and 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
Brucite CAS No 1317 - 43 - 7	LD50 = 8500 mg/kg (Rat) LD50 > 5000 mg/kg (Mice)	LD50 > 2500 mg/kg (Rabbit)	LC50 > 2100 mg/kg (Rat)
Stearic acid CAS No 67701 - 03 - 5	LD50 > 5000 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	No specific data available

(b) skin corrosion/irritation

Not absorbed by intact skin. Intimate contact of the skin with magnesium hydroxide can cause temporary irritation, drying and chapping.

(c) serious eye damage/irritation

Can cause temporary eye irritation.

(d) respiratory or skin sensitisation

Short-term inhalation of magnesium hydroxide dust or fume can cause temporary irritation of upper respiratory tract, nose and skin.

(e) germ cell mutagenicity

No data available

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## (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
Brucite CAS No 1317 - 43 - 7	LC50 (96h) = 775,8 mg/l, <i>Oncorhynchus mykiss</i> LC50 (96h) = 306,8 mg/l, <i>Pimephales promelas</i>	EC50 (96h) = 170 mg/l, <i>Daphnia magna</i>	EC50 (72h) > 100 mg/l, <i>Pseudokirchnerella</i> <i>subcapitata</i>
Stearic acid CAS No 67701 - 03 - 5	No specific data available	EC50 (21d) > 0,22 mg/l, <i>Daphnia magna</i>	EC50 (72h) > 0,9 mg/l, <i>Pseudokirchnerella</i> <i>subcapitata</i>

### 12.2. Persistence and degradability

Magnesium hydroxide is nearly insoluble in water. By reaction with acids and neutralization magnesium hydroxide is slowly degraded.

### 12.3. Bioaccumulative potential

Due to its ionic nature it is not a candidate for bioaccumulation

### 12.4. Mobility in soil

Spillage unlikely to penetrate soil. It is not likely mobile in the environment due to its low water solubility.

### 12.5. Results of PBT and vPvB assessment

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

### 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 this container to waste collection point.

## 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

Brucite (magnesium hydroxide) CAS No 1317- 43-7; EINECS 215-274-9

Stearic acid - CAS No 67701-03-5; EINECS No 266-928-5

**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

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## 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

## 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), Mexico (INSQ), Thailand (TECI). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	NZIoC	DSL	NDSL	IECSC	PICCS	TCSI	KECL	ENCS	ISHL	AICS	TSCA
Brucite (magnesium hydroxide) CAS No 1317 - 43 - 7	/	/	/	/	/	/	/	x <sup>1</sup>	/	/	/
Stearic acid CAS No 67701-03-5	x <sup>2</sup>	x <sup>2</sup>	x <sup>2</sup>	x <sup>2</sup>	x <sup>2</sup>	x <sup>2</sup>	x <sup>2</sup>	x <sup>2</sup>	x <sup>2</sup>	x <sup>2</sup>	/

Legend: X – Listed / - Not Listed

x<sup>1</sup> – Brucite, Japan: ENCS No C022-972-30A

x<sup>2</sup> - Stearic acid;

China: IECSC No 67701-03-5

Taiwan: TCSI No 67701-03-5

South Korea: KECL / ECL No KE-14228

Japan: ENCS No C005-929-87A

Japan: IHSL No F10411422000

Canada: DSL No 67701-03-5

Australia: AICS No 67701-03-5

New Zealand: NZIoC No 67701-03-5

Philippines: PICCS No 67701-03-5

Mexico: INSQ No 67701-03-5

Thailand: TECI No 67701-03-5

## 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

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

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



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**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  
**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code  
**OECD** - Organisation for Economic Co-operation and Development  
**BCF** - Bioconcentration factor

**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  
**ATE** - Acute Toxicity Estimate  
**VOC** - (Volatile Organic Compound)

Key literature references and sources for data

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

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

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**