1 Identification

- Product identifier
  - Trade name: N,N-Dimethylethylamine
- Part number: N-2814-100MG
- CAS Number: 598-56-1
- EC number: 209-940-8
- Index number: 612-076-00-8
- 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.
  - GHS05 Corrosion
    Skin Corr. 1B H314 Causes severe skin burns and eye damage.
  - GHS07
    Acute Tox. 4 H302 Harmful if swallowed.
    Acute Tox. 4 H332 Harmful if inhaled.

- Label elements
  - GHS label elements
    The substance is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)
Trade name: N,N-Dimethylethylamine

- **Hazard pictograms**
  - GHS02
  - GHS05
  - GHS07

- **Signal word** Danger

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

- **Hazard statements**
  - Highly flammable liquid and vapor.
  - Harmful if swallowed or if inhaled.
  - Causes severe skin burns and eye damage.

- **Precautionary statements**
  - Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  - Keep container tightly closed.
  - 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.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
  - 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.
  - Immediately call a POISON CENTER/doctor.
  - Specific treatment (see on this label).
  - Wash contaminated clothing before reuse.
  - In case of fire: Use for extinction: CO2, powder or water spray.
  - 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 = 3
    - Fire = 4
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - HEALTH
      - Health = 3
    - FIRE
      - Fire = 4
    - REACTIVITY
      - Reactivity = 0
Trade name: N,N-Dimethylethylamine

· Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Substances
· CAS No. Description
  598-56-1 ethyldimethylamine
· Identification number(s)
· EC number: 209-940-8
· Index number: 612-076-00-8

4 First-aid measures

· Description of first aid measures
· General information:
  Immediately remove any clothing soiled by the product.
  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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
  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:
  Immediately call a doctor.
  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
  During heating or in case of fire poisonous gases are produced.
· Advice for firefighters
· Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Mount respiratory protective device.
  Wear protective equipment. Keep unprotected persons away.
Safety Data Sheet
acc. to OSHA HCS

Printing date 06/26/2017
Reviewed on 06/26/2017

Trade name: N,N-Dimethylethylamine

· 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
  · PAC-1:
    Substance is not listed.
  · PAC-2:
    Substance is not listed.
  · PAC-3:
    Substance is not listed.

7 Handling and storage

· Handling:
  · Precautions for safe handling
    Ensure good ventilation/exhaustion at the workplace.
    Prevent formation of aerosols.
  · 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: Not required.
· 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.
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.

- **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.

- **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: Liquid
      - Color: Light yellow
    - **Odor:** Characteristic
    - **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**
  - Melting point/Melting range: -67.5 °C (-90 °F)
  - Boiling point/Boiling range: 37 °C (99 °F)

- **Flash point:** -50 °C (-58 °F)

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

- **Ignition temperature:**
  - Decomposition temperature: Not determined.
  - Auto igniting: Not determined.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Explosion limits:
- Lower: 1.5 Vol %
- Upper: 8.4 Vol %

Vapor pressure at 50 °C (122 °F): >1,000 hPa (>1.0 mm Hg)

Density at 20 °C (68 °F):
- 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: 0.0 %
- VOC content: 0.0 g/l / 0.00 lb/gl

Other information: No further relevant information available.

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.

Information on toxicological effects:
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    - ATE (Acute Toxicity Estimate):
      - Oral LD50 500 mg/kg
      - Inhalative LC50/4 h 11 mg/L

Primary irritant effect:
- on the skin: Caustic effect on skin and mucous membranes.
- on the eye: Strong caustic effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Trade name: N,N-Dimethylethylamine

<table>
<thead>
<tr>
<th>Carcinogenic categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>· IARC (International Agency for Research on Cancer)</td>
</tr>
<tr>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>· NTP (National Toxicology Program)</td>
</tr>
<tr>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>· OSHA-Ca (Occupational Safety &amp; Health Administration)</td>
</tr>
<tr>
<td>Substance is not listed.</td>
</tr>
</tbody>
</table>

12 Ecological information

<table>
<thead>
<tr>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Aquatic toxicity: No further relevant information available.</td>
</tr>
<tr>
<td>· Persistence and degradability: No further relevant information available.</td>
</tr>
<tr>
<td>· Behavior in environmental systems:</td>
</tr>
<tr>
<td>· Bioaccumulative potential: No further relevant information available.</td>
</tr>
<tr>
<td>· Mobility in soil: No further relevant information available.</td>
</tr>
<tr>
<td>· Additional ecological information:</td>
</tr>
<tr>
<td>· General notes:</td>
</tr>
<tr>
<td>Water hazard class 1 (Self-assessment): slightly hazardous for water</td>
</tr>
<tr>
<td>Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.</td>
</tr>
<tr>
<td>Must not reach bodies of water or drainage ditch undiluted or unneutralized.</td>
</tr>
<tr>
<td>· Results of PBT and vPvB assessment</td>
</tr>
<tr>
<td>· PBT: Not applicable.</td>
</tr>
<tr>
<td>· vPvB: Not applicable.</td>
</tr>
<tr>
<td>· Other adverse effects: No further relevant information available.</td>
</tr>
</tbody>
</table>

13 Disposal considerations

<table>
<thead>
<tr>
<th>Waste treatment methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Recommendation:</td>
</tr>
<tr>
<td>Must not be disposed of together with household garbage. Do not allow product to reach sewage system.</td>
</tr>
<tr>
<td>· Uncleaned packagings:</td>
</tr>
<tr>
<td>· Recommendation: Disposal must be made according to official regulations.</td>
</tr>
</tbody>
</table>

14 Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT, IMDG, IATA</td>
</tr>
<tr>
<td>UN proper shipping name</td>
</tr>
<tr>
<td>· DOT</td>
</tr>
<tr>
<td>· IMDG, IATA</td>
</tr>
<tr>
<td>Amines, flammable, corrosive, n.o.s. (ethyldimethlyamine)</td>
</tr>
<tr>
<td>AMINES, FLAMMABLE, CORROSIVE, N.O.S. (ethyldimethlyamine)</td>
</tr>
</tbody>
</table>
### Transport hazard class(es)
- **DOT**
  - Class 3.1

### IMDG, IATA
- **Class** 3 Flammable liquids
- **Environmental hazards:** Not applicable.
- **Special precautions for user** Warning: Flammable liquids
- **Danger code (Kemler):** 338
- **Segregation groups** Alkalis
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** UN 2733 AMINES, FLAMMABLE, CORROSIVE, N.O.S. (ETHYLDIMETHYLAMINE), 3 (8), 1

### 15 Regulatory information
- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):** Substance is not listed.
    - **Section 313 (Specific toxic chemical listings):** Substance is not listed.
  - **TSCA (Toxic Substances Control Act):** Substance is listed.
  - **Proposition 65**
    - **Chemicals known to cause cancer:** Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
    - **Chemicals known to cause developmental toxicity:** Substance is not listed.
Trade name: N,N-Dimethylethylamine

- Carcinogenic categories
  - EPA (Environmental Protection Agency)
    Substance is not listed.
  - TLV (Threshold Limit Value established by ACGIH)
    Substance is not listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    Substance is not listed.

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

- Hazard pictograms
  GHS02  GHS05  GHS07

- Signal word
  Danger

- Hazard-determining components of labeling:
  ethyldimethylamine

- Hazard statements
  Highly flammable liquid and vapor.
  Harmful if swallowed or if inhaled.
  Causes severe skin burns and eye damage.

- Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  Keep container tightly closed.
  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.
  Wear protective gloves/protective clothing/eye protection/face protection.
  IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
  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.
  Immediately call a POISON CENTER/doctor.

- 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 06/26/2017 /
- 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
  - 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
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Acute Tox. 4: Acute toxicity – Category 4
  - Skin Corr. 1B: Skin corrosion/irritation – Category 1B