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

· **Product identifier**

  · **Trade name:** Custom Standard
  · **Part number:** CUS-5791
  · **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
  
  · **Information department:**
    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 Hazard(s) identification

· **Classification of the substance or mixture**

  ![GHS08 Health hazard](image)
  
  - Carc. 2  H351  Suspected of causing cancer.

  ![GHS07](image)
  
  - Acute Tox. 4  H302  Harmful if swallowed.

· **Label elements**

  · **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**

  ![GHS07](image)  ![GHS08](image)

· **Signal word** Warning

· **Hazard-determining components of labeling:**

  dichloromethane

· **Hazard statements**

  Harmful if swallowed.
  Suspected of causing cancer.

· **Precautionary statements**

  Wear protective gloves/protective clothing/eye protection/face protection.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Obtain special instructions before use.

(Contd. on page 2)
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: Supply fresh air; consult doctor in case of complaints.
  - After skin contact: Generally the product does not irritate the skin.
  - After eye contact: Rinse opened eye for several minutes under running water.
  - After swallowing: Immediately call a 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 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents: Use fire fighting measures that suit the environment.
  - Special hazards arising from the substance or mixture: No further relevant information available.
Trade name: Custom Standard

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

### 6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: No special measures required.
- 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.

- Protective Action Criteria for Chemicals
  - PAC-1:
    - 75-09-2 dichloromethane 200 ppm
  - PAC-2:
    - 75-09-2 dichloromethane 560 ppm
  - PAC-3:
    - 75-09-2 dichloromethane 6,900 ppm

### 7 Handling and storage

- Handling:
- Precautions for safe handling: No special precautions are necessary if used correctly.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility: Not required.
- Further information about storage conditions: None.
- Specific end use(s): No further relevant information available.

### 8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace:
  - The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
  - The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
  - At this time, the remaining constituent has no known exposure limits.
  - At this time, the other constituents have no known exposure limits.
Trade name: Custom Standard

75-09-2 dichloromethane

<table>
<thead>
<tr>
<th>PEL</th>
<th>Short-term value: 125 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Long-term value: 25 ppm</td>
</tr>
<tr>
<td></td>
<td>see 29 CFR 1910.1052</td>
</tr>
<tr>
<td>REL</td>
<td>See Pocket Guide App. A</td>
</tr>
<tr>
<td>TLV</td>
<td>Long-term value: 174 mg/m³, 50 ppm</td>
</tr>
<tr>
<td></td>
<td>BEI</td>
</tr>
</tbody>
</table>

Ingredients with biological limit values:

75-09-2 dichloromethane

BEI 0.3 mg/L
- Medium: urine
- Time: end of shift
- Parameter: Dichloromethane (semi-quantitative)

Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
  - Keep away from foodstuffs, beverages and feed.
  - Wash hands before breaks and at the end of work.
- Breathing equipment: Not required.
- Protection of hands:
  - 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.
- Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
  - Appearance:
    - Form: Fluid
    - Color: According to product specification
    - Odor: Characteristic
    - Odor threshold: Not determined.
  - pH-value: Not determined.
- Change in condition
  - Melting point/Melting range: -95.1 °C (-139 °F)
  - Boiling point/Boiling range: Undetermined.
- Flash point: Not applicable.
### 4.2.6 Flammability (solid, gaseous):
- Not applicable.

### Ignition temperature:
- 605 °C (1121 °F)

### Decomposition temperature:
- Not determined.

### Auto igniting:
- Product is not self-igniting.

### Danger of explosion:
- Product does not present an explosion hazard.

#### Explosion limits:
- **Lower:** 13 Vol %
- **Upper:** 22 Vol %

### Vapor pressure at 20 °C (68 °F):
- 360 hPa (270 mm Hg)

### Density at 20 °C (68 °F):
- 1.3 g/cm³ (10.849 lbs/gal)

### Relative density:
- Not determined.

### Vapor density:
- Not determined.

### Evaporation rate:
- Not determined.

### Solubility in / Miscibility with Water at 20 °C (68 °F):
- 20 g/l

### Partition coefficient (n-octanol/water):
- Not determined.

### Viscosity:
- **Dynamic:** Not determined.
- **Kinematic:** Not determined.

### Solvent content:
- **Organic solvents:** 99.7 %
- **VOC content:** 0 g/l / 0 lb/gl

### Other information:
- No further relevant information available.

### 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:

#### LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Mode</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>1605 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>2006 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Inhalative LC50/4 h</td>
<td>88.3 mg/L (rat)</td>
<td></td>
</tr>
</tbody>
</table>
44.2.6

75-09-2 dichloromethane

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1600 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;2000 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>88 mg/L (rat)</td>
<td></td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** No irritating effect.
  - **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**
  The product shows the following dangers according to internally approved calculation methods for preparations:
  - **Harmful**

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    - 75-09-2 dichloromethane 2B
  - **NTP (National Toxicology Program)**
    - 75-09-2 dichloromethane R
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    - 75-09-2 dichloromethane

### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability** No further relevant information available.
  - **Behavior in environmental systems:**
    - **Bioaccumulative potential** No further relevant information available.
    - **Mobility in soil** No further relevant information available.
  - **Additional ecological information:**
  - **General notes:** Not known to be hazardous to water.
  - **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 of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings**
  - **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **UN-Number**
- **DOT, IMDG, IATA**
  - UN1593
Trade name: Custom Standard

<table>
<thead>
<tr>
<th>· UN proper shipping name</th>
<th>· DOT</th>
<th>· IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>· DOT</td>
<td></td>
<td>DICHLOROMETHANE</td>
</tr>
<tr>
<td>· IMDG, IATA</td>
<td></td>
<td>DICHLOROMETHANE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Transport hazard class(es)</th>
</tr>
</thead>
<tbody>
<tr>
<td>· DOT</td>
</tr>
<tr>
<td>· Class</td>
</tr>
<tr>
<td>· Label</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Class</td>
</tr>
<tr>
<td>· Label</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Packing group</th>
</tr>
</thead>
<tbody>
<tr>
<td>· DOT, IMDG, IATA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Environmental hazards:</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Not applicable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Special precautions for user</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Warning: Toxic substances</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· EMS Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>· F-A,S-A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Segregation groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Liquid halogenated hydrocarbons</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Stowage Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>· A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Not applicable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Transport/Additional information:</th>
</tr>
</thead>
<tbody>
<tr>
<td>· DOT</td>
</tr>
<tr>
<td>· Quantity limitations</td>
</tr>
<tr>
<td>On passenger aircraft/rail: 60 L</td>
</tr>
<tr>
<td>On cargo aircraft only: 220 L</td>
</tr>
<tr>
<td>· Hazardous substance:</td>
</tr>
<tr>
<td>1000 lbs, 454 kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· IMDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Limited quantities (LQ): 5L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Exected quantities (EQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Code: E1</td>
</tr>
<tr>
<td>· Maximum net quantity per inner packaging: 30 ml</td>
</tr>
<tr>
<td>· Maximum net quantity per outer packaging: 1000 ml</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· UN &quot;Model Regulation&quot;:</th>
</tr>
</thead>
<tbody>
<tr>
<td>· UN 1593 DICHLOROMETHANE, 6.1, III</td>
</tr>
</tbody>
</table>

(Contd. on page 8)
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
  - Section 355 (extremely hazardous substances):
    None of the ingredients is listed.
  - Section 313 (Specific toxic chemical listings):
    75-09-2 dichloromethane
  - TSCA (Toxic Substances Control Act):
    All ingredients are listed.

- Proposition 65
  - Chemicals known to cause cancer:
    75-09-2 dichloromethane
  - Chemicals known to cause reproductive toxicity for females:
    None of the ingredients is listed.
  - Chemicals known to cause reproductive toxicity for males:
    None of the ingredients is listed.
  - Chemicals known to cause developmental toxicity:
    None of the ingredients is listed.

- Carcinogenic categories
  - EPA (Environmental Protection Agency)
    75-09-2 dichloromethane $L$
  - TLV (Threshold Limit Value established by ACGIH)
    75-09-2 dichloromethane $A3$
  - NIOSH–Ca (National Institute for Occupational Safety and Health)
    75-09-2 dichloromethane

- GHS label elements
  The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms

  GHS07  GHS08

- Signal word
  Warning

- Hazard-determining components of labeling:
  dichloromethane

- Hazard statements
  Harmful if swallowed.
  Suspected of causing cancer.

- Precautionary statements
  Wear protective gloves/protective clothing/eye protection/face protection.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
### 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.

- **Department issuing SDS:** Document Control / Regulatory
- **Contact:** regulatory@ultrasci.com
- **Date of preparation / last revision** 04/21/2017 / -
- **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
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - 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)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - 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
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - BEI: Biological Exposure Limit
  - Acute Tox. 4: Acute toxicity – Category 4
  - Carc. 2: Carcinogenicity – Category 2