1 Identification

- Product identifier
- Trade name: Custom Standard
- Part number: CUS-3481
- 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.
  Repr. 1  H360  May damage fertility or the unborn child.
  STOT SE 1  H370  Causes damage to organs.
  GHS05 Corrosion
  Skin Corr. 1B  H314  Causes severe skin burns and eye damage.
  Eye Dam. 1  H318  Causes serious eye damage.
  GHS07
  Skin Sens. 1  H317  May cause an allergic skin reaction.
· Label elements

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

· Hazard pictograms

![GHS02, GHS05, GHS06, GHS07, GHS08]

· Signal word Danger

· Hazard-determining components of labeling:
  methanol
  nitrobenzene
  2-nitropropane
  acrylaldehyde
  acrylonitrile

· Hazard statements
  Highly flammable liquid and vapor.
  Toxic if inhaled.
  Causes severe skin burns and eye damage.
  May cause an allergic skin reaction.
  May cause cancer.
  May damage fertility or the unborn child.
  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 dusts or mists.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Use only outdoors or in a well-ventilated area.
  Contaminated work clothing must not be allowed out of the workplace.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If swallowed: Rinse mouth. Do NOT induce vomiting.
  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 in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  IF exposed or concerned: Get medical advice/attention.
  Immediately call a POISON CENTER/doctor.
  Specific treatment (see on this label).
  If skin irritation or rash occurs: Get medical advice/attention.
  Wash contaminated clothing before reuse.
  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.
Trade name: Custom Standard

- Classification system:
  - NFPA ratings (scale 0 - 4)
    Health = 3
    Fire = 3
    Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  - HEALTH
    Health = *3
  - FIRE
    Fire = 3
  - REACTIVITY
    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.

<table>
<thead>
<tr>
<th>Dangerous components</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1 methanol</td>
<td>95.158%</td>
</tr>
<tr>
<td>110-86-1 pyridine</td>
<td>1.264%</td>
</tr>
<tr>
<td>79-46-9 2-nitropropane</td>
<td>0.632%</td>
</tr>
<tr>
<td>98-95-3 nitrobenzene</td>
<td>0.632%</td>
</tr>
<tr>
<td>107-13-1 acrylonitrile</td>
<td>0.126%</td>
</tr>
<tr>
<td>107-02-8 acrylaldehyde</td>
<td>0.126%</td>
</tr>
</tbody>
</table>

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:
  Drink copious amounts of water and provide fresh air. 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: 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).
  Use neutralizing agent.
  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

<table>
<thead>
<tr>
<th>PAC-1:</th>
<th>ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1 methanol</td>
<td>530</td>
</tr>
<tr>
<td>110-86-1 pyridine</td>
<td>3</td>
</tr>
<tr>
<td>79-46-9 2-nitropropane</td>
<td>30</td>
</tr>
<tr>
<td>98-95-3 nitrobenzene</td>
<td>3</td>
</tr>
<tr>
<td>67-64-1 acetone</td>
<td>200</td>
</tr>
<tr>
<td>108-94-1 cyclohexanone</td>
<td>60</td>
</tr>
<tr>
<td>107-13-1 acrylonitrile</td>
<td>0.15</td>
</tr>
<tr>
<td>75-05-8 acetonitrile</td>
<td>13</td>
</tr>
<tr>
<td>107-02-8 acrylaldehyde</td>
<td>0.030</td>
</tr>
<tr>
<td>78-93-3 butanone</td>
<td>200</td>
</tr>
<tr>
<td>74-88-4 methyl iodide</td>
<td>25</td>
</tr>
<tr>
<td>77-73-6 3a,4,7,7a-tetrahydro-4,7-methanoindene</td>
<td>0.01</td>
</tr>
<tr>
<td>110-82-7 cyclohexane</td>
<td>300</td>
</tr>
<tr>
<td>97-63-2 ethyl methacrylate</td>
<td>5.5</td>
</tr>
<tr>
<td>108-10-1 4-methylpentan-2-one</td>
<td>75</td>
</tr>
<tr>
<td>591-78-6 hexan-2-one</td>
<td>10</td>
</tr>
<tr>
<td>141-78-6 ethyl acetate</td>
<td>1,200</td>
</tr>
<tr>
<td>110-54-3 n-hexane</td>
<td>260</td>
</tr>
<tr>
<td>60-29-7 diethyl ether</td>
<td>500</td>
</tr>
<tr>
<td>75-15-0 carbon disulphide</td>
<td>13</td>
</tr>
<tr>
<td>1634-04-4 tert-butyl methyl ether</td>
<td>50</td>
</tr>
</tbody>
</table>
**Trade name: Custom Standard**

### PAC-2:

<table>
<thead>
<tr>
<th>Compound</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1 methanol</td>
<td>2,100 ppm</td>
</tr>
<tr>
<td>110-86-1 pyridine</td>
<td>19 ppm</td>
</tr>
<tr>
<td>79-46-9 2-nitropropane</td>
<td>380 ppm</td>
</tr>
<tr>
<td>98-95-3 nitrobenzene</td>
<td>20 ppm</td>
</tr>
<tr>
<td>67-64-1 acetone</td>
<td>3200* ppm</td>
</tr>
<tr>
<td>108-94-1 cyclohexanone</td>
<td>830 ppm</td>
</tr>
<tr>
<td>107-13-1 acrylonitrile</td>
<td>1.7 ppm</td>
</tr>
<tr>
<td>75-05-8 acetonitrile</td>
<td>50 ppm</td>
</tr>
<tr>
<td>107-02-8 acrylaldehyde</td>
<td>0.10 ppm</td>
</tr>
<tr>
<td>78-93-3 butanone</td>
<td>2700* ppm</td>
</tr>
<tr>
<td>74-88-4 methyl iodide</td>
<td>50 ppm</td>
</tr>
<tr>
<td>77-73-6 3a,4,7,7a-tetrahydro-4,7-methanoindene</td>
<td>5 ppm</td>
</tr>
<tr>
<td>110-82-7 cyclohexane</td>
<td>1700* ppm</td>
</tr>
<tr>
<td>97-63-2 ethyl methacrylate</td>
<td>61 ppm</td>
</tr>
<tr>
<td>108-10-1 4-methylpentan-2-one</td>
<td>500 ppm</td>
</tr>
<tr>
<td>591-78-6 hexan-2-one</td>
<td>830 ppm</td>
</tr>
<tr>
<td>141-78-6 ethyl acetate</td>
<td>1,700 ppm</td>
</tr>
<tr>
<td>110-54-3 n-hexane</td>
<td>2900* ppm</td>
</tr>
<tr>
<td>60-29-7 diethyl ether</td>
<td>3200* ppm</td>
</tr>
<tr>
<td>75-15-0 carbon disulphide</td>
<td>160 ppm</td>
</tr>
<tr>
<td>1634-04-4 tert-butyl methyl ether</td>
<td>570 ppm</td>
</tr>
</tbody>
</table>

### PAC-3:

<table>
<thead>
<tr>
<th>Compound</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1 methanol</td>
<td>7200* ppm</td>
</tr>
<tr>
<td>110-86-1 pyridine</td>
<td>3600* ppm</td>
</tr>
<tr>
<td>79-46-9 2-nitropropane</td>
<td>2,300 ppm</td>
</tr>
<tr>
<td>98-95-3 nitrobenzene</td>
<td>200 ppm</td>
</tr>
<tr>
<td>67-64-1 acetone</td>
<td>5700* ppm</td>
</tr>
<tr>
<td>108-94-1 cyclohexanone</td>
<td>5000* ppm</td>
</tr>
<tr>
<td>107-13-1 acrylonitrile</td>
<td>28 ppm</td>
</tr>
<tr>
<td>75-05-8 acetonitrile</td>
<td>150 ppm</td>
</tr>
<tr>
<td>107-02-8 acrylaldehyde</td>
<td>1.4 ppm</td>
</tr>
<tr>
<td>78-93-3 butanone</td>
<td>4000* ppm</td>
</tr>
<tr>
<td>74-88-4 methyl iodide</td>
<td>125 ppm</td>
</tr>
<tr>
<td>77-73-6 3a,4,7,7a-tetrahydro-4,7-methanoindene</td>
<td>75 ppm</td>
</tr>
<tr>
<td>110-82-7 cyclohexane</td>
<td>10000** ppm</td>
</tr>
<tr>
<td>97-63-2 ethyl methacrylate</td>
<td>370 ppm</td>
</tr>
<tr>
<td>108-10-1 4-methylpentan-2-one</td>
<td>3000* ppm</td>
</tr>
<tr>
<td>591-78-6 hexan-2-one</td>
<td>5000* ppm</td>
</tr>
<tr>
<td>141-78-6 ethyl acetate</td>
<td>10000** ppm</td>
</tr>
<tr>
<td>110-54-3 n-hexane</td>
<td>8600** ppm</td>
</tr>
<tr>
<td>60-29-7 diethyl ether</td>
<td>19000*** ppm</td>
</tr>
<tr>
<td>75-15-0 carbon disulphide</td>
<td>480 ppm</td>
</tr>
</tbody>
</table>
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.
    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

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1 methanol</td>
<td></td>
</tr>
<tr>
<td>PEL</td>
<td>Long-term value: 260 mg/m³, 200 ppm</td>
</tr>
<tr>
<td>REL</td>
<td>Short-term value: 325 mg/m³, 250 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 260 mg/m³, 200 ppm</td>
</tr>
<tr>
<td>Skin</td>
<td></td>
</tr>
<tr>
<td>TLV</td>
<td>Short-term value: 328 mg/m³, 250 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 262 mg/m³, 200 ppm</td>
</tr>
<tr>
<td>Skin; BEI</td>
<td></td>
</tr>
<tr>
<td>110-86-1 pyridine</td>
<td></td>
</tr>
<tr>
<td>PEL</td>
<td>Long-term value: 15 mg/m³, 5 ppm</td>
</tr>
<tr>
<td>REL</td>
<td>Long-term value: 15 mg/m³, 5 ppm</td>
</tr>
<tr>
<td>TLV</td>
<td>Long-term value: 3.1 mg/m³, 1 ppm</td>
</tr>
<tr>
<td>79-46-9 2-nitropropane</td>
<td></td>
</tr>
<tr>
<td>PEL</td>
<td>Long-term value: 90 mg/m³, 25 ppm</td>
</tr>
<tr>
<td>REL</td>
<td>See Pocket Guide App. A</td>
</tr>
<tr>
<td>TLV</td>
<td>Long-term value: 36 mg/m³, 10 ppm</td>
</tr>
<tr>
<td>98-95-3 nitrobenzene</td>
<td></td>
</tr>
<tr>
<td>PEL</td>
<td>Long-term value: 5 mg/m³, 1 ppm</td>
</tr>
<tr>
<td>Skin</td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 7)
**Trade name:** Custom Standard

<table>
<thead>
<tr>
<th>Substance</th>
<th>REL</th>
<th>Long-term value: 5 mg/m³, 1 ppm</th>
<th>Skin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TLV</td>
<td>Long-term value: 5 mg/m³, 1 ppm</td>
<td>Skin; BEI</td>
</tr>
</tbody>
</table>

### 107-13-1 acrylonitrile

- **PEL** Long-term value: 2 ppm  
  Ceiling limit value: 10 ppm  
  Skin; see 29 CRF 1910.1045
- **REL** Long-term value: 1 ppm  
  Ceiling limit value: 10* ppm  
  *15-min; Skin; See Pocket Guide App. A
- **TLV** Long-term value: 4.3 mg/m³, 2 ppm  
  Skin

### 107-02-8 acrylaldehyde

- **PEL** Long-term value: 0.25 mg/m³, 0.1 ppm
- **REL** Short-term value: 0.8 mg/m³, 0.3 ppm  
  Long-term value: 0.25 mg/m³, 0.1 ppm  
  See Pocket Guide App. C
- **TLV** Ceiling limit value: 0.23 mg/m³, 0.1 ppm  
  Skin

#### Ingredients with biological limit values:

##### 67-56-1 methanol

- **BEI** 15 mg/L  
  Medium: urine  
  Time: end of shift  
  Parameter: Methanol (background, nonspecific)

##### 98-95-3 nitrobenzene

- **BEI** 5 mg/g creatinine  
  Medium: urine  
  Time: end of shift at end of workweek  
  Parameter: Total p-nitrophenol (nonspecific)
  
  1.5 % of hemoglobin  
  Medium: blood  
  Time: end of shift  
  Parameter: Methemoglobin (background, nonspecific, 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.
- 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 eyes.
- Avoid contact with the eyes and skin.

#### 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.
45.2.5 · 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

· Information on basic physical and chemical properties

· General Information

· Appearance:
  - Form: Fluid
  - Color: Colorless
  - Odor: Alcohol-like
  - Odor threshold: Not determined.

· pH-value: Not determined.

· Change in condition
  - Melting point/Melting range: -98°C (°F)
  - Boiling point/Boiling range: 64.7°C (°F)

· Flash point: 9°C (°F)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 455°C (°F)

· Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:
  - Lower: 5.5 Vol %
  - Upper: 44 Vol %
Trade name: Custom Standard

- Vapor pressure at 20°C (68 °F): 100 hPa (mm Hg)
- Density at 20°C (68 °F): 0.80817 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: 97.6 %
  - VOC content: 96.94 %
    783.4 g/l / 6.54 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: 10,590 mg/kg (rat)
        - Dermal LD50: 29,273 mg/kg
        - Inhalative LC50/4 h: 3.13 mg/L
      - 67-56-1 methanol
        - Oral LD50: 5,628 mg/kg (rat)
        - Dermal LD50: 15,800 mg/kg (rabbit)
      - 110-86-1 pyridine
        - Oral LD50: 891 mg/kg (rat)
        - Dermal LD50: 1,121 mg/kg (rabbit)
<table>
<thead>
<tr>
<th>Trade name: Custom Standard</th>
</tr>
</thead>
</table>

### 79-46-9 2-nitropropane

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>M/L Dose (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>500 mg/kg (rat)</td>
</tr>
</tbody>
</table>

### 98-95-3 nitrobenzene

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>M/L Dose (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>390 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>2,100 mg/kg (rat)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>556 mg/L (rat)</td>
</tr>
</tbody>
</table>

### 107-13-1 acrylonitrile

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>M/L Dose (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>82 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>226 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>2.09 mg/L (rat)</td>
</tr>
</tbody>
</table>

### 107-02-8 acrylaldehyde

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>M/L Dose (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>26 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>200 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>18 mg/L (rat)</td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - **on the skin:** Caustic effect on skin and mucous membranes.
  - **on the eye:**
    - Strong caustic effect.
    - Strong irritant with the danger of severe eye injury.
  - **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**
  - The product shows the following dangers according to internally approved calculation methods for preparations:
  - **Toxic**
  - **Corrosive**
  - **Irritant**
  - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

  - **IARC (International Agency for Research on Cancer)**
    - 110-86-1 pyridine 3
    - 79-46-9 2-nitropropane 2B
    - 98-95-3 nitrobenzene 2B
    - 108-94-1 cyclohexanone 3
    - 107-13-1 acrylonitrile 2B
    - 107-02-8 acrylaldehyde 3
    - 74-88-4 methyl iodide 3
    - 108-10-1 4-methylpentan-2-one 2B
    - 1634-04-4 tert-butyl methyl ether 3

  - **NTP (National Toxicology Program)**
    - 79-46-9 2-nitropropane R
    - 98-95-3 nitrobenzene R
    - 107-13-1 acrylonitrile R

(Cocont. on page 11)
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 3 (Self-assessment): extremely hazardous for water.
    Do not allow product to reach ground water, water course or sewage system, even in small quantities.
    Must not reach bodies of water or drainage ditch undiluted or unneutralized.
    Danger to drinking water if even extremely small quantities leak into the ground.
  - 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: UN1230
- UN proper shipping name
  - DOT: Methanol
  - IMDG, IATA: METHANOL
- Transport hazard class(es)
  - DOT
    ![Image]
  - Class: 3 Flammable liquids
### Trade name: Custom Standard

<table>
<thead>
<tr>
<th>· Label</th>
<th>3, 6.1</th>
</tr>
</thead>
<tbody>
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<td></td>
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<tr>
<td>· Class</td>
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<td>· Class</td>
<td>3 Flammable liquids</td>
</tr>
<tr>
<td>· Label</td>
<td>3 (6.1)</td>
</tr>
</tbody>
</table>

| · Packing group  | II      |
| · DOT, IMDG, IATA|        |

| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 336 |
| · EMS Number: | F-E,S-D |
| · 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 |
| · Exected quantities (EQ) | Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml |

| · UN "Model Regulation": | UN 1230 METHANOL, 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): |        |
| 98-95-3 | nitrobenzene |
| 107-13-1 | acrylonitrile |
| 107-02-8 | acrylaldehyde |
### Trade name: Custom Standard

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-15-0</td>
<td>carbon disulphide</td>
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</tbody>
</table>

#### Section 313 (Specific toxic chemical listings):

- 67-56-1 methanol
- 110-86-1 pyridine
- 79-46-9 2-nitropropane
- 98-95-3 nitrobenzene
- 107-13-1 acrylonitrile
- 75-05-8 acetonitrile
- 107-02-8 acrylaldehyde
- 78-93-3 butanone
- 74-88-4 methyl iodide
- 77-73-6 3a,4,7,7a-tetrahydro-4,7-methanoindene
- 110-82-7 cyclohexane
- 108-10-1 4-methylpentan-2-one
- 110-54-3 n-hexane
- 75-15-0 carbon disulphide
- 1634-04-4 tert-butyl methyl ether

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

#### Proposition 65

- **Chemicals known to cause cancer:**
  - 110-86-1 pyridine
  - 79-46-9 2-nitropropane
  - 98-95-3 nitrobenzene
  - 107-13-1 acrylonitrile
  - 74-88-4 methyl iodide
  - 108-10-1 4-methylpentan-2-one

- **Chemicals known to cause reproductive toxicity for females:**
  - 75-15-0 carbon disulphide

- **Chemicals known to cause reproductive toxicity for males:**
  - 98-95-3 nitrobenzene
  - 591-78-6 hexan-2-one
  - 75-15-0 carbon disulphide

- **Chemicals known to cause developmental toxicity:**
  - 67-56-1 methanol
  - 108-10-1 4-methylpentan-2-one
  - 591-78-6 hexan-2-one
  - 75-15-0 carbon disulphide

#### Carcinogenic categories

- **EPA (Environmental Protection Agency)**
  - 98-95-3 nitrobenzene L
  - 67-64-1 acetone I

(Contd. on page 14)
Trade name: Custom Standard

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Substance</th>
<th>TLV (Threshold Limit Value established by ACGIH)</th>
<th>NIOSH-Ca (National Institute for Occupational Safety and Health)</th>
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</thead>
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<tr>
<td>107-13-1</td>
<td>acrylonitrile</td>
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<tr>
<td>75-05-8</td>
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<td>CBD, D</td>
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<td>107-02-8</td>
<td>acrylaldehyde</td>
<td>I</td>
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</tr>
<tr>
<td>78-93-3</td>
<td>butanone</td>
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<td>110-82-7</td>
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<td>I</td>
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<td>591-78-6</td>
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<td></td>
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<tr>
<td>98-95-3</td>
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<tr>
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<tr>
<td>74-88-4</td>
<td>methyl iodide</td>
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<td></td>
</tr>
</tbody>
</table>

- **TLV (Threshold Limit Value established by ACGIH)**
- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

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

- **Signal word** Danger
- **Hazard-determining components of labeling:**
  - methanol
  - nitrobenzene
  - 2-nitropropane
  - acrylaldehyde
  - acrylonitrile

- **Hazard statements**
  - Highly flammable liquid and vapor.
  - Toxic if inhaled.
  - Causes severe skin burns and eye damage.
  - May cause an allergic skin reaction.
  - May cause cancer.
  - May damage fertility or the unborn child.
  - Causes damage to organs.

- **Precautionary statements**
  - Obtain special instructions before use.
Trade name: Custom Standard

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 dusts or mists. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed: Rinse mouth. Do NOT induce vomiting. 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 in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Immediately call a POISON CENTER/doctor. Specific treatment (see on this label). If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. 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.

- 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 08/16/2017 / -
- 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
  ACIGH: 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
Trade name: Custom Standard

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
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 1B: Carcinogenicity – Category 1B
Repr. 1: Reproductive toxicity – Category 1
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1