

## Safety Data Sheet

*acc. to OSHA HCS*

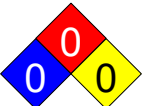
Printing date 07/16/2019

Reviewed on 07/16/2019

### 1 Identification

- **Product identifier**
- **Trade name:** Trace Metals on Filter Media Blank
- **Article number:** QC-TMFM-Blank
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 High-Purity Standards  
 Address PO Box 41727 Charleston, SC 29423 United States  
 Telephone +1-843-767-7900  
 Fax +1-843-767-7906  
 Website [highpuritystandards.com](http://highpuritystandards.com)  
 Email [info@highpuritystandards.com](mailto: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 |

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.

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**· Dangerous components:**

|           |                                                                             |        |
|-----------|-----------------------------------------------------------------------------|--------|
| 9004-70-0 | nitrocellulose, dry or wetted with less than 25% water(or alcohol), by mass | 80-90% |
|-----------|-----------------------------------------------------------------------------|--------|

**· Chemical identification of the substance/preparation**

|           |                          |          |
|-----------|--------------------------|----------|
| 9004-35-7 | Cellulose Acetate        | 0-10%    |
| 7440-41-7 | beryllium                | <0.0001% |
| 7440-43-9 | cadmium (non-pyrophoric) | <0.0001% |
| 7440-47-3 | chromium                 | <0.0001% |
| 7440-48-4 | cobalt                   | <0.0001% |
| 7440-50-8 | copper                   | <0.0001% |
| 7439-89-6 | iron                     | <0.0001% |
| 7439-92-1 | lead                     | <0.0001% |
| 7439-96-5 | manganese                | <0.0001% |
| 7440-02-0 | nickel                   | <0.0001% |
| 7440-22-4 | silver                   | <0.0001% |
| 7440-28-0 | thallium                 | <0.0001% |
| 7440-62-2 | vanadium                 | <0.0001% |
| 7440-66-6 | zinc                     | <0.0001% |
| 7440-38-2 | arsenic                  | <0.0001% |
| 7440-39-3 | barium                   | <0.0001% |

### 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.

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### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **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:

|           |                          |                          |
|-----------|--------------------------|--------------------------|
| 7440-41-7 | beryllium                | 0.0023 mg/m <sup>3</sup> |
| 7440-43-9 | cadmium (non-pyrophoric) | 0.10 mg/m <sup>3</sup>   |
| 7440-47-3 | chromium                 | 1.5 mg/m <sup>3</sup>    |
| 7440-48-4 | cobalt                   | 0.18 mg/m <sup>3</sup>   |
| 7440-50-8 | copper                   | 3 mg/m <sup>3</sup>      |
| 7439-89-6 | iron                     | 3.2 mg/m <sup>3</sup>    |
| 7439-92-1 | lead                     | 0.15 mg/m <sup>3</sup>   |
| 7439-96-5 | manganese                | 3 mg/m <sup>3</sup>      |
| 7440-02-0 | nickel                   | 4.5 mg/m <sup>3</sup>    |
| 7440-22-4 | silver                   | 0.3 mg/m <sup>3</sup>    |
| 7440-28-0 | thallium                 | 0.06 mg/m <sup>3</sup>   |
| 7440-62-2 | vanadium                 | 3 mg/m <sup>3</sup>      |
| 7440-66-6 | zinc                     | 6 mg/m <sup>3</sup>      |
| 7440-38-2 | arsenic                  | 1.5 mg/m <sup>3</sup>    |
| 7440-39-3 | barium                   | 1.5 mg/m <sup>3</sup>    |

#### · PAC-2:

|           |                          |                         |
|-----------|--------------------------|-------------------------|
| 7440-41-7 | beryllium                | 0.025 mg/m <sup>3</sup> |
| 7440-43-9 | cadmium (non-pyrophoric) | 0.76 mg/m <sup>3</sup>  |
| 7440-47-3 | chromium                 | 17 mg/m <sup>3</sup>    |
| 7440-48-4 | cobalt                   | 2 mg/m <sup>3</sup>     |
| 7440-50-8 | copper                   | 33 mg/m <sup>3</sup>    |
| 7439-89-6 | iron                     | 35 mg/m <sup>3</sup>    |
| 7439-92-1 | lead                     | 120 mg/m <sup>3</sup>   |
| 7439-96-5 | manganese                | 5 mg/m <sup>3</sup>     |
| 7440-02-0 | nickel                   | 50 mg/m <sup>3</sup>    |
| 7440-22-4 | silver                   | 170 mg/m <sup>3</sup>   |
| 7440-28-0 | thallium                 | 3.3 mg/m <sup>3</sup>   |
| 7440-62-2 | vanadium                 | 5.8 mg/m <sup>3</sup>   |
| 7440-66-6 | zinc                     | 21 mg/m <sup>3</sup>    |
| 7440-38-2 | arsenic                  | 17 mg/m <sup>3</sup>    |
| 7440-39-3 | barium                   | 180 mg/m <sup>3</sup>   |

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|                 |                          |                         |
|-----------------|--------------------------|-------------------------|
| <b>· PAC-3:</b> |                          |                         |
| 7440-41-7       | beryllium                | 0.1 mg/m <sup>3</sup>   |
| 7440-43-9       | cadmium (non-pyrophoric) | 4.7 mg/m <sup>3</sup>   |
| 7440-47-3       | chromium                 | 99 mg/m <sup>3</sup>    |
| 7440-48-4       | cobalt                   | 20 mg/m <sup>3</sup>    |
| 7440-50-8       | copper                   | 200 mg/m <sup>3</sup>   |
| 7439-89-6       | iron                     | 150 mg/m <sup>3</sup>   |
| 7439-92-1       | lead                     | 700 mg/m <sup>3</sup>   |
| 7439-96-5       | manganese                | 1,800 mg/m <sup>3</sup> |
| 7440-02-0       | nickel                   | 99 mg/m <sup>3</sup>    |
| 7440-22-4       | silver                   | 990 mg/m <sup>3</sup>   |
| 7440-28-0       | thallium                 | 20 mg/m <sup>3</sup>    |
| 7440-62-2       | vanadium                 | 35 mg/m <sup>3</sup>    |
| 7440-66-6       | zinc                     | 120 mg/m <sup>3</sup>   |
| 7440-38-2       | arsenic                  | 100 mg/m <sup>3</sup>   |
| 7440-39-3       | barium                   | 1,100 mg/m <sup>3</sup> |

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

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **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

- |                                                                |                                               |
|----------------------------------------------------------------|-----------------------------------------------|
| · <b>Information on basic physical and chemical properties</b> |                                               |
| · <b>General Information</b>                                   |                                               |
| · <b>Appearance:</b>                                           |                                               |
| Form:                                                          | Solid                                         |
| Color:                                                         | Whitish                                       |
| · <b>Odor:</b>                                                 | Characteristic                                |
| · <b>Odor threshold:</b>                                       | Not determined.                               |
| · <b>pH-value:</b>                                             | Not applicable.                               |
| · <b>Change in condition</b>                                   |                                               |
| Melting point/Melting range:                                   | Undetermined.                                 |
| Boiling point/Boiling range:                                   | Undetermined.                                 |
| · <b>Flash point:</b>                                          | Not applicable.                               |
| · <b>Flammability (solid, gaseous):</b>                        | Not determined.                               |
| · <b>Decomposition temperature:</b>                            | Not determined.                               |
| · <b>Auto igniting:</b>                                        | Product is not selfigniting.                  |
| · <b>Danger of explosion:</b>                                  | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                                     |                                               |
| Lower:                                                         | Not determined.                               |
| Upper:                                                         | Not determined.                               |
| · <b>Vapor pressure:</b>                                       | Not applicable.                               |
| · <b>Density:</b>                                              |                                               |
| Relative density                                               | Not determined.                               |
| Vapor density                                                  | Not applicable.                               |

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|                                                   |                                            |
|---------------------------------------------------|--------------------------------------------|
| · <b>Evaporation rate</b>                         | Not applicable.                            |
| · <b>Solubility in / Miscibility with Water:</b>  | Insoluble.                                 |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| · <b>Viscosity:</b>                               |                                            |
| <b>Dynamic:</b>                                   | Not applicable.                            |
| <b>Kinematic:</b>                                 | Not applicable.                            |
| · <b>Solvent content:</b>                         |                                            |
| <b>VOC content:</b>                               | 0.00 %<br>0.0 g/l / 0.00 lb/gal            |
| · <b>Solids content:</b>                          | 100.0 %                                    |
| · <b>Other information</b>                        | 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)**

|           |                          |    |
|-----------|--------------------------|----|
| 7440-41-7 | beryllium                | 1  |
| 7440-43-9 | cadmium (non-pyrophoric) | 1  |
| 7440-47-3 | chromium                 | 3  |
| 7440-48-4 | cobalt                   | 2B |
| 7439-92-1 | lead                     | 2B |

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|                                                                    |                          |    |
|--------------------------------------------------------------------|--------------------------|----|
| 7440-02-0                                                          | nickel                   | 2B |
| 7440-38-2                                                          | arsenic                  | I  |
| <b>· NTP (National Toxicology Program)</b>                         |                          |    |
| 7440-41-7                                                          | beryllium                | K  |
| 7440-43-9                                                          | cadmium (non-pyrophoric) | K  |
| 7440-48-4                                                          | cobalt                   | R  |
| 7439-92-1                                                          | lead                     | R  |
| 7440-02-0                                                          | nickel                   | R  |
| 7440-38-2                                                          | arsenic                  | K  |
| <b>· OSHA-Ca (Occupational Safety &amp; Health Administration)</b> |                          |    |
| 7440-43-9                                                          | cadmium (non-pyrophoric) |    |
| 7440-38-2                                                          | arsenic                  |    |

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 1 (Self-assessment): slightly hazardous for water  
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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

- |                                    |               |
|------------------------------------|---------------|
| · <b>UN-Number</b>                 |               |
| · <b>DOT, ADR, ADN, IMDG, IATA</b> | not regulated |
| · <b>UN proper shipping name</b>   |               |
| · <b>DOT, ADR, ADN, IMDG, IATA</b> | not regulated |

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- |                                                                                   |                        |
|-----------------------------------------------------------------------------------|------------------------|
| · <b>Transport hazard class(es)</b>                                               |                        |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>                                                |                        |
| · <b>Class</b>                                                                    | <i>not regulated</i>   |
| · <b>Packing group</b>                                                            |                        |
| · <b>DOT, ADR, IMDG, IATA</b>                                                     | <i>not regulated</i>   |
| · <b>Environmental hazards:</b>                                                   | <i>Not applicable.</i> |
| · <b>Special precautions for user</b>                                             | <i>Not applicable.</i> |
| · <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | <i>Not applicable.</i> |
| · <b>UN "Model Regulation":</b>                                                   | <i>not regulated</i>   |

### 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):**

|           |                          |
|-----------|--------------------------|
| 7440-41-7 | beryllium                |
| 7440-43-9 | cadmium (non-pyrophoric) |
| 7440-47-3 | chromium                 |
| 7440-48-4 | cobalt                   |
| 7440-50-8 | copper                   |
| 7439-92-1 | lead                     |
| 7439-96-5 | manganese                |
| 7440-02-0 | nickel                   |
| 7440-22-4 | silver                   |
| 7440-28-0 | thallium                 |
| 7440-62-2 | vanadium                 |
| 7440-66-6 | zinc                     |
| 7440-38-2 | arsenic                  |
| 7440-39-3 | barium                   |

#### · **TSCA (Toxic Substances Control Act):**

*All ingredients are listed.*

#### · **Proposition 65**

##### · **Chemicals known to cause cancer:**

|           |                          |
|-----------|--------------------------|
| 7440-41-7 | beryllium                |
| 7440-43-9 | cadmium (non-pyrophoric) |
| 7440-48-4 | cobalt                   |

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|           |         |
|-----------|---------|
| 7439-92-1 | lead    |
| 7440-02-0 | nickel  |
| 7440-38-2 | arsenic |

· **Chemicals known to cause reproductive toxicity for females:**

|           |      |
|-----------|------|
| 7439-92-1 | lead |
|-----------|------|

· **Chemicals known to cause reproductive toxicity for males:**

|           |                          |
|-----------|--------------------------|
| 7440-43-9 | cadmium (non-pyrophoric) |
| 7439-92-1 | lead                     |

· **Chemicals known to cause developmental toxicity:**

|           |                          |
|-----------|--------------------------|
| 7440-43-9 | cadmium (non-pyrophoric) |
| 7439-92-1 | lead                     |

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency) (Substances not listed)**

|           |                                                                              |
|-----------|------------------------------------------------------------------------------|
| 9004-70-0 | nitrocellulose, dry or wetted with less than 25% water (or alcohol), by mass |
| 9004-35-7 | Cellulose Acetate                                                            |
| 7440-48-4 | cobalt                                                                       |
| 7439-89-6 | iron                                                                         |
| 7440-02-0 | nickel                                                                       |
| 7440-28-0 | thallium                                                                     |
| 7440-62-2 | vanadium                                                                     |

· **TLV (Threshold Limit Value established by ACGIH)**

|           |                          |    |
|-----------|--------------------------|----|
| 7440-41-7 | beryllium                | A1 |
| 7440-43-9 | cadmium (non-pyrophoric) | A2 |
| 7440-47-3 | chromium                 | A4 |
| 7440-48-4 | cobalt                   | A3 |
| 7439-92-1 | lead                     | A3 |
| 7440-02-0 | nickel                   | A5 |
| 7440-38-2 | arsenic                  | A1 |
| 7440-39-3 | barium                   | A4 |

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

|           |                          |
|-----------|--------------------------|
| 7440-41-7 | beryllium                |
| 7440-43-9 | cadmium (non-pyrophoric) |
| 7440-02-0 | nickel                   |
| 7440-38-2 | arsenic                  |

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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**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** 07/16/2019 / -

· **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