## SECTION 1: Identification

### 1.1. Identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>TRIMETHYLALUMINUM, 2M in heptane (20-21 wgt%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>OMAL086.2</td>
</tr>
<tr>
<td>Product form</td>
<td>Mixture</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Formula</td>
<td>C₃H₉Al</td>
</tr>
<tr>
<td>Synonyms</td>
<td>TRIMETHYLALANE</td>
</tr>
<tr>
<td>Chemical family</td>
<td>ORGANOMETAL</td>
</tr>
</tbody>
</table>

### 1.2. Recommended use and restrictions on use

| Recommended use              | Chemical intermediate                         |

### 1.3. Supplier

**GELEST, INC.**  
11 East Steel Road  
Morrisville, PA 19067  
USA  
T 215-547-1015  
F 215-547-2484  
(M-F): 8:00 AM - 5:30 PM EST  
info@gelest.com  
www.gelest.com

### 1.4. Emergency telephone number

| Emergency number              | CHEMTREC: 1-800-424-9309 (USA); +1 703-527-3887 (International) |

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

<table>
<thead>
<tr>
<th>GHS-US classification</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids Category 2</td>
<td>H225 Highly flammable liquid and vapor</td>
</tr>
<tr>
<td>Pyrophoric liquids Category 1</td>
<td>H250 Catches fire spontaneously if exposed to air</td>
</tr>
<tr>
<td>Substances and mixtures which in contact with water emit flammable gases Category 1</td>
<td>H260 In contact with water releases flammable gases which may ignite spontaneously</td>
</tr>
<tr>
<td>Skin corrosion/irritation Category 1B</td>
<td>H314 Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation Category 1</td>
<td>H318 Causes serious eye damage</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure) Category 3</td>
<td>H336 May cause drowsiness or dizziness</td>
</tr>
<tr>
<td>Hazardous to the aquatic environment - Acute Hazard Category 1</td>
<td>H400 Very toxic to aquatic life</td>
</tr>
<tr>
<td>Hazardous to the aquatic environment - Chronic Hazard Category 1</td>
<td>H410 Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

Full text of H statements: see section 16

### 2.2. GHS Label elements, including precautionary statements

#### GHS US labeling

| Hazard pictograms (GHS US) | [Image] |

<table>
<thead>
<tr>
<th>Signal word (GHS US)</th>
<th>Danger</th>
</tr>
</thead>
</table>
| Hazard statements (GHS US) | H225 - Highly flammable liquid and vapor  
H250 - Catches fire spontaneously if exposed to air  
H260 - In contact with water releases flammable gases which may ignite spontaneously  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H336 - May cause drowsiness or dizziness  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects |

| Precautionary statements (GHS US) | P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P210 - Keep away from heat, sparks, open flames. - No smoking.  
P222 - Do not allow contact with air.  
P223 - Do not allow contact with water.  
P231+P232 - Handle under inert gas. Protect from moisture  
P233 - Keep container tightly closed.  
P240 - Ground/Bond container and receiving equipment  
P241 - Use explosion-proof electrical equipment  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge. |
TRIMETHYLALUMINUM, 2M in heptane (20-21 wgt%)
Safety Data Sheet

2.3. Hazards not otherwise classified (HNOC)
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Heptane</td>
<td>(CAS-No.) 142-82-5</td>
<td>89-90</td>
<td>Flam. Liq. 2, H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Asp. Tox. 1, H304</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 1, H400</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 1, H410</td>
</tr>
<tr>
<td>Trimethylaluminium</td>
<td>(CAS-No.) 75-24-1</td>
<td>10-11</td>
<td>Flam. Liq. 2, H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pyr. Liq. 1, H250</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Water-react. 1, H260</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Cor. 1B, H314</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H335</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash with plenty of soap and water. Get immediate medical advice/attention.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : Causes severe skin burns and eye damage.
Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
Symptoms/effects after skin contact : Causes (severe) skin burns.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : May be harmful if swallowed.

4.3. Immediate medical attention and special treatment, if necessary
No additional information available
SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media
- Suitable extinguishing media: Dry chemical powder followed by sand or dolomite.
- Unsuitable extinguishing media: Water.

5.2. Specific hazards arising from the chemical
- Fire hazard: Catches fire spontaneously if exposed to air. Highly flammable liquid and vapor.
- Explosion hazard: Container explosion may occur during fire conditions. May form flammable/explosive vapor-air mixture.

5.3. Special protective equipment and precautions for fire-fighters
- Firefighting instructions: If material is ignited, allow to burn. Exercise caution when fighting any chemical fire. In case of fire: Stop leak if safe to do so.
- Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapor and mist.
- Other information: If heated, can spontaneously ignite on contact with air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
- General measures: Laboratory and production areas must be equipped with special fire-extinguishing media for pyrophorics. Eliminate every possible source of ignition. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel
- Protective equipment: Wear protective equipment as described in Section 8.
- Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
- Protective equipment: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures: Stop release.

6.2. Environmental precautions
- Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
- For containment: Concentrate containment efforts to adjacent combustibles.
- Methods for cleaning up: Cover with dry chemical extinguishing powder, lime, sand or soda ash. Do not use water. Remove combustible materials in the vicinity of the spill. Allow time for decomposition or fire to burn out, then sweep material and transfer to a suitable container for disposal. Use only non-sparking tools.

6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
- Additional hazards when processed: Handle empty containers with care because residual vapors are flammable. Catches fire spontaneously if exposed to air. Keep away from any possible contact with water, because of violent reaction and possible flash fire.
- Precautions for safe handling: Avoid all eye and skin contact and do not breathe vapor and mist. Provide good ventilation in process area to prevent accumulation of vapors. Protect from moisture. Handle under inert gas. Use only outdoors or in a well-ventilated area. Take precautionary measures against static discharge. Use only non-sparking tools.
- Hygiene measures: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
- Technical measures: Ground/bond container and receiving equipment. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.
- Storage conditions: Keep container tightly closed. Store in sealed containers under nitrogen or argon with <10ppm oxygen. Flammable and combustible materials should not be stored in or near working areas for pyrophorics. Store in a dry place. Protect from moisture.
- Information on mixed storage: Flammable and combustible materials should not be stored in or near working areas for pyrophorics.
- Storage area: Store in a well-ventilated place. Store away from heat.
SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Trichloroaluminum (75-24-1)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH ACGIH TWA (mg/m³)</td>
<td>2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>OSHA OSHA PEL (TWA) (mg/m³)</td>
<td>2 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>n-Heptane (142-82-5)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH ACGIH TWA (ppm)</td>
<td>400 ppm</td>
<td></td>
</tr>
<tr>
<td>ACGIH ACGIH STEL (ppm)</td>
<td>500 ppm</td>
<td></td>
</tr>
<tr>
<td>OSHA OSHA PEL (TWA) (mg/m³)</td>
<td>2000 mg/m³</td>
<td></td>
</tr>
<tr>
<td>OSHA OSHA PEL (TWA) (ppm)</td>
<td>500 ppm</td>
<td></td>
</tr>
<tr>
<td>IDLH US IDLH (ppm)</td>
<td>750 ppm</td>
<td></td>
</tr>
<tr>
<td>NIOSH NIOSH REL (TWA) (mg/m³)</td>
<td>350 mg/m³</td>
<td></td>
</tr>
<tr>
<td>NIOSH NIOSH REL (TWA) (ppm)</td>
<td>85 ppm</td>
<td></td>
</tr>
<tr>
<td>NIOSH NIOSH REL (ceiling) (mg/m³)</td>
<td>1800 mg/m³</td>
<td></td>
</tr>
<tr>
<td>NIOSH NIOSH REL (ceiling) (ppm)</td>
<td>440 ppm</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls

Appropriate engineering controls: Glove box or sealed system under inert atmosphere is required. Provide local exhaust or general room ventilation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Full face shield with chemical workers goggles. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing. Fire resistant laboratory jacket or apron should be worn.

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified organic vapor (black cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid. Fumes and ignites in air.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>72.09 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>15 °C (neat)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>125 - 126 °C (neat)</td>
</tr>
<tr>
<td>Flash point</td>
<td>-4 °C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>&lt; 150 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Highly flammable liquid and vapor,Catches fire spontaneously if exposed to air</td>
</tr>
</tbody>
</table>
TRIMETHYLALUMINUM, 2M in heptane (20-21 wgt%)
Safety Data Sheet

Vapor pressure : < 1 mm Hg
Relative vapor density at 20 °C : > 1
Relative density : 0.688
Solubility : Reacts violently with water.
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosion limits : No data available

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Stable in sealed containers stored under a dry inert atmosphere.

10.3. Possibility of hazardous reactions
Catches fire spontaneously if exposed to air. In contact with water releases flammable gases which may ignite spontaneously. The product can generate small amounts of hydrogen when exposed to alkalis and protic materials such as water and alcohol.

10.4. Conditions to avoid
Heat. Sparks. Open flame.

10.5. Incompatible materials

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified

<table>
<thead>
<tr>
<th>n-Heptane (142-82-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral mouse</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
</tr>
<tr>
<td>Toxicity information</td>
</tr>
</tbody>
</table>

Skin corrosion/iritation : Causes severe skin burns and eye damage.
Serious eye damage/iritation : Causes serious eye damage.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : May cause drowsiness or dizziness.
Specific target organ toxicity – repeated exposure : Not classified
Aspiration hazard : Not classified
Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
Symptoms/effects after skin contact : Causes (severe) skin burns.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : May be harmful if swallowed.
TRIMETHYLALUMINUM, 2M in heptane (20-21 wgt%)
Safety Data Sheet

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: Toxic to aquatic life.

**n-Heptane (142-82-5)**

| LC50 fish | 375 mg/l (Exposure time: 96 h - Species: Cichlid fish) |

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential

**n-Heptane (142-82-5)**

| Log Pow | 4.66 |

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects

Other adverse effects: This substance may be hazardous to the environment.
Effect on the ozone layer: No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations: Incinerate. Dispose in a safe manner in accordance with local/national regulations. This is a RCRA hazardous waste: 40 CFR 261.21 (i.e. ignitable) 40 CFR 261.23 (i.e. reactive).
Additional information: Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

UN-No. (DOT): 3399
DOT NA no.: UN3399

14.2. UN proper shipping name

Transport document description: UN3399 Organometallic substance, liquid, water-reactive, flammable (TRIMETHYLALUMINUM, 2M in heptane), 4.3 (3), I
Proper Shipping Name (DOT): Organometallic substance, liquid, water-reactive, flammable (TRIMETHYLALUMINUM, 2M in heptane)
Class (DOT): 4.3 - Class 4.3 - Dangerous when wet material 49 CFR 173.124
Packing group (DOT): 1 - Great Danger
Hazard labels (DOT): 4.3 - Dangerous when wet
3 - Flammable liquid

Dangerous for the environment: Yes
Marine pollutant: Yes

DOT Packaging Non Bulk (49 CFR 173.xxx): 201
DOT Packaging Bulk (49 CFR 173.xxx): 244
DOT Packaging Exceptions (49 CFR 173.xxx): None
DOT Symbols: G - Identifies PSN requiring a technical name

14.3. Additional information

Emergency Response Guide (ERG) Number: 138
Other information: No supplementary information available.
TRIMETHYLALUMINUM, 2M in heptane (20-21 wgt%)

Safety Data Sheet

Transport by sea
DOT Vessel Stowage Location: D - The material must be stowed “on deck only” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded.

DOT Vessel Stowage Other: 13 - Keep as dry as reasonably practicable. 40 - Stow “clear of living quarters”. 52 - Stow “separated from” acids. 148 - In addition: from flammable gases and flammable liquids when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.

Air transport
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): Forbidden
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 1 L

SECTION 15: Regulatory information

15.1. US Federal regulations

Trimethylaluminium (75-24-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

n-Heptane (142-82-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag: T - T indicates a substance that is the subject of a final TSCA section 4 test rule.

15.2. International regulations

CANADA

Trimethylaluminium (75-24-1)
Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification: Class B Division 6 - Reactive Flammable Material

n-Heptane (142-82-5)
Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification: Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

EU-Regulations

Trimethylaluminium (75-24-1)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

n-Heptane (142-82-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Trimethylaluminium (75-24-1)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

n-Heptane (142-82-5)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm
TRIMETHYLALUMINUM, 2M in heptane (20-21 wgt%)
Safety Data Sheet

Trimethylaluminium (75-24-1)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

n-Heptane (142-82-5)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H225</th>
<th>Highly flammable liquid and vapor</th>
</tr>
</thead>
<tbody>
<tr>
<td>H250</td>
<td>Catches fire spontaneously if exposed to air</td>
</tr>
<tr>
<td>H260</td>
<td>In contact with water releases flammable gases which may ignite spontaneously</td>
</tr>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

Abbreviations and acronyms:
Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

Hazard Rating
Health: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given.
Flammability: 4 Severe Hazard - Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA)
Physical: 2 Moderate Hazard - Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.

Prepared by safety and environmental affairs.

Date of issue: 07/15/2015 Version: 1.0

SDS US (GHS HazCom 2012) - Custom
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

© 2019 Gelest Inc. Morrisville, PA 19067