# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/22/2020
Reviewed on 05/22/2020

## 1 Identification

- **Product identifier**
- **Trade name:** Quality Control Standard 7
- **Article number:** QCS-7
- **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**
  
  ![Corrosion](GHS05 Corrosion)

  - **Met. Corr. 1**
    - H290 May be corrosive to metals.
  - **Skin Corr. 1A**
    - H314 Causes severe skin burns and eye damage.
  - **Eye Dam. 1**
    - H318 Causes serious eye damage.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**

  ![GHS05](GHS05)

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  - Nitric acid

- **Hazard statements**
  - H290 May be corrosive to metals.
  - H314 Causes severe skin burns and eye damage.

- **Precautionary statements**
  - Keep only in original container.

(Contd. on page 2)
Trade name: Quality Control Standard 7

Do not breathe dusts or mists.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
Specific treatment (see on this label).
Wash contaminated clothing before reuse.
Absorb spillage to prevent material damage.
Store locked up.
Store in corrosive resistant container with a resistant inner liner.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
· NFPA ratings (scale 0 - 4)

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

· HMIS-ratings (scale 0 - 4)

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· 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:
  7697-37-2 nitric acid 2.0%

· Chemical identification of the substance/preparation

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Chemical Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>water, distilled, conductivity or of similar purity</td>
<td>97.845%</td>
</tr>
<tr>
<td>7757-79-1</td>
<td>potassium nitrate</td>
<td>0.1%</td>
</tr>
<tr>
<td>497-19-8</td>
<td>sodium carbonate</td>
<td>0.01%</td>
</tr>
<tr>
<td>513-77-9</td>
<td>barium carbonate</td>
<td>0.01%</td>
</tr>
<tr>
<td>7429-90-5</td>
<td>aluminium</td>
<td>0.01%</td>
</tr>
</tbody>
</table>

(Contd. on page 3)
51.0.12

<table>
<thead>
<tr>
<th>No.</th>
<th>Trade name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-22-4</td>
<td>silver</td>
<td>0.01%</td>
<td></td>
</tr>
<tr>
<td>10043-35-3</td>
<td>boric acid</td>
<td>0.01%</td>
<td></td>
</tr>
<tr>
<td>16919-19-0</td>
<td>ammonium hexafluorosilicate</td>
<td>0.005%</td>
<td></td>
</tr>
</tbody>
</table>

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a 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**
  - During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Mount respiratory protective device.
  - Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Use neutralizing agent.
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
- **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.
### 7 Handling and storage

**Handling:**
- **Precautions for safe handling:**
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
  Keep respiratory protective device available.

**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:**
  Keep receptacle tightly sealed.
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

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>7697-37-2 nitric acid</td>
</tr>
<tr>
<td>PEL (Long-term value: 5 mg/m³, 2 ppm)</td>
</tr>
<tr>
<td>REL (Short-term value: 10 mg/m³, 4 ppm)</td>
</tr>
<tr>
<td>Long-term value: 5 mg/m³, 2 ppm</td>
</tr>
<tr>
<td>TLV (Short-term value: 10 mg/m³, 4 ppm)</td>
</tr>
<tr>
<td>Long-term value: 5.2 mg/m³, 2 ppm</td>
</tr>
</tbody>
</table>

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

- Exposure controls

- Personal protective equipment:

  - General protective and hygienic measures:
    - Keep away from foodstuffs, beverages and feed.
    - Immediately remove all soiled and contaminated clothing.
    - Wash hands before breaks and at the end of work.
    - Avoid contact with the eyes.
    - Avoid contact with the eyes and skin.

- Breathing equipment:
  - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- Protection of hands:

  Protective gloves

  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.
9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
  - Appearance:
    - Form: Liquid
    - Color: colorless
  - Odor: Characteristic
  - Odor threshold: Not determined.
  - pH-value: Not determined.
- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: 100 °C (212 °F)
- Flash point: Not applicable.
- Flammability (solid, gaseous): Not applicable.
- Decomposition temperature: Not determined.
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.
- Vapor pressure at 20 °C (68 °F): 23 hPa (17.3 mm Hg)
- Density at 20 °C (68 °F): 1.01282 g/cm³ (8.45198 lbs/gal)
- Bulk density: 1,013 kg/m³
- Relative density: Not determined.
- Vapor density: Not determined.
- Evaporation rate: Not determined.
- Solubility in / Miscibility with
  - Water: Fully miscible.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic: Not determined.
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Kinematic: Not determined.

- Solvent content:
  Water: 97.8 %
  VOC content: 0.00 %
  0.0 g/l / 0.00 lb/gal

- Solids content: 0.2 %
- 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: Strong caustic effect on skin and mucous membranes.
  - on the eye:
    Strong caustic effect.
    Strong irritant with the danger of severe eye injury.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations:
  Corrosive
  Irritant
  Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    None of the ingredients is listed.
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
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**:
    - Not hazardous for water.
    - Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **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**:
    - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings**:
  - **Recommendation**: Disposal must be made according to official regulations.
- **Recommended cleansing agent**: Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
  - DOT, ADR, IMDG, IATA: UN3264
- **UN proper shipping name**
  - DOT: Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)
  - ADR: 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)
  - IMDG, IATA: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)
Transport hazard class(es)

- **DOT**

  - Class: 8 (C1) Corrosive substances
  - Label: 8

- **ADR**

  - Class: 8 (C1) Corrosive substances
  - Label: 8

- **IMDG, IATA**

  - Class: 8 Corrosive substances
  - Label: 8

- **Packing group**

  - DOT, ADR, IMDG, IATA: III

- **Environmental hazards:**

  - Not applicable.

- **Special precautions for user**

  - Warning: Corrosive substances

  - Hazard identification number (Kemler code): 80

  - EMS Number: F-A,S-B

  - Segregation groups: Acids

  - Stowage Category: A

  - Stowage Code: SW2 Clear of living quarters.

- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

  - Not applicable.

- **Transport/Additional information:**

  - **DOT**

    - Quantity limitations:
      - On passenger aircraft/rail: 5 L
      - On cargo aircraft only: 60 L

  - (Contd. on page 10)
## 15 Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Sara

<table>
<thead>
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<th>Section 355 (extremely hazardous substances):</th>
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<td>7429-90-5 aluminium</td>
</tr>
<tr>
<td>7440-22-4 silver</td>
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#### TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

#### Hazardous Air Pollutants

None of the ingredients is listed.

#### Proposition 65

- **Chemicals known to cause cancer:**
  None of the ingredients is listed.

- **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.
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- Carcinogenic categories

- EPA (Environmental Protection Agency)

<table>
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<tr>
<th>CAS number</th>
<th>Substance</th>
<th>Classification</th>
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<tr>
<td>513-77-9</td>
<td>barium carbonate</td>
<td>D, CBD(inh), NL(oral)</td>
</tr>
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<td>silver</td>
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</tr>
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<td>I (oral)</td>
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- TLV (Threshold Limit Value established by ACGIH)

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<td>barium carbonate</td>
<td>A4</td>
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- NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

- Hazard pictograms

GHS05

- Signal word

Danger

- Hazard-determining components of labeling:
  nitric acid

- Hazard statements
  H290 May be corrosive to metals.
  H314 Causes severe skin burns and eye damage.

- Precautionary statements
  Keep only in original container.
  Do not breathe dusts or mists.
  Wash thoroughly after handling.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If swallowed: Rinse mouth. Do NOT induce vomiting.
  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  Continue rinsing.
  Immediately call a poison center/doctor.
  Specific treatment (see on this label).
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· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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 05/22/2020 / -

· 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
  Met. Corr. 1: Corrosive to metals – Category 1
  Skin Corr. 1A: Skin corrosion/irritation – Category 1A
  Eye Dam. 1: Serious eye damage/eye irritation – Category 1