

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

1.1. Product identifier

| | |
|---|------------------------------------|
| Trade name or designation of the mixture | PLASTECH 70P (STD, SOFT, FIRM) |
| Registration number | - |
| Synonyms | None. |
| Brand Code | 041A, 544A, 042A, 194B, 043A, 117A |
| Issue date | 30-November-2020 |
| Version number | 02 |
| Revision date | 18-May-2021 |
| Supersedes date | 30-November-2020 |

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 Moon Township, PA 15108, USA United States |

Division

| | |
|------------------|-----------------------------------|
| Telephone | General Phone: 412-375-6743 |
| | CHEMTREC EMERGENCY 1-800-424-9300 |
| | US/CAN ONLY |

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 classification applies.

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

Health hazards

| | | |
|-----------------------------------|------------|---------------------------------------|
| Serious eye damage/eye irritation | Category 2 | H319 - Causes serious eye irritation. |
|-----------------------------------|------------|---------------------------------------|

Hazard summary

Material can be slippery when wet. Causes serious eye irritation. 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: Aluminium Tris(Dihydrogen Phosphate)

Hazard pictograms



Signal word Warning

Hazard statements
H319 Causes serious eye irritation.

Precautionary statements

Prevention

P264 Wash thoroughly after handling.
P280 Wear eye protection/face protection.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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 |
|--|---------------------------------------|-------------------------|------------------------|--------------|-------|
| Mullite | 50 - 70 | 1302-93-8 215-113-2 | - | - | |
| Classification: | - | | | | |
| Orthophosphoric acid | 2,5 - 10 | 7664-38-2 231-633-2 | - | 015-011-00-6 | # |
| Classification: | Skin Irrit. 2;H315, Eye Irrit. 2;H319 | | | | B |
| Aluminium Tris(Dihydrogen Phosphate) | 1 - 2,5 | 13530-50-2 236-875-2 | - | - | |
| Classification: | Eye Dam. 1;H318 | | | | |
| Other components below reportable levels | 40 - 60 | | | | |

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.

Composition comments Bentonite contains naturally occurring crystalline silica (not listed in Annex I of Directive 67/548/EEC) in quantities less than 6%. 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 Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

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. Keep people away from and upwind of spill/leak. Material can be slippery when wet. Wear appropriate protective equipment and clothing during clean-up. 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

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: 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

Avoid contact with eyes. Provide adequate ventilation. 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 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/m ³ | Respirable fume. |
| | | 5 mg/m ³ | Respirable fraction. |
| | STEL | 10 mg/m ³ | Inhalable fraction. |
| | | 20 mg/m ³ | Inhalable fraction. |
| | | 10 mg/m ³ | Respirable fraction. |
| Amorphous silica (CAS 7631-86-9) | MAK | 10 mg/m ³ | Respirable fume. |
| | | 4 mg/m ³ | Inhalable fraction. |
| Orthophosphoric acid (CAS 7664-38-2) | MAK | 1 mg/m ³ | |
| | | STEL | 2 mg/m ³ |
| Titanium dioxide (CAS 13463-67-7) | MAK | 5 mg/m ³ | Respirable dust. |
| | | STEL | 10 mg/m ³ |

Belgium. Exposure Limit Values.

| Components | Type | Value | Form |
|---|-------------|----------------------|----------------------|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 1 mg/m ³ | Respirable fraction. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 2 mg/m ³ | |
| Amorphous silica (CAS 7631-86-9) | TWA | 10 mg/m ³ | |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ | |
| | TWA | 1 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m ³ | |

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/m ³ | Respirable fraction. |
| | | 10 mg/m ³ | Dust. |
| | | 1,5 mg/m ³ | Respirable fraction. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 2 mg/m ³ | |
| Amorphous silica (CAS 7631-86-9) | TWA | 10 mg/m ³ | Inhalable fraction. |
| | | 0,07 mg/m ³ | Respirable fraction. |
| Bentonite (CAS 1302-78-9) | TWA | 6 mg/m ³ | Inhalable fraction. |
| | | 3 mg/m ³ | Respirable fraction. |
| | | 2 mg/m ³ | |
| Mullite (CAS 1302-93-8) | TWA | 2 mg/m ³ | |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ | |
| | TWA | 1 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m ³ | 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/m ³ | Respirable dust. |
| | | 10 mg/m ³ | Total dust. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | MAC | 2 mg/m ³ | |
| | | 6 mg/m ³ | Total dust. |
| Amorphous silica (CAS 7631-86-9) | MAC | 0,1 mg/m ³ | Respirable dust. |
| | | 1 mg/m ³ | |
| Orthophosphoric acid (CAS 7664-38-2) | MAC | 1 mg/m ³ | |
| | STEL | 2 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | MAC | 4 mg/m ³ | Respirable dust. |
| | | 10 mg/m ³ | 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/m ³ |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m ³ |

Czech Republic. OELs. Government Decree 361

| Components | Type | Value | Form |
|---|-------------|-----------------------|------------------|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 0,1 mg/m ³ | Respirable dust. |
| Amorphous silica (CAS 7631-86-9) | TWA | 4 mg/m ³ | Dust. |
| Bentonite (CAS 1302-78-9) | TWA | 6 mg/m ³ | Dust. |
| Orthophosphoric acid (CAS 7664-38-2) | Ceiling | 2 mg/m ³ | |
| | TWA | 1 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 5 mg/m ³ | Dust. |

Denmark. Exposure Limit Values

| Components | Type | Value | Form |
|---|-------------|---------------------|-------------|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TLV | 5 mg/m ³ | Total |
| | | 2 mg/m ³ | Respirable. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TLV | 1 mg/m ³ | |
| Orthophosphoric acid (CAS 7664-38-2) | TLV | 1 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | TLV | 6 mg/m ³ | |

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/m ³ | Fine dust, respiratory fraction |
| | | 10 mg/m ³ | Total dust. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 2 mg/m ³ | |
| Amorphous silica (CAS 7631-86-9) | TWA | 2 mg/m ³ | Fine dust, respiratory fraction |
| Mullite (CAS 1302-93-8) | TWA | 2 mg/m ³ | |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ | Vapour. |
| | TWA | 1 mg/m ³ | Vapour. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 5 mg/m ³ | |

Finland. Workplace Exposure Limits

| Components | Type | Value | Form |
|---|-------------|---------------------|-------------|
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 2 mg/m ³ | |
| Amorphous silica (CAS 7631-86-9) | TWA | 5 mg/m ³ | |
| Mullite (CAS 1302-93-8) | TWA | 2 mg/m ³ | |

Finland. Workplace Exposure Limits Components

| Components | Type | Value | Form |
|--------------------------------------|------|----------|-------|
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m3 | |
| | TWA | 1 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

| Components | Type | Value | Form |
|---|------|----------|------|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | VME | 10 mg/m3 | |
| Regulatory status: Indicative limit (VL) | | | |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | VME | 2 mg/m3 | |
| Regulatory status: Indicative limit (VL) | | | |
| Orthophosphoric acid (CAS 7664-38-2) | VLE | 2 mg/m3 | |
| Regulatory status: Regulatory indicative (VRI) | | | |
| | | 0,5 ppm | |
| Regulatory status: Regulatory indicative (VRI) | | | |
| | VME | 1 mg/m3 | |
| Regulatory status: Regulatory indicative (VRI) | | | |
| | | 0,2 ppm | |
| Regulatory status: Regulatory indicative (VRI) | | | |
| 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. |
| Orthophosphoric acid (CAS 7664-38-2) | TWA | 2 mg/m3 | Inhalable 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

| 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. |
| Orthophosphoric acid (CAS 7664-38-2) | AGW | 2 mg/m3 | Inhalable 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. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 2 mg/m3 | |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 3 mg/m3 | |
| | TWA | 1 mg/m3 | |
| 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. |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m3 | |
| | TWA | 1 mg/m3 | |
| 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 | |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 2 mg/m3 | |
| Amorphous silica (CAS 7631-86-9) | TWA | 5 mg/m3 | Respirable dust. |
| | | 10 mg/m3 | Total dust. |
| | | 0,5 mg/m3 | Dust. |
| Mullite (CAS 1302-93-8) | TWA | 2 mg/m3 | |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m3 | |
| | TWA | 1 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. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 2 mg/m3 | |
| Amorphous silica (CAS 7631-86-9) | TWA | 6 mg/m3 | Total inhalable dust. |
| | | 2,4 mg/m3 | Respirable dust. |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m3 | |

Ireland. Occupational Exposure Limits

| Components | Type | Value | Form |
|-----------------------------------|------|----------------------|-----------------------|
| Titanium dioxide (CAS 13463-67-7) | TWA | 1 mg/m ³ | |
| | TWA | 4 mg/m ³ | Respirable dust. |
| | | 10 mg/m ³ | Total inhalable dust. |

Italy. Occupational Exposure Limits

| Components | Type | Value | Form |
|---|------|----------------------|----------------------|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 1 mg/m ³ | Respirable fraction. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 1 mg/m ³ | Respirable fraction. |
| Mullite (CAS 1302-93-8) | TWA | 1 mg/m ³ | Respirable fraction. |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 1 mg/m ³ | |
| | TWA | 10 mg/m ³ | |

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/m ³ | Decomposition aerosol. |
| | | 4 mg/m ³ | |
| Amorphous silica (CAS 7631-86-9) | TWA | 1 mg/m ³ | |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ | |
| | TWA | 1 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m ³ | |

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

| Components | Type | Value | Form |
|---|------|---------------------|----------------------|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 5 mg/m ³ | Inhalable fraction. |
| | | 2 mg/m ³ | Respirable fraction. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 1 mg/m ³ | |
| Mullite (CAS 1302-93-8) | TWA | 1 mg/m ³ | |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ | |
| | TWA | 1 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 5 mg/m ³ | |

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

| Components | Type | Value |
|--------------------------------------|------|---------------------|
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ |
| | TWA | 1 mg/m ³ |

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 |
|--------------------------------------|------|---------------------|
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ |
| | TWA | 1 mg/m ³ |

Netherlands. OELs (binding)

| Components | Type | Value |
|--------------------------------------|------|---------------------|
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ |
| | TWA | 1 mg/m ³ |

Norway. Administrative Norms for Contaminants in the Workplace

| Components | Type | Value | Form |
|---|------|-----------------------|------------------|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TLV | 10 mg/m ³ | |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TLV | 2 mg/m ³ | |
| Amorphous silica (CAS 7631-86-9) | TLV | 1,5 mg/m ³ | Respirable dust. |
| Orthophosphoric acid (CAS 7664-38-2) | TLV | 1 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | TLV | 5 mg/m ³ | |

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/m ³ | Inhalable fraction. |
| | | 1,2 mg/m ³ | Respirable fraction. |
| Amorphous silica (CAS 7631-86-9) | TWA | 2 mg/m ³ | Respirable fraction. |
| | | 10 mg/m ³ | Inhalable fraction. |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ | |
| | TWA | 1 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | STEL | 30 mg/m ³ | |
| | TWA | 10 mg/m ³ | Inhalable fraction. |

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

| Components | Type | Value |
|--------------------------------------|------|---------------------|
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ |
| | TWA | 1 mg/m ³ |

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/m ³ | Respirable fraction. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 1 mg/m ³ | Respirable fraction. |
| Mullite (CAS 1302-93-8) | TWA | 1 mg/m ³ | Respirable fraction. |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 3 mg/m ³ | |
| | TWA | 1 mg/m ³ | |

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

| Components | Type | Value | Form |
|-----------------------------------|------|----------------------|------|
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m ³ | |

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/m ³ | Aerosol |
| | TWA | 2 mg/m ³ | Aerosol |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ | |
| | TWA | 1 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | STEL | 15 mg/m ³ | |
| | TWA | 10 mg/m ³ | |

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/m ³ | Inhalable fraction. |
| | | 1,5 mg/m ³ | Respirable fraction. |
| | | 0,1 mg/m ³ | |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 2 mg/m ³ | |
| Amorphous silica (CAS 7631-86-9) | TWA | 0,3 mg/m ³ | |
| Bentonite (CAS 1302-78-9) | TWA | 6 mg/m ³ | |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ | |
| | TWA | 1 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 5 mg/m ³ | |

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/m ³ | Inhalable fraction. |
| | | 1,25 mg/m ³ | Respirable fraction. |
| Amorphous silica (CAS 7631-86-9) | TWA | 4 mg/m ³ | Inhalable fraction. |
| Orthophosphoric acid (CAS 7664-38-2) | TWA | 1 mg/m ³ | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m ³ | Inhalable fraction. |
| | | 1,25 mg/m ³ | Respirable fraction. |

Spain. Occupational Exposure Limits

| Components | Type | Value |
|---|------|----------------------|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 10 mg/m ³ |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 2 mg/m ³ |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m ³ |

Spain. Occupational Exposure Limits Components

| Components | Type | Value |
|-----------------------------------|------|----------|
| | TWA | 1 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

| Components | Type | Value | Form |
|---|---------|---------|------------------|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 5 mg/m3 | Total dust. |
| | | 2 mg/m3 | Respirable dust. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 1 mg/m3 | Total dust. |
| Mullite (CAS 1302-93-8) | TWA | 1 mg/m3 | Total dust. |
| Orthophosphoric acid (CAS 7664-38-2) | Ceiling | 2 mg/m3 | |
| | TWA | 1 mg/m3 | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 5 mg/m3 | Total dust. |

Switzerland. SUVA Grenzwerte am Arbeitsplatz Components

| 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. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 2 mg/m3 | Inhalable fraction. |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 4 mg/m3 | Inhalable fraction. |
| | TWA | 2 mg/m3 | Inhalable fraction. |
| Titanium dioxide (CAS 13463-67-7) | TWA | 3 mg/m3 | Respirable dust. |

UK. EH40 Workplace Exposure Limits (WELs) Components

| Components | Type | Value | Form |
|---|------|-----------|------------------|
| Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) | TWA | 4 mg/m3 | Respirable dust. |
| | | 10 mg/m3 | Inhalable dust. |
| Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2) | TWA | 2 mg/m3 | |
| Amorphous silica (CAS 7631-86-9) | TWA | 6 mg/m3 | Inhalable dust. |
| | | 2,4 mg/m3 | Respirable dust. |
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m3 | |
| | TWA | 1 mg/m3 | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 4 mg/m3 | Respirable. |
| | | 10 mg/m3 | Inhalable |

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

| Components | Type | Value |
|--------------------------------------|------|---------|
| Orthophosphoric acid (CAS 7664-38-2) | STEL | 2 mg/m3 |

TWA

1 mg/m³

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 Limits are not relevant to the current physical form of the product.

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. Provide eyewash station.

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).

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. Paste.

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 | Contact with incompatible materials. |
| 10.5. Incompatible materials | Acids. Chlorine. Fluorine. 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 | No adverse effects due to inhalation are expected. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure. |
| Symptoms | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |
| 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 | Causes serious eye irritation. |
| 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 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 | Not available. |

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. |

12.7. Additional information

Estonia Dangerous substances in groundwater Data

Orthophosphoric acid (CAS 7664-38-2)

Pesticides (total) 0,5 ug/l
Pesticides (total) 5 ug/l

Estonia Dangerous substances in soil Data

Orthophosphoric acid (CAS 7664-38-2)

Synthetic pesticides (total of active substances) 0,5 mg/kg
Synthetic pesticides (total of active substances) 20 mg/kg
Synthetic pesticides (total of active substances) 5 mg/kg

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.

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

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**

H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.

Revision information

Product and Company Identification: Product and Company Identification

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.