1 Identification

· Product identifier

· Trade name: Custom Standard

· Part number: CUS-3883

· 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

  GHS02 Flame

  Flam. Liq. 2 H225 Highly flammable liquid and vapor.

  GHS06 Skull and crossbones

  Acute Tox. 3 H331 Toxic if inhaled.

  GHS08 Health hazard

  Carc. 1B H350 May cause cancer.

  STOT SE 1 H370 Causes damage to organs.

· Label elements

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

· Hazard pictograms

  GHS02 GHS06 GHS08

· Signal word Danger

· Hazard-determining components of labeling:
  methanol
  dichloromethane

(Contd. on page 2)
Safety Data Sheet
acc. to OSHA HCS

Printing date 11/06/2017
Version Number 1
Reviewed on 11/06/2017

Trade name: Custom Standard

- **Hazard statements**
  - Highly flammable liquid and vapor.
  - Toxic if inhaled.
  - May cause cancer.
  - Causes damage to organs.

- **Precautionary statements**
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  - Ground/bond container and receiving equipment.
  - Use explosion-proof electrical/ventilating/lighting/equipment.
  - Use only non-sparking tools.
  - Take precautionary measures against static discharge.
  - Do not breathe dust/fume/gas/mist/vapors/spray.
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - Use only outdoors or in a well-ventilated area.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - If INHALED: Remove person to fresh air and keep comfortable for breathing.
  - IF exposed or concerned: Get medical advice/attention.
  - Specific treatment (see on this label).
  - In case of fire: Use for extinction: CO2, powder or water spray.
  - Store in a well-ventilated place. Keep container tightly closed.
  - Store in a well-ventilated place. Keep cool.
  - 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 = 3
    - Reactivity = 0
  - HMIS-ratings (scale 0 - 4)
    - Health = *1
    - Fire = 3
    - 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 62.399%
4 First-aid measures

- Description of first aid measures
- General information:
  Immediately remove any clothing soiled by the product.
  Remove breathing apparatus only after contaminated clothing have been completely removed.
  In case of irregular breathing or respiratory arrest provide artificial respiration.
- After inhalation:
  Supply fresh air or oxygen; call for doctor.
  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. Then consult a doctor.
- 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 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  CO2, extinguishing 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: Mouth respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
  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.
  Ensure adequate ventilation.
- 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:
    | CAS Number | Chemical       | Concentration |
    |-------------|----------------|---------------|
    | 75-09-2     | dichloromethane| 200 ppm       |
    | 67-56-1     | methanol       | 530 ppm       |
    | 208-96-8    | acenaphthylene | 10 mg/m³      |
    | 120-12-7    | anthracene     | 48 mg/m³      |
7 Handling and storage

· Handling:
  · Precautions for safe handling
    Ensure good ventilation/exhaustion at the workplace.
    Open and handle receptacle with care.
  · Information about protection against explosions and fires:
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.

(Contd. on page 5)
45.2.5 Keep respiratory protective device available.

- **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 receptacle 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 systems:** No further data; see item 7.

- **Control parameters**

### Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL Short-term value</th>
<th>Long-term value</th>
<th>REL</th>
<th>TLV Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2 dichloromethane</td>
<td>125 ppm</td>
<td>25 ppm</td>
<td>see 29 CFR 1910.1052</td>
<td>174 mg/m³, 50 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL Long-term value</th>
<th>REL Short-term value</th>
<th>Long-term value</th>
<th>TLV Short-term value</th>
<th>Long-term value</th>
<th>Skin; BEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1 methanol</td>
<td>260 mg/m³, 200 ppm</td>
<td>325 mg/m³, 250 ppm</td>
<td>260 mg/m³, 200 ppm</td>
<td>328 mg/m³, 250 ppm</td>
<td>262 mg/m³, 200 ppm</td>
<td>BEI</td>
</tr>
</tbody>
</table>

### Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>Component</th>
<th>BEI 0.3 mg/L</th>
<th>Medium: urine</th>
<th>Time: end of shift</th>
<th>Parameter: Dichloromethane (semi-quantitative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2 dichloromethane</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>BEI 15 mg/L</th>
<th>Medium: urine</th>
<th>Time: end of shift</th>
<th>Parameter: Methanol (background, nonspecific)</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1 methanol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 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.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.

- **Breathing equipment:**
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **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.

- **Eye protection:**
  Tightly sealed goggles

---

### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form: Fluid</td>
</tr>
<tr>
<td>Color: According to product specification</td>
</tr>
<tr>
<td>Odor: Characteristic</td>
</tr>
<tr>
<td>Odor threshold: Not determined.</td>
</tr>
<tr>
<td>pH-value: Not determined.</td>
</tr>
<tr>
<td>Change in condition</td>
</tr>
<tr>
<td>Melting point/Melting range: Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range: 40°C (°F)</td>
</tr>
<tr>
<td>Flash point: 9°C (°F)</td>
</tr>
<tr>
<td>Flammability (solid, gaseous): Not applicable.</td>
</tr>
<tr>
<td>Ignition temperature: 455°C (°F)</td>
</tr>
<tr>
<td>Decomposition temperature: Not determined.</td>
</tr>
<tr>
<td>Auto igniting: Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion: Product is not explosive.</td>
</tr>
<tr>
<td>However, formation of explosive air/vapor mixtures are possible.</td>
</tr>
</tbody>
</table>

(Contd. on page 7)
45.2.5

· Explosion limits:
  Lower: 5.5 Vol %
  Upper: 44 Vol %

· Vapor pressure at 20°C (68 °F): 360 hPa (mm Hg)

· Density at 20°C (68 °F): 1.11389 g/cm³ (lbs/gal)
  · Relative density: Not determined.
  · Vapor density: Not determined.
  · Evaporation rate: Not determined.

· Solubility in / Miscibility with Water: Not miscible or difficult to mix.

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

· Viscosity:
  Dynamic: Not determined.
  Kinematic: Not determined.

· Solvent content:
  Organic solvents: 99.6 %
  VOC content: 37.22 %
  414.6 g/l / 3.46 lb/gl

· Solids content: 0.0 %

· 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:
    ATE (Acute Toxicity Estimate)
    Oral LD50 2,564 mg/kg (rat)
    Dermal LD50 >3,205 mg/kg (rat)
    Inhalative LC50/4 h 7.62 mg/L

75-09-2 dichloromethane

Oral LD50 1,600 mg/kg (rat)
Dermal LD50 >2,000 mg/kg (rat)
Inhalative LC50/4 h 88 mg/L (rat)
### 67-56-1 methanol

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>5,628 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>15,800 mg/kg (rabbit)</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:

**Toxic**

#### Carcinogenic categories

<table>
<thead>
<tr>
<th>Agency (International Agency for Research on Cancer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2 dichloromethane</td>
</tr>
<tr>
<td>120-12-7 anthracene</td>
</tr>
<tr>
<td>218-01-9 chrysene</td>
</tr>
<tr>
<td>118-74-1 hexachlorobenzene</td>
</tr>
<tr>
<td>91-20-3 naphthalene</td>
</tr>
<tr>
<td>120-83-2 2,4-dichlorophenol</td>
</tr>
<tr>
<td>88-06-2 2,4,6-trichlorophenol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agency (National Toxicology Program)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2 dichloromethane</td>
</tr>
<tr>
<td>120-12-7 anthracene</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agency (Occupational Safety &amp; Health Administration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2 dichloromethane</td>
</tr>
</tbody>
</table>

### 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:**
    Water hazard class 2 (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.

  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
Trade name: Custom Standard

- **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
  - UN1992

- **UN proper shipping name**
  - DOT
  - IMDG, IATA
  - Flammable liquids, toxic, n.o.s. (Methanol, Dichloromethane)
  - FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL, DICHLOROMETHANE)

- **Transport hazard class(es)**
  - DOT
    - Class
      - 3 Flammable liquids
    - Label
      - 3, 6.1
  - IMDG
    - Class
      - 3 Flammable liquids
    - Label
      - 3/6.1
  - IATA
    - Class
      - 3 Flammable liquids
    - Label
      - 3 (6.1)

- **Packing group**
  - DOT, IMDG, IATA
  - II

- **Environmental hazards:**
  - Not applicable.

- **Special precautions for user**
  - Warning: Flammable liquids

- **Danger code (Kemler):**
  - 336
### EMS Number:
- F-E, S-D

### Segregation groups:
- Liquid halogenated hydrocarbons

### Stowage Category:
- B

### Stowage Code:
- SW2 Clear of living quarters.

### 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: 1 L
  - On cargo aircraft only: 60 L

#### 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 1992 FLAMMABLE LIQUIDS, TOXIC, N.O.S.
  - (METHANOL, DICHLOROMETHANE), 3 (6.1), II

## 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
  - 67-56-1 methanol
  - 120-12-7 anthracene
  - 111-91-1 bis(2-chloroethoxy)methane
  - 218-01-9 chrysene
  - 84-74-2 dibutyl phthalate
  - 118-74-1 hexachlorobenzene
  - 91-20-3 naphthalene
  - 120-83-2 2,4-dichlorophenol
  - 88-06-2 2,4,6-trichlorophenol
  - 88-75-5 2-nitrophenol

#### TSCA (Toxic Substances Control Act):
  - All ingredients are listed.

#### Proposition 65
- Chemicals known to cause cancer:
  - 75-09-2 dichloromethane
  - 218-01-9 chrysene
  - 118-74-1 hexachlorobenzene
  - 91-20-3 naphthalene
45.2.5

88-06-2 2,4,6-trichlorophenol

· Chemicals known to cause reproductive toxicity for females:
  84-74-2 dibutyl phthalate

· Chemicals known to cause reproductive toxicity for males:
  84-74-2 dibutyl phthalate

· Chemicals known to cause developmental toxicity:
  67-56-1 methanol
  84-74-2 dibutyl phthalate
  118-74-1 hexachlorobenzene

· Carcinogenic categories

  · EPA (Environmental Protection Agency)
    75-09-2 dichloromethane L
    208-96-8 acenaphthylene D
    120-12-7 anthracene D
    111-91-1 bis(2-chloroethoxy)methane D
    218-01-9 chrysene B2
    84-74-2 dibutyl phthalate D
    118-74-1 hexachlorobenzene B2
    91-20-3 naphthalene C, CBD
    88-06-2 2,4,6-trichlorophenol B2

  · TLV (Threshold Limit Value established by ACGIH)
    75-09-2 dichloromethane A3
    218-01-9 chrysene A3
    118-74-1 hexachlorobenzene A3
    91-20-3 naphthalene A4

  · NIOSH-Ca (National Institute for Occupational Safety and Health)
    75-09-2 dichloromethane
    218-01-9 chrysene

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

· Hazard pictograms

  GHS02  GHS06  GHS08

· Signal word Danger

· Hazard-determining components of labeling:
  methanol
  dichloromethane

· Hazard statements
  Highly flammable liquid and vapor.
  Toxic if inhaled.
  May cause cancer.
  Causes damage to organs.
Precautionary statements
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If INHALED: Remove person to fresh air and keep comfortable for breathing.
Specific treatment (see on this label).
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations:
Additional classification according to Decree on Hazardous Materials:
Carcinogenic hazardous material group III (dangerous).

Information about limitation of use:
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
Exceptions can be made by the authorities in certain cases.
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.

Date of preparation / last revision 11/06/2017 / -
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
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
Trade name: Custom Standard

REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Carc. 1B: Carcinogenicity – Category 1B
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1