# 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** | GUNTECH 65 AL |
| **Registration number** | - |
| **Synonyms** | None. |
| **Brand Code** | 199D |
| **Issue date** | 15-March-2023 |
| **Version number** | 02 |
| **Revision date** | 15-March-2023 |
| **Supersedes date** | 15-March-2023 |

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

| | |
|---|---|
| **Identified uses** | For Industrial or Professional Use Only |
| **Uses advised against** | Avoid dry cutting, blasting, or dust generation. |

### 1.3. Details of the supplier of the safety data sheet

**Supplier**

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

**1.4. Emergency telephone number** General Phone: 412-375-6600

## 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** Material can be slippery when wet. 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** Users should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Overexposure to the respirable dust of crystalline silica (quartz or cristobalite, less than or equal to 5 microns in size) may lead to silicosis in humans, which is a progressive and irreversible lung disease. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

**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 |
|---|---|---|---|---|---|
| Mullite | 40 - 60 | 1302-93-8<br>215-113-2 | - | - | |
| **Classification:** - | | | | | |
| Cement, Alumina, Chemicals | 2,5 - 10 | 65997-16-2<br>266-045-5 | - | - | |
| **Classification:** - | | | | | |
| Other components below reportable levels | 50 - 70 | | | | |

**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.

## 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** Exposure may cause temporary irritation, redness, or discomfort.

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

## SECTION 5: Firefighting measures

**General fire hazards** No unusual fire or explosion hazards noted.

**5.1. Extinguishing media**

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

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

**5.2. Special hazards arising from the substance or mixture** During fire, gases hazardous to health may be formed.

**5.3. Advice for firefighters**

**Special protective equipment for firefighters** Material can be slippery when wet.

**Special fire fighting procedures** Use water spray to cool unopened containers.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** Keep unnecessary personnel away. Material can be slippery when wet. 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** | Stop the flow of material, if this is without risk. Following product recovery, flush area with water. 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. 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. |
| Amorphous silica (CAS 7631-86-9) | MAK | 4 mg/m3 | Inhalable fraction. |
| Fumes, Silica (CAS 69012-64-2) | MAK | 0,3 mg/m3 | Respirable fraction. |
| Titanium dioxide (CAS 13463-67-7) | MAK | 5 mg/m3 | Respirable dust. |
| | STEL | 10 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. |
| Amorphous silica (CAS 7631-86-9) | TWA | 10 mg/m3 | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 | |

**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. |
| Amorphous silica (CAS 7631-86-9) | TWA | 10 mg/m3 | Inhalable fraction. |
| | | 0,07 mg/m3 | Respirable fraction. |
| Fumes, Silica (CAS 69012-64-2) | TWA | 10 mg/m3 | Inhalable fraction. |
| | | 0,07 mg/m3 | Respirable fraction. |

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

| Components | Type | Value | Form |
|---|---|---|---|
| Mullite (CAS 1302-93-8) | TWA | 2 mg/m3 | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 | Respirable dust. |

**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. |
| Amorphous silica (CAS 7631-86-9) | MAC | 6 mg/m3 | Total dust. |
| | | 0,1 mg/m3 | Respirable dust. |
| Fumes, Silica (CAS 69012-64-2) | MAC | 6 mg/m3 | Total dust. |
| | | 0,1 mg/m3 | Respirable dust. |
| Titanium dioxide (CAS 13463-67-7) | MAC | 4 mg/m3 | Respirable dust. |
| | | 10 mg/m3 | Total dust. |

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

| Components | Type | Value |
|---|---|---|
| Amorphous silica (CAS 7631-86-9) | TWA | 2 mg/m3 |
| Fumes, Silica (CAS 69012-64-2) | TWA | 2 mg/m3 |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 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. |
| Amorphous silica (CAS 7631-86-9) | TWA | 4 mg/m3 | Dust. |
| Fumes, Silica (CAS 69012-64-2) | TWA | 4 mg/m3 | Dust. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 5 mg/m3 | 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. |
| Titanium dioxide (CAS 13463-67-7) | TLV | 6 mg/m3 | |

**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 | Fine dust, respiratory fraction |
| | | 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 |
|---|---|---|---|
| Amorphous silica (CAS 7631-86-9) | TWA | 2 mg/m3 | Fine dust, respiratory fraction |
| Fumes, Silica (CAS 69012-64-2) | TWA | 2 mg/m3 | Fine dust, respiratory fraction |
| Mullite (CAS 1302-93-8) | TWA | 2 mg/m3 | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 5 mg/m3 | |

**Finland. Workplace Exposure Limits**

| Components | Type | Value | Form |
|---|---|---|---|
| Amorphous silica (CAS 7631-86-9) | TWA | 5 mg/m3 | |
| Fumes, Silica (CAS 69012-64-2) | TWA | 5 mg/m3 | |
| Mullite (CAS 1302-93-8) | TWA | 2 mg/m3 | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 | Dust. |

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

| Components | Type | Value |
|---|---|---|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | VME | 10 mg/m3 |
| **Regulatory status:** Indicative limit (VL) | | |
| Titanium dioxide (CAS 13463-67-7) | VME | 10 mg/m3 |
| **Regulatory status:** 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 |
|---|---|---|---|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 4 mg/m3 | Inhalable dust. |
| | | 1,5 mg/m3 | Respirable dust. |
| Amorphous silica (CAS 7631-86-9) | TWA | 4 mg/m3 | Inhalable fraction. |
| Fumes, Silica (CAS 69012-64-2) | TWA | 0,3 mg/m3 | Respirable fraction. |
| Titanium dioxide (CAS 13463-67-7) | 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. |
| Amorphous silica (CAS 7631-86-9) | AGW | 4 mg/m3 | Inhalable fraction. |
| Fumes, Silica (CAS 69012-64-2) | AGW | 0,3 mg/m3 | Respirable fraction. |
| Titanium dioxide (CAS 13463-67-7) | AGW | 10 mg/m3 | Inhalable fraction. |
| | | 1,25 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. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 5 mg/m3 | Respirable. |
| | | 10 mg/m3 | Inhalable |

**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. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 6 mg/m3 | Respirable dust. |
| | | 10 mg/m3 | Total inhalable dust. |

**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 | |
| Amorphous silica (CAS 7631-86-9) | TWA | 5 mg/m3 | Respirable dust. |
| | | 10 mg/m3 | Total dust. |
| | | 0,5 mg/m3 | Dust. |
| Fumes, Silica (CAS 69012-64-2) | TWA | 2 mg/m3 | Respirable mist. |
| Mullite (CAS 1302-93-8) | TWA | 2 mg/m3 | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 6 mg/m3 | |

**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. |
| Amorphous silica (CAS 7631-86-9) | TWA | 6 mg/m3 | Total inhalable dust. |
| | | 2,4 mg/m3 | Respirable dust. |
| Fumes, Silica (CAS 69012-64-2) | TWA | 6 mg/m3 | Total inhalable dust. |
| | | 2,4 mg/m3 | Respirable dust. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 4 mg/m3 | Respirable dust. |
| | | 10 mg/m3 | Total inhalable dust. |

**Italy. Occupational Exposure Limits**

| Components | Type | Value | Form |
|---|---|---|---|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 1 mg/m3 | Respirable fraction. |
| Mullite (CAS 1302-93-8) | TWA | 1 mg/m3 | Respirable fraction. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 | |

**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 | |
| Amorphous silica (CAS 7631-86-9) | TWA | 1 mg/m3 | |
| Fumes, Silica (CAS 69012-64-2) | TWA | 1 mg/m3 | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 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. |
| Mullite (CAS 1302-93-8) | TWA | 1 mg/m3 | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 5 mg/m3 | |

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

| Components | Type | Value | Form |
|---|---|---|---|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TLV | 10 mg/m3 | |
| Amorphous silica (CAS 7631-86-9) | TLV | 1,5 mg/m3 | Respirable dust. |
| Fumes, Silica (CAS 69012-64-2) | TLV | 1,5 mg/m3 | Respirable dust. |
| Titanium dioxide (CAS 13463-67-7) | TLV | 5 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 |
|---|---|---|---|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 2,5 mg/m3 | Inhalable fraction. |
| | | 1,2 mg/m3 | Respirable fraction. |
| Amorphous silica (CAS 7631-86-9) | TWA | 2 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Inhalable fraction. |
| Titanium dioxide (CAS 13463-67-7) | STEL | 30 mg/m3 | |
| | TWA | 10 mg/m3 | Inhalable 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 | 1 mg/m3 | Respirable fraction. |
| Mullite (CAS 1302-93-8) | TWA | 1 mg/m3 | Respirable fraction. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 | |

**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 |

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

| Components | Type | Value | Form |
|---|---|---|---|
| | TWA | 2 mg/m3 | Aerosol |
| Titanium dioxide (CAS 13463-67-7) | STEL | 15 mg/m3 | |
| | TWA | 10 mg/m3 | |

**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 | |
| Amorphous silica (CAS 7631-86-9) | TWA | 0,3 mg/m3 | |
| Fumes, Silica (CAS 69012-64-2) | TWA | 0,3 mg/m3 | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 5 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 |
|---|---|---|---|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 10 mg/m3 | Inhalable fraction. |
| | | 1,25 mg/m3 | Respirable fraction. |
| Amorphous silica (CAS 7631-86-9) | TWA | 4 mg/m3 | Inhalable fraction. |
| Fumes, Silica (CAS 69012-64-2) | TWA | 0,3 mg/m3 | Respirable fraction. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 | Inhalable fraction. |
| | | 1,25 mg/m3 | Respirable fraction. |

**Spain. Occupational Exposure Limits**

| Components | Type | Value |
|---|---|---|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 10 mg/m3 |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 |

**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. |
| Mullite (CAS 1302-93-8) | TWA | 1 mg/m3 | Total dust. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 5 mg/m3 | Total dust. |

**Switzerland. SUVA Grenzwerte am Arbeitsplatz**

| Components | Type | Value | Form |
|---|---|---|---|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | STEL | 24 mg/m3 | Respirable dust and/or fume. |
| | TWA | 3 mg/m3 | Respirable dust and/or fume. |
| | | 3 mg/m3 | Respirable dust. |

**Switzerland. SUVA Grenzwerte am Arbeitsplatz**

| Components | Type | Value | Form |
|---|---|---|---|
| Fumes, Silica (CAS 69012-64-2) | TWA | 0,3 mg/m3 | Respirable fume. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 3 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. |
| Amorphous silica (CAS 7631-86-9) | TWA | 6 mg/m3 | Inhalable dust. |
| | | 2,4 mg/m3 | Respirable dust. |
| Fumes, Silica (CAS 69012-64-2) | TWA | 6 mg/m3 | Inhalable dust. |
| | | 2,4 mg/m3 | Respirable dust. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 4 mg/m3 | Respirable. |
| | | 10 mg/m3 | Inhalable |

**Biological limit values**

**Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)**

| Components | Value | Determinant | Specimen | Sampling Time |
|---|---|---|---|---|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | 60 µg/g | Aluminium | Creatinine in urine | * |

* - For sampling details, please see the source document.

**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.

**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

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| **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** | Contact with incompatible materials. |
| **10.5. Incompatible materials** | Acids. Chlorine. Fluorine.<br>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

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| **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. |

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| **Ingestion** | May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure. |
| **Symptoms** | Exposure may cause temporary irritation, redness, or discomfort. |

**11.1. Information on toxicological effects**

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|---|---|
| **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.

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

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|---|---|
| **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**

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| **Residual waste** | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |

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| **Contaminated packaging** | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. |
| **EU waste code** | The Waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| **Disposal methods/information** | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. |
| **Special precautions** | Dispose in accordance with all applicable regulations. |

## 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.

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|---|---|
| **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.**

Not listed.

**Other EU regulations**

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

Not listed.

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| **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

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|---|---|
| **List of abbreviations** | Not available. |
| **References** | Not available. |
| **Information on evaluation method leading to the classification of mixture** | The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. |
| **Full text of any H-statements not written out in full under Sections 2 to 15** | None. |
| **Revision information** | None. |
| **Training information** | Follow training instructions when handling this material. |
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