SAFETY DATA SHEET

Version: 1.1
Revision Date: 2016-09-13
Print Date: 2016-09-13

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

1.1 Product identifiers

Product Number: A0308
Product name: Arsenazo III
CAS Registry Nr: 1668-00-4

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

Identified uses: Laboratory chemicals, Manufacture of substances.

1.3 Details of the supplier of the safety data sheet

Company: Chemodex AG
CH - 9000 St. Gallen
Switzerland, Europe
Tel: +41 71 244 48 25
Fax: +41 71 244 48 26
Email: info@chemodex.com
Website: www.chemodex.com

1.4 Emergency telephone number

Tox Info Suisse: +41 44 251 51 51

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

| Acute toxicity, Oral (Category 3) | H301 |
| Acute toxicity, Inhalation (Category 3) | H331 |
| Acute aquatic toxicity (Category 1) | H400 |
| Chronic aquatic toxicity (Category 1) | H410 |

For the full text of the H-Statements mentioned in this Section, see Section 16.
2.2 Label elements

GHS Label elements, including precautionary statements

<table>
<thead>
<tr>
<th>Pictogram</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word</td>
<td>Danger</td>
</tr>
</tbody>
</table>

**Hazard statement(s)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301 + H331</td>
<td>Toxic if swallowed or if inhaled</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

**Precautionary statement(s)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P261</td>
<td>Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.</td>
</tr>
<tr>
<td>P264</td>
<td>Wash skin thoroughly after handling.</td>
</tr>
<tr>
<td>P270</td>
<td>Do not eat, drink or smoke when using this product.</td>
</tr>
<tr>
<td>P271</td>
<td>Use only outdoors or in a well-ventilated area.</td>
</tr>
<tr>
<td>P273</td>
<td>Avoid release to the environment.</td>
</tr>
<tr>
<td>P301 + P310</td>
<td>IF SWALLOWED: Immediately call a POISON CENTER/doctor</td>
</tr>
<tr>
<td>P304 + P340</td>
<td>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</td>
</tr>
<tr>
<td>P321</td>
<td>Specific treatment (see supplemental first aid instructions on this label).</td>
</tr>
<tr>
<td>P330</td>
<td>Rinse mouth.</td>
</tr>
<tr>
<td>P391</td>
<td>Collect spillage</td>
</tr>
<tr>
<td>P403 + P233</td>
<td>Store in a well-ventilated place. Keep container tightly closed.</td>
</tr>
<tr>
<td>P405</td>
<td>Store locked up.</td>
</tr>
<tr>
<td>P501</td>
<td>Dispose of contents/ container to an approved waste disposal plant.</td>
</tr>
</tbody>
</table>

2.3 Other hazards

|Hazards not otherwise classified (HNOC) or not covered by GHS | none |

### SECTION 3: Composition/information on ingredients

3.1 Substances

|Synonyms: | 2,2’-(1,8-Dihydroxy-3,6-disulfonaphthylene-2,7-bisazo)bisbenzenearsonic acid |
|--- | 2,7-Bis(2-arsonophenylazo)chromotropic acid |
|Mol. Formula: | C22H18As2N4O14S2 |
|Mol. Weight: | 776.37 g/mol |
|CAS Registry No.: | 1668-00-4 |
|EC-No.: | 216-788-6 |
|Index-No.: | 033-002-00-5 |
### Component Classification Concentration

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,7-(Bis(2-arsonophenylazo))-1,8-dihydroxynaphthalene-3,6-disulphonic acid</td>
<td>Acute Tox. 3; Aquatic Acute 1; Aquatic Chronic 1; H301 + H331, H410</td>
<td>&lt;=100%</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

**In case of eye contact**
Flush eyes with water as a precaution.

**If swallowed**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2 Special hazards arising from the substance or mixture

No data available

#### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.
5.4 Further information
No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Components with workplace control parameters
<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,7- (Bis[2aronophenylazo])1,8dihydroxynaphthalen e-3,6-disulphonic acid</td>
<td>1668-00-4</td>
<td>TWA</td>
<td>0.500000 mg/m³</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>0.5 mg/m³</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL</td>
<td>0.2 mg/m³</td>
<td>California permissible exposure limits for chemical contaminants (Title 8, Article 107)</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

**Appropriate engineering controls**
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**Personal protective equipment**

**Eye/face protection**
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)
Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)
data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection**
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance: Form: solid
   Colour: dark brown
b) Odour: No data available
c) Odour Threshold: No data available
d) pH: No data available
e) Melting point/freezing point: Melting point/range: > 320 °C (> 608 °F) - lit.
f) Initial boiling point and boiling range: No data available
g) Flash point: No data available
h) Evaporation rate: No data available
i) Flammability (solid, gas): No data available
j) Upper/lower flammability or explosive limits: No data available
k) Vapour pressure: No data available
l) Vapour density: No data available
m) Relative density: No data available
n) Water solubility: No data available
o) Partition coefficient (n-octanol/water): No data available
p) Auto-ignition temperature: No data available
q) Decomposition temperature: No data available
r) Viscosity: No data available
s) Explosive properties: No data available
t) Oxidizing properties: No data available

9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
### 10.4 Conditions to avoid
No data available

### 10.5 Incompatible materials
Strong oxidizing agents

### 10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Arsenic oxides Other decomposition products - No data available In the event of fire: see section 5

#### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

**Acute toxicity**
No data available
Dermal: No data available
No data available

**Skin corrosion/irritation**
No data available

**Serious eye damage/eye irritation**
No data available

**Respiratory or skin sensitisation**
No data available

**Germ cell mutagenicity**
No data available

**Carcinogenicity**
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

- **IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- **NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- **OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**
No data available

**Specific target organ toxicity - single exposure**
No data available

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available
Additional Information
RTECS: Not available
burning, dry nose, dry mouth, Muscle cramps/spasms., Nausea, Vomiting, Diarrhoea, Shock., death,
May cause irritation of the:, Gastrointestinal tract
Stomach - Irregularities - Based on Human Evidence
Stomach - Irregularities - Based on Human Evidence.

SECTION 12: Ecological information

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
Very toxic to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging
Dispose of as unused product.
### SECTION 14: Transport information

#### DOT (US)

<table>
<thead>
<tr>
<th>UN number:</th>
<th>3465</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class:</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing group:</td>
<td>Packing Group II</td>
</tr>
<tr>
<td>Proper shipping name:</td>
<td>Organoarsenic compound, solid, n.o.s. (2,7-(Bis(2-arsonophenylazo))-1,8dihydroxynaphthalene-3,6-disulphonic acid)</td>
</tr>
<tr>
<td>Reportable Quantity (RQ):</td>
<td></td>
</tr>
<tr>
<td>Poison Inhalation Hazard:</td>
<td>No</td>
</tr>
</tbody>
</table>

#### IMDG

<table>
<thead>
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<th>3465</th>
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<tbody>
<tr>
<td>Class:</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing group:</td>
<td>Packing Group II</td>
</tr>
<tr>
<td>EMS-No:</td>
<td>F-A, S-A</td>
</tr>
<tr>
<td>Proper shipping name:</td>
<td>ORGANOARSENIC COMPOUND, SOLID, N.O.S. (2,7-(Bis(2-arsonophenylazo))-1,8dihydroxynaphthalene-3,6-disulphonic acid)</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>yes</td>
</tr>
</tbody>
</table>

#### IATA

<table>
<thead>
<tr>
<th>UN number:</th>
<th>3465</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class:</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing group:</td>
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<tr>
<td>Proper shipping name:</td>
<td>Organoarsenic compound, solid, n.o.s. (2,7-(Bis(2-arsonophenylazo))-1,8dihydroxynaphthalene-3,6-disulphonic acid)</td>
</tr>
</tbody>
</table>

### SECTION 15: Regulatory information

#### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

- **2,7-(Bis(2-arsonophenylazo))-1,8-dihydroxynaphthalene-3,6-disulphonic acid**
  - CAS-No: 1668-00-4
  - Revision Date 2007-03-01

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

### Pennsylvania Right To Know Components

- **2,7-(Bis(2-arsonophenylazo))-1,8-dihydroxynaphthalene-3,6disulphonic acid**
  - CAS-No: 1668-00-4
  - Revision Date 2007-03-01
New Jersey Right To Know Components
2,7-(Bis(2-arsenophenylazo))-1,8-dihydroxynaphthalene-3,6disulphonic acid
CAS-No. 1668-00-4
Revision Date 2007-03-01

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

| Acute Tox. | Acute toxicity |
| Aquatic Acute | Acute aquatic toxicity |
| Aquatic Chronic | Chronic aquatic toxicity |
| H301 + H331 | Toxic if swallowed or if inhaled |
| H331 | Toxic if inhaled |

HMIS Rating
Health hazard: 2
Chronic Health Hazard: *
Flammability: 0
Physical Hazard 0

NFPA Rating
Health hazard: 2
Fire Hazard: 0
Reactivity Hazard: 0

Further information
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