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

· Product identifier
· Trade name: Custom Standard
· Part number: CUS-9690
· 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
  Carc. 2  H351  Suspected of causing cancer.

  GHS07
  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  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.

(Contd. on page 2)
Trade name: Custom Standard

Do not handle until all safety precautions have been read and understood.
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
IF exposed or concerned: Get medical advice/attention.
Rinse mouth.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

- NFPA ratings (scale 0 - 4)
  - Health = 1
  - Fire = 0
  - Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  - HEALTH
  - Fire = 0
  - Reactivity = 0

Other hazards:

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

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.
- Dangerous components:
  - 75-09-2 dichloromethane 99.943%

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

<table>
<thead>
<tr>
<th>PAC-1</th>
<th>75-09-2 dichloromethane</th>
<th>200 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAC-2</td>
<td>75-09-2 dichloromethane</td>
<td>560 ppm</td>
</tr>
<tr>
<td>PAC-3</td>
<td>75-09-2 dichloromethane</td>
<td>6,900 ppm</td>
</tr>
</tbody>
</table>

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.
### Safety Data Sheet

**Trade name:** Custom Standard

(Contd. of page 4)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gaseous)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>605 °C (1121 °F)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>13 Vol %</td>
</tr>
<tr>
<td>Upper</td>
<td>22 Vol %</td>
</tr>
<tr>
<td>Vapor pressure at 20 °C (68 °F)</td>
<td>360 hPa (270 mm Hg)</td>
</tr>
<tr>
<td>Density at 20 °C (68 °F)</td>
<td>1.3 g/cm³ (10.849 lbs/gal)</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with</td>
<td></td>
</tr>
<tr>
<td>Water at 20 °C (68 °F)</td>
<td>20 g/l</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solvent content</td>
<td></td>
</tr>
<tr>
<td>Organic solvents</td>
<td>99.9 %</td>
</tr>
<tr>
<td>VOC content</td>
<td>0 g/l / 0 lb/gl</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

### 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:**
    - **ATE (Acute Toxicity Estimates)**
      | Route   | LD50/LC50 | Value (mg/kg or L) |
      |----------|-----------|--------------------|
      | Oral     | LD50      | 1601 mg/kg (rat)   |
      | Dermal   | LD50      | 2001 mg/kg (rat)   |
      | Inhalative | LC50/4 h | 88 mg/L (rat)      |

(Contd. on page 6)
Trade name: Custom Standard

75-09-2 dichloromethane

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

(Contd. on page 7)
### UN proper shipping name
- DOT: Dichloromethane
- IMDG, IATA: DICHLOROMETHANE

### Transport hazard class(es)
- **DOT**
  - **Class**: 6.1 Toxic substances
  - **Label**: 6.1

- **IMDG, IATA**
  - **Class**: 6.1 Toxic substances
  - **Label**: 6.1

### Packing group
- DOT, IMDG, IATA: III

### Environmental hazards:
- Not applicable.

### Special precautions for user
- Warning: Toxic substances
- **Danger code (Kemler):** 60
- **EMS Number:** F-A,S-A
- **Segregation groups:** Liquid halogenated hydrocarbons
- **Stowage Category:** A

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
- Not applicable.

### Transport/Additional information:
- **DOT**
  - **Quantity limitations**:
    - On passenger aircraft/rail: 60 L
    - On cargo aircraft only: 220 L
  - **Hazardous substance:** 1000 lbs, 454 kg

- **IMDG**
  - **Limited quantities (LQ):** 5L
  - **Excepted quantities (EQ):**
    - Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml

### UN "Model Regulation"
- UN 1593 DICHLOROMETHANE, 6.1, III
### 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):**
      75-09-2 dichloromethane
    - **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
  - **TLV (Threshold Limit Value established by ACGIH)**
    75-09-2 dichloromethane
  - **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.
44.2.6 IF exposed or concerned: Get medical advice/attention.
Rinse mouth.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
· **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.

- **Department issuing SDS:** Document Control / Regulatory
- **Contact:** regulatory@ultrasci.com
- **Date of preparation / last revision** 05/02/2017 / -
- **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)
  - NFFA: 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