

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

### 1.1. Product identifier

<b>Trade name or designation of the mixture</b>	VIBE-TITE M
<b>Registration number</b>	-
<b>Synonyms</b>	None.
<b>Brand Code</b>	935A
<b>Issue date</b>	03-May-2022
<b>Version number</b>	01

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

<b>Identified uses</b>	For Industrial Use Only
<b>Uses advised against</b>	Avoid dry cutting, blasting, or dust generation. 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

<b>Company name</b>	HarbisonWalker International	
<b>Address</b>	1305 Cherrington Parkway, Suite 100 Moon Township, PA 15108, USA United States	
<b>Division</b>		
<b>Telephone</b>	General Phone:	412-375-6743
	CHEMTREC EMERGENCY	1-800-424-9300
	US/CAN ONLY	
<b>e-mail</b>	sds@thinkHWI.com	
<b>Contact person</b>	HWI USA	

<b>1.4. Emergency telephone number</b>	General Phone:	412-375-6600
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## 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 classification applies.

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

##### Health hazards

Skin corrosion/irritation	Category 1	H314 - Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.

**Hazard summary** Causes severe skin burns and eye damage. Exposure to powder or dusts may be irritating to eyes, nose and throat. Prolonged exposure may cause chronic effects. Occupational exposure to the substance or mixture may cause adverse health effects.

### 2.2. Label elements

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

**Contains:** Boric acid, Calcium oxide

#### Hazard pictograms



**Signal word** Danger

#### Hazard statements

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

## Precautionary statements

### Prevention

P260	Do not breathe dust.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

### Response

P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE/doctor.

### Storage

Not available.

### Disposal

Not available.

### 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
Calcium oxide	20 - 40	1305-78-8 215-138-9	-	-	#
<b>Classification:</b>	Skin Corr. 1;H314, Eye Dam. 1;H318				
Boric acid	0,1 - 2,5	10043-35-3 233-139-2	-	005-007-00-2	
<b>Classification:</b>	-				
Other components below reportable levels	70 - 90				

#### 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.

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.

#### Composition comments

The full text for all H-statements is displayed in section 16.

## 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

Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control centre immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

##### Eye contact

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control centre immediately.

##### Ingestion

Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

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

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Coughing.

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

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

## SECTION 5: Firefighting measures

<b>General fire hazards</b>	Not available.
<b>5.1. Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media</b>	Not available.
<b>5.2. Special hazards arising from the substance or mixture</b>	Not available.
<b>5.3. Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	Not available.
<b>Special fire fighting procedures</b>	Not available.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. 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** Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Absorb in vermiculite, dry sand or earth and place into containers. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. 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** Minimise dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**7.2. Conditions for safe storage, including any incompatibilities** Store in tightly closed container. Store in a well-ventilated place. 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**

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Amorphous silica (CAS 7631-86-9)	MAK	4 mg/m <sup>3</sup>	Inhalable fraction.
Calcium oxide (CAS 1305-78-8)	Ceiling	4 mg/m <sup>3</sup>	Inhalable fraction.
	MAK	1 mg/m <sup>3</sup>	Inhalable fraction.

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

Components	Type	Value	Form
Diiron trioxide (CAS 1309-37-1)	MAK	5 mg/m <sup>3</sup>	Respirable fraction.
		10 mg/m <sup>3</sup>	Inhalable fraction.
	STEL	20 mg/m <sup>3</sup>	Inhalable fraction.
		10 mg/m <sup>3</sup>	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	MAK	5 mg/m <sup>3</sup>	Respirable fume.
		5 mg/m <sup>3</sup>	Respirable fraction.
		10 mg/m <sup>3</sup>	Inhalable fraction.
	STEL	20 mg/m <sup>3</sup>	Inhalable fraction.
		20 mg/m <sup>3</sup>	Respirable fume.
		10 mg/m <sup>3</sup>	Respirable fraction.

**Belgium. Exposure Limit Values.**

Components	Type	Value	Form
Amorphous silica (CAS 7631-86-9)	TWA	10 mg/m <sup>3</sup>	
Boric acid (CAS 10043-35-3)	STEL	6 mg/m <sup>3</sup>	
	TWA	2 mg/m <sup>3</sup>	
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	Respirable fraction.
	TWA	1 mg/m <sup>3</sup>	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	TWA	5 mg/m <sup>3</sup>	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m <sup>3</sup>	Fume.

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

Components	Type	Value	Form
Amorphous silica (CAS 7631-86-9)	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.
		0,07 mg/m <sup>3</sup>	Respirable fraction.
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	Respirable fraction.
	TWA	1 mg/m <sup>3</sup>	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	TWA	6 mg/m <sup>3</sup>	Inhalable fraction.
		5 mg/m <sup>3</sup>	
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m <sup>3</sup>	

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

Components	Type	Value	Form
Amorphous silica (CAS 7631-86-9)	MAC	6 mg/m <sup>3</sup>	Total dust.
		0,1 mg/m <sup>3</sup>	Respirable dust.
Calcium oxide (CAS 1305-78-8)	MAC	1 mg/m <sup>3</sup>	Respirable dust.
	STEL	4 mg/m <sup>3</sup>	Respirable dust.
Diiron trioxide (CAS 1309-37-1)	MAC	5 mg/m <sup>3</sup>	Fume.
		4 mg/m <sup>3</sup>	Respirable dust.
	STEL	10 mg/m <sup>3</sup>	Total dust.
		10 mg/m <sup>3</sup>	Fume.

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

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Magnesium oxide (CAS 1309-48-4)	MAC	4 mg/m <sup>3</sup>	Respirable dust.
		10 mg/m <sup>3</sup>	Total dust.

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

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Amorphous silica (CAS 7631-86-9)	TWA	2 mg/m <sup>3</sup>	
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m <sup>3</sup>	Fume.

**Czech Republic. OELs. Government Decree 361**

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Amorphous silica (CAS 7631-86-9)	TWA	4 mg/m <sup>3</sup>	Dust.
Calcium oxide (CAS 1305-78-8)	Ceiling	4 mg/m <sup>3</sup>	Respirable aerosol fraction
	TWA	1 mg/m <sup>3</sup>	Respirable aerosol fraction
Magnesium oxide (CAS 1309-48-4)	Ceiling	10 mg/m <sup>3</sup>	
	TWA	5 mg/m <sup>3</sup>	

**Denmark. Exposure Limit Values**

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Calcium oxide (CAS 1305-78-8)	TLV	2 mg/m <sup>3</sup>	
		1 mg/m <sup>3</sup>	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	TLV	3,5 mg/m <sup>3</sup>	
Magnesium oxide (CAS 1309-48-4)	TLV	6 mg/m <sup>3</sup>	

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

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Amorphous silica (CAS 7631-86-9)	TWA	2 mg/m <sup>3</sup>	Fine dust, respiratory fraction
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	Respirable fraction.
	TWA	1 mg/m <sup>3</sup>	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	TWA	3,5 mg/m <sup>3</sup>	Fine dust, respiratory fraction
Magnesium oxide (CAS 1309-48-4)	TWA	5 mg/m <sup>3</sup>	Fine dust, respiratory fraction
		1 mg/m <sup>3</sup>	Total dust.

**Finland. Workplace Exposure Limits**

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Amorphous silica (CAS 7631-86-9)	TWA	5 mg/m <sup>3</sup>	
Boric acid (CAS 10043-35-3)	TWA	0,5 mg/m <sup>3</sup>	
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	
	TWA	1 mg/m <sup>3</sup>	
Diiron trioxide (CAS 1309-37-1)	TWA	5 mg/m <sup>3</sup>	Fume.
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m <sup>3</sup>	Dust.

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

Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	VME	2 mg/m3	
<b>Regulatory status:</b> Indicative limit (VL)			
Diiron trioxide (CAS 1309-37-1)	VME	5 mg/m3	Fume.
<b>Regulatory status:</b> Indicative limit (VL)			
Magnesium oxide (CAS 1309-48-4)	VME	10 mg/m3	Fume.
<b>Regulatory status:</b> Indicative limit (VL)			

**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
Amorphous silica (CAS 7631-86-9)	TWA	4 mg/m3	Inhalable fraction.
Boric acid (CAS 10043-35-3)	TWA	10 mg/m3	Inhalable fraction.
Calcium oxide (CAS 1305-78-8)	TWA	1 mg/m3	Inhalable fraction.
Diiron trioxide (CAS 1309-37-1)	TWA	4 mg/m3	Inhalable dust.
		0,3 mg/m3	Respirable dust.
Magnesium oxide (CAS 1309-48-4)	TWA	4 mg/m3	Inhalable fraction.
		0,3 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
Amorphous silica (CAS 7631-86-9)	AGW	4 mg/m3	Inhalable fraction.
Boric acid (CAS 10043-35-3)	AGW	0,5 mg/m3	Inhalable fraction.
Calcium oxide (CAS 1305-78-8)	AGW	1 mg/m3	Inhalable fraction.
Diiron trioxide (CAS 1309-37-1)	AGW	10 mg/m3	Inhalable fraction.
		1,25 mg/m3	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	AGW	10 mg/m3	Inhalable fraction.
		1,25 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m3	Respirable fraction.
	TWA	1 mg/m3	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	STEL	10 mg/m3	
	TWA	10 mg/m3	
Magnesium oxide (CAS 1309-48-4)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Inhalable

**Hungary. OELs. Joint Decree on Chemical Safety of Workplaces**

Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m3	Respirable dust.
	TWA	1 mg/m3	Respirable dust.
Diiron trioxide (CAS 1309-37-1)	TWA	6 mg/m3	Respirable.

**Hungary. OELs. Joint Decree on Chemical Safety of Workplaces**

Components	Type	Value	Form
Magnesium oxide (CAS 1309-48-4)	STEL	24 mg/m <sup>3</sup>	Respirable.
	TWA	6 mg/m <sup>3</sup>	Respirable.

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

Components	Type	Value	Form
Amorphous silica (CAS 7631-86-9)	TWA	5 mg/m <sup>3</sup>	Respirable dust.
		10 mg/m <sup>3</sup>	Total dust.
		0,5 mg/m <sup>3</sup>	Dust.
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	Respirable fraction.
	TWA	1 mg/m <sup>3</sup>	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	TWA	3,5 mg/m <sup>3</sup>	Respirable dust.
Magnesium oxide (CAS 1309-48-4)	TWA	6 mg/m <sup>3</sup>	

**Ireland. Occupational Exposure Limits**

Components	Type	Value	Form
Amorphous silica (CAS 7631-86-9)	TWA	6 mg/m <sup>3</sup>	Total inhalable dust.
		2,4 mg/m <sup>3</sup>	Respirable dust.
Boric acid (CAS 10043-35-3)	TWA	2 mg/m <sup>3</sup>	
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	Respirable fraction.
	TWA	1 mg/m <sup>3</sup>	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	STEL	10 mg/m <sup>3</sup>	Fume.
		5 mg/m <sup>3</sup>	Fume.
		4 mg/m <sup>3</sup>	Respirable dust.
Magnesium oxide (CAS 1309-48-4)	STEL	10 mg/m <sup>3</sup>	Total inhalable dust.
		10 mg/m <sup>3</sup>	Fume.
		5 mg/m <sup>3</sup>	Fume.
		4 mg/m <sup>3</sup>	Respirable dust.
		10 mg/m <sup>3</sup>	Total inhalable dust.

**Italy. Occupational Exposure Limits**

Components	Type	Value	Form
Boric acid (CAS 10043-35-3)	STEL	6 mg/m <sup>3</sup>	Inhalable fraction.
	TWA	2 mg/m <sup>3</sup>	Inhalable fraction.
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	Respirable fraction.
	TWA	1 mg/m <sup>3</sup>	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	TWA	5 mg/m <sup>3</sup>	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.

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

Components	Type	Value	Form
Amorphous silica (CAS 7631-86-9)	TWA	1 mg/m <sup>3</sup>	
Boric acid (CAS 10043-35-3)	TWA	10 mg/m <sup>3</sup>	
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	

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

Components	Type	Value	Form
	TWA	1 mg/m3	
Diiron trioxide (CAS 1309-37-1)	TWA	2 mg/m3	
		2 mg/m3	Dust.
Magnesium oxide (CAS 1309-48-4)	TWA	2 mg/m3	Dust.
		2 mg/m3	

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

Components	Type	Value	Form
Boric acid (CAS 10043-35-3)	TWA	10 mg/m3	
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m3	Respirable fraction.
	TWA	1 mg/m3	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	TWA	3,5 mg/m3	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	4 mg/m3	

**Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A**

Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m3	Alveolar fraction
	TWA	1 mg/m3	Alveolar fraction

**Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)**

Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m3	Respirable fraction.
	TWA	1 mg/m3	Respirable fraction.

**Netherlands. OELs (binding)**

Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m3	Respirable fraction.
	TWA	1 mg/m3	Respirable fraction.

**Norway. Administrative Norms for Contaminants in the Workplace**

Components	Type	Value	Form
Amorphous silica (CAS 7631-86-9)	TLV	1,5 mg/m3	Respirable dust.
Calcium oxide (CAS 1305-78-8)	STEL	4 ppm	
	TLV	1 mg/m3	
Diiron trioxide (CAS 1309-37-1)	TLV	3 mg/m3	
Magnesium oxide (CAS 1309-48-4)	TLV	10 mg/m3	

**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
Amorphous silica (CAS 7631-86-9)	TWA	2 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
Calcium oxide (CAS 1305-78-8)	STEL	6 mg/m3	Inhalable fraction.
		4 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Inhalable 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
Diiron trioxide (CAS 1309-37-1)	STEL	1 mg/m <sup>3</sup>	Respirable fraction.
		5 mg/m <sup>3</sup>	Respirable fraction.
	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.
		5 mg/m <sup>3</sup>	Inhalable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	2,5 mg/m <sup>3</sup>	Respirable fraction.
		10 mg/m <sup>3</sup>	Inhalable fraction.

**Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)**

Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	Respirable fraction.
	TWA	1 mg/m <sup>3</sup>	Respirable fraction.

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

Components	Type	Value	Form
Boric acid (CAS 10043-35-3)	STEL	6 mg/m <sup>3</sup>	Inhalable fraction.
	TWA	2 mg/m <sup>3</sup>	Inhalable fraction.
Calcium oxide (CAS 1305-78-8)	TWA	2 mg/m <sup>3</sup>	
Diiron trioxide (CAS 1309-37-1)	TWA	5 mg/m <sup>3</sup>	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.

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

Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	Respirable fraction.
	TWA	1 mg/m <sup>3</sup>	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	STEL	10 mg/m <sup>3</sup>	Dust and fume.
	TWA	5 mg/m <sup>3</sup>	Dust and fume.
Magnesium oxide (CAS 1309-48-4)	STEL	15 mg/m <sup>3</sup>	Fume.
	TWA	5 mg/m <sup>3</sup>	Fume.

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

Components	Type	Value	Form
Amorphous silica (CAS 7631-86-9)	TWA	0,3 mg/m <sup>3</sup>	
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	Respirable fraction.
	TWA	1 mg/m <sup>3</sup>	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	TWA	4 mg/m <sup>3</sup>	Inhalable fume.
		1,5 mg/m <sup>3</sup>	Respirable fume.
Magnesium oxide (CAS 1309-48-4)	TWA	4 mg/m <sup>3</sup>	Respirable fraction.
		10 mg/m <sup>3</sup>	Inhalable fraction.

**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
Amorphous silica (CAS 7631-86-9)	TWA	4 mg/m <sup>3</sup>	Inhalable fraction.
Boric acid (CAS 10043-35-3)	TWA	0,5 mg/m <sup>3</sup>	Inhalable fraction.

**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 oxide (CAS 1305-78-8)	TWA	1 mg/m <sup>3</sup>	Inhalable fraction.
Diiron trioxide (CAS 1309-37-1)	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.
		1,25 mg/m <sup>3</sup>	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m <sup>3</sup>	Inhalable fraction.
		1,25 mg/m <sup>3</sup>	Respirable fraction.

**Spain. Occupational Exposure Limits**

Components	Type	Value	Form
Boric acid (CAS 10043-35-3)	STEL	6 mg/m <sup>3</sup>	
	TWA	2 mg/m <sup>3</sup>	
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	Respirable fraction.
	TWA	1 mg/m <sup>3</sup>	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	TWA	5 mg/m <sup>3</sup>	Dust and fume.
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m <sup>3</sup>	Dust and fume.

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

Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	Ceiling	4 mg/m <sup>3</sup>	Respirable dust.
	TWA	1 mg/m <sup>3</sup>	Respirable dust.
Diiron trioxide (CAS 1309-37-1)	TWA	3,5 mg/m <sup>3</sup>	Respirable dust.
Magnesium oxide (CAS 1309-48-4)	TWA	5 mg/m <sup>3</sup>	Inhalable dust.
		2,5 mg/m <sup>3</sup>	Respirable dust.

**Switzerland. SUVA Grenzwerte am Arbeitsplatz**

Components	Type	Value	Form
Boric acid (CAS 10043-35-3)	STEL	1,8 mg/m <sup>3</sup>	Inhalable fraction.
	TWA	1,8 mg/m <sup>3</sup>	Inhalable fraction.
Calcium oxide (CAS 1305-78-8)	STEL	2 mg/m <sup>3</sup>	Inhalable fraction.
	TWA	2 mg/m <sup>3</sup>	Inhalable fraction.
Diiron trioxide (CAS 1309-37-1)	TWA	3 mg/m <sup>3</sup>	Respirable fraction.
Magnesium oxide (CAS 1309-48-4)	TWA	3 mg/m <sup>3</sup>	Respirable fume.
		3 mg/m <sup>3</sup>	Respirable fraction.

**UK. EH40 Workplace Exposure Limits (WELs)**

Components	Type	Value	Form
Amorphous silica (CAS 7631-86-9)	TWA	6 mg/m <sup>3</sup>	Inhalable dust.
		2,4 mg/m <sup>3</sup>	Respirable dust.
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m <sup>3</sup>	Respirable fraction.
	TWA	2 mg/m <sup>3</sup>	
		1 mg/m <sup>3</sup>	Respirable fraction.
Diiron trioxide (CAS 1309-37-1)	STEL	10 mg/m <sup>3</sup>	Fume.
	TWA	5 mg/m <sup>3</sup>	Fume.

**UK. EH40 Workplace Exposure Limits (WELs)**

Components	Type	Value	Form
Magnesium oxide (CAS 1309-48-4)	TWA	4 mg/m3	Respirable.
		10 mg/m3	Inhalable
		4 mg/m3	Respirable dust and/or fume.
		10 mg/m3	Inhalable dust.

**EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU**

Components	Type	Value	Form
Calcium oxide (CAS 1305-78-8)	STEL	4 mg/m3	Respirable fraction.
	TWA	1 mg/m3	Respirable fraction.

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Recommended monitoring procedures</b>	Follow standard monitoring procedures.
<b>Derived no effect levels (DNELs)</b>	Not available.
<b>Predicted no effect concentrations (PNECs)</b>	Not available.
<b>Exposure guidelines</b>	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. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment****General information**

Use personal protective equipment as required. 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) and a face shield.

**Skin protection****- Hand protection**

Wear appropriate chemical resistant gloves.

**- Other**

Wear appropriate chemical resistant 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**

<b>Physical state</b>	Solid.
<b>Form</b>	Powder.

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

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>10.2. Chemical stability</b>	Material is stable under normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>10.4. Conditions to avoid</b>	Contact with incompatible materials.
<b>10.5. Incompatible materials</b>	Chlorine. Fluorine. Phosphorus. Incompatibility is based strictly upon potential theoretical reactions between chemicals and may not be specific to industrial application exposure.
<b>10.6. Hazardous decomposition products</b>	No hazardous decomposition products are known.

## SECTION 11: Toxicological information

<b>General information</b>	Occupational exposure to the substance or mixture may cause adverse effects.
<b>Information on likely routes of exposure</b>	
<b>Inhalation</b>	Dust may irritate respiratory system. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns.
<b>Symptoms</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dusts may irritate the respiratory tract, skin and eyes. Coughing
<b>11.1. Information on toxicological effects</b>	
<b>Acute toxicity</b>	Not known.

Components	Species	Test Results
Boric acid (CAS 10043-35-3)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Rat	> 0,002 mg/l, 4 Hours
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Respiratory sensitisation</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Skin sensitisation</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Germ cell mutagenicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Carcinogenicity</b>	<p>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.</p> <p><b>Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)</b></p> <p>Not listed.</p>	
<b>Reproductive toxicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Specific target organ toxicity - single exposure</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Specific target organ toxicity - repeated exposure</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Mixture versus substance information</b>	No information available.	
<b>Other information</b>	Not available.	
<b>SECTION 12: Ecological information</b>		
<b>12.1. Toxicity</b>	Based on available data, the classification criteria are not met for hazardous to the aquatic environment.	
<b>12.2. Persistence and degradability</b>	No data is available on the degradability of any ingredients in the mixture.	
<b>12.3. Bioaccumulative potential</b>	No data available.	
<b>Partition coefficient n-octanol/water (log Kow)</b>	Not available.	
<b>Bioconcentration factor (BCF)</b>	Not available.	
<b>12.4. Mobility in soil</b>	No data available.	
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture. Not available.	
<b>12.6. Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	
<b>SECTION 13: Disposal considerations</b>		
<b>13.1. Waste treatment methods</b>		
<b>Residual waste</b>	Not available.	
<b>Contaminated packaging</b>	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** Not applicable.

**according to Annex II of  
MARPOL 73/78 and the IBC**

**Code**

## **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**

Boric acid (CAS 10043-35-3)

#### **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**

Boric acid (CAS 10043-35-3)

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

Not listed.

#### **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**

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

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**

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

**Revision information**

Composition / Information on Ingredients: Ingredients

Toxicological Information: Toxicological Data

GHS: Classification

**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.