



## Hercules Sta Put HCC Holdings, Inc. an Oatey Affiliate

Version No: 1.8.6.8

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 07/21/2021

Print Date: 07/21/2021

S.GHS.USA.EN

### SECTION 1 Identification

#### Product Identifier

|                               |                                   |
|-------------------------------|-----------------------------------|
| Product name                  | Hercules Sta Put                  |
| Chemical Name                 | Not Applicable                    |
| Synonyms                      | Not Available                     |
| Other means of identification | 25101, 25103, 25105, 25110, 25123 |

#### Recommended use of the chemical and restrictions on use

|                          |                 |
|--------------------------|-----------------|
| Relevant identified uses | Plumbing Mastic |
|--------------------------|-----------------|

#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| Registered company name | HCC Holdings, Inc. an Oatey Affiliate                    |
| Address                 | 4700 West 160th Street Cleveland, OH 44135 United States |
| Telephone               | 216-267-7100                                             |
| Fax                     | Not Available                                            |
| Website                 | Not Available                                            |
| Email                   | info@oatey.com                                           |

#### Emergency phone number

|                                   |                                                |
|-----------------------------------|------------------------------------------------|
| Association / Organisation        | Chemtrec                                       |
| Emergency telephone numbers       | 1-800-424-9300 (Outside the US 1-703-527-3887) |
| Other emergency telephone numbers | Emergency First Aid: 1-877-740-5015            |

### SECTION 2 Hazard(s) identification

#### Classification of the substance or mixture

|                |                |
|----------------|----------------|
| Classification | Not Applicable |
|----------------|----------------|

#### Label elements

|                     |                |
|---------------------|----------------|
| Hazard pictogram(s) | Not Applicable |
| Signal word         | Not Applicable |

## Hercules Sta Put

**Hazard statement(s)**

Not Applicable

**Hazard(s) not otherwise classified**

Not Applicable

**Precautionary statement(s) Prevention**

Not Applicable

**Precautionary statement(s) Response**

Not Applicable

**Precautionary statement(s) Storage**

Not Applicable

**Precautionary statement(s) Disposal**

Not Applicable

**SECTION 3 Composition / information on ingredients****Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No      | %[weight] | Name                                                          |
|-------------|-----------|---------------------------------------------------------------|
| 1317-65-3*  | 60-100    | <u>calcium carbonate</u>                                      |
| 64741-88-4. | 1-5       | <u>paraffinic distillate, heavy, solvent-refined (severe)</u> |
| 1332-58-7*  | 5-10      | <u>Kaolin</u>                                                 |
| 14808-60-7* | <2        | <u>silica crystalline - quartz</u>                            |
| 65997-17-3  | 1-5       | <u>glass, oxide</u>                                           |
| 64742-88-7  | 0.1-1     | <u>solvent naphtha petroleum, medium aliphatic.</u>           |
| 12001-26-2* | 0.1-1     | <u>Mica</u>                                                   |
| 13463-67-7* | 0.1-1     | <u>Titanium dioxide</u>                                       |
| 14464-46-1  | 0.1-1     | <u>cristobalite</u>                                           |

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

**SECTION 4 First-aid measures****Description of first aid measures**

|                     |                                                                                                                                                                                                                                                                                                       |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye Contact</b>  | If this product comes in contact with eyes: <ul style="list-style-type: none"> <li>▶ Wash out immediately with water.</li> <li>▶ If irritation continues, seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul> |
| <b>Skin Contact</b> | If skin or hair contact occurs: <ul style="list-style-type: none"> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>                                                                                         |
| <b>Inhalation</b>   | <ul style="list-style-type: none"> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> </ul>                                                                                                           |
| <b>Ingestion</b>    | <ul style="list-style-type: none"> <li>▶ Immediately give a glass of water.</li> <li>▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>                                                                                                 |

**Most important symptoms and effects, both acute and delayed**

See Section 11

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

Continued...

## Hercules Sta Put

## SECTION 5 Fire-fighting measures

## Extinguishing media

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

## Special hazards arising from the substrate or mixture

|                             |                                                                                                                                          |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fire Incompatibility</b> | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|

## Special protective equipment and precautions for fire-fighters

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>▶ Alert Fire Department and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> <li>▶ Equipment should be thoroughly decontaminated after use.</li> </ul> |
| <b>Fire/Explosion Hazard</b> | Combustion products include:<br>carbon monoxide (CO)<br>carbon dioxide (CO <sub>2</sub> )<br>other pyrolysis products typical of burning organic material.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## SECTION 6 Accidental release measures

## Personal precautions, protective equipment and emergency procedures

See section 8

## Environmental precautions

See section 12

## Methods and material for containment and cleaning up

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Minor Spills</b> | <ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid contact with skin and eyes.</li> <li>▶ Wear impervious gloves and safety glasses.</li> <li>▶ Use dry clean up procedures and avoid generating dust.</li> <li>▶ Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).</li> <li>▶ Do NOT use air hoses for cleaning</li> <li>▶ Place spilled material in clean, dry, sealable, labelled container.</li> </ul>                                                                                                                                              |
| <b>Major Spills</b> | <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Department and tell them location and nature of hazard.</li> <li>▶ Control personal contact with the substance, by using protective equipment and dust respirator.</li> <li>▶ Prevent spillage from entering drains, sewers or water courses.</li> <li>▶ Avoid generating dust.</li> <li>▶ Sweep, shovel up. Recover product wherever possible.</li> <li>▶ Put residues in labelled plastic bags or other containers for disposal.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</li> </ul> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 Handling and storage

## Precautions for safe handling

|                      |                                           |
|----------------------|-------------------------------------------|
| <b>Safe handling</b> | ▶ Limit all unnecessary personal contact. |
|----------------------|-------------------------------------------|

Continued...

## Hercules Sta Put

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <ul style="list-style-type: none"> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ When handling, <b>DO NOT</b> eat, drink or smoke.</li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> </ul>                                                                                               |
| Other information | <ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ Store in a cool, dry area protected from environmental extremes.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> <li>▶ Protect containers against physical damage and check regularly for leaks.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul> <p>For major quantities:</p> <ul style="list-style-type: none"> <li>▶ Consider storage in banded areas - ensure storage areas are isolated from sources of community water (including stormwater, ground water, lakes and streams).</li> <li>▶ Ensure that accidental discharge to air or water is the subject of a contingency disaster management plan; this may require consultation with local authorities.</li> </ul> |

## Conditions for safe storage, including any incompatibilities

|                         |                                                                                                                                                                                                                                                                              |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable container      | <ul style="list-style-type: none"> <li>▶ Lined metal can, lined metal pail/ can.</li> <li>▶ Plastic pail.</li> <li>▶ Polyliner drum.</li> <li>▶ Packing as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul> |
| Storage incompatibility | <ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul>                                                                                                                                                                                     |

## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

| Source                                               | Ingredient        | Material name                               | TWA                 | STEL          | Peak          | Notes         |
|------------------------------------------------------|-------------------|---------------------------------------------|---------------------|---------------|---------------|---------------|
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | calcium carbonate | Inert or Nuisance Dust: Total Dust          | 15 mg/m3 / 50 mppcf | Not Available | Not Available | Not Available |
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | calcium carbonate | Inert or Nuisance Dust: Respirable fraction | 5 mg/m3 / 15 mppcf  | Not Available | Not Available | Not Available |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | calcium carbonate | Marble- Respirable fraction                 | 5 mg/m3             | Not Available | Not Available | Not Available |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | calcium carbonate | Marble- Total dust                          | 15 mg/m3            | Not Available | Not Available | Not Available |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | calcium carbonate | Calcium Carbonate- Total dust               | 15 mg/m3            | Not Available | Not Available | Not Available |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | calcium carbonate | Calcium Carbonate- Respirable fraction      | 5 mg/m3             | Not Available | Not Available | Not Available |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | calcium carbonate | Limestone- Total dust                       | 15 mg/m3            | Not Available | Not Available | Not Available |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | calcium carbonate | Limestone- Respirable fraction              | 5 mg/m3             | Not Available | Not Available | Not Available |

Continued...

## Hercules Sta Put

| Source                                               | Ingredient                                             | Material name                                                                                                  | TWA                                                                | STEL          | Peak          | Notes              |
|------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------|---------------|--------------------|
| US NIOSH Recommended Exposure Limits (RELs)          | calcium carbonate                                      | Limestone - respirable                                                                                         | 5 mg/m3                                                            | Not Available | Not Available | Not Available      |
| US NIOSH Recommended Exposure Limits (RELs)          | calcium carbonate                                      | Calcium carbonate - respirable                                                                                 | 5 mg/m3                                                            | Not Available | Not Available | Not Available      |
| US NIOSH Recommended Exposure Limits (RELs)          | calcium carbonate                                      | Marble - respirable                                                                                            | 5 mg/m3                                                            | Not Available | Not Available | Not Available      |
| US NIOSH Recommended Exposure Limits (RELs)          | calcium carbonate                                      | Limestone - total                                                                                              | 10 mg/m3                                                           | Not Available | Not Available | Not Available      |
| US NIOSH Recommended Exposure Limits (RELs)          | calcium carbonate                                      | Marble - total                                                                                                 | 10 mg/m3                                                           | Not Available | Not Available | Not Available      |
| US NIOSH Recommended Exposure Limits (RELs)          | calcium carbonate                                      | Calcium carbonate - total                                                                                      | 10 mg/m3                                                           | Not Available | Not Available | Not Available      |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | paraffinic distillate, heavy, solvent-refined (severe) | Oil mist, mineral                                                                                              | 5 mg/m3                                                            | Not Available | Not Available | Not Available      |
| US ACGIH Threshold Limit Values (TLV)                | paraffinic distillate, heavy, solvent-refined (severe) | Mineral oil, excluding metal working fluids - Pure, highly and severely refined (Inhalable particulate matter) | 5 mg/m3                                                            | Not Available | Not Available | A4                 |
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | Kaolin                                                 | Inert or Nuisance Dust: Total Dust                                                                             | 15 mg/m3 / 50 mppcf                                                | Not Available | Not Available | Not Available      |
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | Kaolin                                                 | Inert or Nuisance Dust: Respirable fraction                                                                    | 5 mg/m3 / 15 mppcf                                                 | Not Available | Not Available | Not Available      |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | Kaolin                                                 | Kaolin- Respirable fraction                                                                                    | 5 mg/m3                                                            | Not Available | Not Available | Not Available      |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | Kaolin                                                 | Kaolin- Total dust                                                                                             | 15 mg/m3                                                           | Not Available | Not Available | Not Available      |
| US NIOSH Recommended Exposure Limits (RELs)          | Kaolin                                                 | Kaolin - respirable                                                                                            | 5 mg/m3                                                            | Not Available | Not Available | Not Available      |
| US NIOSH Recommended Exposure Limits (RELs)          | Kaolin                                                 | Kaolin - total                                                                                                 | 10 mg/m3                                                           | Not Available | Not Available | Not Available      |
| US ACGIH Threshold Limit Values (TLV)                | Kaolin                                                 | Kaolin (Respirable particulate matter)                                                                         | 2 mg/m3                                                            | Not Available | Not Available | A4                 |
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | silica crystalline - quartz                            | Silica: Crystalline: Quartz (Respirable)                                                                       | 10 (%SiO <sub>2</sub> +2) mg/m3 / 250 (%SiO <sub>2</sub> +5) mppcf | Not Available | Not Available | Not Available      |
| US NIOSH Recommended Exposure Limits (RELs)          | silica crystalline - quartz                            | Silica, crystalline (as respirable dust)                                                                       | 0.05 mg/m3                                                         | Not Available | Not Available | Ca; See Appendix A |
| US ACGIH Threshold Limit Values (TLV)                | silica crystalline - quartz                            | Silica, crystalline - α-quartz and cristobalite (Respirable particulate matter)                                | 0.025 mg/m3                                                        | Not Available | Not Available | A2                 |
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | glass, oxide                                           | Inert or Nuisance Dust: Total Dust                                                                             | 15 mg/m3 / 50 mppcf                                                | Not Available | Not Available | Not Available      |
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | glass, oxide                                           | Inert or Nuisance Dust: Respirable fraction                                                                    | 5 mg/m3 / 15 mppcf                                                 | Not Available | Not Available | Not Available      |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | glass, oxide                                           | Particulates Not Otherwise Regulated (PNOR)- Respirable fraction                                               | 5 mg/m3                                                            | Not Available | Not Available | Not Available      |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | glass, oxide                                           | Particulates Not Otherwise Regulated (PNOR)- Total dust                                                        | 15 mg/m3                                                           | Not Available | Not Available | Not Available      |
| US NIOSH Recommended Exposure Limits (RELs)          | glass, oxide                                           | Particulates not otherwise regulated                                                                           | Not Available                                                      | Not Available | Not Available | See Appendix D     |

Continued...

## Hercules Sta Put

| Source                                               | Ingredient                                   | Material name                                                                                                  | TWA                 | STEL          | Peak          | Notes                                                                  |
|------------------------------------------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------|---------------|---------------|------------------------------------------------------------------------|
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | solvent naphtha petroleum, medium aliphatic. | Oil mist, mineral                                                                                              | 5 mg/m3             | Not Available | Not Available | Not Available                                                          |
| US ACGIH Threshold Limit Values (TLV)                | solvent naphtha petroleum, medium aliphatic. | Mineral oil, excluding metal working fluids - Poorly and mildly refined                                        | Not Available       | Not Available | Not Available | A2                                                                     |
| US ACGIH Threshold Limit Values (TLV)                | solvent naphtha petroleum, medium aliphatic. | Mineral oil, excluding metal working fluids - Pure, highly and severely refined (Inhalable particulate matter) | 5 mg/m3             | Not Available | Not Available | A4                                                                     |
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | Mica                                         | Inert or Nuisance Dust: Respirable fraction                                                                    | 5 mg/m3 / 15 mppcf  | Not Available | Not Available | Not Available                                                          |
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | Mica                                         | Inert or Nuisance Dust: Total Dust                                                                             | 15 mg/m3 / 50 mppcf | Not Available | Not Available | Not Available                                                          |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | Mica                                         | Particulates Not Otherwise Regulated (PNOR)- Total dust                                                        | 15 mg/m3            | Not Available | Not Available | Not Available                                                          |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | Mica                                         | Particulates Not Otherwise Regulated (PNOR)- Respirable fraction                                               | 5 mg/m3             | Not Available | Not Available | Not Available                                                          |
| US NIOSH Recommended Exposure Limits (RELs)          | Mica                                         | Mica (containing less than 1% quartz)                                                                          | 3 mg/m3             | Not Available | Not Available | Not Available                                                          |
| US ACGIH Threshold Limit Values (TLV)                | Mica                                         | Mica (Respirable particulate matter)                                                                           | 0.1 mg/m3           | Not Available | Not Available | Not Available                                                          |
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | Titanium dioxide                             | Inert or Nuisance Dust: Respirable fraction                                                                    | 5 mg/m3 / 15 mppcf  | Not Available | Not Available | Not Available                                                          |
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | Titanium dioxide                             | Inert or Nuisance Dust: Total Dust                                                                             | 15 mg/m3 / 50 mppcf | Not Available | Not Available | Not Available                                                          |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | Titanium dioxide                             | Titanium dioxide - Total dust                                                                                  | 15 mg/m3            | Not Available | Not Available | Not Available                                                          |
| US NIOSH Recommended Exposure Limits (RELs)          | Titanium dioxide                             | Titanium dioxide                                                                                               | Not Available       | Not Available | Not Available | Ca; See Appendix A                                                     |
| US ACGIH Threshold Limit Values (TLV)                | Titanium dioxide                             | Titanium dioxide                                                                                               | 10 mg/m3            | Not Available | Not Available | (A4)                                                                   |
| US OSHA Permissible Exposure Limits (PELs) Table Z-3 | cristobalite                                 | Silica: Crystalline: Cristobalite                                                                              | Not Available       | Not Available | Not Available | Use ½ the value calculated from the count or mass formulae for quartz. |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | cristobalite                                 | Particulates Not Otherwise Regulated (PNOR)- Total dust                                                        | 15 mg/m3            | Not Available | Not Available | Not Available                                                          |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | cristobalite                                 | Particulates Not Otherwise Regulated (PNOR)- Respirable fraction                                               | 5 mg/m3             | Not Available | Not Available | Not Available                                                          |
| US NIOSH Recommended Exposure Limits (RELs)          | cristobalite                                 | Particulates not otherwise regulated                                                                           | Not Available       | Not Available | Not Available | See Appendix D                                                         |
| US ACGIH Threshold Limit Values (TLV)                | cristobalite                                 | Silica, crystalline - α-quartz and cristobalite (Respirable particulate matter)                                | 0.025 mg/m3         | Not Available | Not Available | A2                                                                     |

## Exposure controls

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Appropriate engineering controls</b> | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation</p> |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Continued...

## Hercules Sta Put

|                                                                                                                                                                | <p>that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.</p> <ul style="list-style-type: none"> <li>▶ Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.</li> <li>▶ Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace.</li> <li>▶ If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of:               <ul style="list-style-type: none"> <li>(a): particle dust respirators, if necessary, combined with an absorption cartridge;</li> <li>(b): filter respirators with absorption cartridge or canister of the right type;</li> <li>(c): fresh-air hoods or masks</li> </ul> </li> <li>▶ Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.</li> <li>▶ Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.</li> </ul> <p>Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to efficiently remove the contaminant.</p> <table border="1"> <thead> <tr> <th>Type of Contaminant:</th><th>Air Speed:</th></tr> </thead> <tbody> <tr> <td>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</td><td>1-2.5 m/s (200-500 f/min.)</td></tr> <tr> <td>grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).</td><td>2.5-10 m/s (500-2000 f/min.)</td></tr> </tbody> </table> <p>Within each range the appropriate value depends on:</p> <table border="1"> <thead> <tr> <th>Lower end of the range</th><th>Upper end of the range</th></tr> </thead> <tbody> <tr> <td>1: Room air currents minimal or favourable to capture</td><td>1: Disturbing room air currents</td></tr> <tr> <td>2: Contaminants of low toxicity or of nuisance value only</td><td>2: Contaminants of high toxicity</td></tr> <tr> <td>3: Intermittent, low production.</td><td>3: High production, heavy use</td></tr> <tr> <td>4: Large hood or large air mass in motion</td><td>4: Small hood-local control only</td></tr> </tbody> </table> <p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 4-10 m/s (800-2000 f/min) for extraction of crusher dusts generated 2 metres distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p> | Type of Contaminant: | Air Speed: | direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) | 1-2.5 m/s (200-500 f/min.) | grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion). | 2.5-10 m/s (500-2000 f/min.) | Lower end of the range | Upper end of the range | 1: Room air currents minimal or favourable to capture | 1: Disturbing room air currents | 2: Contaminants of low toxicity or of nuisance value only | 2: Contaminants of high toxicity | 3: Intermittent, low production. | 3: High production, heavy use | 4: Large hood or large air mass in motion | 4: Small hood-local control only |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------|------------------------|-------------------------------------------------------|---------------------------------|-----------------------------------------------------------|----------------------------------|----------------------------------|-------------------------------|-------------------------------------------|----------------------------------|
| Type of Contaminant:                                                                                                                                           | Air Speed:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) | 1-2.5 m/s (200-500 f/min.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).           | 2.5-10 m/s (500-2000 f/min.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| Lower end of the range                                                                                                                                         | Upper end of the range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| 1: Room air currents minimal or favourable to capture                                                                                                          | 1: Disturbing room air currents                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| 2: Contaminants of low toxicity or of nuisance value only                                                                                                      | 2: Contaminants of high toxicity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| 3: Intermittent, low production.                                                                                                                               | 3: High production, heavy use                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| 4: Large hood or large air mass in motion                                                                                                                      | 4: Small hood-local control only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| <b>Personal protection</b>                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| <b>Eye and face protection</b>                                                                                                                                 | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| <b>Skin protection</b>                                                                                                                                         | See Hand protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| <b>Hands/feet protection</b>                                                                                                                                   | Wear appropriate chemical resistant gloves.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| <b>Body protection</b>                                                                                                                                         | See Other protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |
| <b>Other protection</b>                                                                                                                                        | <p>No special equipment needed when handling small quantities.</p> <p><b>OTHERWISE:</b></p> <ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ Barrier cream.</li> <li>▶ Eyewash unit.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |            |                                                                                                                                                                |                            |                                                                                                                                                      |                              |                        |                        |                                                       |                                 |                                                           |                                  |                                  |                               |                                           |                                  |

## Respiratory protection

- Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to

Continued...

## Hercules Sta Put

personal protective equipment (powered, positive flow, full face apparatus may be an option).

- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
- Use approved positive flow mask if significant quantities of dust becomes airborne.
- Try to avoid creating dust conditions.

## SECTION 9 Physical and chemical properties

### Information on basic physical and chemical properties

|                                                     |                       |                                                |                |
|-----------------------------------------------------|-----------------------|------------------------------------------------|----------------|
| <b>Appearance</b>                                   | Solid off white putty |                                                |                |
| <b>Physical state</b>                               | Solid                 | <b>Relative density (Water = 1)</b>            | 1.8            |
| <b>Odour</b>                                        | Slight                | <b>Partition coefficient n-octanol / water</b> | Not Available  |
| <b>Odour threshold</b>                              | Not Available         | <b>Auto-ignition temperature (°C)</b>          | Not Available  |
| <b>pH (as supplied)</b>                             | Not Available         | <b>Decomposition temperature</b>               | Not Available  |
| <b>Melting point / freezing point (°C)</b>          | Not Available         | <b>Viscosity (cSt)</b>                         | >277777.778    |
| <b>Initial boiling point and boiling range (°C)</b> | Not Available         | <b>Molecular weight (g/mol)</b>                | Not Available  |
| <b>Flash point (°C)</b>                             | >100                  | <b>Taste</b>                                   | Not Available  |
| <b>Evaporation rate</b>                             | Not Available         | <b>Explosive properties</b>                    | Not Available  |
| <b>Flammability</b>                                 | Not Applicable        | <b>Oxidising properties</b>                    | Not Available  |
| <b>Upper Explosive Limit (%)</b>                    | Not Available         | <b>Surface Tension (dyn/cm or mN/m)</b>        | Not Applicable |
| <b>Lower Explosive Limit (%)</b>                    | Not Available         | <b>Volatile Component (%vol)</b>               | Not Available  |
| <b>Vapour pressure (kPa)</b>                        | Not Available         | <b>Gas group</b>                               | Not Available  |
| <b>Solubility in water</b>                          | Immiscible            | <b>pH as a solution (%)</b>                    | Not Available  |
| <b>Vapour density (Air = 1)</b>                     | Not Available         | <b>VOC g/L</b>                                 | 6              |

## SECTION 10 Stability and reactivity

|                                           |                                                                           |
|-------------------------------------------|---------------------------------------------------------------------------|
| <b>Reactivity</b>                         | See section 7                                                             |
| <b>Chemical stability</b>                 | Product is considered stable and hazardous polymerisation will not occur. |
| <b>Possibility of hazardous reactions</b> | See section 7                                                             |
| <b>Conditions to avoid</b>                | See section 7                                                             |
| <b>Incompatible materials</b>             | See section 7                                                             |
| <b>Hazardous decomposition products</b>   | See section 5                                                             |

## SECTION 11 Toxicological information

### Information on toxicological effects

|                |                                                                                                                                                                                                                                                              |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhaled</b> | The material is not thought to produce adverse health effects or irritation of the respiratory tract. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Continued...

## Hercules Sta Put

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ingestion</b>    | The material has <b>NOT</b> been classified as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Skin Contact</b> | The material is not thought to produce adverse health effects or skin irritation following contact. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Eye</b>          | Although the material is not thought to be an irritant, direct contact with the eye may cause transient discomfort characterized by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Chronic</b>      | 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.) |

|                                          |   |                                 |   |
|------------------------------------------|---|---------------------------------|---|
| <b>Acute Toxicity</b>                    | ✗ | <b>Carcinogenicity</b>          | ✗ |
| <b>Skin Irritation/Corrosion</b>         | ✗ | <b>Reproductivity</b>           | ✗ |
| <b>Serious Eye Damage/Irritation</b>     | ✗ | <b>STOT - Single Exposure</b>   | ✗ |
| <b>Respiratory or Skin sensitisation</b> | ✗ | <b>STOT - Repeated Exposure</b> | ✗ |
| <b>Mutagenicity</b>                      | ✗ | <b>Aspiration Hazard</b>        | ✗ |

## SECTION 12 Ecological information

## Toxicity

|                                                        |               |                    |                               |               |               |
|--------------------------------------------------------|---------------|--------------------|-------------------------------|---------------|---------------|
| Hercules Sta Put                                       | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                                        | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| calcium carbonate                                      | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                                        | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| paraffinic distillate, heavy, solvent-refined (severe) | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                                        | ErC50         | 72h                | Algae or other aquatic plants | >1000mg/l     | 1             |
|                                                        | NOEC(ECx)     | 504h               | Crustacea                     | >1mg/l        | 1             |
|                                                        | EC50          | 48h                | Crustacea                     | >1000mg/l     | 1             |
|                                                        | EC50          | 96h                | Algae or other aquatic plants | >1000mg/l     | 1             |
|                                                        |               |                    |                               |               |               |
| Kaolin                                                 | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                                        | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| silica crystalline - quartz                            | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                                        | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| glass, oxide                                           | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                                        | NOEC(ECx)     | 72h                | Algae or other aquatic plants | >=1000mg/l    | 2             |
|                                                        | EC50          | 72h                | Algae or other aquatic plants | >1000mg/l     | 2             |
|                                                        | LC50          | 96h                | Fish                          | >1000mg/l     | 2             |
|                                                        |               |                    |                               |               |               |
| solvent naphtha petroleum, medium aliphatic.           | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                                        | EC50(ECx)     | 48h                | Crustacea                     | >100mg/l      | 1             |
|                                                        | EC50          | 48h                | Crustacea                     | >100mg/l      | 1             |

Continued...

## Hercules Sta Put

|                  |                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                               |               |               |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------|---------------|---------------|
|                  | EC50                                                                                                                                                                                                                                                                                                                                                                                               | 96h                | Algae or other aquatic plants | 450mg/l       | 1             |
| Mica             | Endpoint                                                                                                                                                                                                                                                                                                                                                                                           | Test Duration (hr) | Species                       | Value         | Source        |
|                  | Not Available                                                                                                                                                                                                                                                                                                                                                                                      | Not Available      | Not Available                 | Not Available | Not Available |
| Titanium dioxide | Endpoint                                                                                                                                                                                                                                                                                                                                                                                           | Test Duration (hr) | Species                       | Value         | Source        |
|                  | EC50                                                                                                                                                                                                                                                                                                                                                                                               | 72h                | Algae or other aquatic plants | 3.75-7.58mg/l | 4             |
|                  | BCF                                                                                                                                                                                                                                                                                                                                                                                                | 1008h              | Fish                          | <1.1-9.6      | 7             |
|                  | EC50                                                                                                                                                                                                                                                                                                                                                                                               | 48h                | Crustacea                     | 1.9mg/l       | 2             |
|                  | LC50                                                                                                                                                                                                                                                                                                                                                                                               | 96h                | Fish                          | 1.85-3.06mg/l | 4             |
|                  | NOEC(ECx)                                                                                                                                                                                                                                                                                                                                                                                          | 504h               | Crustacea                     | 0.02mg/l      | 4             |
|                  | EC50                                                                                                                                                                                                                                                                                                                                                                                               | 96h                | Algae or other aquatic plants | 179.05mg/l    | 2             |
| cristobalite     | Endpoint                                                                                                                                                                                                                                                                                                                                                                                           | Test Duration (hr) | Species                       | Value         | Source        |
|                  | Not Available                                                                                                                                                                                                                                                                                                                                                                                      | Not Available      | Not Available                 | Not Available | Not Available |
| Legend:          | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity<br>3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5.<br>ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8.<br>Vendor Data |                    |                               |               |               |

Drinking Water Standards: hydrocarbon total: 10 ug/l (UK max.).

## Persistence and degradability

| Ingredient       | Persistence: Water/Soil | Persistence: Air |
|------------------|-------------------------|------------------|
| Titanium dioxide | HIGH                    | HIGH             |

## Bioaccumulative potential

| Ingredient       | Bioaccumulation |
|------------------|-----------------|
| Titanium dioxide | LOW (BCF = 10)  |

## Mobility in soil

| Ingredient       | Mobility          |
|------------------|-------------------|
| Titanium dioxide | LOW (KOC = 23.74) |

## SECTION 13 Disposal considerations

## Waste treatment methods

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product / Packaging disposal | <ul style="list-style-type: none"> <li>▶ Recycle wherever possible.</li> <li>▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.</li> <li>▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material)</li> <li>▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.</li> </ul> |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## SECTION 14 Transport information

## Labels Required

|                  |    |
|------------------|----|
| Marine Pollutant | NO |
|------------------|----|

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Continued...

## Hercules Sta Put

**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

**Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code**

| Product name                                           | Group         |
|--------------------------------------------------------|---------------|
| calcium carbonate                                      | Not Available |
| paraffinic distillate, heavy, solvent-refined (severe) | Not Available |
| Kaolin                                                 | Not Available |
| silica crystalline - quartz                            | Not Available |
| glass, oxide                                           | Not Available |
| solvent naphtha petroleum, medium aliphatic.           | Not Available |
| Mica                                                   | Not Available |
| Titanium dioxide                                       | Not Available |
| cristobalite                                           | Not Available |

**Transport in bulk in accordance with the ICG Code**

| Product name                                           | Ship Type     |
|--------------------------------------------------------|---------------|
| calcium carbonate                                      | Not Available |
| paraffinic distillate, heavy, solvent-refined (severe) | Not Available |
| Kaolin                                                 | Not Available |
| silica crystalline - quartz                            | Not Available |
| glass, oxide                                           | Not Available |
| solvent naphtha petroleum, medium aliphatic.           | Not Available |
| Mica                                                   | Not Available |
| Titanium dioxide                                       | Not Available |
| cristobalite                                           | Not Available |

**SECTION 15 Regulatory information****Safety, health and environmental regulations / legislation specific for the substance or mixture****calcium carbonate is found on the following regulatory lists**

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**paraffinic distillate, heavy, solvent-refined (severe) is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US DOE Temporary Emergency Exposure Limits (TEELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**Kaolin is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**silica crystalline - quartz is found on the following regulatory lists**

Continued...

## Hercules Sta Put

Chemical Footprint Project - Chemicals of High Concern List  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US DOE Temporary Emergency Exposure Limits (TEELs)

### glass, oxide is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

### solvent naphtha petroleum, medium aliphatic. is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US ACGIH Threshold Limit Values (TLV)

### Mica is found on the following regulatory lists

US ACGIH Threshold Limit Values (TLV)

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

### Titanium dioxide is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US ACGIH Threshold Limit Values (TLV) - Notice of Intended Changes

### cristobalite is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Carcinogen List

US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Carcinogens Listing

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US DOE Temporary Emergency Exposure Limits (TEELs)

US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US DOE Temporary Emergency Exposure Limits (TEELs)

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Carcinogens Listing

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

## Federal Regulations

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Section 311/312 hazard categories

Flammable (Gases, Aerosols, Liquids, or Solids)

No

Continued...

## Hercules Sta Put

|                                                              |    |
|--------------------------------------------------------------|----|
| Gas under pressure                                           | No |
| Explosive                                                    | No |
| Self-heating                                                 | No |
| Pyrophoric (Liquid or Solid)                                 | No |
| Pyrophoric Gas                                               | No |
| Corrosive to metal                                           | No |
| Oxidizer (Liquid, Solid or Gas)                              | No |
| Organic Peroxide                                             | No |
| Self-reactive                                                | No |
| In contact with water emits flammable gas                    | No |
| Combustible Dust                                             | No |
| Carcinogenicity                                              | No |
| Acute toxicity (any route of exposure)                       | No |
| Reproductive toxicity                                        | No |
| Skin Corrosion or Irritation                                 | No |
| Respiratory or Skin Sensitization                            | No |
| Serious eye damage or eye irritation                         | No |
| Specific target organ toxicity (single or repeated exposure) | No |
| Aspiration Hazard                                            | No |
| Germ cell mutagenicity                                       | No |
| Simple Asphyxiant                                            | No |
| Hazards Not Otherwise Classified                             | No |

## US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

None Reported

## State Regulations

## US. California Proposition 65



WARNING: This product can expose you to chemicals including silica, crystalline, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## National Inventory Status

| National Inventory | Status |
|--------------------|--------|
| USA - TSCA         | Yes    |

## SECTION 16 Other information

|               |            |
|---------------|------------|
| Revision Date | 07/21/2021 |
| Initial Date  | 07/16/2021 |

## Other information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

## Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average  
 PC—STEL: Permissible Concentration-Short Term Exposure Limit  
 IARC: International Agency for Research on Cancer  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 STEL: Short Term Exposure Limit  
 TEEL: Temporary Emergency Exposure Limit.  
 IDLH: Immediately Dangerous to Life or Health Concentrations  
 ES: Exposure Standard  
 OSF: Odour Safety Factor

Continued...

---

**Hercules Sta Put**

---

NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index  
AIIC: Australian Inventory of Industrial Chemicals  
DSL: Domestic Substances List  
NDSL: Non-Domestic Substances List  
IECSC: Inventory of Existing Chemical Substance in China  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
NLP: No-Longer Polymers  
ENCS: Existing and New Chemical Substances Inventory  
KECI: Korea Existing Chemicals Inventory  
NZIoC: New Zealand Inventory of Chemicals  
PICCS: Philippine Inventory of Chemicals and Chemical Substances  
TSCA: Toxic Substances Control Act  
TCSI: Taiwan Chemical Substance Inventory  
INSQ: Inventario Nacional de Sustancias Químicas  
NCI: National Chemical Inventory  
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances