Safety data sheet

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

1.1. Product identifier

Code: RPC-1242
Product name: Aroclor 1242 (PCB 1242)
INDEX number: 602-039-00-4
EC number: 215-648-1
CAS number: 53469-21-9

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

Intended use: reference material and/or laboratory reagent

1.3. Details of the supplier of the safety data sheet

Name: ULTRA Scientific, Inc.
Full address: 250 Smith Street 02852 N. Kingstown (RI) USA
Tel.: 401-294-9400
Fax: 401-295-2330

e-mail address of the competent person responsible for the Safety Data Sheet: Regulatory@ultrasci.com

Product distribution by: ULTRA Scientific, Inc.

1.4. Emergency telephone number

For urgent inquiries refer to
US: (800) 424-9300
Outside US: (703) 527-3887

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

- Flammable liquid, category 2: H225 Highly flammable liquid and vapour.
- Specific target organ toxicity - repeated exposure, category 1: H372 Causes damage to organs through prolonged or repeated exposure.
- Hazardous to the aquatic environment, acute toxicity, category 1: H400 Very toxic to aquatic life.
- Hazardous to the aquatic environment, chronic toxicity, category 1: H410 Very toxic to aquatic life with long lasting effects.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger
SECTION 2. Hazards identification.

Hazard statements:
- H225 Highly flammable liquid and vapour.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P264 Wash hands thoroughly after handling.
- P280 Wear protective gloves / eye protection / face protection.
- P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
- P314 Get medical advice / attention if you feel unwell.

Contains: Aroclor 1242 (PCB 1242)

INDEX. 602-039-00-4

2.3. Other hazards.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Contains:

Identification. Conc. %.
Aroclor 1242 (PCB 1242) 100

Classification 1272/2008 (CLP).
- STOT RE 1 H372, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410

The full wording of hazard (H) phrases is given in section 16 of the sheet.

3.2. Mixtures.

Information not relevant.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
- The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT
- None in particular.
SECTION 5. Firefighting measures.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014
SECTION 8. Exposure controls/personal protection.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves’ resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves’ wear time depends on the duration and type of use.

SKIN PROTECTION


Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker’s exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

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>Appearance</td>
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</tr>
<tr>
<td>Colour</td>
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</tr>
<tr>
<td>Odour</td>
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</tr>
<tr>
<td>Odour threshold</td>
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<tr>
<td>pH</td>
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</tr>
<tr>
<td>Melting point / freezing point</td>
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</tr>
<tr>
<td>Initial boiling point</td>
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<td>Boiling range</td>
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</tr>
<tr>
<td>Flash point</td>
<td>&gt; 0 °C.</td>
</tr>
<tr>
<td>Evaporation Rate</td>
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<tr>
<td>Flammability of solids and gases</td>
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<tr>
<td>Lower inflammability limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper inflammability limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
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<tr>
<td>Vapour density</td>
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</tr>
<tr>
<td>Relative density</td>
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</tr>
<tr>
<td>Solubility</td>
<td>not applicable.</td>
</tr>
</tbody>
</table>

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
SECTION 9. Physical and chemical properties.

Partition coefficient: n-octanol/water  Not available.
Auto-ignition temperature.        Not available.
Decomposition temperature.        Not available.
Viscosity                      Not available.
Explosive properties            Not available.
Oxidising properties            Not available.

9.2. Other information.
VOC (Directive 1999/13/EC) : 0
VOC (volatile carbon) : 0

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.

Aroclor 1242 (PCB 1242)
LD50 (Oral). 4250 mg/kg rat

SECTION 12. Ecological information.

This product is dangerous for the environment and highly toxic for aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.
Aroclor 1242 (PCB 1242)
LC50 - for Fish. 0.015 mg/l/96h Pimephales promelas (fathead minnow)

12.2. Persistence and degradability.
Aroclor 1242 (PCB 1242)
NOT rapidly biodegradable.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%.
SECTION 12. Ecological information.  ...

12.6. Other adverse effects.

Information not available.


Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.


14.1. UN number.

ADR / RID, IMDG, IATA: 2315

14.2. UN proper shipping name.

ADR / RID: POLYCHLORINATED BIPHENYLS, LIQUID
IMDG: POLYCHLORINATED BIPHENYLS, LIQUID
IATA: POLYCHLORINATED BIPHENYLS, LIQUID

14.3. Transport hazard class(es).

ADR / RID: Class: 9 Label: 9
IMDG: Class: 9 Label: 9
IATA: Class: 9 Label: 9

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID: Environmentally Hazardous.
IMDG: Marine Pollutant.
IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user.

ADR / RID: HIN - Kemler: 90 Limited Quantities 1 L Tunnel restriction code (D/E)
Special Provision: -
IMDG: EMS: F-A, S-A Limited Quantities 1 L Packaging instructions: 964
Cargo: Maximum quantity: 220 L Packaging instructions: 964
Pass.: Maximum quantity: 100 L
Special Instructions: A11

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

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

Seveso category. 7b, 9i

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006:

Product. 3 - 40

Substances in Candidate List (Art. 59 REACH).
None.

Substances subject to authorisation (Annex XIV REACH).
None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Healthcare controls.
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

- Flam. Liq. 2: Flammable liquid, category 2
- STOT RE 1: Specific target organ toxicity - repeated exposure, category 1
- Aquatic Acute 1: Hazardous to the aquatic environment, acute toxicity, category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment, chronic toxicity, category 1
- H225: Highly flammable liquid and vapour.
- H372: Causes damage to organs through prolonged or repeated exposure.
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
SECTION 16. Other information.

- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
2. Regulation (EU) 1272/2008 (CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- ECHA website

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 04 / 06 / 07 / 08 / 09 / 11 / 12 / 14 / 16.