1 Identification

Product identifier

Product name: N,N-Diethylaniline

Stock number: A10560, L03687

CAS Number: 91-66-7

EC number: 202-088-8

Index number: 612-054-00-8

Relevant identified uses of the substance or mixture and uses advised against.

Identified use: SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier: Alfa Aesar

Thermo Fisher Scientific Chemicals, Inc.

30 Bond Street

Ward Hill, MA 01835-8099

Tel: 800-343-0660

Fax: 800-322-4757

Email: tech@alfa.com

www.alfa.com

Information Department: Health, Safety and Environmental Department

Emergency telephone number: During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

2 Hazard(s) identification

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)

- **GHS06 Skull and crossbones**
  - Acute Tox. 3 H301 Toxic if swallowed.
  - Acute Tox. 3 H311 Toxic in contact with skin.
  - Acute Tox. 3 H331 Toxic if inhaled.

- **GHS08 Health hazard**
  - STOT RE 2 H373 May cause damage to the liver, the spleen and the blood through prolonged or repeated exposure. Route of exposure: Oral.
  - H227 Combustible liquid.

Hazards not otherwise classified: No information known.

Label elements

GHS label elements: The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

Hazard pictograms

- GHS06 GHS08

Signal word: Danger

Hazard statements

- H227 Combustible liquid.
- H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.
- H373 May cause damage to the liver, the spleen and the blood through prolonged or repeated exposure. Route of exposure: Oral.

Precautionary statements

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/…
- P361 Take off immediately all contaminated clothing.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification

- B3 - Combustible liquid
- D1A - Very toxic material causing immediate and serious toxic effects

Classification system

HMIS ratings (scale 0-4)

- Health (acute effects) = 3
- Flammability = 2
- Physical Hazard = 1

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances

CAS® Description:

91-66-7 N,N-Diethylaniline

(Contd. on page 2)
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 has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.

After skin contact
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.

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 Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)

Advice for firefighters

Protective equipment: Wear self-contained respirator.

Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.

Environmental precautions: Do not allow product to reach sewage system or any water course.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

Prevention of secondary hazards: Keep away from ignition sources.

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.

7 Handling and storage

Handling

Precautions for safe handling
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Open and handle container with care.

Information about protection against explosions and fires: Keep ignition sources away.

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: Store away from oxidizing agents.

Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems:

Control parameters

Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: No data

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
Maintain an ergonomically appropriate working environment.

Breathing equipment: Use self-contained respiratory protective device in emergency situations.

Recommended filter device for short term use:
Use a respirator with organic vapor/acid gas cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).

Protection of hands:

Impervious gloves
Check protective gloves prior to each use for their proper condition. The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

**Material of gloves**: Fluorocarbon rubber (Viton)  
**Penetration time of glove material (in minutes)** 480  
**Glove thickness**: 0.7 mm  
**Eye protection**: Safety glasses  
**Body protection**: Protective work clothing

### 9 Physical and chemical properties

**Information on basic physical and chemical properties**

**General information**

**Appearance**:
- Form: Liquid  
- Color: Light yellow  
- Odor: Not determined  
- Odor threshold: Not determined

**pH-value**: Not determined

**Change in condition**
- Melting point/Melting range: -38 °C (-36 °F)  
- Boiling point/Boiling range: 215-216 °C (419-421 °F)  
- Sublimation temperature/start: Not determined

**Flash point**: 85 °C (185 °F)

**Flammability (solid, gaseous)**: Not determined

**Ignition temperature**: Not determined

**Decomposition temperature**: Not determined

**Danger of explosion**: Not determined

**Explosion limits**:
- Lower: Not determined  
- Upper: Not determined

**Vapor pressure**: Not determined

**Density at 20 °C (68 °F)**: 0.936 g/cm³ (7.811 lbs/gal)

**Relative density**: Not determined

**Vapor density**: Not determined

**Evaporation rate**: Not determined

**Solubility in / Miscibility with**
- Water: Not determined  
- Partition coefficient (n-octanol/water): Not determined

**Viscosity**:
- Dynamic: Not determined  
- Kinematic: Not determined

**Other information**: No further relevant information available

### 10 Stability and reactivity

**Reactivity**: No information known.

**Chemical stability**: Stable under recommended storage conditions.

**Thermal decomposition / conditions to be avoided**: Decomposition will not occur if used and stored according to specifications.

**Possibility of hazardous reactions**: Reacts with strong oxidizing agents

**Conditions to avoid**: No further relevant information available.

**Incompatible materials**: Oxidizing agents

**Hazardous decomposition products**: Carbon monoxide and carbon dioxide

Nitrogen oxides

### 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity**:
- Toxic in contact with skin  
- Toxic if inhaled  
- Toxic if swallowed  
- Danger through skin absorption

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

**LD/LC50 values that are relevant for classification**:

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
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<tbody>
<tr>
<td>Oral</td>
<td>782 mg/kg (rat)</td>
</tr>
<tr>
<td>Inhale</td>
<td>LC50</td>
</tr>
<tr>
<td></td>
<td>1920 mg/m³</td>
</tr>
</tbody>
</table>
### 38.0.2

Danger to drinking water if even extremely small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. Toxic to aquatic life. May cause long lasting harmful effects to aquatic life. Avoid transfer into the environment.

**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** Consult state, local or national regulations to ensure proper disposal.

**Uncleaned packagings**

**Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT, IMDG, IATA</th>
</tr>
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<tbody>
<tr>
<td>UN2432</td>
<td></td>
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**UN proper shipping name**

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**Transport hazard class(es)**

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**Packing group**

| DOT, IMDG, IATA | III |

**Environmental hazards:** Environmentally hazardous substance, liquid

**Special precautions for user**

**EMS Number:** Warning: Toxic substances F-A,S-A

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

**Transport/Additional information:**

- **DOT Marine Pollutant (DOT):** No
- **UN "Model Regulation":** UN2432, N, N-Diethylaniline, 6.1, III

### 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**GHS label elements** The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

**Hazard pictograms**

- GHS06
- GHS08

**Signal word** Danger

**Hazard statements**

- H227 Combustible liquid.
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- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**National regulations**

- All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.
- All components of this product are listed on the Canadian Domestic Substances List (DSL).
- SARA Section 313 (specific toxic chemical listings) Substance is not listed.
- California Proposition 65
  - Prop 65 - Chemicals known to cause cancer Substance is not listed.
  - Prop 65 - Developmental toxicity Substance is not listed.
- Prop 65 - Developmental toxicity, female Substance is not listed.
- Prop 65 - Developmental toxicity, male Substance is not listed.

**Information about limitation of use:** For use only by technically qualified individuals.

This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.
Product name: N,N-Diethylaniline

Other regulations, limitations and prohibitive regulations
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.
Substance is not listed.
Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information
Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing SDS: Global Marketing Department
Date of preparation / last revision 11/23/2015 / -

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
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
HMIS: Hazardous Materials Identification System (Canada)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
vPvB: very Persistent and very Bioaccumulative
ACGIH: American Conference of Governmental Industrial Hygienists (USA)
OSHA: Occupational Safety and Health Administration (USA)
IARC: International Agency for Research on Cancer
EPA: Environmental Protection Agency (USA)