

Material Safety Data Sheet

According to 2001/58/EU

SKAMOBAR-69 Barrier Bricks

March 2008
Rev. No.: 03

<p>1. Product and manufacturer</p> <p>Product name</p> <p>Type of product</p> <p>Company</p> <p>Use</p>	<p>SKAMOBAR-69</p> <p>– special fireclay materials</p> <p>Skamol A/S Østergade 58-60 DK-7900 Nykøbing Mors Denmark Phone: +45-97721533 Fax: +45-97724975 E-mail: insulation@skamol.dk www.skamol.com</p> <p>P-D Refractories CZ a.s. Velké Opatovice Czech Republic</p> <p>Lining material for thermal equipment in the aluminium industry.</p>												
<p>2. Information of product composition</p>	<p>Mixture of aluminosilicates with ceramic bond created by sintering at temperature higher than 800° C with content Al₂O₃ 30%.</p> <p>Products are not classified as dangerous in the sense of the Law No. 157/1998 Sb. in the valid lines.</p>												
	<table border="1"> <thead> <tr> <th>Components</th> <th>% range</th> <th>CAS</th> </tr> </thead> <tbody> <tr> <td>SiO₂ content</td> <td>0 – 5</td> <td>14808-60-7 R20/S74</td> </tr> <tr> <td>Content of cristobalite</td> <td>0 – 10</td> <td>14464-46-1 R20/S74</td> </tr> <tr> <td>Content of Al₂O₃</td> <td>20 – 30</td> <td></td> </tr> </tbody> </table>	Components	% range	CAS	SiO ₂ content	0 – 5	14808-60-7 R20/S74	Content of cristobalite	0 – 10	14464-46-1 R20/S74	Content of Al ₂ O ₃	20 – 30	
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<p>3. Data on product safety</p> <p>Dust</p> <p>Health affliction</p>	<p>The dust produced in the course of cutting, grinding, breaking mainly contains a mixture of crystalline modifications of silicon dioxide.</p> <p>Exposure to the effect of dust portions may irritate eyes and upper respiratory organs. The dust portions may contain different forms of crystalline silicon dioxide considered a permanent danger for human health when inhaled. The International Agency for Research on Cancer (IARC) has classified the inhalation of crystalline silicon dioxide as class 1 carcinogenic substance for humans. The crystalline silicon dioxide is known as a silicosis – a non-cancerous lung illness – promoter.</p>												
<p>4. First aid hints</p> <p>Breathing-in of dust</p> <p>Eyes irritation</p> <p>Skin contact</p> <p>Ingestion</p>	<p>In case of inhalation of dust, leave the dusty place, go out to fresh air, rinse mouth with water and blow nose to remove dust.</p> <p>Wash eyes with plenty of water or with an eye-washing liquid until the irritation disappears.</p> <p>Proceed as required by the ordinary principles of personal hygiene. Wash skin with soap and warm water each time the skin has been contaminated.</p> <p>Ingestion may temporarily irritate the digestive organs. In case of indisposition, seek medical attention.</p>												

5. Fire protection Inflammation point Fire risks Extinguisher	The substances are non-combustible The products described above are non-combustible, but the wrapping material may be combustible. Therefore the storage must follow general fire protection regulations. Standard extinguisher suitable for extinguishing the wrapping material or, as the case may be, the wooden pallets.
6. Measures to be taken in the case of an accidental leak Breakage of products	Avoid propagation of dust through air. Non-contaminated broken products may be disposed as safety wastes in accordance with local regulations
7. Handling and storage Hints for handling Hints for storage	Observe local regulations and instructions for the safety of work during handling. Avoid dust formation. Store in dry rooms. Observe the local safety regulations and instructions. Avoid dust formation.
8. Check for exposure and personnel protection Check for exposure effect Personal protection	Criteria of checking the personnel for exposure and utmost admissible concentration (NPK) of traced substances are defined by Government Direction No. 523/2002 Sb for CR. Other national directions may be valid in other countries (e.g. OSCHA, NIOSH etc.). In order to keep the personnel exposure below the NPK values, when dust of ganister might arise during handling, it is recommended to arrange an exhaust system or, at least, provide ventilation for dissipating, catching and separating the dust. Ventilation – wherever the content of dust in the atmosphere may be controlled by means of technical methods (local exhaustion, ventilation etc.) Breathing – In case the NPK values are exceeded, use a respirator with a filter against fibrogenous dust. Eyes – at a site of excessive dust formation, use the corresponding degree of protection. General measures – After finishing the work, wash hands and do not stay in the places of high dust concentration unless necessary. At those places, avoid eating, drinking and smoking.
9. Physical and chemical properties Appearance State Odour Volumetric mass Temperature of use and deformation Chemical composition	Fire resisting compact pressed-to-shape products Solid Odourless See Technical Specifications See Technical Specifications See Technical Specifications
10. Stability and reactivity Conditions of product stability Dangerous destructive products	Supplied in stable form. Unknown.
11. Toxicological information	Products ready for delivery represent minimum danger to human health excepting the risks described above. Products have not been submitted to the toxicological tests. Mutagenity or other effects on the reproduction are unknown.
12. Ecological information	Most ingredients comprised in the products are natural minerals. No negative ecological effects of products are known.
13. Information on disposal	EWC-code: 16 03 04. Not contaminated products may be disposed as harmless solid wastes in conformity with local regulations and legal measures. The recommended wrapping materials – PE foils and others - should be recycled by a company specialized in waste processing.

14. Forwarding information	The nature of products does not require any extraordinary measures in terms of forwarding regulations. The products should be protected against prolonged exposure to humidity, rain, snow, and frost.
15. Legal regulations	Council Directive 89/391/EHS, 89/654/EHS, 90/394/EHS, Board Directive 2000/39/ES. Law No. 157/1998 on chemicals and chemical agents does not refer to fire resisting products – par. 1, item 2. Government Directive CR No. 523/2002 issued 14 th October 2002 determines the conditions of health protection of personnel at work. The admissible concentration may differ from country to country.
16. Further information	The above information describes the safety requirements of products only and it is based on the current state of our knowledge. It does not describe the properties of products in the terms of quality parameters and legal regulations for guarantee obligations. This Certificate of safety is issued by Moravské šamotové a lupkové závody a.c. (Moravian Fireclay and Shale Works Inc.) Velké Opatovice. Law No. 157/1998 Sb. on Chemicals and Chemical Agents does not apply to the fire resisting products – par. 1, item 2. The crystalline forms of the silicon dioxide are natural components of the crust of the earth and no negative ecological effects are known.