



NEOLITH

SAFETY DATA SHEET

JANUARY 2024

Introduction

This document provides information about the handling and use of the product "Neolith®."

Using all available information about Neolith®, TheSize has prepared a safety data sheet in accordance with Commission Regulation (EU) 2020/878 mending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

The purpose of this safety data sheet is to provide employees general information and guidance on how to handle the product in all phases, to promote and improve working conditions and to minimise potential risks by applying the risk management rules set out in this document. Due to the characteristics of the product, employees should be aware that, while Neolith® is being cut and polished, they may come into contact with crystalline silica (quartz) particles in suspension.

Prolonged inhalation or large doses of these particles can cause pulmonary fibrosis, commonly known as silicosis. The main symptoms include coughing and breathing difficulties. TheSize Surfaces S.L. therefore recommends wet cutting and polishing to minimise exposure to respirable crystalline silica.

REGULATORY FRAMEWORK IN RELATION TO THE CLASSIFICATION OF THE MIXTURE

As stated in Chapter 1.3.3.1.1 of the Globally Harmonized System of Classification and Labelling of Chemicals, "Definitions":

"In order to ensure a full understanding of the provisions for classifying mixtures, definitions of certain terms are required. These definitions are for the purpose of evaluating or determining the hazards of a product for classification and labelling, and are not intended to be applied in other situations such as inventory reporting. The intent of the definitions as drawn is to ensure that:

(a) all products within the scope of the Globally Harmonized System are evaluated to determine their hazards, and are subsequently classified according to the GHS criteria as appropriate; and

(b) the evaluation is based on the actual product involved, i.e., on a stable product. (...)"

Therefore, although the mixture put on the market is not classified as hazardous, it is possible that there is exposure to respirable crystalline silica in the course of mechanical activities performed with the product (cutting and polishing) and therefore there is an inherent risk from the material.

ALTHOUGH THE EXPOSURE POTENTIAL DURING CUTTING AND POLISHING OF THE PRODUCT IS MUCH LOWER THAN THE LEGAL LIMITS, ALL ADVICE AND INSTRUCTIONS GIVEN IN THE SAFETY DATA SHEET MUST BE FOLLOWED TO REDUCE EXPOSURE TO THE TECHNICAL MINIMUM FOR THE WORKER. THEREFORE, THE PERSONAL PROTECTIVE EQUIPMENT LISTED IN SECTION 8 MUST ALWAYS BE USED.

Figure 1 shows the relationship between the exposure potential and the life cycle of the product listed in the Safety Data Sheet.

Neolith Product Life Cycle - Potential for User Exposure



Figure 1. Relationship between product life cycle and potential for product exposure

SECTION 1

Identification

1.1 PRODUCT IDENTIFIER:

Trade name: Neolith® (sintered stone)

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:

Appropriate identified uses: building material
Uses not recommended: all uses other than the above, especially those that mechanically dry-process the material.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:

THE SIZE SURFACES, S.L
P.I. Camí Fondo, Supoi 8. C/ Dels Ibers, 31 12550 Almazora (Castellón), España
Tel: +34 964 652 233 Fax: +34 694 652 209
Email: info@thesize.es

1.4 EMERGENCY TELEPHONE:
+ 34 964 65 22 33 (service available in English and Spanish during office hours)

SECTION 2

Hazard(s) Identification


2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

Classification according to the Globally Harmonized System (GHS):

DURING CUTTING AND POLISHING OF THE PRODUCT	FOR THE REST OF THE PRODUCT LIFE CYCLE ²
STOT RE 2 H373: May cause damage to organs (lungs and respiratory system) through prolonged or repeated exposure by inhalation.	Not applicable
Carc. 1A H350i: May cause cancer by inhalation.	

 ² Provided that the rest of the life cycle does not include activities that mechanically dry- process the material.

2.2 LABEL ELEMENTS:

DURING CUTTING AND POLISHING OF THE PRODUCT	FOR THE REMAINDER OF THE PRODUCT LIFE CYCLE ²
Hazard pictograms	
	Not applicable
Signal word	
Danger	Not applicable
Hazard statements	
H350i: May cause cancer by inhalation. H373: May cause damage to organs (lungs and respiratory system) through prolonged or repeated exposure by inhalation.	Not applicable
Precautionary statements	
P260: Do not breathe dust/fume/gas/mist/vapours/spray. P264: Wash thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P280: Wear protective gloves/protective clothing/eye protection/face protection. P284: In case of inadequate ventilation wear respiratory protection. P308+P313: IF exposed or concerned: Get medical advice/attention. P501: Dispose of contents/container to local regulations.	Not applicable

2.3 OTHER HAZARDS

2.3.1 OTHER HAZARDS NOT LEADING TO A CLASSIFICATION: Dry cutting or grinding of Neolith® may generate respirable suspended crystalline silica particles which may be harmful to human health if inhaled.

2.3.2 RESULT OF PBT AND VPVB ASSESSMENT

PBT: not applicable.

VPvB: not applicable.

² Provided that the rest of the life cycle does not include activities that mechanically dry process the material.

SECTION 3

Composition and information on ingredients

Mixture: NEOLITH is composed of a glassy matrix containing crystalline silica, aluminosilicates, zircon and inorganic pigments. The crystalline silica content is less than 9%.

IDENTIFIER	CAS	EC	CONCENTRATION	CLASSIFICATION
Crystalline silica (SiO ₂) - Quartz	14808-60-7	238-878-4	0 - < 9%	STOT RE 1, H372 Carc. 1A, H350i

Additional information:

Tests on the product have not detected either cristobalite or tridymite, which are the most siliceous and hazardous variants.

SECTION 4

First aid measures

4.1 DESCRIPTION OF FIRST AID MEASURES:

In case of inhalation: In case of direct inhalation, remove to fresh air, rest, and provide medical assistance.

After skin contact: Remove contaminated clothing. In general, the product does not irritate the skin. Dust can be washed off with water. If irritation persists, seek medical advice.

After contact with the eyes: Flush with plenty of water for several minutes. If irritation persists, seek medical advice. Do not rub eyes to avoid corneal damage due to mechanical stress.

If swallowed: Remove the victim to fresh air and keep at rest in a comfortable position for breathing. Do not induce vomiting unless specifically instructed to do so by medical personnel. Seek medical attention if symptoms occur.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

The main health effect associated with the inhalation of respirable crystalline silica is silicosis. Silicosis is one of the commonest types of pneumoconiosis. After prolonged overexposure, the body's natural defence mechanisms may not be able to remove crystalline silica from the lungs. An accumulation of dust can, in the long term, cause irreversible health effects. These health effects involve fibrosis of the innermost area of the lungs, which can lead to breathing difficulties, lung cancer and, in some cases, death. Larger (non-respirable) particles are more likely to settle in the main airways of the respiratory system and can be removed by mucosal action.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

If symptoms persist, seek medical attention.

SECTION 5

Fire-fighting measures

5.1 EXTINGUISHING MEDIA:

Suitable extinguishing means: The product is not flammable. The extinguishing agent must be selected according to the environment.

5.2 SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

No further data available.

5.3 ADVICE FOR FIRE-FIGHTERS:

Depending on the environment and size of the fire, self-contained breathing apparatus and protective clothing may be recommended.

SECTION 6

Accidental release measures

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

For non-emergency personnel: Avoid generating dust as much as possible. For emergency personnel: In the event of dust being generated, use the personal protective equipment listed in section 8.

6.2 ENVIRONMENTAL PRECAUTIONS:

No special measures are required.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING-UP:

Ensure sufficient ventilation, collect and prepare for dust-free disposal by wetting the spilt material and removing it mechanically. Store in appropriate closed containers for disposal.

6.4 REFERENCE TO OTHER SECTIONS:

See Section 1 for emergency contact information.

Refer to Section 8 for information on appropriate personal protective equipment.

Refer to Section 13 for additional information on waste treatment.

SECTION 7

Handling and storage

7.1 PRECAUTIONS FOR SAFE HANDLING:

- Avoid creating airborne dust while working with Neolith®. Install a suitable dust evacuation system or provide adequate respiratory protection for operators. Wear appropriate protective clothing while working with Neolith® (e.g., mask, goggles, gloves).
- Use restraint systems (type U or L) when handling the board on the stand.
- It is strictly forbidden to move or transport a trestle with boards that are not fully strapped. Trestles or packages shall be transported parallel to the ground, without shaking and without swaying.
- Avoid impacts that could accidentally break the board.
- Use the lifting tool best suited to the operation to be carried out. Broken parts can have very sharp edges and must not be lifted with textile slings without cut protection.
- It is forbidden to use cranes to lift boards that have any defect related to their structural strength (cracks, breaks).
- Comply with the specific rules of use for the handling of lifting equipment (overhead cranes, forklift trucks, hoists, etc.).

RECOMMENDATIONS ON GENERAL OCCUPATIONAL HYGIENE MEASURES:

It is strictly forbidden to eat, drink or smoke while working with Neolith®. Wash hands thoroughly after handling the product. Remove contaminated protective clothing or equipment before entering the canteen and do not take any work clothes home. Designate a place for proper storage of protective equipment and ensure that it is cleaned and in good working order before and after each use, and repair or replace defective equipment before re-use.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Storage in a dry place is recommended.

Store the boards only on the safety racks and properly strapped.

7.3 SPECIFIC END USES:

Purely professional use. Recommended uses included in section 1.2.

SECTION 8

Exposure controls/personal protection

8.1 CONTROL PARAMETERS:

Occupational exposure limits: No occupational exposure limit value is available for the mixture.

Recommended monitoring procedures:

If this product contains ingredients with exposure limits, personal, workplace or biological monitoring may be necessary to determine the effectiveness of ventilation or other control measures and/or the need for respiratory protective equipment. Monitoring standards such as the following should be used as a reference: ISO/TR 27628:2007 (Workplace atmospheres. Guidelines for the assessment of inhalation exposure of chemical agents for comparison with limit values and measurement strategy) ISO 13137:2013 (Atmospheres in the workplace. Guidelines for the application and use of procedures for assessing exposure to chemical and biological agents) ISO 20581:2016 (Atmospheres in the workplace. General requirements for the performance of procedures for the measurement of chemical agents) National guidance documents on methods for determining hazardous substances shall also be used as reference.

Components with permissible limit values to be monitored at the workplace:

EINECS#	CAS#	NAME OF THE SUBSTANCE	LIMIT VALUES		LEGAL REFERENCE
			TWA	NOTES	
238-878-4	14808-60-7	Crystalline silica: Quartz	0,05 mg/m ³ (*)	Carc. 1A	SWA - Workplace exposure standards for airborne contaminants

(*) Respirable fraction

Carc. 1A: Known to have carcinogenic potential for humans. The classification of a chemical into this category is based largely on human evidence from studies that have established a causal relationship between human exposure and the development of cancer.

ADDITIONAL INFORMATION:

This document has been drawn up on the basis of the most recent applicable lists.

Quartz is one of the crystalline forms of silica (silicon dioxide) that can cause silicosis, an occupational lung disease caused by inhalation of crystalline silica dust and resulting in inflammation and scarring in the form of nodular lesions in the upper lobes of the lungs. It is a type of pneumoconiosis. Silicosis is a progressive fibrosis caused by the deposition of respirable crystalline silica particles in the alveoli and can lead to cancer.

The occupational exposure risk assessment should be based on the concentration of free crystalline silica in each batch of material. Exposure to respirable quartz dust is the most significant occupational risk factor associated with mechanical handling of Neolith®.

8.2 EXPOSURE CONTROLS:

8.2.1 APPROPRIATE ENGINEERING CONTROLS:

- Replacement, such as sourcing composite stone benchtops with a lower percentage of silica.
- Isolation of the hazard - using safe work design principles to designate areas for tasks that generate dust and appropriate worker positioning during these tasks, using use of closed-off areas and automation to conduct dust generating tasks.
- Engineering controls that minimise the risk of exposure to generated dust, for example, local exhaust ventilation, water suppression (wet cutting) or using tools with dust collection attachments.
- Should a risk still remain; administrative controls, including good housekeeping policies, shift rotations and amending cutting sequences.
- Should a risk still remain; personal protective equipment including appropriate respiratory equipment (generally a minimum of a P2 efficiency half face respirator) and work clothing that does not collect dust.

8.2.2 PERSONAL PROTECTIVE EQUIPMENT.

General protective and hygienic measures:

Follow the instructions in section 7.1 Recommendations on general hygiene measures at work.

Personal protective equipment:

- The equipment must comply with Division 5 of Part 3.2 of the Model Work Health and Safety Model Regulations...
- Equipment should be selected on the basis of performance (e.g., protection factor), comfort and durability.
- Where more than one item of PPE must be worn, ensure that they are compatible with each other.
- Use the pictograms below in the workplace to explain where PPE must be used.

RESPIRATORY PROTECTION:



- Conduct a risk assessment to determine if existing controls are adequate. If necessary, respiratory protective equipment (with the appropriate protection factor) should be provided and worn. Equipment should be selected that is compatible with other items of personal protective equipment, such as ear defenders, goggles, welding visors.
- Ensure that, with the selected mask, the operator achieves the essential facial insulation. This can be checked by simple test methods such as spraying a sugar solution into the air to check whether the operator can taste it. If so, then it will have been tested for leaks.
- Note that facial hair reduces the effectiveness of a respirator. Operators with facial hair should be provided with respirators or other suitable alternatives.
- Provide a storage point for clean personal protective equipment when not in use.
- For each type of work, assess how often respiratory protective equipment should be changed to ensure its effectiveness. Change respiratory protective equipment as often as recommended by suppliers.
- Use mask with particulate filter P3 (ISO 16900).
- Respiratory protective devices according to ISO 16900.

EYE/FACE PROTECTION:



- Protective eye equipment complying with ISO 16321 should be worn when a risk assessment indicates that it is necessary, to avoid any exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be used unless the assessment suggests a higher degree of protection is required: safety glasses with side shields.
- Recommended: Goggles, face shield or other full-face protection should be worn if there is a possibility of exposure to aerosols or splashes, or if handling hot material.

HAND AND BODY PROTECTION:



- The use of mechanical protection gloves is recommended to avoid cuts when handling the parts. Follow the manufacturer's specifications. Choosing the right glove depends not only on the material, but also on other quality characteristics, which may vary according to the manufacturer.
- Body protection equipment according to ISO 13982.

8.2.3 ENVIRONMENTAL EXPOSURE CONTROLS: General ventilation should be sufficient for most operations. Local exhaust ventilation may be required for some operations.

SECTION 9

Physical and chemical properties

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Physical state:	Solid.
Colour:	Variable (depends on commercial range).
Odour:	No data available.
Melting point/freezing point:	Not applicable.
Boiling point or initial boiling point and boiling range:	Not applicable.
Flammability:	This is a non-flammable product.
Upper and lower explosion limit:	The product is non-explosive.
Flash point:	Not applicable as it is a solid.
Spontaneous ignition temperature:	Not applicable as it is a solid.
Decomposition temperature:	Not applicable, as it is not a spontaneously-reacting mixture, nor is it an organic peroxide.
pH:	Not available.
Kinematic viscosity:	Not applicable, as it is a solid.
Solubility:	Insoluble.
Partition coefficient n-octanol/water:	Not applicable as it is a mixture.
Vapour pressure:	Not available.
Density and/or relative density:	2.4 - 2.5 g/cm ³ .
Relative vapour density:	Not applicable as it is a solid.
Particulate characteristics:	Not applicable, it is a non particulate solid.

9.2 OTHER INFORMATION: NOT AVAILABLE.

SECTION 10

Stability and reactivity

10.1 REACTIVITY: NO DANGER OF REACTIVITY.

10.2 CHEMICAL STABILITY: THE PRODUCT IS STABLE UNDER ALL STORAGE AND HANDLING CONDITIONS.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: NO HAZARDOUS REACTIONS OCCUR.

10.4 CONDITIONS TO AVOID: CREATION OF DUST AND DRY MECHANICAL PROCESSING OF THE PRODUCT.

10.5 INCOMPATIBLE MATERIALS: THERE ARE NO INCOMPATIBLE MATERIALS.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: NO KNOWN HAZARDOUS DECOMPOSITION PRODUCTS

SECTION 11

Toxicological information

11.1 INFORMATION ON HAZARD CLASSES AS DEFINED IN THE GLOBALLY HARMONIZED SYSTEM:

Acute toxicity: Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Respirable crystalline silica dust is considered to be carcinogenic since it is generated in a work process with risk of exposure.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT)-single exposure: Based on available data, the classification criteria are not met.


Specific target organ toxicity (STOT)-repeated exposure: According to available studies on the occupational health effects of exposure to crystalline silica, crystalline silica showed a clear dose-response relationship in epidemiological and animal studies following repeated exposure to crystalline silica and therefore meets the criteria of the Globally Harmonized System for classification as toxic due to repeated exposure.

Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12

Ecological information

12.1 TOXICITY:	No 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 PBT AND VPVB ASSESSMENT RESULTS:	No data available.
12.6 ENDOCRINE DISRUPTING PROPERTIES:	No data available.
12.7 OTHER ADVERSE EFFECTS:	No data available.

 ³ Morfeld P.: Respirable Crystalline Silica: Rationale For Classification According to the CLP Regulation and within the Framework of the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals. In: Sponsor: EUROSIL - European Association of Industrial Silica Producers, ed. Brussels, 2010.

SECTION 13

Disposal considerations

13.1 WASTE TREATMENT METHODS:

Neolith discards, leftovers and offcuts can be considered as inert waste.

Packaging used for Neolith products must be disposed of in accordance with local regulations. In general terms, the packaging material used is easily segregable to facilitate recycling. Think about the environment.

SECTION 14

Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN NUMBER OR ID NUMBER	Not applicable	Not applicable	Not applicable	Not applicable
14.2 OFFICIAL DESIGNATION OF TRANSPORT OF THE UNITED NATIONS	Not applicable	Not applicable	Not applicable	Not applicable
14.3 TRANSPORT HAZARD CLASSES	Not applicable	Not applicable	Not applicable	Not applicable
14.4 PACKING GROUP	Not applicable	Not applicable	Not applicable	Not applicable
14.5 ENVIRONMENTAL HAZARDS	Product not classified as hazardous to the aquatic environment.			
14.6 SPECIAL PRECAUTIONS FOR THE USERS	Not defined. Note relevant information, e.g., on handling, in other sections of this document.			
14.7 TRANSPORT BY SEA IN BULK WITH IN ACCORDANCE WITH IMO INSTRUMENTS	Not applicable			

SECTION 15

Regulatory information

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS AND LEGISLATION SPECIFIC TO THE SUBSTANCE OR MIXTURE:

- Globally Harmonized System of Classification and Labelling of Chemicals, seventh edition.
- Occupational Health and Safety Act, 2011.
- Working with silica and silica-containing products, National guidance material, September 2019.
- Workplace exposure standards for airborne contaminants, December 2019
- Model Work Health and Safety Regulations, January 2021.
- Managing the risks of respirable crystalline silica from engineered stone in the workplace, October 2021.

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has not been carried out as this is a mixture exempted from registration.

SECTION 16

Other information

User liability/Liability disclaimer:

The information set forth herein is based on our present knowledge and is provided for the purpose of describing the product with regard to health, safety and environment only. As such, it should not be construed as a guarantee with respect to any specific property of the product. It is therefore the sole responsibility of the customer to decide whether such information is appropriate and beneficial.

Relevant phrases:

- H350i:** May cause cancer by inhalation.
H372: Causes damage to organs (lungs and respiratory system) through prolonged or repeated exposure by inhalation.
H373: May cause damage to organs (lungs and respiratory system) through prolonged or repeated exposure by inhalation.
P260: Do not breathe dust/fume/ gas/mist/vapours/spray.
P264: Wash thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P284: In case of inadequate ventilation wear respiratory protection.
P308+P313: IF exposed or concerned: Get medical advice/ attention.
P501: Dispose of contents/container to local regulations.

Abbreviations and acronyms:

- TWA:** Eight-hour time-weighted average. It refers to the maximum average airborne concentration of a substance when calculated over an eight-hour working day, for a five-day working week.
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).
OECD: Organisation for Economic Co-operation and Development.
NOAEL: No Observed Adverse Effect Level.
IMDG: International Maritime Code for Dangerous Goods.
IATA: International Air Transport Association.
GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances.
ELINCS: European List of Notified Chemical Substances.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
PBT: Persistent, Bioaccumulative and Toxic.
vPvB: Very Persistent and very Bioaccumulative.

Changes compared to the previous version: This is the first version.

The background is a solid dark grey. On the left side, there are several thin, yellow geometric lines. One line is a horizontal segment. Another is a vertical segment. A third is a large arc that starts from the top left, goes down and around to the bottom right. A fourth is a smaller arc that starts from the top left, goes down and around to the bottom left. These lines intersect to form various shapes, including a large triangle-like area on the left.

NEOLITH
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