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

1.1. Product identifier

Product form: Mixture
Product name: Aroclor 1254 Standard
Product code: AL0-101472
Product group: Trade product

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

1.2.1. Relevant identified uses

Main use category: Laboratory Use
Industrial/Professional use spec: Industrial
Use of the substance/mixture: Certified reference material for laboratory use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Phenova
6390 Joyce Dr. Suite 100
80403 Golden, CO - United States
T 1-866-942-2978 - F 1-866-283-0269
info@phenova.com - www.phenova.com

1.4. Emergency telephone number

Emergency number: ChemTel Assistance (US/Canada) 1-800-255-3924
ChemTel Assistance (International) +1 813-248-0585

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225
Skin Irrit. 2 H315
Repr. 2 H361
STOT SE 3 H336
STOT RE 2 H373
Asp. Tox. 1 H304
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Repr.Cat.3; R62
F: R11
Xn; R65
Xn; R48/20
Xi: R38
N: R51/53
R67

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available
2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP):
- GHS02
- GHS07
- GHS08
- GHS09

Signal word (CLP): Danger

Hazardous ingredients: Aroclor 1254

Hazard statements (CLP):
- H225 - Highly flammable liquid and vapor
- H304 - May be fatal if swallowed and enters airways
- H315 - Causes skin irritation
- H336 - May cause drowsiness or dizziness
- H361 - Suspected of damaging fertility or the unborn child
- H373 - May cause damage to organs through prolonged or repeated exposure
- H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP):
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- P233 - Keep container tightly closed
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray
- P270 - Do not eat, drink or smoke when using this product
- P271 - Use only outdoors or in a well-ventilated area
- P273 - Avoid release to the environment
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P308+P313 - IF exposed or concerned: Get medical advice/attention
- P403+P235 - Store in a well-ventilated place. Keep cool
- P405 - Store locked up

No labeling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
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</thead>
<tbody>
<tr>
<td>Isooctane</td>
<td>(CAS No) 26635-64-3</td>
<td>99.9</td>
<td>Flam. Liq. 2, H225</td>
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<td></td>
<td>(EC no) 247-861-0</td>
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<td>Skin Irrit. 2, H315</td>
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<td></td>
<td>(EC index no) 801-009-00-8</td>
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<td>STOT SE 3, H336 Asp. Tox. 1, H304</td>
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<tr>
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<td></td>
<td></td>
<td>Aquatic Acute 1, H400</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 1, H410</td>
</tr>
<tr>
<td>Aroclor 1254</td>
<td>(CAS No) 11097-69-1</td>
<td>0.1</td>
<td>Acute Tox. 4 (Oral), H302</td>
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<tr>
<td></td>
<td>(EC index no) 602-039-00-4</td>
<td></td>
<td>STOT RE 2, H373 Aquatic Acute 1, H400 (M=100)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 1, H419 (M=100)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>Specific concentration limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aroclor 1254</td>
<td>(CAS No) 11097-69-1</td>
<td>(C &gt;= 0.005) STOT RE 2, H373</td>
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<tr>
<td></td>
<td>(EC index no) 802-039-00-4</td>
<td></td>
</tr>
</tbody>
</table>

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 exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get immediate medical advice/attention. Get medical advice/attention.

First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.
4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries after inhalation: May cause drowsiness or dizziness.
Symptoms/injuries after skin contact: Causes skin irritation.
Symptoms/injuries after ingestion: May be fatal if swallowed and enters airways.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures
5.1. Extinguishing media
Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture
Fire hazard: Highly flammable liquid and vapor.
Explosion hazard: May form flammable/explosive vapor-air mixture.

5.3. Advice for firefighters
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
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapors/spray.
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
Additional hazards when processed: Handle empty containers with care because residual vapors are flammable.
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. No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area.
Hygiene measures: Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.
Storage conditions: Keep in fireproof place. Keep container tightly closed. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.
Incompatible products: Strong bases. Strong acids.
Incompatible materials: Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
No additional information available
8.2. Exposure controls

Appropriate engineering controls: Either local exhaust or general room ventilation is usually required.


Hand protection: Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration.

Eye protection: Chemical goggles or safety glasses. Safety glasses.

Skin and body protection: Wear suitable protective clothing. Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.

Respiratory protection: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.

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

Physical state: Liquid
Color: Colorless.
Odor: Characteristic.
pH: No data available
Melting point: No data available
Freezing point: No data available
Boiling point: No data available
Flash point: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): Highly flammable liquid and vapor
Relative density: No data available
Solubility: No data available
Explosive properties: No data available
Oxidizing properties: No data available
Explosion limits: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established. Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products


SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

<table>
<thead>
<tr>
<th>Aroclor 1254 (11097-69-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
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</table>

27/04/2015 EN (English US) 4/1
**Aroclor 1254 Standard**

**Safety Data Sheet**

according to Regulation (EC) No. 453/2010

<table>
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<tr>
<th>Aroclor 1254 (11097-69-1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE CLP (oral)</td>
<td>1010.000 mg/kg body weight</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Not classified

Based on available data, the classification criteria are not met

Respiratory or skin sensitization: Not classified

Based on available data, the classification criteria are not met

Germ cell mutagenicity: Not classified

Based on available data, the classification criteria are not met

Carcinogenicity: Not classified

Based on available data, the classification criteria are not met

May cause cancer

Reproductive toxicity: Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (single exposure): May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure): May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: May be fatal if swallowed and enters airways.

Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Ecology - water: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Aroclor 1254 (11097-69-1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>0.0077 mg/l (96 h; Pimephales promelas)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>1.8 - 24 mg/l (336 h; Daphnia magna; Static system)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>2.74 mg/l (96 h; Lepomis macrochirus)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>2.4 mg/l (96 h; Gammarus sp.)</td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**

**Aroclor 1254 Standard**

Persistence and degradability: May cause long-term adverse effects in the environment.

**Aroclor 1254 (11097-69-1)**


**isoctane (26635-64-3)**

Persistence and degradability: Readily biodegradable in water.

**12.3. Bioaccumulative potential**

**Aroclor 1254 Standard**

Bioaccumulative potential: Not established.

**Aroclor 1254 (11097-69-1)**

BCF fish 1: 238000 (Pimephales promelas; Chronic)

BCF fish 2: 46000 (Salmo gairdneri (Oncorhynchus mykiss); Chronic)

BCF other aquatic organisms 1: 3800 (96 h; Daphnia magna)

BCF other aquatic organisms 2: 160 - 6300 (431 h)

Log Pow: 6.03

Bioaccumulative potential: High potential for bioaccumulation (BCF > 5000).

**12.4. Mobility in soil**

No additional information available

**12.5. Results of PBT and vPvB assessment**

No additional information available

**12.6. Other adverse effects**

Additional information: Avoid release to the environment

**SECTION 13: Disposal considerations**

**13.1. Waste disposal treatment methods**

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

Additional information: Handle empty containers with care because residual vapors are flammable.
Aroclor 1254 Standard
Safety Data Sheet
according to Regulation (EC) No. 453/2010

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

**SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. **UN number**

| UN-No. (ADR) | 1993 |
| UN-No.(IATA) | 1993 |

14.2. **UN proper shipping name**

| Proper Shipping Name (ADR) | FLAMMABLE LIQUID, N.O.S. |
| Proper Shipping Name (IATA) | FLAMMABLE LIQUID, N.O.S. |
| Proper Shipping Name (IMDG) | FLAMMABLE LIQUID, N.O.S. |
| Proper Shipping Name (ADN) | FLAMMABLE LIQUID, N.O.S. |

| Transport document description (ADR) | UN 1993 FLAMMABLE LIQUID, N.O.S. (hexane(110-54-3)), 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS |

14.3. **Packing group**

| Class (ADR) | 3 |
| Classification code (ADR) | F1 |
| Class (IATA) | 3 |
| Class (IMDG) | 3 |
| Class (ADN) | 3 |
| Hazard labels (ADR) | 3 |

| Hazard labels (IATA) | 3 |

14.4. **Packing group**

| Packing group (ADR) | II |
| Packing group (IATA) | II |

14.5. **Environmental hazards**

Dangerous for the environment : 

Other information : No supplementary information available.

14.6. **Special precautions for user**

14.6.1. **Overland transport**

| Hazard identification number (Kemler No.) | 33 |
| Classification code (ADR) | F1 |

| Orange plates | 
| Special provision (ADR) | 274, 601, 640D |
| Transport category (ADR) | 2 |
| Tunnel restriction code (ADR) | D/E |
| Limited quantities (ADR) | 1l |
| Excepted quantities (ADR) | E2 |

14.6.2. **Transport by sea**

No additional information available.
14.6.3. Air transport
CAO packing instructions (IATA) : 364
CAO max net quantity (IATA) : 60L
PCA packing instructions (IATA) : 353
PCA Limited quantities (IATA) : Y341
PCA limited quantity max net quantity (IATA) : 1L
PCA max net quantity (IATA) : 5L
PCA Excepted quantities (IATA) : E2
ERG code (IATA) : 3H

14.6.4. Inland waterway transport
Carriage prohibited (ADN) : No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations
Contains no substances with Annex XVII restrictions
Contains no REACH candidate substance
Contains no REACH Annex XIV substances.

15.1.2. National regulations
No additional information available

15.2. Chemical safety assessment
No chemical safety assessment has been carried out

SECTION 16: Other information


Other information : None.