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

1.1. Product identifier

Trade name or designation of the mixture: PLASTECH 90P STD; PLASTECH 90P STD WF

Registration number: -

Synonyms: None.

Brand Code: 038A, 719A, 447C

Issue date: 15-November-2016

Version number: 01

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

Identified uses: For Industrial Use Only

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

1.3. Details of the supplier of the safety data sheet

Supplier

Company name: HarbisonWalker International Limited

Address: Dock Road South

Bromborough

Wirral

UK

Division: United Kingdom

Telephone: General Phone: 44.(0)151.641.5900

e-mail: REACH@thinkhw1.com

Contact person: HWI USA

1.4. Emergency telephone number

+44 (0)151 641 5900 (Office hours 07:30 - 17:00)

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.
P337 + P313
If eye irritation persists: Get medical advice/attention.

Storage
Store away from incompatible materials.

Disposal
Dispose of waste and residues in accordance with local authority requirements.

Supplemental label information
None.

2.3. Other hazards
None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>%</th>
<th>CAS-No. / EC No.</th>
<th>REACH Registration No.</th>
<th>INDEX No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium Oxide (Non-Fibrous)</td>
<td>60 - 80</td>
<td>1344-28-1</td>
<td>01-2119529248-35-0134</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Classification:</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Orthophosphoric acid | 2.5 - 10 | 7664-38-2 | - | 015-011-00-6 # |
| Classification: | Skin Irrit. 2;H315, Eye Irrit. 2;H319 | |
| Aluminium Tris(Dihydrogen Phosphate) | 1 - 2.5 | 13530-50-2 | - | - |
| Classification: | Eye Dam. 1;H318 |

Other components below reportable levels 10 - 20

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).
M: M-factor
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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

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. Local authorities should be advised if significant spillages cannot be contained. 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.

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Do not breathe dust. Avoid contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities
Store in original 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

<table>
<thead>
<tr>
<th>UK. EH40 Workplace Exposure Limits (WELs) Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)</td>
<td>TWA</td>
<td>4 mg/m³</td>
<td>Respirable dust.</td>
</tr>
<tr>
<td>Aluminium Tris(Dihydrogen Phosphate) (CAS 13530-50-2)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Inhalable dust.</td>
</tr>
<tr>
<td>Orthophosphoric acid (CAS 7664-38-2)</td>
<td>STEL</td>
<td>2 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>1 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
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<tr>
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</tr>
<tr>
<td></td>
<td>TWA</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).
Follow standard monitoring procedures.

Recommended monitoring procedures

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

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

8.2. Exposure controls

Appropriate engineering controls

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid.</td>
</tr>
<tr>
<td>Form</td>
<td>Solid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odour</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Vapour pressure Not available.

Vapour density Not available.
Relative density
Not available.

Solubility(ies)
- Solubility (water) Not available.
- Solubility (other) 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.
Incompatibility is based strictly upon potential theoretical reactions between chemicals and may not be specific to industrial application exposure.

10.6. Hazardous decomposition products
No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information
Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation
Prolonged inhalation may be harmful.

Skin contact
No adverse effects due to skin contact are expected.

Eye contact
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 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.

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 this product.

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 available.

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Residual waste
Not available.

Contaminated packaging
Not available.

EU waste code
Not available.

Disposal methods/information
This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

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 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. 2037/2000 on substances that deplete the ozone layer, Annex I
Not listed.

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II
Not listed.

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
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 Annex XVII Substances subject to restriction on marketing and use
Not regulated.

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, 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
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 for work with chemical agents.

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
Composition / Information on Ingredients: Ingredients
Toxicological Information: Toxicological Data

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.