SECTION 1: Identification

1.1. Identification
Product form : Mixtures
Product name : Phenylarsine Oxide, 0.0375N (0.01875 M)
Product code : LC18390

1.2. Recommended use and restrictions on use
Use of the substance/mixture : For laboratory and manufacturing use only.
Recommended use : Laboratory chemicals
Restrictions on use : Not for food, drug or household use

1.3. Supplier
LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number
Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS-US classification
Skin corrosion/irritation Category 2
H315 - Causes skin irritation
Serious eye damage/eye irritation Category 2A
H319 - Causes serious eye irritation
Hazardous to the aquatic environment - Acute
H402 - Harmful to aquatic life
Hazard Category 3
Hazardous to the aquatic environment - Chronic
H412 - Harmful to aquatic life with long lasting effects

2.2. GHS Label elements, including precautionary statements
GHS-US labeling
Hazard pictograms (GHS-US) : 

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) :
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (GHS-US) :
P264 - Wash exposed skin thoroughly after handling.
P273 - Avoid release to the environment.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards which do not result in classification
Other hazards not contributing to the : None under normal conditions.
Phenylarsine Oxide, 0.0375N (0.01875M)
Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

classification

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS-No.) 7732-18-5</td>
<td>98.92</td>
<td>Not classified</td>
</tr>
<tr>
<td>Hydrochloric Acid, 37% w/w</td>
<td>(CAS-No.) 7647-01-0</td>
<td>0.4</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Corr. 1B, H314</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H335</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 3, H402</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>(CAS-No.) 1310-73-2</td>
<td>0.35</td>
<td>Acute Tox. 4 (Dermal), H312</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Corr. 1A, H314</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 3, H402</td>
</tr>
<tr>
<td>Phenylarsine Oxide</td>
<td>(CAS-No.) 637-03-6</td>
<td>0.33</td>
<td>Acute Tox. 3 (Oral), H301</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 3 (Inhalation), H331</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 1, H400</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 1, H410</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Gloves.

Emergency procedures : Evacuate unnecessary personnel.
6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures: Wash exposed skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep only in the original container in a cool, well ventilated place away from: Direct sunlight, incompatible materials. Keep container closed when not in use.

Incompatible products: Strong oxidizers.

Incompatible materials: Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Phenylarsine Oxide (637-03-6) | ACGIH ACGIH TWA (mg/m³) | 0.01 mg/m³ |
| Sodium Hydroxide (1310-73-2) | ACGIH ACGIH Ceiling (mg/m³) | 2 mg/m³ (Sodium hydroxide; USA; Momentary value; TLV - Adopted Value) |
| | OSHA OSHA PEL (TWA) (mg/m³) | 0.5 mg/m³ as As (organic compounds) |
| | NIOSH NIOSH REL (ceiling) (mg/m³) | 0.002 mg/m³ |
| Water (7732-18-5) | Not applicable |
| Hydrochloric Acid, 37% w/w (7647-01-0) | ACGIH ACGIH Ceiling (mg/m³) | 2.98 mg/m³ |
| | ACGIH ACGIH Ceiling (ppm) | 2 ppm |
| | OSHA OSHA PEL (Ceiling) (mg/m³) | 7 mg/m³ |
| | OSHA OSHA PEL (Ceiling) (ppm) | 5 ppm |
| | IDLH US IDLH (mg/m³) | 10 mg/m³ |
| | NIOSH NIOSH REL (ceiling) (mg/m³) | 2 mg/m³ |
| | NIOSH NIOSH REL (ceiling) (ppm) | 5 ppm |

8.2. Appropriate engineering controls

Appropriate engineering controls: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.
8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Gloves. Safety glasses.

Hand protection:
Wear protective gloves.

Eye protection:
Chemical goggles or safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
Respiratory protection not required in normal conditions

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear, colorless liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>None.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>7 - 9</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
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<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
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<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
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<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
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<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
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<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
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<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available
SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Discolours on exposure to light.

10.3. Possibility of hazardous reactions
Not established.

10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials
Strong oxidizers.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Skin and eye contact
Acute toxicity : Not classified

Phenylarsine Oxide (637-03-6)
ATE US (oral) 100 mg/kg body weight
ATE US (gases) 700 ppmV/4h
ATE US (vapors) 3 mg/l/4h
ATE US (dust, mist) 0.5 mg/l/4h

Sodium Hydroxide (1310-73-2)
ATE US (dermal) 1350 mg/kg body weight

Water (7732-18-5)
LD50 oral rat ≥ 90000 mg/kg
ATE US (oral) 90000 mg/kg body weight

Hydrochloric Acid, 37% w/w (7647-01-0)
LD50 oral rat 700 mg/kg
LD50 dermal rabbit 5010 mg/kg
ATE US (oral) 700 mg/kg body weight
ATE US (dermal) 5010 mg/kg body weight

Skin corrosion/irritation : Causes skin irritation.
pH: 7 - 9
Serious eye damage/irritation : Causes serious eye irritation.
pH: 7 - 9
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Hydrochloric Acid, 37% w/w (7647-01-0)
IARC group 3 - Not classifiable
Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified
Specific target organ toxicity – repeated exposure : Not classified
Aspiration hazard : Not classified
Phenylarsine Oxide, 0.0375N (0.01875M)
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Potential Adverse human health effects and symptoms:
- Based on available data, the classification criteria are not met.
- Causes skin irritation.
- Causes serious eye irritation.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water:
- Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

| Phenylarsine Oxide (637-03-6) | LC50 fish 1 | 1.1 mg/l |
| Sodium Hydroxide (1310-73-2) | LC50 fish 1 | 45.4 mg/l (LC50; Other; 96 h; Salmo gairdneri; Static system; Fresh water; Experimental value) |
| Hydrochloric Acid, 37% w/w (7647-01-0) | LC50 fish 1 | 282 mg/l (LC50; 96 h) |
| | EC50 Daphnia 1 | < 56 mg/l (EC50; 72 h) |

#### 12.2. Persistence and degradability

Phenylarsine Oxide, 0.0375N (0.01875M)
- May cause long-term adverse effects in the environment.

Sodium Hydroxide (1310-73-2)
- Biodegradability: not applicable. No test data on mobility of the substance available.
- Not applicable

Water (7732-18-5)
- Not applicable

Hydrochloric Acid, 37% w/w (7647-01-0)
- Biodegradability: not applicable. No test data on mobility of the components available.
- Not applicable

#### 12.3. Bioaccumulative potential

Phenylarsine Oxide, 0.0375N (0.01875M)
- Not established.

Phenylarsine Oxide (637-03-6)
- Log Pow: 2.44
- Low potential for bioaccumulation (Log Kow < 4).

Sodium Hydroxide (1310-73-2)
- No bioaccumulation data available.

Water (7732-18-5)
- Not established.

Hydrochloric Acid, 37% w/w (7647-01-0)
- Log Pow: 0.25 (QSAR)
- Low potential for bioaccumulation (Log Kow < 4).

#### 12.4. Mobility in soil

| Hydrochloric Acid, 37% w/w (7647-01-0) | Ecology - soil | May be harmful to plant growth, blooming and fruit formation. |
12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

<table>
<thead>
<tr>
<th>Phenylarsine Oxide, 0.0375N (0.01875M)</th>
<th>SARA Section 311/312 Hazard Classes</th>
<th>Immediate (acute) health hazard</th>
</tr>
</thead>
</table>

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

<table>
<thead>
<tr>
<th>Hydrochloric Acid, 37% w/w</th>
<th>CAS-No. 7647-01-0</th>
<th>0.4%</th>
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</table>

<table>
<thead>
<tr>
<th>Phenylarsine Oxide (637-03-6)</th>
<th>SARA Section 311/312 Hazard Classes</th>
<th>Immediate (acute) health hazard</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Sodium Hydroxide (1310-73-2)</th>
<th>RQ (Reportable quantity, section 304 of EPA's List of Lists)</th>
<th>1000 lb</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Sodium Hydroxide (1310-73-2)</th>
<th>SARA Section 311/312 Hazard Classes</th>
<th>Immediate (acute) health hazard</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Hydrochloric Acid, 37% w/w (7647-01-0)</th>
<th>EPA TSCA Regulatory Flag</th>
<th>T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Hydrochloric Acid, 37% w/w (7647-01-0)</th>
<th>RQ (Reportable quantity, section 304 of EPA's List of Lists)</th>
<th>5000 lb</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Hydrochloric Acid, 37% w/w (7647-01-0)</th>
<th>SARA Section 302 Threshold Planning Quantity (TPQ)</th>
<th>500 lb</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Hydrochloric Acid, 37% w/w (7647-01-0)</th>
<th>SARA Section 311/312 Hazard Classes</th>
<th>Immediate (acute) health hazard</th>
</tr>
</thead>
</table>

15.2. International regulations

CANADA

No additional information available

Sodium Hydroxide (1310-73-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations
**Phenylarsine Oxide, 0.0375N (0.01875M)**

**Safety Data Sheet**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

**SECTION 16: Other information**

Revision date : 01/24/2018
Other information : None.

Full text of H-phrases: see section 16:

<table>
<thead>
<tr>
<th>H-Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin</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>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</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>H402</td>
<td>Harmful to aquatic life</td>
</tr>
<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>
</tbody>
</table>

**NFPA health hazard**: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

**NFPA fire hazard**: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

**NFPA reactivity**: 0 - Material that in themselves are normally stable, even under fire conditions.

**Hazard Rating**

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
<td>Moderate Hazard - Temporary or minor injury may occur</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
<td>Minimal Hazard - Materials that will not burn</td>
</tr>
<tr>
<td>Physical</td>
<td>0</td>
<td>Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.</td>
</tr>
<tr>
<td>Personal protection</td>
<td>B</td>
<td>B - Safety glasses, Gloves</td>
</tr>
</tbody>
</table>

SDS US LabChem

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