






<p>P-D Refractories CZ a.s.</p>  <p>Nádražní 218 679 63 Velké Opatovice</p>	<p align="center">SAFETY DATA SHEET (Nr.20b) according Regulation EC No. 1907/2006 (REACH), Regulation EC No. 1272/2008 (CLP) and Commission Regulation EU No. 2020/878</p> <table border="1"> <tr> <td>Date of issue: 02.January 2020</td> <td>Page: 1/7</td> </tr> <tr> <td>Revision date: 15.12.2022</td> <td>Rev.: 1</td> </tr> <tr> <td colspan="2"> Product name: CERMAL Refractory mastic Product group: RUDOKIT, Quality class: CERMAL </td> </tr> </table>	Date of issue: 02.January 2020	Page: 1/7	Revision date: 15.12.2022	Rev.: 1	Product name: CERMAL Refractory mastic Product group: RUDOKIT, Quality class: CERMAL	
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<p>SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING</p> <p><u>1.1 Product identifier:</u> Product name: CERMAL Refractory mastic CAS no: n/a (mixture) EC (EINECS) no: n/a (mixture) Index no: n/a (mixture) REACH registration no: N/A for mixtures. Other names: None. CLP unique formula identifier (UFI): JCJ0-10XJ-H007-F2F6</p> <p><u>1.2 Relevant identified uses of the substance or mixture and uses advised against:</u> Building industry - bonding chimney liners and acid-resistant fireclays, no further treatment. Not recommended use: Other than specified by the Manufacturer.</p> <p><u>1.3 Details of the supplier of the safety data sheet:</u> Manufacturer: P-D Refractories CZ a.s. Address: Nádražní 218, 679 63 Velké Opatovice Phone: +420 516 493 111, Fax: +420 516 477 338 Email address of competent person responsible for material safety data sheet: Milan.Mazura@pd-group.com</p> <p><u>1.4 Emergency phone:</u> Toxicological information centre ++420 224919293, +420 224915402 Na Bojišti 1, 128 08 PRAGUE 2</p>													
<p>SECTION 2. HAZARD IDENTIFICATION</p> <p><u>2.1 Classification of substance or mixture:</u> Classification according to European Parliament and Council Regulation (EC) no. 1272/2008 CLP: Skin Irrit 2: skin corrosion/irritation, Cat. 2 H315 Causes skin irritation. Eye Irrit. 2: serious eye damage / eye irritation, Cat. 2 H319 Causes serious eye irritation.</p> <p><u>2.2 Identification elements:</u></p> <table border="1"> <tr> <td data-bbox="188 1294 619 1429">Hazard pictograms:</td><td data-bbox="619 1294 1410 1429">  <p align="center">GHS09</p> </td></tr> <tr> <td data-bbox="188 1429 619 1462">Contains:</td><td data-bbox="619 1429 1410 1462">Warning</td></tr> <tr> <td data-bbox="188 1462 619 1496">Signal word:</td><td data-bbox="619 1462 1410 1496">Not applicable.</td></tr> <tr> <td data-bbox="188 1496 619 1552">Hazard statements:</td><td data-bbox="619 1496 1410 1552"> H315 Causes skin irritation. H319 Causes serious eye irritation. </td></tr> <tr> <td data-bbox="188 1552 619 1921">Precautionary statements</td><td data-bbox="619 1552 1410 1921"> P264 Wash hands with water and soap thoroughly after handling. P280 Wear protective gloves / protective clothing / eye protection / face protection. P301+P330+P331 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. P303+P361+P353 IF ON SKIN (or with hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P501 Dispose of content/container by handing it over to a facility authorised to handle wastes. </td></tr> <tr> <td data-bbox="188 1921 619 1955">Other required labeling:</td><td data-bbox="619 1921 1410 1955">Not applicable.</td></tr> </table>		Hazard pictograms:	 <p align="center">GHS09</p>	Contains:	Warning	Signal word:	Not applicable.	Hazard statements:	H315 Causes skin irritation. H319 Causes serious eye irritation.	Precautionary statements	P264 Wash hands with water and soap thoroughly after handling. P280 Wear protective gloves / protective clothing / eye protection / face protection. P301+P330+P331 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. P303+P361+P353 IF ON SKIN (or with hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P501 Dispose of content/container by handing it over to a facility authorised to handle wastes.	Other required labeling:	Not applicable.
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Other required labeling:	Not applicable.												
<p><u>2.3 Other hazards:</u> Persistent, bio-accumulative and toxic, highly persistent and highly bio-accumulative substances:</p>													

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Results of PBT and vPvB:

The product does not contain PBT and vPvB.

The mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation 1907/2006 / EC, the constituents are not listed on the Candidate List of substances of very high concern (SVHC).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances:

Not applicable.

3.2. Mixtures:

Wet mixture on the basis of silica sands with a chemical bond. It contains 70-80% of silicon dioxide – silica sand (CAS: 14808-60-7, EC: 238-878-4).

Substances dangerous for health or the environment:

Name of component	Concentration % mass	CAS EC Index number Registration number	Classification according to 1272/2008/EC
Quartz (SiO ₂) (micronized Střeč sand)	Rudomal KV (KVLP), KVP: < [25,2 – 27,3]*)	14808-60-7 238-878-4 Not given Not subject to registration	With regard the trade and application form of the product – wet mixture for direct use without any further treatment, no hazardous characteristics apply.
Lithium water glass, contains lithium hydroxide	15	for Li(OH) ₂ anhydrous: 1310-66-3 215-183-4 Not given 01-2119560576-31- 0000	For component: Skin Irrit 2: skin corrosion/irritation, Cat. 2 H315 Causes skin irritation. Eye Irrit. 2: serious eye damage / eye irritation, Cat. 2 H319 Causes serious eye irritation.

*) Expressed as respirable fraction content

Substances with workplace exposure limits:

Does not contain any in the solid state, otherwise see data in 8.1.

Specific concentration limit or a multiplication factor

Acute toxicity estimation

They are not specified for the components of the mixture.

SECTION 4. FIRST AID INSTRUCTIONS

4.1 First aid description:


4.1.1 First aid instructions:

General instructions: Immediate medical attention is required in case of ingestion or contact with eyes. When working observe work hygiene. When working it is necessary to limit direct contact of the skin and mucous membranes of workers to a minimum. In the case of severe symptoms seek medical advice.

Inhalation: There is virtually no risk with regard to the application form. Generally: If inhaled, walk out to the fresh air.

Skin contact: Remove the exposed person away from the source of contamination. Remove contaminated clothing and boots, clean both before further use. Quickly and carefully wash the exposed skin with warm water and soap or other skin cleansing agents and treat with a suitable cream.

8.1 Control parameters: Governed by Government Regulation no 361/2007 Coll., stipulating conditions of occupational health protection, as amended, Annex 3:

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No hygienic limits are determined for the product when stored and used in compliance with the Manufacturer's instructions.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls: Ventilation – Where dust content in the air may be controlled with technical methods (local exhaustion, ventilation etc.)

8.2.2 Individual protective measures including personal protective equipment:

Hygienic conditions: Prevent eye contact, do not inhale.

Do not stay in places with higher dust concentrations without cause

Observe routine personal hygiene before eating, drinking, toilet use and after work.

Personal protective equipment:

Eye and face protection: In case of such an application when there is a risk of contamination (e.g. when working with the product above the face level), use suitable eye protection.

Skin – hand protection: Protective impermeable working gloves (e.g. leather).

Skin – other protection: Work clothes and boots.

Respiratory tract protection: Not required when used as prescribed.

Thermal hazard: N/A

8.2.3 Environmental exposure controls:

Prevent dispersion of the dried product (cutting, grinding, breaking etc.).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES


The information relates to mixture.


9.1 Information about basic physical and chemical properties

a) Physical state:	A powdery mixture with grain size below 0,5 mm
b) Colour:	Grey
c) Odour:	None
d) Melting point/freezing point:	Not specified.
e) Boiling point or initial boiling point and boiling range:	Not specified.
f) Flammability (solid, gas)	Non-flammable.
g) Lower and upper explosion limit values:	
h) Flash point:	Non-flammable.
i) Auto-ignition temperature:	Non-flammable.
j)) Decomposition temperature	Not specified.
k) pH	11
l) Kinematic viscosity:	Not specified.
m) Solubility:	Non-soluble
n) Partition coefficient: n-octanol / water (logarithmic value):	Not specified.
o) Vapour pressure:	Not specified.
p) Density and/or relative density	2,70 g/cm ³ (bulk density)
r) Relative vapour density	Not specified.
s) Particle characteristics (solids)	Not specified.
t) Evaporation rate:	Not specified.
t) Decomposition temperature:	Not specified.
u) Explosive properties:	None.
v) Oxidising properties:	None.

9.2. Other information

Solvent content (VOC) 0% (according to definition of the air protection act)

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<p>9.2.1 Information with regard to physical hazard classes</p> <p>9.2.2 Other safety characteristics</p> <p>Note: "Not specified": irrelevant for the product "None": not available for the product.</p>	<p>None.</p> <p>None.</p>
<p>SECTION 10. STABILITY AND REACTIVITY</p> <p>10.1 Reactivity: No decomposition under appropriate storage and use conditions. 10.2 Chemical stability: The product is stable under normal conditions. 10.3 Possibility of hazardous: Reaction with strong acids. 10.4 Conditions to avoid: None. 10.5 Incompatible materials: Strong acids. 10.6 Hazardous decomposition products: None.</p>	
<p>SECTION 11. TOXICOLOGICAL INFORMATION</p> <p>11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 Ways of entry to organism: No acute or chronic effects when entering through common ways of entry.</p> <p>a) <u>Acute toxicity:</u></p> <ul style="list-style-type: none"> - LD₅₀, oral, rat (mg.kg⁻¹): not specified - LD₅₀, dermal, rat or rabbit (mg.kg⁻¹): not specified - LC₅₀, inhalation, rat, for aerosols or particles (mg.kg⁻¹): not specified - LC₅₀, inhalation, rat, for gases and vapours (mg.kg⁻¹): not specified <p><u>Swallowing:</u> Not specified.</p> <p>b) <u>skin corrosion/irritation:</u> Irritant. c) <u>serious eye damage/irritation:</u> Causes serious eye irritation. d) <u>Sensitisation of respiratory tract / skin:</u> Not classified. e) <u>Mutagenicity in embryonic cells:</u> Not classified. f) <u>Carcinogenicity:</u> Not classified. g) <u>Toxicity for reproduction:</u> Not classified. h) <u>Toxicity for specific target organs – single exposition:</u> Not classified. i) <u>Toxicity for specific target organs – multiple expositions:</u> Not classified. j) <u>Dangers on inhalation:</u> Not classified.</p> <p>11.2 Information on other hazards</p> <p>11.2.1 <u>Endocrine disrupting properties</u> They are not available.</p> <p>11.2.2 <u>Other information</u> This product contains breathable quartz only bound in the aqueous form. Its hazardous characteristics do not apply to the application form of the product.</p>	
<p>SECTION 12. ECOLOGICAL INFORMATION</p> <p>12.1 <u>Toxicity for aqueous organisms:</u> A natural material by origin, no assumed toxic effects on aqueous organisms. 12.2 <u>Persistence and degradability:</u> The product is inert and does not degrade. 12.3 <u>Bioaccumulation potential:</u> Data not available. 12.4 <u>Mobility in soil:</u> Data not available. 12.5. <u>Results of PBT and VPvB assessment:</u> Not required. 12.6. <u>Endocrine disrupting properties:</u> Data not available. 12.7. <u>Other unfavourable effects:</u> The product is inert.</p>	
<p>SECTION 13. DISPOSAL CONSIDERATIONS</p> <p>13.1 <u>Waste treatment methods:</u> Dumping on specified dumps. Disposal by release to sewerage: Excluded by the product nature.</p>	

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Packaging classification:
 Packaging with product residue:
 15 01 10* Packaging containing residue of hazardous substances or packaging contaminated with such substances, category hazardous waste (Included with regard to the possibility of drying of the product residue).
 Empty clean packaging:
 15 01 02 Plastic packaging, category non-hazardous waste.
 Includes the adsorption material soaked with the preparation (included with regard to the possibility of drying out and potential dust form):
 15 02 02 Absorption agents, filtering materials, cleaning fabric and protective clothing contaminated with hazardous substances, category hazardous waste.
13.3 Waste legislation: European waste catalogue


SECTION 14. TRANSPORT INFORMATION

14.1 UN number or ID number: -
 Not subject to regulations for dangerous object transport.
14.2 UN proper shipping name:
 Not subject to regulations for dangerous object transport.
14.3 Transport hazard class(es):
 Not subject to regulations for dangerous object transport.
14.4 Packing group:
 Not subject to regulations for dangerous object transport.
14.5 Environmental hazards:
 Not subject to regulations for dangerous object transport.
14.6 Special precautions for users:
 Not subject to regulations for dangerous object transport.
14.7 Maritime transport in bulk according to IMO instruments:
 Not subject to regulations for dangerous object transport.

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Relevant legislation European Union:

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- Regulation EC No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work
- Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC
- Commission Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
- Commission Directive (EU) 2017/164 of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC
- European Waste Catalogue
- Council Directive 1999/13/EC of 11 March 1999 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations

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- Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products Text with EEA relevance

15.2 Chemical safety assessment

There are no available data for assessment of safety of chemical substances for this material.

SECTION 16. OTHER INFORMATION

Data on amendments and revisions:

Rev. no	Date	Amendment description
0	6 Dec 2019	New material safety data sheet
1.	15.12.2022	Modification of SDS according to Commission Regulation EU 2020/878. Update of legal regulations. Added UFI code.

Important literature references and data sources: The data contained in this sheet have been processed on the basis of the Manufacturer's documents, the documents of the supplier of the components of "Střeleč micronized sands" and "Lithium water glass (MP > 3.2)", and on the basis of valid Czech and EU legal regulations.

List of relevant standard hazard statements and instructions for safe handling.:

None are included.

Instructions concerning all training courses for staff responsible for human health and environment protection:

Include instructions about working with the product in the occupational safety training system (inaugural training, training in the workplace, repeated training) according to the specific conditions in the workplace.

Recommended limitations for use: Use exclusively for purposes specified by the manufacturer. Prevent drying out of the product outside the applied state.

Other information:

The above data describe exclusively safety requirements for products and are based on current knowledge. They do not describe product properties in the sense of quality parameters and legislative regulations for warranty compliance.

☞ **End of material safety data sheet.** ☞