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

- **Product identifier**
- **Trade name:** PCB Elution Window Mixture
- **Part number:** RPCW-110-1
- **Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** ULTRA Scientific, Inc.
  250 Smith Street
  North Kingstown, RI 02852
  USA

  - **Further information obtainable from:**
    - Telephone: (401) 294-9400
    - Fax: (401) 295-2300
    - E-mail: regulatory@ultrasci.com
  - **Emergency telephone number:**
    - US: (800) 424-9300
    - Outside US: (703) 527-3887

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**

  - **GHS02 flame**
  Flam. Liq. 2 H225 Highly flammable liquid and vapour.

  - **GHS08 health hazard**
  Repr. 2 H361f Suspected of damaging fertility.
  STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
  Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

  - **GHS09 environment**
  Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

  - **GHS07**
  Skin Irrit. 2 H315 Causes skin irritation.
  STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
Trade name: PCB Elution Window Mixture

· **Hazard pictograms**

GHS02  GHS07  GHS08  GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**
  n-hexane

· **Hazard statements**
  H225 Highly flammable liquid and vapour.
  H315 Causes skin irritation.
  H361f Suspected of damaging fertility.
  H336 May cause drowsiness or dizziness.
  H373 May cause damage to organs through prolonged or repeated exposure.
  H304 May be fatal if swallowed and enters airways.
  H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**
  P101 If medical advice is needed, have product container or label at hand.
  P102 Keep out of reach of children.
  P103 Read label before use.
  P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  P241 Use explosion-proof electrical/ventilating/lighting equipment.
  P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  P405 Store locked up.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards**

· **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterisation:** Mixtures
  · **Description:** Mixture of substances listed below with nonhazardous additions.
  · **Dangerous components:**

<table>
<thead>
<tr>
<th>CAS: 110-54-3</th>
<th>n-hexane</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 203-777-6</td>
<td>Flam. Liq. 2, H225; Repr. 2, H361f; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336</td>
</tr>
</tbody>
</table>

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.
4 First aid measures

- **Description of first aid measures**
  - **General information:** Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  - **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
  - **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
  - **After eye contact:** Rinse opened eye for several minutes under running water.
  - **After swallowing:** If symptoms persist consult doctor.

- **Information for doctor:**
  - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
  - **Suitable extinguishing agents:** CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **Special hazards arising from the substance or mixture** No further relevant information available.

- **Advice for firefighters**
  - **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**
  - Inform respective authorities in case of seepage into water course or sewage system.
  - Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.

- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
  - **Precautions for safe handling** No special precautions are necessary if used correctly.
  - **Information about fire - and explosion protection:**
    - Keep ignition sources away - Do not smoke.
    - Protect against electrostatic charges.
Trade name: PCB Elution Window Mixture

44.2.6

- Conditions for safe storage, including any incompatibilities
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**
    - Keep container tightly sealed.
    - Store in cool, dry conditions in well sealed receptacles.
  - **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Control parameters**

<table>
<thead>
<tr>
<th>Ingredients with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>110-54-3 n-hexane</strong></td>
</tr>
<tr>
<td>WEL Long-term value: 72 mg/m³, 20 ppm</td>
</tr>
</tbody>
</table>

- **Additional information:** The lists valid during the making were used as basis.

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing
  - Wash hands before breaks and at the end of work.
  - Store protective clothing separately.
  - Avoid contact with the skin.
  - Avoid contact with the eyes and skin.

- **Respiratory protection:**
  - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**

  Protective gloves

  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Trade name: PCB Elution Window Mixture

Eye protection:

<table>
<thead>
<tr>
<th>9 Physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Information on basic physical and chemical properties</td>
</tr>
<tr>
<td>· General Information</td>
</tr>
<tr>
<td>· Appearance:</td>
</tr>
<tr>
<td>Form: Fluid</td>
</tr>
<tr>
<td>Colour: Colourless</td>
</tr>
<tr>
<td>· Odour: Characteristic</td>
</tr>
<tr>
<td>· Odour threshold: Not determined.</td>
</tr>
<tr>
<td>· pH-value: Not determined.</td>
</tr>
<tr>
<td>· Change in condition</td>
</tr>
<tr>
<td>Melting point/freezing point: -95 °C</td>
</tr>
<tr>
<td>Initial boiling point and boiling range: 69 °C</td>
</tr>
<tr>
<td>· Flash point: -22 °C</td>
</tr>
<tr>
<td>· Flammability (solid, gas): Not applicable.</td>
</tr>
<tr>
<td>· Ignition temperature: 240 °C</td>
</tr>
<tr>
<td>· Decomposition temperature: Not determined.</td>
</tr>
<tr>
<td>· Auto-ignition temperature: Product is not selfigniting.</td>
</tr>
<tr>
<td>· Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.</td>
</tr>
<tr>
<td>· Explosion limits:</td>
</tr>
<tr>
<td>Lower: 1.2 Vol %</td>
</tr>
<tr>
<td>Upper: 7.4 Vol %</td>
</tr>
<tr>
<td>· Vapour pressure at 20 °C: 110 hPa</td>
</tr>
<tr>
<td>· Density at 20 °C: 0.7 g/cm³</td>
</tr>
<tr>
<td>· Relative density: Not determined.</td>
</tr>
<tr>
<td>· Vapour density: Not determined.</td>
</tr>
<tr>
<td>· Evaporation rate: Not determined.</td>
</tr>
<tr>
<td>· Solubility in / Miscibility with water at 20 °C: 0.1 g/l</td>
</tr>
<tr>
<td>· Partition coefficient: n-octanol/water: Not determined.</td>
</tr>
<tr>
<td>· Viscosity:</td>
</tr>
<tr>
<td>Dynamic: Not determined.</td>
</tr>
<tr>
<td>Kinematic: Not determined.</td>
</tr>
<tr>
<td>· Solvent content:</td>
</tr>
<tr>
<td>Organic solvents: 100.0 %</td>
</tr>
<tr>
<td>VOC (EC) 99.98 %</td>
</tr>
</tbody>
</table>
Trade name: PCB Elution Window Mixture

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability:
  - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
  - Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity: Based on available data, the classification criteria are not met.
  - LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>110-54-3 n-hexane</td>
<td>5000 mg/kg (rat)</td>
<td>3000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - Skin corrosion/irritation: Causes skin irritation.
  - Serious eye damage/irritation: Based on available data, the classification criteria are not met.
  - Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
  - CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): Based on available data, the classification criteria are not met.
  - Germ cell mutagenicity: Based on available data, the classification criteria are not met.
  - Carcinogenicity: Based on available data, the classification criteria are not met.
  - Reproductive toxicity: Suspected of damaging fertility.
  - STOT-single exposure: May cause drowsiness or dizziness.
  - STOT-repeated exposure: May cause damage to organs through prolonged or repeated exposure.
  - Aspiration hazard: May be fatal if swallowed and enters airways.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behaviour in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.
  - Ecotoxicological effects:
    - Remark: Toxic for fish
Trade name: PCB Elution Window Mixture

· Additional ecological information:
· General notes:
  Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Danger to drinking water if even small quantities leak into the ground.
  Also poisonous for fish and plankton in water bodies.
  Toxic for aquatic organisms
· Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.
· Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods
· Recommendation
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue
  HP 3 Flammable
  HP 4 Irritant - skin irritation and eye damage
  HP 5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
  HP 10 Toxic for reproduction
  HP 14 Ecotoxic

· Uncleaned packaging:
  · Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number
· ADR, IMDG, IATA
  UN1208

· UN proper shipping name
  · ADR
  1208 HEXANES mixture, ENVIRONMENTALLY HAZARDOUS
  · IMDG
  HEXANES mixture, MARINE POLLUTANT
  · IATA
  HEXANES mixture

· Transport hazard class(es)
· ADR, IMDG

[Symbol for Flammable]

· Class
  3 Flammable liquids.
Trade name: PCB Elution Window Mixture

- **Label**: 3
- **IATA**

![Flammable Liquid Symbol]

- **Class**: 3 Flammable liquids.
- **Label**: 3

- **Packing group**: ADR, IMDG, IATA
  - **ADR, IMDG, IATA**: II

- **Environmental hazards**: Product contains environmentally hazardous substances: decachlorobiphenyl, n-hexane
- **Marine pollutant**: Symbol (fish and tree)
- **Special marking (ADR)**: Symbol (fish and tree)

- **Special precautions for user**: Warning: Flammable liquids.
- **Danger code (Kemler)**: 33
- **EMS Number**: F-E,S-D
- **Stowage Category**: E

- **Transport in bulk according to Annex II of Marpol and the IBC Code**: Not applicable.

- **Transport/Additional information**:
  - **ADR**
    - **Limited quantities (LQ)**: 1L
    - **Excepted quantities (EQ)**: Code: E2
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 500 ml
  - **Transport category**: 2
  - **Tunnel restriction code**: D/E

- **IMDG**
  - **Limited quantities (LQ)**: 1L
  - **Excepted quantities (EQ)**: Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml

- **UN "Model Regulation"**: UN 1208 HEXANES MIXTURE, ENVIRONMENTALLY HAZARDOUS, 3, II, ENVIRONMENTALLY HAZARDOUS

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - Directive 2012/18/EU
  - Named dangerous substances - ANNEX I
  - None of the ingredients is listed.

- **Seveso category**
  - E2 Hazardous to the Aquatic Environment
  - P5c FLAMMABLE LIQUIDS

- **Qualifying quantity (tonnes) for the application of lower-tier requirements**: 200 t
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 09.03.2017
Version number 1
Revision: 09.03.2017

Trade name: PCB Elution Window Mixture

- Qualifying quantity (tonnes) for the application of upper-tier requirements: 500 t
- REGULATION (EC) No 1907/2006 ANNEX XVII
  Conditions of restriction: 3
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  H225 Highly flammable liquid and vapour.
  H304 May be fatal if swallowed and enters airways.
  H315 Causes skin irritation.
  H336 May cause drowsiness or dizziness.
  H361f Suspected of damaging fertility.
  H373 May cause damage to organs through prolonged or repeated exposure.
  H411 Toxic to aquatic life with long lasting effects.

- Department issuing SDS: Document Control / Regulatory
- Contact: regulatory@ultrasci.com

- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Flam. Liq. 2: Flammable liquids – Category 2
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Repr. 2: Reproductive toxicity – Category 2
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
  Asp. Tox. 1: Aspiration hazard – Category 1
  Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2