1 Identification

- **Product identifier**
- **Trade name:** TMFM-CBeO-0.5
- **Article number:** TMFM-CBeO-0.5
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** High-Purity Standards
    7221 Investment Drive, North Charleston, SC 29418 United States
    Telephone: +1-843-767-7900
    Fax: +1-843-767-7906
    highpuritystandards.com
    Email: info@highpuritystandards.com
- **Information department:** Product safety department
- **Emergency telephone number:** INFOTRAC
  Emergency telephone numbers 1-800-535-5053
  Other emergency telephone numbers 1-352-323-3500

2 Hazard(s) identification

- **Classification of the substance or mixture**
  The product is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**
  - **GHS label elements** Void
  - **Hazard pictograms** Void
  - **Signal word** Void
  - **Hazard statements** Void
  - **Classification system:**
    - **NFPA ratings (scale 0 - 4)**
      Health = 0
      Fire = 0
      Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 0
    - Reactivity = 0
- **Other hazards**
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:
  - 9004-34-6 Cellulose 99.999%
  - Chemical identification of the substance/preparation
    - 1304-56-9 beryllium oxide 0.0013%

4 First-aid measures

- Description of first aid measures
  - General information: No special measures required.
  - After inhalation: Supply fresh air; consult doctor in case of complaints.
  - After skin contact: Generally the product does not irritate the skin.
  - After eye contact: Rinse opened eye for several minutes under running water.
  - After swallowing: If symptoms persist consult doctor.
  - Information for doctor:
    - Most important symptoms and effects, both acute and delayed: No further relevant information available.
    - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents: Use fire fighting measures that suit the environment.

- Special hazards arising from the substance or mixture: No further relevant information available.

- Advice for firefighters

- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up: Pick up mechanically.
- Reference to other sections

  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

- Protective Action Criteria for Chemicals

  - PAC-1:
    - 1304-56-9 beryllium oxide 0.0063 mg/m³
7 Handling and storage

- **Handling:**
  - **Precautions for safe handling** No special measures required.
  - **Information about protection against explosions and fires:** No special measures required.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** No special requirements.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** None.
  - **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**
  - **Components with limit values that require monitoring at the workplace:**
    - The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
    - The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
    - At this time, the remaining constituent has no known exposure limits.
    - At this time, the other constituents have no known exposure limits.

<table>
<thead>
<tr>
<th>PEL</th>
<th>Long-term value: 15* 5** mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL</td>
<td>Long-term value: 10* 5** mg/m³</td>
</tr>
<tr>
<td>TLV</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
</tbody>
</table>

  *total dust **respirable fraction

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - The usual precautionary measures for handling chemicals should be followed.
  - **Breathing equipment:** Not required.
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· **Protection of hands:**
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

  **Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation**

  **Material of gloves**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

  **Penetration time of glove material**
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

  **Eye protection:** Not required.

---

**9 Physical and chemical properties**

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
</tr>
<tr>
<td>· <strong>Form:</strong> Solid</td>
</tr>
<tr>
<td>· <strong>Color:</strong> Whitish</td>
</tr>
<tr>
<td>· <strong>Odor:</strong> Characteristic</td>
</tr>
<tr>
<td>· <strong>Odor threshold:</strong> Not determined.</td>
</tr>
<tr>
<td>· <strong>pH-value:</strong> Not applicable.</td>
</tr>
<tr>
<td>· <strong>Change in condition</strong></td>
</tr>
<tr>
<td>· Melting point/Melting range: Undetermined.</td>
</tr>
<tr>
<td>· Boiling point/Boiling range: Undetermined.</td>
</tr>
<tr>
<td>· <strong>Flash point:</strong> Not applicable.</td>
</tr>
<tr>
<td>· <strong>Flammability (solid, gaseous):</strong> Not determined.</td>
</tr>
<tr>
<td>· <strong>Decomposition temperature:</strong> Not determined.</td>
</tr>
<tr>
<td>· <strong>Auto igniting:</strong> Product is not selfigniting.</td>
</tr>
<tr>
<td>· <strong>Danger of explosion:</strong> Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>· Explosion limits:</td>
</tr>
<tr>
<td>· <strong>Lower:</strong> Not determined.</td>
</tr>
<tr>
<td>· <strong>Upper:</strong> Not determined.</td>
</tr>
<tr>
<td>· <strong>Vapor pressure:</strong> Not applicable.</td>
</tr>
<tr>
<td>· <strong>Density at 20 °C (68 °F):</strong> 0.38003 g/cm³ (3.17135 lbs/gal)</td>
</tr>
<tr>
<td>· <strong>Bulk density:</strong> 380 kg/m³</td>
</tr>
<tr>
<td>· <strong>Relative density</strong> Not determined.</td>
</tr>
<tr>
<td>· <strong>Vapor density</strong> Not applicable.</td>
</tr>
</tbody>
</table>
### 50.0.3 Physical and chemical properties

- **Evaporation rate**: Not applicable.
- **Solubility in / Miscibility with Water**: Insoluble.
- **Partition coefficient (n-octanol/water)**: Not determined.
- **Viscosity**: Not applicable.
- **Solvent content**: Voc content: 0.00 %
- **Other information**: No further relevant information available.

### 10 Stability and reactivity

- **Reactivity**: No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
- **Possibility of hazardous reactions**: No dangerous reactions known.
- **Conditions to avoid**: No further relevant information available.
- **Incompatible materials**: No further relevant information available.
- **Hazardous decomposition products**: No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**:
- **Primary irritant effect**:
- **on the skin**: No irritant effect.
- **on the eye**: No irritating effect.
- **Sensitization**: No sensitizing effects known.
- **Additional toxicological information**:
  The product is not subject to classification according to internally approved calculation methods for preparations:
  When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    - 1304-56-9 beryllium oxide
  - **NTP (National Toxicology Program)**
    - 1304-56-9 beryllium oxide

(Contd. on page 6)
12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems: No further relevant information available.
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
  - Additional ecological information:
    - General notes: Not known to be hazardous to water.
    - Results of PBT and vPvB assessment
      - PBT: Not applicable.
      - vPvB: Not applicable.
    - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation: Smaller quantities can be disposed of with household waste.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA: not regulated

- UN proper shipping name
  - DOT, ADR, IMDG, IATA: not regulated

- Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA: not regulated
  - Class: not regulated

- Packing group
  - DOT, ADR, IMDG, IATA: not regulated

- Environmental hazards:
  - Not applicable.

- Special precautions for user
  - Not applicable.
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acc. to OSHA HCS

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15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· Sara
  · Section 355 (extremely hazardous substances):
    None of the ingredients is listed.
  · Section 313 (Specific toxic chemical listings):
    1304-56-9 beryllium oxide
  · TSCA (Toxic Substances Control Act):
    All components have the value ACTIVE.
  · Hazardous Air Pollutants
    1304-56-9 beryllium oxide
  · Proposition 65
    · Chemicals known to cause cancer:
      1304-56-9 beryllium oxide
    · Chemicals known to cause reproductive toxicity for females:
      None of the ingredients is listed.
    · Chemicals known to cause reproductive toxicity for males:
      None of the ingredients is listed.
    · Chemicals known to cause developmental toxicity:
      None of the ingredients is listed.
  · Carcinogenic categories
    · EPA (Environmental Protection Agency)
      1304-56-9 beryllium oxide B1, K/L(inh), CBD(oral)
    · TLV (Threshold Limit Value established by ACGIH)
      1304-56-9 beryllium oxide A1
    · NIOSH-Ca (National Institute for Occupational Safety and Health)
      1304-56-9 beryllium oxide
  · GHS label elements Void
  · Hazard pictograms Void
  · Signal word Void
  · Hazard statements Void

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(Contd. of page 7)

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environment protection department.
· Contact:
  High-Purity Standards
  Tel:  843-767-7900
  Fax:  843-767-7906
· Date of preparation / last revision: 01/30/2020 / -
· Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit