Section 1. Identification

1.1 Product identifier
Product name : QCStd-27 Quality Control Standard, Part Number 190065000
Part No. : 190065000
Validation date : 7/21/2017

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses : Analytical chemistry.
100 ml

1.3 Details of the supplier of the safety data sheet
Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

1.4 Emergency telephone number
In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture
H290 : CORROSIVE TO METALS - Category 1
H331 : ACUTE TOXICITY (inhalation) - Category 3
H315 : SKIN IRRITATION - Category 2
H318 : SERIOUS EYE DAMAGE - Category 1
H335 : SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

2.2 GHS label elements
Hazard pictograms :

Signal word : Danger
Hazard statements : H290 - May be corrosive to metals.
H331 - Toxic if inhaled.
H318 - Causes serious eye damage.
H315 - Causes skin irritation.
H335 - May cause respiratory irritation.

Precautionary statements
Prevention : P280 - Wear protective gloves. Wear eye or face protection.
P234 - Keep only in original container.
P271 - Use only outdoors or in a well-ventilated area.
P261 - Avoid breathing vapor.
P264 - Wash hands thoroughly after handling.

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Section 2. Hazards identification

Response:
- P390 - Absorb spillage to prevent material damage.
- P304 + P340 + P311 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician.
- P302 + P352 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
- P332 + P313 - If skin irritation occurs: Get medical attention.
- P305 + P351 + P338 + P310 - 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 or physician.

Storage:
- P405 - Store locked up.
- P406 - Store in a corrosion resistant container with a resistant inner liner.

Disposal:
- P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3 Other hazards
Hazards not otherwise classified: None known.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>nitric acid</td>
<td>&lt;6.5</td>
<td>7697-37-2</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact:
- Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation:
- Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact:
- Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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Section 4. First aid measures

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Toxic if inhaled. May cause respiratory irritation.
Skin contact : Causes skin irritation.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness
Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
Ingestion : Adverse symptoms may include the following:
stomach pains

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments : No specific treatment.
Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture
Section 5. Fire-fighting measures

**Specific hazards arising from the chemical**
- In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products**
- Decomposition products may include the following materials:
  - Nitrogen oxides

**5.3 Advice for firefighters**

**Special protective actions for fire-fighters**
- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters**
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Remark**
- Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead and zinc.

Section 6. Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**
- No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders**
- If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions**
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**6.3 Methods and materials for containment and cleaning up**

**Methods for cleaning up**
- Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

**7.1 Precautions for safe handling**

**Protective measures**
- Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalies. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

**Advice on general occupational hygiene**
- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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Section 7. Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in a corrosion resistant container with a resistant inner liner. Store locked up. Separate from alkalis. Keep away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations: Industrial applications, Professional applications.

Industrial sector specific solutions: Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>nitric acid</td>
<td>ACGIH TLV (United States, 3/2016). TWA: 2 ppm 8 hours. TWA: 5.2 mg/m³ 8 hours. STEL: 4 ppm 15 minutes. STEL: 10 mg/m³ 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 2 ppm 8 hours. TWA: 5 mg/m³ 8 hours. STEL: 4 ppm 15 minutes. STEL: 10 mg/m³ 15 minutes. NIOSH REL (United States, 10/2013). TWA: 2 ppm 10 hours. TWA: 5 mg/m³ 10 hours. STEL: 4 ppm 15 minutes. STEL: 10 mg/m³ 15 minutes. OSHA PEL (United States, 6/2016). TWA: 2 ppm 8 hours. TWA: 5 mg/m³ 8 hours.</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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Section 8. Exposure controls/personal protection

Eye/face protection

- Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. If the respirator is required and is used at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Skin protection

Hand protection

- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

- Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state: Liquid. [Clear.]
- Color: Not available.
- Odor: Odorless.
- Odor threshold: Not available.
- pH: <2
- Melting point: 0°C (32°F)
- Boiling point: 100°C (212°F)
- Flash point: Not available.
- Evaporation rate: Not available.
- Flammability (solid, gas): Not applicable.
- Lower and upper explosive (flammable) limits: Not available.
- Vapor pressure: Not available.
- Vapor density: Not available.
- Relative density: 1.05
- Density: 1.05 g/cm³
- Solubility: Easily soluble in the following materials: cold water and hot water.
- Partition coefficient: n-octanol/water: Not available.
- Auto-ignition temperature: Not available.
- Decomposition temperature: Not available.
- Viscosity: Not available.
Section 10. Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis, metals. Reactive or incompatible with the following materials: metals and alkalis. Incompatible with finely-powdered metals.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>nitric acid</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>2500 ppm</td>
<td>1 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>130 mg/m³</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

Irritation/Corrosion
Not available.

Sensitization
Not available.

Mutagenicity
Not available.

Carcinogenicity
Not available.

Reproductive toxicity
Not available.

Teratogenicity
Not available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>QCStd-27 Quality Control Standard, Part Number 1900650000</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)
Not available.

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## Section 11. Toxicological information

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

<table>
<thead>
<tr>
<th>Routes of entry</th>
<th>Possible effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral, Dermal, Inhalation</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
</tbody>
</table>

### Potential acute health effects

- **Eye contact**: Toxic if inhaled. May cause respiratory irritation.
- **Inhalation**: Causes skin irritation.
- **Skin contact**: Causes skin irritation.
- **Ingestion**: No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- **Eye contact**: Adverse symptoms may include the following:
  - Pain
  - Watering
  - Redness

- **Inhalation**: Adverse symptoms may include the following:
  - Respiratory tract irritation
  - Coughing

- **Skin contact**: Adverse symptoms may include the following:
  - Pain or irritation
  - Redness
  - Blistering may occur

- **Ingestion**: Adverse symptoms may include the following:
  - Stomach pains

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

#### Long term exposure

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

### Potential chronic health effects

- **General**: No known significant effects or critical hazards.
- **Carcinogenicity**: No known significant effects or critical hazards.
- **Mutagenicity**: No known significant effects or critical hazards.
- **Teratogenicity**: No known significant effects or critical hazards.
- **Developmental effects**: No known significant effects or critical hazards.
- **Fertility effects**: No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation (vapors)</td>
<td>2.364 mg/l</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>29.3 mg/l</td>
</tr>
</tbody>
</table>

Date of issue: 07/21/2017
## Section 11. Toxicological information

## Section 12. Ecological information

### 12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>nitric acid</td>
<td>Acute LC50 180000 µg/l Marine water</td>
<td>Crustaceans - Carcinus maenas - Adult</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 72 ppm Fresh water</td>
<td>Fish - Gambusia affinis - Adult</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>nitric acid</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>nitric acid</td>
<td>-0.21</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil

**Soil/water partition coefficient (<span style='text-decoration:overline'>K<sub>oc</sub></span>)**: Not available.

### 12.5 Other adverse effects

No known significant effects or critical hazards.

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Disposal methods**: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

**Date of issue**: 07/21/2017
## Section 14. Transport information

<table>
<thead>
<tr>
<th></th>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>Mexico Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UN number</strong></td>
<td>UN3264</td>
<td>UN3264</td>
<td>UN3264</td>
<td>UN3264</td>
<td>UN3264</td>
</tr>
<tr>
<td><strong>UN proper shipping name</strong></td>
<td>Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid, solution)</td>
<td>CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid, solution)</td>
<td>LIQUIDO CORROSIVO, ACIDO, INORGANICO, N.E.P. (nitric acid, solution)</td>
<td>CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid, solution)</td>
<td>Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid, solution)</td>
</tr>
<tr>
<td><strong>Transport hazard class(es)</strong></td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Packing group</strong></td>
<td>III</td>
<td>III</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td><strong>Environmental hazards</strong></td>
<td>No.</td>
<td>Yes.</td>
<td>Yes. The environmentally hazardous substance mark is not required.</td>
<td>Yes.</td>
<td>Yes. The environmentally hazardous substance mark is not required.</td>
</tr>
</tbody>
</table>

### Additional information

**DOT Classification**

- **Reportable quantity**: 10000 lbs / 4540 kg [1142.2 gal / 4323.8 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
- **Limited quantity** Yes.
- **Quantity limitation**
  - Passenger aircraft/rail: 5 L
  - Cargo aircraft: 60 L
- **Special provisions**
  - IB3, T7, TP1, TP28

**TDG Classification**

- Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8), 2.7 (Marine pollutant mark).
- The marine pollutant mark is not required when transported by road or rail.
- **Explosive Limit and Limited Quantity Index** 5
- **Passenger Carrying Road or Rail Index** 5
- **Special provisions** 16

**Mexico Classification**

- **Special provisions** 223, 274

**IMDG**

- The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- **Emergency schedules** F-A, S-B
- **Special provisions** 223, 274

**IATA**

- The environmentally hazardous substance mark may appear if required by other transportation regulations.
- **Quantity limitation**
  - Passenger and Cargo Aircraft: 5 L. Packaging instructions: 852.
- **Special provisions** A3, A803

**Special precautions for user**

- **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Section 14. Transport information

Transport in bulk according to Annex II of MARPOL and the IBC Code: Not available.

Section 15. Regulatory information

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

U.S. Federal regulations
TSCA 6 proposed risk management: Lead
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 307: Antimony trioxide; Chromium(III) nitrate, nonahydrate (1:3:9); Lead; Nickel; Thallium; Arsenic; Beryllium; Cadmium; Zinc; Selenium; Copper
Clean Water Act (CWA) 311: nitric acid; Antimony trioxide

Clean Air Act (CAA) 112 regulated toxic substances: nitric acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)
Listed

Clean Air Act Section 602 Class I Substances
Not listed

Clean Air Act Section 602 Class II Substances
Not listed

DEA List I Chemicals (Precursor Chemicals)
Not listed

DEA List II Chemicals (Essential Chemicals)
Not listed

SARA 302/304

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>EHS</th>
<th>SARA 302 TPQ (lbs)</th>
<th>SARA 304 RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>nitric acid</td>
<td>&lt;6.5</td>
<td>Yes</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>85.7</td>
<td>85.7</td>
</tr>
</tbody>
</table>

SARA 304 RQ: 18181.8 lbs / 8254.5 kg [2076.8 gal / 7861.5 L]

SARA 311/312
Classification: Reactive
Immediate (acute) health hazard

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>nitric acid</td>
<td>&lt;6.5</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

SARA 313

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form R - Reporting requirements</td>
<td>nitric acid</td>
<td>7697-37-2</td>
</tr>
<tr>
<td></td>
<td>Lead</td>
<td>7439-92-1</td>
</tr>
<tr>
<td>Supplier notification</td>
<td>nitric acid</td>
<td>7697-37-2</td>
</tr>
</tbody>
</table>

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SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts: The following components are listed: NITRIC ACID
New York: The following components are listed: Nitric acid
New Jersey: The following components are listed: NITRIC ACID
Pennsylvania: The following components are listed: NITRIC ACID

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony oxide</td>
<td>Yes.</td>
<td>No.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Lead</td>
<td>Yes.</td>
<td>Yes.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Nickel</td>
<td>Yes.</td>
<td>No.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Arsenic</td>
<td>Yes.</td>
<td>No.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Beryllium</td>
<td>Yes.</td>
<td>No.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Yes.</td>
<td>Yes.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cobalt</td>
<td>Yes.</td>
<td>No.</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals
Not listed.

Montreal Protocol (Annexes A, B, C, E)
Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

Australia: Not determined.
Canada: At least one component is not listed in DSL but all such components are listed in NDSL.
China: Not determined.
Europe: All components are listed or exempted.
Japan: Japan inventory (ENCS): All components are listed or exempted.
        Japan inventory (ISHL): Not determined.
Malaysia: Not determined.
New Zealand: All components are listed or exempted.
Philippines: Not determined.
Republic of Korea: All components are listed or exempted.
Taiwan: All components are listed or exempted.
Thailand: Not determined.
Turkey: Not determined.

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<table>
<thead>
<tr>
<th>Country</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

Section 16. Other information

**History**

- Date of issue: 07/21/2017
- Date of previous issue: No previous validation
- Version: 1

▼ Indicates information that has changed from previously issued version.

**Notice to reader**

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