1 Identification

- Product identifier
  - Trade name: GE Ion Track RDX/Ephedrine HCl Standard
  - Part number: MP035063
  - 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: +1-800-424-9300
  Outside US: +1-703-527-3887

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
    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

- Hazard statements
  Highly flammable liquid and vapor.
  Toxic if inhaled.
Safety Data Sheet  
acc. to OSHA HCS

Printing date 01/26/2018  
Version Number 2  
Reviewed on 01/26/2018

Trade name: GE Ion Track RDX/Ephedrine HCl Standard

Causes damage to organs.
· **Precautionary statements**
  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.
  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](*) 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:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-56-1</td>
<td>methanol</td>
<td>99.965%</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.

(Contd. on page 3)
Trade name: GE Ion Track RDX/Ephedrine HCl Standard

· 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:
    |
    | 67-56-1 methanol | 530 ppm |
    | 121-82-4 perhydro-1,3,5-trinitro-1,3,5-triazine | 3 mg/m³ |
  · PAC-2:
    |
    | 67-56-1 methanol | 2,100 ppm |
    | 121-82-4 perhydro-1,3,5-trinitro-1,3,5-triazine | 26 mg/m³ |
  · PAC-3:
    |
    | 67-56-1 methanol | 7200* ppm |
    | 121-82-4 perhydro-1,3,5-trinitro-1,3,5-triazine | 160 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.
  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:
    67-56-1 methanol
    
    |   | Long-term value: 260 mg/m³, 200 ppm |
    |-----|-----------------------------------|
    | PEL | Short-term value: 325 mg/m³, 250 ppm |
    | REL | Long-term value: 260 mg/m³, 200 ppm |
    |     | Skin                               |
    | TLV | Short-term value: 328 mg/m³, 250 ppm |
    |     | Long-term value: 262 mg/m³, 200 ppm |
    |     | Skin; BEI                          |

· Ingredients with biological limit values:
  67-56-1 methanol
  
<table>
<thead>
<tr>
<th></th>
<th>15 mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEI</td>
<td>Medium: urine</td>
</tr>
<tr>
<td></td>
<td>Time: end of shift</td>
</tr>
<tr>
<td></td>
<td>Parameter: Methanol (background, nonspecific)</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:** Not required.

· **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 (-144.4 °F)
  - Boiling point/Boiling range: 64.7 °C (148.5 °F)

- **Flash point:**
  - 9 °C (48.2 °F)

- **Flammability (solid, gaseous):**
  - Not applicable.

- **Ignition temperature:**
  - 455 °C (851 °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 %

- **Vapor pressure at 20 °C (68 °F):**
  - 100 hPa (75 mm Hg)

- **Density at 20 °C (68 °F):**
  - 0.8 g/cm³ (6.676 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.
46.0.5

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

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

- Solvent content:
  Organic solvents: 100.0%
  VOC content: 99.97%
  999.7 g/l / 8.34 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:

  **ATE (Acute Toxicity Estimate)**
  
<table>
<thead>
<tr>
<th>Inhalative</th>
<th>LC50/4 h</th>
<th>3 mg/L</th>
</tr>
</thead>
</table>

  **67-56-1 methanol**
  
  | Oral | LD50 | 5,628 mg/kg (rat) |
  | Dermal | LD50 | 15,800 mg/kg (rabbit) |

- 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

  - IARC (International Agency for Research on Cancer)
    None of the ingredients is listed.
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
Trade name: GE Ion Track RDX/Ephedrine HCl Standard

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 1 (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach groundwater, water course, or sewage system.
- 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
  UNIDG, IATA: UN1230
- UN proper shipping name
  DOT: Methanol solution
  IMDG, IATA: METHANOL solution
- Transport hazard class(es)
- DOT
  - Class: 3 Flammable liquids
### Trade name: GE Ion Track RDX/Ephedrine HCl Standard

<table>
<thead>
<tr>
<th>· Label</th>
<th>3, 6.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>· IMDG</td>
<td></td>
</tr>
<tr>
<td>· Class</td>
<td>3 Flammable liquids</td>
</tr>
<tr>
<td>· Label</td>
<td>3/6.1</td>
</tr>
<tr>
<td>· IATA</td>
<td></td>
</tr>
<tr>
<td>· Class</td>
<td>3 Flammable liquids</td>
</tr>
<tr>
<td>· Label</td>
<td>3 (6.1)</td>
</tr>
<tr>
<td>· Packing group</td>
<td></td>
</tr>
<tr>
<td>· DOT, IMDG, IATA</td>
<td>II</td>
</tr>
<tr>
<td>· Environmental hazards:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>· Special precautions for user</td>
<td>Warning: Flammable liquids</td>
</tr>
<tr>
<td>· Danger code (Kemler):</td>
<td>336</td>
</tr>
<tr>
<td>· EMS Number:</td>
<td>F-E,S-D</td>
</tr>
<tr>
<td>· Stowage Category</td>
<td>B</td>
</tr>
<tr>
<td>· Stowage Code</td>
<td>SW2 Clear of living quarters.</td>
</tr>
<tr>
<td>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>· Transport/Additional information:</td>
<td></td>
</tr>
<tr>
<td>· DOT</td>
<td></td>
</tr>
<tr>
<td>· Quantity limitations</td>
<td>On passenger aircraft/rail: 1 L On cargo aircraft only: 60 L</td>
</tr>
<tr>
<td>· IMDG</td>
<td></td>
</tr>
<tr>
<td>· Limited quantities (LQ)</td>
<td>1L</td>
</tr>
<tr>
<td>· Excepted quantities (EQ)</td>
<td>Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</td>
</tr>
<tr>
<td>· UN &quot;Model Regulation&quot;:</td>
<td>UN 1230 METHANOL SOLUTION, 3 (6.1), II</td>
</tr>
</tbody>
</table>

### 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):
    - 67-56-1 methanol

(Contd. on page 9)
Trade name: GE Ion Track RDX/Ephedrine HCl Standard

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

| · TSCA new (21st Century Act) (Substances not listed) |
| · Proposition 65 |

| · Chemicals known to cause cancer: |
| None of the ingredients is listed. |

| · 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: |
| 67-56-1 methanol |

| · Carcinogenic categories |
| · EPA (Environmental Protection Agency) |
| 121-82-4 perhydro-1,3,5-trinitro-1,3,5-triazine |
| · TLV (Threshold Limit Value established by ACGIH) |
| 121-82-4 perhydro-1,3,5-trinitro-1,3,5-triazine |
| · NIOSH–Ca (National Institute for Occupational Safety and Health) |
| None of the ingredients is listed. |

| · 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 |
| · Hazard statements |
| Highly flammable liquid and vapor. |
| Toxic if inhaled. |
| Causes damage to organs. |

| · Precautionary statements |
| 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). |
Trade name: GE Ion Track RDX/Ephedrine HCl Standard

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.

- **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** 01/26/2018 / 1
- **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
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Acute Tox. 3: Acute toxicity – Category 3
  - STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

- **Data compared to the previous version altered.**