SAFETY DATA SHEET
ICV-7 Quality Control Standard, Part Number 190064900

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Product name: ICV-7 Quality Control Standard, Part Number 190064900
Part No. (Kit): 190064900
Part No.:
- Initial calibration verification standard part A, Part Number 190064900A
- Initial calibration verification standard part B, Part Number 190064900B

1.2 Relevant identified uses of the substance or mixture and uses advised against

<table>
<thead>
<tr>
<th>Identified uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical chemistry.</td>
</tr>
<tr>
<td>2 x 500 ml</td>
</tr>
<tr>
<td>Initial calibration verification standard part A, Part Number 190064900A</td>
</tr>
<tr>
<td>Initial calibration verification standard part B, Part Number 190064900B</td>
</tr>
</tbody>
</table>

1.3 Details of the supplier of the safety data sheet
Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS: pdl-msds_author@agilent.com

1.4 Emergency telephone number
Emergency telephone number (with hours of operation):
CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Product definition:
- Initial calibration verification standard part A: Mixture
- Initial calibration verification standard part B: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Initial calibration verification standard part A:
- H314: SKIN CORROSION/IRRITATION - Category 1B

Initial calibration verification standard part B:
- H314: SKIN CORROSION/IRRITATION - Category 1B
- H350: CARCINOGENICITY - Category 1A

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SECTION 2: Hazards identification

H400  ACUTE AQUATIC HAZARD - Category 1
H410  LONG-TERM AQUATIC HAZARD - Category 1

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms:

- Initial calibration verification standard part A (Danger)
- Initial calibration verification standard part B (Danger)

Signal word:

- Initial calibration verification standard part A (GHS05 - Causes severe skin burns and eye damage)
- Initial calibration verification standard part B (GHS05 - Causes severe skin burns and eye damage, GHS08 - May cause cancer, GHS09 - Very toxic to aquatic life with long lasting effects)

Hazard statements:

Preventive measures:

- Initial calibration verification standard part A (P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.)
- Initial calibration verification standard part B (P201 - Obtain special instructions before use. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P273 - Avoid release to the environment.)

Response:

- Initial calibration verification standard part A (P304 + P340 + P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. P303 + P361 + P353 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or physician. P305 + P310 - IF IN EYES: Immediately call a POISON CENTER or physician.)
- Initial calibration verification standard part B (P304 + P340 + P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. P303 + P361 + P353 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or physician. P305 + P310 - IF IN EYES: Immediately call a POISON CENTER or physician.)

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SECTION 2: Hazards identification

Storage:
- Initial calibration verification standard part A
- Initial calibration verification standard part B

Disposal:
- Initial calibration verification standard part A
- Initial calibration verification standard part B

Hazardous ingredients:
- Initial calibration verification standard part A
  - nitric acid
- Initial calibration verification standard part B
  - nitric acid
  - Diarsenic trioxide

Supplemental label elements:
- Initial calibration verification standard part A
- Initial calibration verification standard part B

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:
- Initial calibration verification standard part A
- Initial calibration verification standard part B

Special packaging requirements:
- Initial calibration verification standard part A
- Initial calibration verification standard part B

2.3 Other hazards
- Other hazards which do not result in classification:
  - Initial calibration verification standard part A
  - Initial calibration verification standard part B

SECTION 3: Composition/information on ingredients

3.2 Mixtures:
- Initial calibration verification standard part A
- Initial calibration verification standard part B

Supplemental label elements:
- Not applicable.

Hazards:
- Initial calibration verification standard part A
- Initial calibration verification standard part B

Disposal:
- P405 - Store locked up.
- P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements:
- Not applicable.

Special packaging requirements:
- Not applicable.

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## SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial calibration verification standard part A</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAS: 7697-37-2</td>
<td></td>
<td>EUH071</td>
<td></td>
</tr>
<tr>
<td>Calcium carbonate</td>
<td>EC: 207-439-9</td>
<td>≤3</td>
<td>Skin Irrit. 2, H315</td>
<td>[1]</td>
</tr>
<tr>
<td></td>
<td>CAS: 471-34-1</td>
<td></td>
<td>Eye Irrit. 2, H319</td>
<td>[1]</td>
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<tr>
<td>Sodium carbonate</td>
<td>EC: 207-838-8</td>
<td>≤3</td>
<td>Eye Irrit. 2, H319</td>
<td>[1]</td>
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<td></td>
<td>CAS: 497-19-8</td>
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<td></td>
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<tr>
<td></td>
<td>CAS: 584-08-7</td>
<td></td>
<td>Eye Irrit. 2, H319</td>
<td>[1]</td>
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<tr>
<td>Magnesium</td>
<td>EC: 231-104-6</td>
<td>≤3</td>
<td>Self-heat. 1, H251</td>
<td>[1]</td>
</tr>
<tr>
<td>Iron</td>
<td>EC: 231-096-4</td>
<td>&lt;0.25</td>
<td>Aquatic Acute 1, H400 (M=1)</td>
<td>[1]</td>
</tr>
<tr>
<td></td>
<td>CAS: 7439-89-6</td>
<td></td>
<td>Aquatic Chronic 1, H410 (M=1)</td>
<td></td>
</tr>
<tr>
<td><strong>Initial calibration verification standard part B</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAS: 7697-37-2</td>
<td></td>
<td>EUH071</td>
<td></td>
</tr>
<tr>
<td>Antimony trioxide</td>
<td>EC: 215-175-0</td>
<td>≤0.3</td>
<td>Carc. 2, H351</td>
<td>[1] [2]</td>
</tr>
<tr>
<td></td>
<td>CAS: 1309-64-4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index: 051-005-00-X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diarsenic trioxide</td>
<td>EC: 215-481-4</td>
<td>≤0.15</td>
<td>Acute Tox. 2, H300, Carc. 1A, H350</td>
<td>[1] [2]</td>
</tr>
<tr>
<td></td>
<td>CAS: 1327-53-3</td>
<td></td>
<td>Aquatic Acute 1, H400 (M=1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index: 033-003-00-0</td>
<td></td>
<td>Aquatic Chronic 1, H410 (M=1)</td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>EC: 231-100-4</td>
<td>&lt;0.3</td>
<td>Repr. 1A, H360FD (Fertility and Unborn child)</td>
<td>[1] [2]</td>
</tr>
<tr>
<td></td>
<td>CAS: 7439-92-1</td>
<td></td>
<td>STOT RE 1, H372 (blood system, bone marrow, cardiovascular system, central nervous system (CNS), immune system, kidneys and peripheral nervous system)</td>
<td></td>
</tr>
<tr>
<td>Nickel</td>
<td>EC: 231-111-4</td>
<td>≤0.3</td>
<td>Skin Sens. 1, H317, Carc. 2, H351</td>
<td>[1] [2]</td>
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<td></td>
<td>CAS: 7440-02-0</td>
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<td>STOT RE 1, H372</td>
<td></td>
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<tr>
<td></td>
<td>Index: 028-002-01-4</td>
<td></td>
<td>Aquatic Chronic 3, H412</td>
<td></td>
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<tr>
<td>Silver</td>
<td>EC: 231-131-3</td>
<td>≤0.3</td>
<td>Aquatic Acute 1, H400 (M=1000)</td>
<td>[1] [2]</td>
</tr>
<tr>
<td></td>
<td>CAS: 7440-22-4</td>
<td></td>
<td>Aquatic Chronic 1, H410 (M=1000)</td>
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<tr>
<td>Thallium</td>
<td>EC: 231-138-1</td>
<td>≤0.15</td>
<td>Acute Tox. 2, H300, Carc. 2, H350</td>
<td>[1]</td>
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<td></td>
<td>CAS: 7440-28-0</td>
<td></td>
<td>Aquatic Acute 1, H400 (M=1000)</td>
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<tr>
<td></td>
<td>Index: 081-001-00-3</td>
<td></td>
<td>Aquatic Chronic 1, H410 (M=1000)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index: 081-001-00-3</td>
<td></td>
<td>STOT RE 2, H373</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index: 081-001-00-3</td>
<td></td>
<td>Aquatic Chronic 4, H413</td>
<td></td>
</tr>
<tr>
<td>Beryllium</td>
<td>EC: 231-150-7</td>
<td>≤0.15</td>
<td>Acute Tox. 3, H301, Carc. 2, H350</td>
<td>[1] [2]</td>
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<tr>
<td></td>
<td>CAS: 7440-41-7</td>
<td></td>
<td>Aquatic Acute 1, H400 (M=1000)</td>
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<tr>
<td></td>
<td>Index: 004-001-00-7</td>
<td></td>
<td>Aquatic Chronic 1, H410 (M=1000)</td>
<td></td>
</tr>
<tr>
<td>Cadmium</td>
<td>EC: 231-152-8</td>
<td>≤0.3</td>
<td>Acute Tox. 2, H330</td>
<td>[1] [2] [5]</td>
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</tbody>
</table>
## SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Index</th>
<th>H Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt</td>
<td>EC: 231-158-0</td>
<td>≤0.3</td>
<td>Muta. 2, H341, Carc. 1B, H350, Repr. 2, H361fd (Fertility and Unborn child), STOT RE 1, H372, Aquatic Acute 1, H400 (M=10000), Aquatic Chronic 1, H410 (M=10000), Resp. Sens. 1, H334, Skin Sens. 1, H317, Aquatic Chronic 4, H413</td>
</tr>
<tr>
<td>Copper</td>
<td>EC: 231-159-6</td>
<td>≤0.3</td>
<td>Aquatic Acute 1, H400 (M=10000), Aquatic Chronic 1, H410 (M=100)</td>
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<tr>
<td>Zinc</td>
<td>EC: 231-175-3</td>
<td>≤0.3</td>
<td>Pyr. Sol. 1, H250, Water-react. 1, H260, Aquatic Acute 1, H400 (M=10), Aquatic Chronic 1, H410 (M=10)</td>
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<tr>
<td>Selenium</td>
<td>EC: 231-957-4</td>
<td>≤0.15</td>
<td>Acute Tox. 3, H301, Acute Tox. 3, H331, STOT RE 2, H373, Aquatic Chronic 4, H413</td>
</tr>
</tbody>
</table>

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.

### Type
1. Substance classified with a health or environmental hazard
2. Substance with a workplace exposure limit
3. Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
4. Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
5. Substance of equivalent concern

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact**

- **Initial calibration verification standard part A**
  - 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.

- **Initial calibration verification standard part B**
  - 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**

- **Initial calibration verification standard part A**
  - 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 treatment.

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SECTION 4: First aid measures

**Initial calibration verification standard part A**
- 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 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.

**Initial calibration verification standard part B**
- 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 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.

**Skin contact**

**Initial calibration verification standard part A**
- 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.

**Initial calibration verification standard part B**
- 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.

**Ingestion**

**Initial calibration verification standard part A**
- 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.

**Initial calibration verification standard part B**
- 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.

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**SECTION 4: First aid measures**

### Protection of first-aiders

**Initial calibration verification standard part A**

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.

**Initial calibration verification standard part B**

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.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Potential acute health effects

**Eye contact**

- **Initial calibration verification standard part A**
  - Causes serious eye damage.
- **Initial calibration verification standard part B**
  - Causes serious eye damage.

**Inhalation**

- **Initial calibration verification standard part A**
  - No known significant effects or critical hazards.
- **Initial calibration verification standard part B**
  - No known significant effects or critical hazards.

**Skin contact**

- **Initial calibration verification standard part A**
  - Causes severe burns.
- **Initial calibration verification standard part B**
  - Causes severe burns.

**Ingestion**

- **Initial calibration verification standard part A**
  - Corrosive to the digestive tract. Causes burns.
- **Initial calibration verification standard part B**
  - Corrosive to the digestive tract. Causes burns.

#### Over-exposure signs/symptoms

**Eye contact**

- **Initial calibration verification standard part A**
  - Adverse symptoms may include the following:
    - pain
    - watering
    - redness
- **Initial calibration verification standard part B**
  - Adverse symptoms may include the following:
    - pain
    - watering
    - redness

**Inhalation**

- **Initial calibration verification standard part A**
  - No specific data.
- **Initial calibration verification standard part B**
  - No specific data.
SECTION 4: First aid measures

### Skin contact

<table>
<thead>
<tr>
<th>Initial calibration verification standard part</th>
<th>Adverse symptoms may include the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>pain or irritation</td>
</tr>
<tr>
<td></td>
<td>redness</td>
</tr>
<tr>
<td></td>
<td>blistering may occur</td>
</tr>
<tr>
<td>Initial calibration verification standard part</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Ingestion

<table>
<thead>
<tr>
<th>Initial calibration verification standard part</th>
<th>Adverse symptoms may include the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>stomach pains</td>
</tr>
<tr>
<td>Initial calibration verification standard part</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

4.3 Indication of any immediate medical attention and special treatment needed

#### Notes to physician

<table>
<thead>
<tr>
<th>Initial calibration verification standard part</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>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.</td>
</tr>
<tr>
<td>Initial calibration verification standard part</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

#### Specific treatments

<table>
<thead>
<tr>
<th>Initial calibration verification standard part</th>
<th>No specific treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Initial calibration verification standard part</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 5: Firefighting measures

5.1 Extinguishing media

#### Suitable extinguishing media

<table>
<thead>
<tr>
<th>Initial calibration verification standard part</th>
<th>Use an extinguishing agent suitable for the surrounding fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td>Initial calibration verification standard part</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

#### Unsuitable extinguishing media

<table>
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<tr>
<th>Initial calibration verification standard part</th>
<th>None known.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>None known.</td>
</tr>
<tr>
<td>Initial calibration verification standard part</td>
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</tr>
<tr>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

5.2 Special hazards arising from the substance or mixture

<table>
<thead>
<tr>
<th>Initial calibration verification standard part</th>
<th>In a fire or if heated, a pressure increase will occur and the container may burst.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>Initial calibration verification standard part</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

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SECTION 5: Firefighting measures

### Hazardous combustion products

**Initial calibration verification standard part A**

- Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
  - nitrogen oxides
  - metal oxide/oxides

**Initial calibration verification standard part B**

- Decomposition products may include the following materials:
  - nitrogen oxides

### 5.3 Advice for firefighters

**Special precautions for fire-fighters**

- Initial calibration verification standard part A
- Initial calibration verification standard part B

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**

- Initial calibration verification standard part A
- Initial calibration verification standard part B

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

### SECTION 6: Accidental release measures

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

**For non-emergency personnel**

- Initial calibration verification standard part A

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 spill material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- Initial calibration verification standard part B

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 spill material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders**

- Initial calibration verification standard part A

If specialised 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".

- Initial calibration verification standard part B

If specialised 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".

**Date of issue/Date of revision**: 10/05/2016
**SECTION 6: Accidental release measures**

### 6.2 Environmental precautions

**Initial calibration verification standard part A**
- Avoid dispersal of spill 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).

**Initial calibration verification standard part B**
- Avoid dispersal of spill 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### 6.3 Methods and material for containment and cleaning up

**Methods for cleaning up**

**Initial calibration verification standard part A**
- Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste disposal contractor.

**Initial calibration verification standard part B**
- Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste disposal contractor.

### 6.4 Reference to other sections

- See Section 1 for emergency contact information.
- See Section 8 for information on appropriate personal protective equipment.
- See Section 13 for additional waste treatment information.

**SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

**Protective measures**

**Initial calibration verification standard part A**
- Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Initial calibration verification standard part B**
- Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene**

**Initial calibration verification standard part A**
- 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.

**Initial calibration verification standard part B**
- 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.

Date of issue/Date of revision : 10/05/2016
SECTION 7: Handling and storage

### 7.2 Conditions for safe storage, including any incompatibilities

| Initial calibration verification standard part A | 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 locked up. Separate from alcalis. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. |
| Initial calibration verification standard part B | 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 locked up. Separate from alcalis. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. |

### 7.3 Specific end use(s)

| Initial calibration verification standard part A Industrial applications, Professional applications. |
| Initial calibration verification standard part B Industrial applications, Professional applications. |

### Seveso Directive - Reporting thresholds (in tonnes)

<table>
<thead>
<tr>
<th>Name</th>
<th>Notification and MAPP threshold</th>
<th>Safety report threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial calibration verification standard part B Arsenic trioxide, arsenious (III) acid and/or salts</td>
<td>-</td>
<td>0.1</td>
</tr>
</tbody>
</table>

### Danger criteria

<table>
<thead>
<tr>
<th>Initial calibration verification standard part B E1: Hazardous to the aquatic environment - Acute 1 or Chronic 1</th>
<th>Notification and MAPP threshold</th>
<th>Safety report threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic trioxide, arsenious (III) acid and/or salts</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial calibration verification standard part A nitric acid</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 2.6 mg/m³ 15 minutes. STEL: 1 ppm 15 minutes.</td>
</tr>
<tr>
<td>Initial calibration verification standard part B nitric acid</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011).</td>
</tr>
</tbody>
</table>
## SECTION 8: Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Substance</th>
<th>Monitoring Procedures</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony trioxide</td>
<td>EH40/2005 WELs (UK)</td>
<td>STEL: 2.6 mg/m³ 15 minutes. STEL: 1 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 0.5 mg/m³, (as Sb) 8 hours.</td>
</tr>
<tr>
<td>Diarsenic trioxide</td>
<td>EH40/2005 WELs (UK)</td>
<td>TWA: 0.1 mg/m³, (as As) 8 hours.</td>
</tr>
<tr>
<td>Lead</td>
<td>EH40/2005 WELs (UK)</td>
<td>TWA: 0.15 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Nickel</td>
<td>EH40/2005 WELs (UK)</td>
<td>Absorbed through skin.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 0.5 mg/m³, (as Ni) 8 hours.</td>
</tr>
<tr>
<td>Silver</td>
<td>EH40/2005 WELs (UK)</td>
<td>TWA: 0.1 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Beryllium</td>
<td>EH40/2005 WELs (UK)</td>
<td>Notes: as Be TWA: 0.002 mg/m³, (as Be) 8 hours.</td>
</tr>
<tr>
<td>Cadmium</td>
<td>EH40/2005 WELs (UK)</td>
<td>Notes: as Cd TWA: 0.025 mg/m³, (as Cd) 8 hours.</td>
</tr>
<tr>
<td>Cobalt</td>
<td>EH40/2005 WELs (UK)</td>
<td>Inhalation sensitiser.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 0.1 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Copper</td>
<td>EH40/2005 WELs (UK)</td>
<td>Notes: as Cu STEL: 2 mg/m³, (as Cu) 15 minutes. Form: Dusts and Mists TWA: 1 mg/m³, (as Cu) 8 hours. Form: Dusts and Mists TWA: 0.2 mg/m³, (as Cu) 8 hours. Form: Fume</td>
</tr>
<tr>
<td>Selenium</td>
<td>EH40/2005 WELs (UK)</td>
<td>TWA: 0.1 mg/m³, (as Se) 8 hours.</td>
</tr>
</tbody>
</table>

**Recommended monitoring procedures**: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

No DNELs/DMELs available.

**PNECs**

No PNECs available

### 8.2 Exposure controls

**Appropriate engineering controls**: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**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.

**Eye/face protection**: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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SECTION 8: Exposure controls/personal protection

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn 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.

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.

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Liquid. [Clear.]

Colour: Light

Odour: Odourless.

Odour threshold: Not available.

pH: <2

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## SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Initial calibration verification standard part A</th>
<th>Initial calibration verification standard part B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point</td>
<td>0°C</td>
<td>0°C</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>100°C</td>
<td>100°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
</tbody>
</table>
### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Initial calibration verification standard part A</th>
<th>Initial calibration verification standard part B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Oxidising properties</strong></td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

#### 9.2 Other information

No additional information.

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

- Initial calibration verification standard part A: No specific test data related to reactivity available for this product or its ingredients.
- Initial calibration verification standard part B: No specific test data related to reactivity available for this product or its ingredients.

#### 10.2 Chemical stability

- Initial calibration verification standard part A: The product is stable.
- Initial calibration verification standard part B: The product is stable.

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SECTION 10: Stability and reactivity

10.3 Possibility of hazardous reactions

<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>Initial calibration verification standard part A</td>
<td>nitric acid</td>
<td>Rat</td>
<td>2500 ppm</td>
<td>1 hours</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Calcium carbonate</td>
<td>Rat</td>
<td>6450 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Sodium carbonate</td>
<td>Rat</td>
<td>4090 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Potassium carbonate</td>
<td>Rat</td>
<td>1870 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Magnesium</td>
<td>Rat - Male, Female</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

10.4 Conditions to avoid

<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>Initial calibration verification standard part A</td>
<td>Antimony trioxide</td>
<td>Rat</td>
<td>&gt;20 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Diarsenic trioxide</td>
<td>Rat</td>
<td>10 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Nickel</td>
<td>Rat</td>
<td>&gt;9000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Silver</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Cobalt</td>
<td>Rat</td>
<td>6170 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Selenium</td>
<td>Rat</td>
<td>6700 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials

<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>Initial calibration verification standard part A</td>
<td>Reacts with many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air.</td>
<td>Alkalis</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Reacts with many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air.</td>
<td>Alkalis</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products

<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>Initial calibration verification standard part A</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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>Initial calibration verification standard part A</td>
<td>nitric acid</td>
<td>Rat</td>
<td>2500 ppm</td>
<td>1 hours</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Calcium carbonate</td>
<td>Rat</td>
<td>6450 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Sodium carbonate</td>
<td>Rat</td>
<td>4090 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Potassium carbonate</td>
<td>Rat</td>
<td>1870 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Magnesium</td>
<td>Rat - Male, Female</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Acute toxicity estimates

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## SECTION 11: Toxicological information

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial calibration verification standard part A Oral</td>
<td>187000 mg/kg</td>
</tr>
<tr>
<td>Initial calibration verification standard part B Oral Inhalation (dusts and mists)</td>
<td>3125 mg/kg 16.13 mg/l</td>
</tr>
</tbody>
</table>

### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial calibration verification standard part A</strong> Calcium carbonate</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 750 Micrograms</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>0.5 minutes 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Sodium carbonate</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td><strong>Initial calibration verification standard part B</strong> Antimony trioxide</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Silver</td>
<td>Skin - Erythema/Eschar</td>
<td>Rabbit</td>
<td>0.33</td>
<td>-</td>
<td>24 to 48 hours 72 hours</td>
</tr>
<tr>
<td></td>
<td>Eyes - Redness of the conjunctivae</td>
<td>Rabbit</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

### Sensitiser

**Conclusion/Summary**: Not available.

**Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity**: Not available.

### Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial calibration verification standard part A</strong> Potassium carbonate</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td><strong>Initial calibration verification standard part B</strong> Beryllium</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

### Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial calibration verification standard part B</strong> Lead</td>
<td>Category 1</td>
<td>Not determined</td>
<td>blood system, bone marrow, cardiovascular system, central nervous system (CNS), immune system, kidneys and peripheral nervous system Not determined</td>
</tr>
<tr>
<td>Nickel</td>
<td>Category 1</td>
<td>Not determined</td>
<td></td>
</tr>
</tbody>
</table>

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SECTION 11: Toxicological information

<table>
<thead>
<tr>
<th>Substance</th>
<th>Category 1</th>
<th>Category 2</th>
<th>Not determined</th>
<th>Not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thallium</td>
<td>Category 2</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
<tr>
<td>Beryllium</td>
<td>Category 1</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Category 1</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
<tr>
<td>Selenium</td>
<td>Category 2</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Aspiration hazard
No available.

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Part A</th>
<th>Part B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Initial calibration verification standard part A</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
<tr>
<td></td>
<td>Initial calibration verification standard part B</td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Initial calibration verification standard part A</td>
<td>Corrosive to the digestive tract. Causes burns.</td>
</tr>
<tr>
<td></td>
<td>Initial calibration verification standard part B</td>
<td>Corrosive to the digestive tract. Causes burns.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Initial calibration verification standard part A</td>
<td>Causes severe burns.</td>
</tr>
<tr>
<td></td>
<td>Initial calibration verification standard part B</td>
<td>Causes severe burns.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Initial calibration verification standard part A</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td></td>
<td>Initial calibration verification standard part B</td>
<td>Causes serious eye damage.</td>
</tr>
</tbody>
</table>

Potential acute health effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Part A</th>
<th>Part B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Corrosive to the digestive tract. Causes burns.</td>
<td>Corrosive to the digestive tract. Causes burns.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Causes severe burns.</td>
<td>Causes severe burns.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Causes serious eye damage.</td>
<td>Causes serious eye damage.</td>
</tr>
</tbody>
</table>

Symptoms related to the physical, chemical and toxicological characteristics

<table>
<thead>
<tr>
<th>Route</th>
<th>Part A</th>
<th>Part B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Adverse symptoms may include the following:</td>
<td>Adverse symptoms may include the following:</td>
</tr>
<tr>
<td></td>
<td>stomach pains</td>
<td>stomach pains</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Adverse symptoms may include the following:</td>
<td>Adverse symptoms may include the following:</td>
</tr>
<tr>
<td></td>
<td>pain or irritation</td>
<td>pain or irritation</td>
</tr>
<tr>
<td></td>
<td>redness</td>
<td>redness</td>
</tr>
<tr>
<td></td>
<td>blistering may occur</td>
<td>blistering may occur</td>
</tr>
</tbody>
</table>

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### SECTION 11: Toxicological information

#### Eye contact
- **Initial calibration verification standard part A**
  - No known significant effects or critical hazards.
- **Initial calibration verification standard part B**
  - No known significant effects or critical hazards.

#### Delayed and immediate effects as well as 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.
  - Initial calibration verification standard part A
  - Initial calibration verification standard part B
- **Carcinogenicity**
  - No known significant effects or critical hazards.
  - Initial calibration verification standard part A
  - Initial calibration verification standard part B
  - May cause cancer. Risk of cancer depends on duration and level of exposure.
- **Mutagenicity**
  - No known significant effects or critical hazards.
  - Initial calibration verification standard part A
  - Initial calibration verification standard part B
- **Teratogenicity**
  - No known significant effects or critical hazards.
  - Initial calibration verification standard part A
  - Initial calibration verification standard part B
- **Developmental effects**
  - No known significant effects or critical hazards.
  - Initial calibration verification standard part A
  - Initial calibration verification standard part B

#### Eye contact
- **Initial calibration verification standard part A**
  - Adverse symptoms may include the following:
    - Pain
    - Watering
    - Redness
    - Blisters may occur
- **Initial calibration verification standard part B**
  - Adverse symptoms may include the following:
    - Pain
    - Watering
    - Redness

#### Eye contact
- **Initial calibration verification standard part A**
  - Adverse symptoms may include the following:
    - Pain
    - Watering
    - Redness
    - Blisters may occur
- **Initial calibration verification standard part B**
  - Adverse symptoms may include the following:
    - Pain
    - Watering
    - Redness

#### Eye contact
- **Initial calibration verification standard part A**
  - Developmental effects
    - Pain
    - Watering
    - Redness
    - Blisters may occur
- **Initial calibration verification standard part B**
  - Developmental effects
    - Pain
    - Watering
    - Redness
    - Blisters may occur

---

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Fertility effects:
- Initial calibration verification standard part A
  No known significant effects or critical hazards.
- Initial calibration verification standard part B
  No known significant effects or critical hazards.

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>
</table>
| Initial calibration verification standard part A
  nitric acid | Acute LC50 180000 µg/l Marine water | Crustaceans - Carcinus maenas - Adult | 48 hours |
| | Acute LC50 72 ppm Fresh water | Fish - Gambusia affinis - Adult | 96 hours |
| Calcium carbonate | Acute LC50 >56000 ppm Fresh water | Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) | 28 days |
| | Chronic NOEC 61 mg/g Fresh water | | |
| Sodium carbonate | Acute EC50 242000 µg/l Fresh water | Algae - Navicula seminulum | 96 hours |
| | Acute LC50 176000 µg/l Fresh water | Crustaceans - Amphipoda | 48 hours |
| | Acute LC50 265000 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 300000 µg/l Fresh water | Fish - Lepomis macrochirus | 96 hours |
| Potassium carbonate | Acute LC50 630000 µg/l Fresh water | Crustaceans - Ceriodaphnia dubia | 48 hours |
| | Acute LC50 650000 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute EC50 3700 µg/l Fresh water | Aquatic plants - Lemna minor | 4 days |
| | Acute LC50 33000 to 100000 µg/l Marine water | Crustaceans - Crangon crangon | 48 hours |
| | Acute LC50 0.56 ppm Fresh water | Fish - Cyprinus carpio - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
| | Chronic NOEC 100 mg/l Marine water | Algae - Glenodinium halli | 72 hours |
| Initial calibration verification standard part B
  nitric acid | Acute LC50 180000 µg/l Marine water | Crustaceans - Carcinus maenas - Adult | 48 hours |
| | Acute LC50 72 ppm Fresh water | Fish - Gambusia affinis - Adult | 96 hours |
| Antimony trioxide | Acute EC50 740 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 176000 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 560 mg/l Fresh water | Crustaceans - Cypris subglobosa | 48 hours |
| | Acute EC50 423450 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 >530 mg/l Fresh water | Fish - Lepomis macrochirus - Young of the year | 96 hours |
| | Chronic NOEC 200 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| Diarsenic trioxide | Acute EC50 34.7 mg/l Fresh water | Algae - Scenedesmus subspicatus | 72 hours |
| | Acute EC50 2.5 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 3380 µg/l Marine water | Fish - Terapon jarbua - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
| | Chronic EC10 9.4 mg/l Fresh water | Algae - Scenedesmus subspicatus | 72 hours |
| | Chronic IC10 1.3 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |
| Lead | Acute EC50 105 ppb Marine water | Algae - Chaetoceros sp. - Exponential growth phase | 72 hours |
| | Acute EC50 0.489 mg/l Marine water | Algae - Ulva pertusa | 96 hours |

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<table>
<thead>
<tr>
<th>Substance</th>
<th>Acute EC₅₀/LC₅₀(μg/l)</th>
<th>Fresh water</th>
<th>Aquatic plants</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel</td>
<td>Acute EC₅₀ 8000 μg/l</td>
<td>4 days</td>
<td>Lemna minor</td>
<td>4 days</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 530 μg/l</td>
<td></td>
<td>Ceriodaphnia reticulata</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 5100 μg/l</td>
<td></td>
<td>Daphnia - Daphnia pulex</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 0.44 ppm</td>
<td></td>
<td>Fish - Cyprinus carpio - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>4 weeks</td>
</tr>
<tr>
<td>Silver</td>
<td>Acute EC₅₀ 450 μg/l</td>
<td></td>
<td>Ulva pertusa</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC₅₀ 1000 μg/l</td>
<td></td>
<td>Cyprinus carpio</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute IC₅₀ 0.31 mg/l</td>
<td></td>
<td>Americamysis bahia - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>48 hours</td>
</tr>
<tr>
<td>Thallium</td>
<td>Acute LC₅₀ 47.5 μg/l</td>
<td></td>
<td>Heteropneustes fossilis</td>
<td>96 hours</td>
</tr>
<tr>
<td>Beryllium</td>
<td>Acute LC₅₀ 2.13 to 2.93 μg/l</td>
<td></td>
<td>Glendonium halli</td>
<td>72 hours</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Acute EC₅₀ 0.095 mg/l</td>
<td></td>
<td>Crustaceans - Homarus americanus - Larvae</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC₅₀ 200 μg/l</td>
<td></td>
<td>Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC₅₀ 13.5 μg/l</td>
<td></td>
<td>Crustaceans - Gammarus pseudolumnaeus</td>
<td>48 hours</td>
</tr>
<tr>
<td>Cobalt</td>
<td>Acute LC₅₀ 0.072 μg/l</td>
<td></td>
<td>Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td>Copper</td>
<td>Acute LC₅₀ 1.1 μg/l</td>
<td></td>
<td>Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 2 μg/l</td>
<td></td>
<td>Algae - Parachlorella kessleri - Exponential growth phase</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 13 μg/l</td>
<td></td>
<td>Fish - Cyprinus carpio</td>
<td>4 weeks</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 2 μg/l</td>
<td></td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 2.1 μg/l</td>
<td></td>
<td>Crustaceans - Amphipoda - Adult</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 1.1 μg/l</td>
<td></td>
<td>Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 97 μg/l</td>
<td></td>
<td>Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 2 μg/l</td>
<td></td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 4400 μg/l</td>
<td></td>
<td>Aquatic plants - Lemna minor</td>
<td>4 days</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 3.4 mg/l</td>
<td></td>
<td>Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 1100 μg/l</td>
<td></td>
<td>Aquatic plants - Fish - Planta</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 2.1 μg/l</td>
<td></td>
<td>Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute IC₅₀ 13 μg/l</td>
<td></td>
<td>Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute IC₅₀ 5.4 mg/l</td>
<td></td>
<td>Pimephales promelas</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 0.072 μg/l</td>
<td></td>
<td>Daphnia - Daphnia longispina- Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC₅₀ 7.56 μg/l</td>
<td></td>
<td>Algae - Nitzschia closterium - Exponential growth phase</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 2.5 μg/l</td>
<td></td>
<td>Ceratophyllum demersum</td>
<td>3 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 7 mg/l</td>
<td></td>
<td>Plantae</td>
<td>72 hours</td>
</tr>
</tbody>
</table>

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### SECTION 12: Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial calibration verification standard part A</td>
<td>Nitric acid</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Nitric acid</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability

Not available.

#### 12.3 Bioaccumulative potential
SECTION 12: Ecological information

<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>Initial calibration verification standard part A nitric acid</td>
<td>-0.21</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Initial calibration verification standard part B nitric acid</td>
<td>-0.21</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Diarsenic trioxide</td>
<td>-</td>
<td>5866</td>
<td>high</td>
</tr>
<tr>
<td>Silver</td>
<td>-</td>
<td>70</td>
<td>low</td>
</tr>
<tr>
<td>Cobalt</td>
<td>-</td>
<td>15600</td>
<td>high</td>
</tr>
<tr>
<td>Selenium</td>
<td>-</td>
<td>9226</td>
<td>high</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

<table>
<thead>
<tr>
<th>Soil/water partition coefficient (K&lt;sub&gt;oc&lt;/sub&gt;)</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment

<table>
<thead>
<tr>
<th>PBT</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>vPvB</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>Additional information</th>
<th>Special provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of issue/Date of revision</td>
<td>10/05/2016</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN3264</td>
<td>UN3264</td>
<td>UN3264</td>
<td>UN3264</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.2 UN proper shipping name</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORROSION LIQUID, ACIDIC, INORGANIC, N. O.S. (nitric acid)</td>
<td>CORROSION LIQUID, ACIDIC, INORGANIC, N. O.S. (nitric acid). Marine pollutant (Diarsenic trioxide)</td>
<td>Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.3 Transport hazard class(es)</th>
<th>8</th>
<th>8</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>![hazard标识]</td>
<td>![hazard标识]</td>
<td>![hazard标识]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.4 Packing group</th>
<th>III</th>
<th>III</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>![packing group标识]</td>
<td>![packing group标识]</td>
<td>![packing group标识]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.5 Environmental hazards</th>
<th>Yes.</th>
<th>Yes.</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>![environmental hazard标识]</td>
<td>![environmental hazard标识]</td>
<td>![environmental hazard标识]</td>
<td></td>
</tr>
</tbody>
</table>

**Additional information**

- The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- The environmentally hazardous substance mark may appear if required by other transportation regulations.

**Emergency schedules (EmS)**
- F-A, S-B

**Special provisions**
- 223, 274

**Tunnel code**
- (E)

**Passenger and Cargo Aircraft**
- Quantity limitation: 5 L
- Packaging instructions: 852

**Cargo Aircraft Only**
- Quantity limitation: 60 L
- Packaging instructions: 856

**Limited Quantities - Passenger Aircraft**
- Quantity limitation: 1 L
- Packaging instructions: Y841

**Special provisions**
- A3, A803

### 14.6 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.

### 14.7 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

**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XIV - List of substances subject to authorisation**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Intrinsic property</th>
<th>Status</th>
<th>Reference number</th>
<th>Date of revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial calibration verification standard part B</td>
<td>Carcinogen</td>
<td>Listed</td>
<td>8</td>
<td>2/17/2012</td>
</tr>
</tbody>
</table>

**Substances of very high concern**
## SECTION 15: Regulatory information

### Other EU regulations

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Intrinsic property</th>
<th>Status</th>
<th>Reference number</th>
<th>Date of revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial calibration verification standard part B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diarsenic trioxide</td>
<td>Carcinogen</td>
<td>Candidate</td>
<td>ED/67/2008</td>
<td>12/17/2010</td>
</tr>
<tr>
<td>Cadmium</td>
<td></td>
<td>Candidate</td>
<td>ED/69/2013</td>
<td>6/20/2013</td>
</tr>
<tr>
<td>-</td>
<td>Subs. eq. conc. for H. health</td>
<td>Candidate</td>
<td>ED/69/2013</td>
<td>6/20/2013</td>
</tr>
</tbody>
</table>

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Carcinogenic effects</th>
<th>Mutagenic effects</th>
<th>Developmental effects</th>
<th>Fertility effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial calibration verification standard part B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>antimony trioxide</td>
<td>Carc. 2, H351</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>diarsenic trioxide</td>
<td>Carc. 1A, H350</td>
<td>-</td>
<td>Repr. 1A, H360D (Unborn child)</td>
<td>Repr. 1A, H360F (Fertility)</td>
</tr>
<tr>
<td>lead</td>
<td>Carc. 2, H351</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>nickel powder</td>
<td>Carc. 2, H351</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>beryllium</td>
<td>Carc. 1B, H350i (inhalation)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>cadmium (non-pyrophoric)</td>
<td>Carc. 1B, H350</td>
<td>Muta. 2, H341</td>
<td>Repr. 2, H361d (Unborn child)</td>
<td>Repr. 2, H361f (Fertility)</td>
</tr>
</tbody>
</table>

**Seveso Directive**

This product is controlled under the Seveso Directive.

### Named substances

**Name**

Initial calibration verification standard part B

Arsenic trioxide, arsenious (III) acid and/or salts

**Danger criteria**

**Category**

Initial calibration verification standard part B

E1: Hazardous to the aquatic environment - Acute 1 or Chronic 1

### National regulations

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>List name</th>
<th>Name on list</th>
<th>Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial calibration verification standard part B</td>
<td>UK Occupational Exposure Limits EH40 - WEL</td>
<td>arsenic compounds Except arsine</td>
<td>Carc.</td>
<td>-</td>
</tr>
<tr>
<td>diarsenic trioxide</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lead</td>
<td>UK Occupational Exposure Limits EH40 - WEL</td>
<td>lead</td>
<td>Carc.</td>
<td>-</td>
</tr>
<tr>
<td>beryllium</td>
<td>UK Occupational Exposure Limits EH40 - WEL</td>
<td>beryllium</td>
<td>Carc.</td>
<td>-</td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision**

: 10/05/2016
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<table>
<thead>
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<th>Ingredient name</th>
<th>List name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial calibration verification standard part B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>Heavy metals - Annex 1</td>
<td>Listed</td>
</tr>
<tr>
<td>Cadmium (Cd)</td>
<td>Heavy metals - Annex 1</td>
<td>Listed</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 Inform Consent (PIC)**
Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>List name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial calibration verification standard part B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>Heavy metals - Annex 1</td>
<td>Listed</td>
</tr>
<tr>
<td>Cadmium (Cd)</td>
<td>Heavy metals - Annex 1</td>
<td>Listed</td>
</tr>
</tbody>
</table>

### National inventory

- **Australia**: All components are listed or exempted.
- **Canada**: All components are listed or exempted.
- **China**: All components are listed or exempted.
- **Japan**: Japan inventory (ENCS): All components are listed or exempted. Japan inventory (ISHL): All components are listed or exempted.
- **Malaysia**: Not determined.
- **New Zealand**: All components are listed or exempted.
- **Philippines**: Not determined.
- **Republic of Korea**: All components are listed or exempted.
- **Taiwan**: Not determined.
- **Turkey**: Not determined.
- **United States**: All components are listed or exempted.

### 15.2 Chemical safety assessment

- This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

- Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

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<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial calibration verification standard part A</strong>&lt;br&gt; Skin Corr. 1B, H314</td>
<td>Expert judgment</td>
</tr>
<tr>
<td><strong>Initial calibration verification standard part B</strong>&lt;br&gt; Skin Corr. 1B, H314</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>Carc. 1A, H350</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Acute 1, H400</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 1, H410</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

**Full text of abbreviated H statements**:  
Initial calibration verification standard part A

<table>
<thead>
<tr>
<th>H Statement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H251</td>
<td>Self-heating: may catch fire.</td>
</tr>
<tr>
<td>H260</td>
<td>In contact with water releases flammable gases which may ignite spontaneously.</td>
</tr>
<tr>
<td>H272</td>
<td>May intensify fire; oxidiser.</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H413</td>
<td>May cause long lasting harmful effects to aquatic life.</td>
</tr>
</tbody>
</table>

Initial calibration verification standard part B

<table>
<thead>
<tr>
<th>H Statement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H250</td>
<td>Catches fire spontaneously if exposed to air.</td>
</tr>
<tr>
<td>H260</td>
<td>In contact with water releases flammable gases which may ignite spontaneously.</td>
</tr>
<tr>
<td>H272</td>
<td>May intensify fire; oxidiser.</td>
</tr>
<tr>
<td>H300</td>
<td>Fatal if swallowed.</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H330</td>
<td>Fatal if inhaled.</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled.</td>
</tr>
<tr>
<td>H334</td>
<td>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>H341</td>
<td>Suspected of causing genetic defects.</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer.</td>
</tr>
<tr>
<td>H350i (inhalation)</td>
<td>May cause cancer if inhaled.</td>
</tr>
<tr>
<td>H351</td>
<td>Suspected of causing cancer.</td>
</tr>
<tr>
<td>H360FD (Fertility and Unborn child)</td>
<td>May damage fertility. May damage the unborn child.</td>
</tr>
<tr>
<td>H361fd (Fertility and Unborn child)</td>
<td>Suspected of damaging fertility. Suspected of damaging the unborn child.</td>
</tr>
<tr>
<td>H372 (blood system, bone marrow, cardiovascular system, central nervous system (CNS), immune system, kidneys and peripheral nervous system)</td>
<td>Causes damage to organs through prolonged or repeated exposure. (blood system, bone marrow, cardiovascular system, central nervous system (CNS), immune system, kidneys and peripheral nervous system)</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
</tbody>
</table>

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Full text of classifications [CLP/GHS]

Initial calibration verification standard part A

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H413</td>
<td>May cause long lasting harmful effects to aquatic life.</td>
</tr>
</tbody>
</table>

Initial calibration verification standard part B

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4, H302</td>
<td>ACUTE TOXICITY (oral) - Category 4</td>
</tr>
<tr>
<td>Acute Chronic 1, H400</td>
<td>LONG-TERM AQUATIC HAZARD - Category 1</td>
</tr>
<tr>
<td>Acute Chronic 4, H410</td>
<td>LONG-TERM AQUATIC HAZARD - Category 4</td>
</tr>
<tr>
<td>EUH071</td>
<td>Corrosive to the respiratory tract.</td>
</tr>
<tr>
<td>Eye Irrit. 2, H319</td>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2</td>
</tr>
<tr>
<td>Ox. Liq. 2, H272</td>
<td>OXIDIZING LIQUIDS - Category 2</td>
</tr>
<tr>
<td>Self. heat. 1, H251</td>
<td>SELF-HEATING SUBSTANCES AND MIXTURES - Category 1</td>
</tr>
<tr>
<td>Skin Corr. 1A, H314</td>
<td>SKIN CORROSION/IRRITATION - Category 1A</td>
</tr>
<tr>
<td>Skin Corr. 1B, H314</td>
<td>SKIN CORROSION/IRRITATION - Category 1B</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>SKIN CORROSION/IRRITATION - Category 2</td>
</tr>
<tr>
<td>STOT SE 3, H335</td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
</tr>
<tr>
<td>Water-react. 1, H260</td>
<td>SUBSTANCES AND MIXTURES, WHICH IN CONTACT WITH WATER, EMIT FLAMMABLE GASES - Category 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 2, H300</td>
<td>ACUTE TOXICITY (oral) - Category 2</td>
</tr>
<tr>
<td>Acute Tox. 2, H330</td>
<td>ACUTE TOXICITY (inhalation) - Category 2</td>
</tr>
<tr>
<td>Acute Tox. 3, H301</td>
<td>ACUTE TOXICITY (oral) - Category 3</td>
</tr>
<tr>
<td>Acute Tox. 3, H331</td>
<td>ACUTE TOXICITY (inhalation) - Category 3</td>
</tr>
<tr>
<td>Acute Chronic 1, H400</td>
<td>LONG-TERM AQUATIC HAZARD - Category 1</td>
</tr>
<tr>
<td>Acute Chronic 1, H410</td>
<td>LONG-TERM AQUATIC HAZARD - Category 1</td>
</tr>
<tr>
<td>Acute Chronic 3, H412</td>
<td>LONG-TERM AQUATIC HAZARD - Category 3</td>
</tr>
<tr>
<td>Acute Chronic 4, H413</td>
<td>LONG-TERM AQUATIC HAZARD - Category 4</td>
</tr>
<tr>
<td>Carc. 1A, H350</td>
<td>CARCINOGENICITY - Category 1A</td>
</tr>
<tr>
<td>Carc. 1B, H350</td>
<td>CARCINOGENICITY - Category 1B</td>
</tr>
<tr>
<td>Carc. 1B, H350i (inhalation)</td>
<td>CARCINOGENICITY (inhalation) - Category 1B</td>
</tr>
<tr>
<td>EUH071</td>
<td>Corrosive to the respiratory tract.</td>
</tr>
<tr>
<td>Eye Irrit. 2, H319</td>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2</td>
</tr>
<tr>
<td>Muta. 2, H341</td>
<td>GERM CELL MUTAGENICITY - Category 2</td>
</tr>
<tr>
<td>Ox. Liq. 2, H272</td>
<td>OXIDIZING LIQUIDS - Category 2</td>
</tr>
<tr>
<td>Pyr. Sol. 1, H250</td>
<td>PYROPHORIC SOLIDS - Category 1</td>
</tr>
<tr>
<td>Repr. 1A, H360FD</td>
<td>TOXIC TO REPRODUCTION (Fertility and Unborn child) - Category 1A</td>
</tr>
<tr>
<td>Repr. 2, H361fd (Fertility and Unborn child)</td>
<td>TOXIC TO REPRODUCTION (Fertility and Unborn child) - Category 2</td>
</tr>
<tr>
<td>Resp. Sens. 1, H334</td>
<td>RESPIRATORY SENSITIZATION - Category 1</td>
</tr>
<tr>
<td>Skin Corr. 1A, H314</td>
<td>SKIN CORROSION/IRRITATION - Category 1A</td>
</tr>
<tr>
<td>Skin Corr. 1B, H314</td>
<td>SKIN CORROSION/IRRITATION - Category 1B</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>SKIN CORROSION/IRRITATION - Category 2</td>
</tr>
<tr>
<td>Skin Sens. 1, H317</td>
<td>SKIN SENSITIZATION - Category 1</td>
</tr>
<tr>
<td>STOT RE 1, H372</td>
<td>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, bone marrow, cardiovascular system, central nervous system (CNS), immune system, kidneys and peripheral nervous system) - Category 1</td>
</tr>
<tr>
<td>STOT RE 1, H372 (blood system, bone marrow, cardiovascular system, central nervous system (CNS), immune system, kidneys and peripheral nervous system)</td>
<td>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>STOT RE 2, H373</th>
<th>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOT SE 3, H335</td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
</tr>
<tr>
<td>Water-react. 1, H260</td>
<td>SUBSTANCES AND MIXTURES, WHICH IN CONTACT WITH WATER, EMIT FLAMMABLE GASES - Category 1</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 10/05/2016
Date of previous issue: No previous validation.
Version: 1

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