SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture	HWI SHIELD TR
Registration number	-
Synonyms	WM-7674 TROWEL MIX
Brand Code	204C
Issue date	16-April-2019
Version number	01

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

Identified uses	For Industrial Use Only
Uses advised against	Users should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name	HarbisonWalker International	
Address	1305 Cherrington Parkway, Suite 100 Moon Township, PA 15108, USA United States	
Division		
Telephone	General Phone: CHEMTREC EMERGENCY US/CAN ONLY	412-375-6600 1-800-424-9300
e-mail	sds@thinkHWI.com	
Contact person	HWI USA	

1.4. Emergency telephone number Not available.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classificatior applies.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary Prolonged exposure may cause chronic effects. Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.

Precautionary statements

Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.

Supplemental label information None.

2.3. Other hazards Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Quartz (SiO2)	10 - 25	14808-60-7 238-878-4	-	-	#
Classification: -					
Other components below reportable levels	80 - 100				

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).
M: M-factor
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
Crystalline silica may be present at low concentrations; most of this is encapsulated in the coarse aggregate or as part of the clays or sands.

SECTION 4: First aid measures

General information Not available.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

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

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

SECTION 5: Firefighting measures

General fire hazards Not available.

5.1. Extinguishing media

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media Not available.

5.2. Special hazards arising from the substance or mixture Not available.

5.3. Advice for firefighters

Special protective equipment for firefighters Not available.

Special fire fighting procedures Not available.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.

6.4. Reference to other sections For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolonged exposure.

7.2. Conditions for safe storage, including any incompatibilities Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	MAK	5 mg/m3	Respirable fume.
		5 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
	STEL	20 mg/m3	Inhalable fraction.
		10 mg/m3	Respirable fume.
		10 mg/m3	Respirable fraction.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	MAK	5 mg/m3	Respirable fraction.
	STEL	10 mg/m3	Respirable fraction.
Fumes, Silica (CAS 69012-64-2)	MAK	0,3 mg/m3	Respirable fraction.
Quartz (SiO2) (CAS 14808-60-7)	MAK	0,15 mg/m3	Respirable dust.

Belgium. Exposure Limit Values.

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	10 mg/m3	
Cement, portland, chemicals (CAS 65997-15-1)	TWA	10 mg/m3	
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	3,5 mg/m3	Respirable fraction.
		10 mg/m3	Dust.
		1,5 mg/m3	Respirable fraction.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	6 mg/m3	Inhalable fraction.
Fumes, Silica (CAS 69012-64-2)	TWA	10 mg/m3	Inhalable fraction.
		0,07 mg/m3	Respirable fraction.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,07 mg/m3	Respirable fraction.

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	MAC	4 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	MAC	4 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
Cement, portland, chemicals (CAS 65997-15-1)	MAC	4 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
Fumes, Silica (CAS 69012-64-2)	MAC	6 mg/m3	Total dust.
		2,4 mg/m3	Respirable dust.
Quartz (SiO2) (CAS 14808-60-7)	MAC	0,1 mg/m3	

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Components	Type	Value
Cement, portland, chemicals (CAS 65997-15-1)	TWA	10 mg/m3
Fumes, Silica (CAS 69012-64-2)	TWA	2 mg/m3

Czech Republic. OELs. Government Decree 361

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	0,1 mg/m3	Respirable dust.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	10 mg/m3	Dust.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	10 mg/m3	Dust.
Fumes, Silica (CAS 69012-64-2)	TWA	4 mg/m3	Dust.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.

Denmark. Exposure Limit Values

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TLV	5 mg/m3	Total
		2 mg/m3	Respirable.
Fumes, Silica (CAS 69012-64-2)	TLV	2 mg/m3	Respirable.
Quartz (SiO2) (CAS 14808-60-7)	TLV	0,3 mg/m3	Total
		0,1 mg/m3	Respirable.

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Total dust.

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Components	Type	Value	Form
Fumes, Silica (CAS 69012-64-2)	TWA	2 mg/m3	Respirable dust.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.

Finland. Workplace Exposure Limits

Components	Type	Value	Form
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	10 mg/m3	Dust.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	5 mg/m3	Inhalable dust.
		1 mg/m3	Respirable.
Fumes, Silica (CAS 69012-64-2)	TWA	5 mg/m3	
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,05 mg/m3	Respirable.

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	VME	10 mg/m3	
Regulatory status: Indicative limit (VL)			
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	VME	10 mg/m3	
Regulatory status: Indicative limit (VL)			
Quartz (SiO2) (CAS 14808-60-7)	VME	0,1 mg/m3	Respirable fraction.
Regulatory status: Regulatory binding (VRC)			

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	4 mg/m3	Inhalable fraction.
		1,5 mg/m3	Respirable fraction.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	4 mg/m3	Inhalable fraction.
		1,5 mg/m3	Respirable fraction.
Fumes, Silica (CAS 69012-64-2)	TWA	0,3 mg/m3	Respirable fraction.

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	AGW	10 mg/m3	Inhalable fraction.
		1,25 mg/m3	Respirable fraction.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	AGW	6 mg/m3	Respirable fraction.
Fumes, Silica (CAS 69012-64-2)	AGW	0,3 mg/m3	Respirable fraction.

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	5 mg/m3	Inhalable
		10 mg/m3	Respirable.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Inhalable
		10 mg/m3	

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	6 mg/m3	Respirable.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	6 mg/m3	Respirable.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	10 mg/m3	
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,15 mg/m3	Respirable.

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	10 mg/m3	
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	5 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
		0,5 mg/m3	Dust.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	5 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
Fumes, Silica (CAS 69012-64-2)	TWA	2 mg/m3	Respirable mist.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,3 mg/m3	Total dust.
		0,1 mg/m3	Respirable dust.

Ireland. Occupational Exposure Limits

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Total inhalable dust.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	1 mg/m3	Respirable dust.
Fumes, Silica (CAS 69012-64-2)	TWA	6 mg/m3	Total inhalable dust.
		2,4 mg/m3	Respirable dust.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.

Italy. Occupational Exposure Limits

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	10 mg/m3	Inhalable fraction.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	1 mg/m3	Respirable fraction.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,025 mg/m3	Respirable fraction.

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	6 mg/m3	Decomposition aerosol.
		4 mg/m3	
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	4 mg/m3	
Cement, portland, chemicals (CAS 65997-15-1)	TWA	6 mg/m3	
Fumes, Silica (CAS 69012-64-2)	TWA	1 mg/m3	

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	5 mg/m3	Inhalable fraction.
		2 mg/m3	Respirable fraction.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	5 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable fraction.

Netherlands. OELs (binding)

Components	Type	Value	Form
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,075 mg/m3	Respirable dust.

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TLV	10 mg/m3	
Fumes, Silica (CAS 69012-64-2)	TLV	1,5 mg/m3	Respirable dust.
Quartz (SiO2) (CAS 14808-60-7)	TLV	0,3 mg/m3	Total dust.
		0,1 mg/m3	Respirable dust.

Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	2,5 mg/m3	Inhalable fraction.
		1,2 mg/m3	Respirable fraction.

Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Components	Type	Value	Form
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	10 mg/m3	Inhalable fraction.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	6 mg/m3	Inhalable fraction.
		2 mg/m3	Respirable fraction.
Quartz (SiO2) (CAS 14808-60-7)	TWA	2 mg/m3	Inhalable fraction.
		0,3 mg/m3	Respirable fraction.

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	10 mg/m3	
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	10 mg/m3	Inhalable fraction.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	10 mg/m3	
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,025 mg/m3	Respirable fraction.

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	STEL	5 mg/m3	Aerosol
	TWA	2 mg/m3	Aerosol
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	10 mg/m3	Inhalable fraction.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	10 mg/m3	Inhalable fraction.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable fraction.

Romania. OELs/CMRs. Protection of workers from exposure to carcinogen and mutagen agents. Hotarâre Nr. 1093 din 16 august 2006, Annex 3

Components	Type	Value	Form
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.

Slovakia. OELs for carcinogens and mutagens. Regulation No. 46/2002 on carcinogenic and mutagenic substances

Components	Type	Value	Form
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable fraction.

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	4 mg/m3	Inhalable fraction.
		1,5 mg/m3	Respirable fraction.
		0,1 mg/m3	
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	4 mg/m3	Inhalable fraction.
		1,5 mg/m3	Respirable fraction.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	10 mg/m3	

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value	Form
Fumes, Silica (CAS 69012-64-2)	TWA	0,3 mg/m3	

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Components	Type	Value	Form
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	6 mg/m3	Respirable fraction.
Fumes, Silica (CAS 69012-64-2)	TWA	4 mg/m3	Inhalable fraction.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,15 mg/m3	Respirable fraction.

Spain. Occupational Exposure Limits

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	10 mg/m3	
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	10 mg/m3	
Cement, portland, chemicals (CAS 65997-15-1)	TWA	4 mg/m3	Respirable fraction.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,05 mg/m3	Respirable fraction.

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	5 mg/m3	Total dust.
		2 mg/m3	Respirable dust.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable dust.

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	STEL	24 mg/m3	Fume and respirable dust.
	TWA	3 mg/m3	Respirable dust.
		3 mg/m3	Fume and respirable dust.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	3 mg/m3	Respirable dust.
Cement, portland, chemicals (CAS 65997-15-1)	TWA	5 mg/m3	Inhalable dust.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,15 mg/m3	Respirable dust.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.
Calcium Sulfate Gypsum (Inhalable Fraction) (CAS 13397-24-5)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Cement, portland, chemicals (CAS 65997-15-1)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.
Fumes, Silica (CAS 69012-64-2)	TWA	6 mg/m3	Inhalable dust.
		2,4 mg/m3	Respirable dust.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable.

EU. OELs, Directive 2004/37/EC on carcinogen and mutagens from Annex III, Part A

Components	Type	Value	Form
Quartz (SiO2) (CAS 14808-60-7)	TWA	0,1 mg/m3	Respirable fraction and dust

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

8.2. Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection Wear appropriate chemical resistant gloves.

- Other Wear suitable protective clothing.

Respiratory protection Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Solid.

Form Solid.

Colour Not available.

Odour Not available.

Odour threshold Not available.

pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
10.5. Incompatible materials	Acids. Powerful oxidizers. Chlorine. Incompatibility is based strictly upon potential theoretical reactions between chemicals and may not be specific to industrial application exposure.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
Information on likely routes of exposure	
Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
Symptoms	Coughing.

11.1. Information on toxicological effects

Acute toxicity	Not known.
Skin corrosion/irritation	Due to partial or complete lack of data the classification is not possible.
Serious eye damage/eye irritation	Due to partial or complete lack of data the classification is not possible.
Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.
Skin sensitisation	Due to partial or complete lack of data the classification is not possible.
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.

Carcinogenicity In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. Risk of cancer cannot be excluded with prolonged exposure.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

IARC Monographs. Overall Evaluation of Carcinogenicity

Quartz (SiO2) (CAS 14808-60-7)	1 Carcinogenic to humans.

Reproductive toxicity Due to partial or complete lack of data the classification is not possible.

Developmental effects	
Quartz (SiO2)	0
Developmental effects - EU category	
Quartz (SiO2)	0
Embryotoxicity	
Quartz (SiO2)	0
Reproductivity	
Quartz (SiO2)	0

Specific target organ toxicity - single exposure Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - repeated exposure Due to partial or complete lack of data the classification is not possible.

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

Mixture versus substance information No information available.

Other information This product has no known adverse effect on human health.

SECTION 12: Ecological information

12.1. Toxicity Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

12.2. Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

12.3. Bioaccumulative potential No data available.

Partition coefficient n-octanol/water (log Kow) Not available.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture. Not available.

12.6. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Not available.

Contaminated packaging Not available.

EU waste code Not available.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Quartz (SiO2) (CAS 14808-60-7)

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations Follow national regulation on the protection of workers from the risks of exposure to carcinogens and mutagens at work, in accordance with Directive 2004/37/EC.

15.2. Chemical safety assessment No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations	Not available.
References	Not available.
Information on evaluation method leading to the classification of mixture	Not available.
Full text of any H-statements not written out in full under Sections 2 to 15	None.
Revision information	This document has undergone significant changes and should be reviewed in its entirety.
Training information	Not available.
Disclaimer	This information is based on our present knowledge on creation date. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.