SAFETY DATA SHEET

1. Identification

Product Name 1,6-Hexanediol
Cat No. A12439
CAS-No 629-11-8
Synonyms Hexamethylene glycol
Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Company
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

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
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Based on available data, the classification criteria are not met
Combustible dust Yes

Label Elements

Signal Word Warning

Hazard Statements
May form combustible dust concentrations in air

Precautionary Statements
Storage
Store in a well-ventilated place. Keep container tightly closed
Hazards not otherwise classified (HNOC)
None identified

### 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-Hexanediol</td>
<td>629-11-8</td>
<td>&gt;95</td>
</tr>
</tbody>
</table>

### 4. First-aid measures

| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| Skin Contact| Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur. |
| Inhalation  | Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur. |
| Ingestion   | Do NOT induce vomiting. Get medical attention. |
| Most important symptoms and effects | No information available. |
| Notes to Physician | Treat symptomatically |

### 5. Fire-fighting measures

| Suitable Extinguishing Media | Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. |
| Unsuitable Extinguishing Media | No information available |
| Flash Point                 | 147 °C / 296.6 °F |
| Method                      | No information available |
| Autoignition Temperature    | 320 °C / 608 °F |

| Explosion Limits           |                           |
| Upper                       | 16.0 vol %                |
| Lower                       | 6.6 vol %                 |

| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge  | No information available |

**Specific Hazards Arising from the Chemical**
Fine dust dispersed in air may ignite. Dust can form an explosive mixture with air. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**
Carbon monoxide (CO), Carbon dioxide (CO₂).

**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>N/A</td>
</tr>
</tbody>
</table>
6. Accidental release measures

Personal Precautions
Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes or clothing.

Environmental Precautions
Avoid release to the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up
Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and storage

Handling
Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition.

Storage
Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures
Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State
Solid

Appearance
White

Odor
Odorless

Odor Threshold
No information available

pH
7.6 50% aq.sol

Melting Point/Range
40 - 43 °C / 104 - 109.4 °F

Boiling Point/Range
253 - 260 °C / 487.4 - 500 °F @ 760 mmHg

Flash Point
147 °C / 296.6 °F

Evaporation Rate
Not applicable

Flammability (solid,gas)
No information available

Flammability or explosive limits
Upper
16.0 vol %

Lower
6.6 vol %

Vapor Pressure
<0.01 mbar @ 20 °C

Vapor Density
Not applicable

Specific Gravity
0.960

Solubility
No information available
10. Stability and reactivity

Reactive Hazard

None known, based on information available

Stability

Hygroscopic.

Conditions to Avoid

Avoid dust formation. Incompatible products. Excess heat. Exposure to moist air or water.

Incompatible Materials

Acid anhydrides, Acid chlorides, Chloroformates, Reducing Agent

Hazardous Decomposition Products

Carbon monoxide (CO), Carbon dioxide (CO₂)

Hazardous Polymerization

Hazardous polymerization does not occur.

Hazardous Reactions

None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-Hexanediol</td>
<td>LD50 = 3730 mg/kg ( Rat )</td>
<td>LD50 &gt; 10 g/kg ( Rabbit )</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Toxicologically Synergistic Products

No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation

No information available

Sensitization

No information available

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-Hexanediol</td>
<td>629-11-8</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects

Not mutagenic in AMES Test

Reproductive Effects

No information available.

Developmental Effects

No information available.

Teratogenicity

No information available.

STOT - single exposure

None known

STOT - repeated exposure

None known

Aspiration hazard

No information available

Symptoms / effects, both acute and delayed

No information available

Endocrine Disruptor Information

No information available
Other Adverse Effects  The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

12. Ecological information

Ecotoxicity
This product contains the following substance(s) which are hazardous for the environment.

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Algae</th>
<th>Freshwater Fish</th>
<th>Microtox</th>
<th>Water Flea</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-Hexanediol</td>
<td>EC50: = 2200 mg/L, 72h (Desmodesmus subspicatus)</td>
<td>LC50: 460 - 1000 mg/L, 96h static (Leuciscus idus)</td>
<td>Not listed</td>
<td>EC50: &gt; 500 mg/L, 48h (Daphnia magna Straus)</td>
</tr>
</tbody>
</table>

Persistence and Degradability  Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation  No information available.

Mobility  Will likely be mobile in the environment due to its water solubility.

<table>
<thead>
<tr>
<th>Component</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-Hexanediol</td>
<td>0</td>
</tr>
</tbody>
</table>

13. Disposal considerations

Waste Disposal Methods  Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT  Not regulated
TDG  Not regulated
IATA  Not regulated
IMDG/IMO  Not regulated

15. Regulatory information

United States of America Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>TSCA</th>
<th>TSCA Inventory notification - Active/Inactive</th>
<th>TSCA - EPA Regulatory Flags</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-Hexanediol</td>
<td>629-11-8</td>
<td>X</td>
<td>ACTIVE</td>
<td>-</td>
</tr>
</tbody>
</table>

Legend:
TSCA - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
‘-’ - Not Listed

TSCA 12(b) - Notices of Export  Not applicable

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>IECSC</th>
<th>KECL</th>
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</thead>
<tbody>
<tr>
<td>1,6-Hexanediol</td>
<td>629-11-8</td>
<td>X</td>
<td>-</td>
<td>211-074-0</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>KE-19689</td>
</tr>
</tbody>
</table>

U.S. Federal Regulations

SARA 313  Not applicable
SARA 311/312 Hazard Categories  See section 2 for more information

CWA (Clean Water Act)  Not applicable

Clean Air Act  Not applicable

OSHA - Occupational Safety and Health Administration  Not applicable

CERCLA  Not applicable

California Proposition 65  This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations  Not applicable

U.S. Department of Transportation
Reportable Quantity (RQ):  N
DOT Marine Pollutant  N
DOT Severe Marine Pollutant  N

U.S. Department of Homeland Security  This product does not contain any DHS chemicals.

Other International Regulations
Mexico - Grade  No information available

16. Other information

Prepared By  Health, Safety and Environmental Department
Email: tech@alfa.com
www.alfa.com

Creation Date  10-Feb-2011
Revision Date  14-Feb-2020
Print Date  14-Feb-2020
Revision Summary  SDS authoring systems update, replaces ChemGes SDS No. 629-11-8/2.

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of SDS