

## SAFETY DATA SHEET

Creation Date 10-February-2011

Revision Date 24-December-2021

Revision Number 4

### 1. Identification

**Product Name** 1,6-Hexanediol

**Cat No. :** AC120650000; AC120650010; AC120650025; AC120650100

**CAS-No** 629-11-8

**Synonyms** Hexamethylene glycol

**Recommended Use** Laboratory chemicals.

**Uses advised against** Food, drug, pesticide or biocidal product use.

#### Details of the supplier of the safety data sheet

##### Company

**Importer/Distributor**  
Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

**Manufacturer**  
Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

**Emergency Telephone Number** For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

**WHMIS 2015 Classification** Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

**Combustible Dusts** Category 1

#### Label Elements

**Signal Word**  
Warning

**Hazard Statements**  
May form combustible dust concentrations in air

**Precautionary Statements**  
**Prevention**  
Keep container tightly closed

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

**Response**

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion

**Storage**

Store in a well-ventilated place. Keep container tightly closed

**Disposal**

Dispose of contents/container to an approved waste disposal plant

### 3. Composition/Information on Ingredients

| Component      | CAS-No   | Weight % |
|----------------|----------|----------|
| 1,6-Hexanediol | 629-11-8 | >95      |

### 4. First-aid measures

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

### 5. Fire-fighting measures

|   |   |
|---|---|
| <b>Suitable Extinguishing Media</b>     | Water spray, carbon dioxide (CO <sub>2</sub> ), dry chemical, alcohol-resistant foam. |
| <b>Unsuitable Extinguishing Media</b>   | No information available  |
| <b>Flash Point</b>                      | 147 °C / 296.6 °F   |
| <b>Method -</b>                         | No information available  |
| <b>Autoignition Temperature</b>         | 320 °C / 608 °F   |
| <b>Explosion Limits</b>                 |   |
| <b>Upper</b>                            | 16.0 vol %  |
| <b>Lower</b>                            | 6.6 vol %   |
| <b>Sensitivity to Mechanical Impact</b> | No information available  |
| <b>Sensitivity to Static Discharge</b>  | 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 (CO<sub>2</sub>).

**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.

**NFPA**

**Health**  
1

**Flammability**  
1

**Instability**  
1

**Physical hazards**  
N/A

**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. Incompatible Materials. Acid anhydrides. Acid chlorides. Chloroformates. Reducing Agent.

**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 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.

**Hand Protection**

Protective gloves

| Glove material | Breakthrough time                 | Glove thickness | Glove comments         |
|----------------|-----------------------------------|-----------------|------------------------|
| Nitrile rubber | See manufacturers recommendations | -               | Splash protection only |
| Neoprene       |                                   |                 |                        |
| Natural rubber |                                   |                 |                        |
| PVC            |                                   |                 |                        |

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

**Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. 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.

**Recommended Filter type:** Particle filter

**Environmental exposure controls**

No information available.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

## 9. Physical and chemical properties

|   |  |
|---|--|
| <b>Physical State</b>                         | Solid                                    |
| <b>Appearance</b>                             | White                                    |
| <b>Odor</b>                                   | Odorless                                 |
| <b>Odor Threshold</b>                         | No information available                 |
| <b>pH</b>                                     | 7.6 50% aq.sol                           |
| <b>Melting Point/Range</b>                    | 40 - 43 °C / 104 - 109.4 °F              |
| <b>Boiling Point/Range</b>                    | 253 - 260 °C / 487.4 - 500 °F @ 760 mmHg |
| <b>Flash Point</b>                            | 147 °C / 296.6 °F                        |
| <b>Evaporation Rate</b>                       | Not applicable                           |
| <b>Flammability (solid,gas)</b>               | No information available                 |
| <b>Flammability or explosive limits</b>       |  |
| Upper   | 16.0 vol %                               |
| Lower   | 6.6 vol %                                |
| <b>Vapor Pressure</b>                         | <0.01 mbar @ 20 °C                       |
| <b>Vapor Density</b>                          | Not applicable                           |
| <b>Specific Gravity</b>                       | 0.960                                    |
| <b>Solubility</b>                             | No information available                 |
| <b>Partition coefficient; n-octanol/water</b> | No data available                        |
| <b>Autoignition Temperature</b>               | 320 °C / 608 °F                          |
| <b>Decomposition Temperature</b>              | 350 °C                                   |
| <b>Viscosity</b>                              | Not applicable                           |
| <b>Molecular Formula</b>                      | C6 H14 O2                                |
| <b>Molecular Weight</b>                       | 118.18                                   |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactive Hazard</b>                  | None known, based on information available  |
| <b>Stability</b>                        | Hygroscopic.  |
| <b>Conditions to Avoid</b>              | Avoid dust formation. Incompatible products. Excess heat. Exposure to moist air or water. |
| <b>Incompatible Materials</b>           | Acid anhydrides, Acid chlorides, Chloroformates, Reducing Agent                           |
| <b>Hazardous Decomposition Products</b> | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )                                   |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.  |
| <b>Hazardous Reactions</b>              | None under normal processing.   |

## 11. Toxicological information

**Acute Toxicity****Product Information****Component Information**

| Component      | LD50 Oral                 | LD50 Dermal               | LC50 Inhalation |
|----------------|---------------------------|---------------------------|-----------------|
| 1,6-Hexanediol | LD50 = 3730 mg/kg ( Rat ) | LD50 > 10 g/kg ( Rabbit ) | Not listed      |

**Toxicologically Synergistic** No information available

**Products****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.

| Component      | CAS-No   | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|----------------|----------|------------|------------|------------|------------|------------|
| 1,6-Hexanediol | 629-11-8 | Not listed | Not listed | Not listed | Not listed | Not listed |

**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.

| Component      | Freshwater Algae                                    | Freshwater Fish | Microtox   | Water Flea                                      |
|----------------|---|-----------------|------------|---|
| 1,6-Hexanediol | EC50: = 2200 mg/L, 72h<br>(Desmodesmus subspicatus) | Not listed      | Not listed | EC50: > 500 mg/L, 48h<br>(Daphnia magna Straus) |

**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.

| Component      | log Pow |
|----------------|---------|
| 1,6-Hexanediol | 0       |

## 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

## International Inventories

| Component      | CAS-No   | DSL | NDSL | TSCA | TSCA Inventory notification - Active-Inactive | EINECS    | ELINCS | NLP |
|----------------|----------|-----|------|------|---|-----------|--------|-----|
| 1,6-Hexanediol | 629-11-8 | X   | -    | X    | ACTIVE  | 211-074-0 | -      | -   |

| Component      | CAS-No   | IECSC | KECL     | ENCS | ISHL | TCSI | AICS | NZIoC | PICCS |
|----------------|----------|-------|----------|------|------|------|------|-------|-------|
| 1,6-Hexanediol | 629-11-8 | X     | KE-19689 | X    | X    | X    | X    | X     | X     |

## Legend:

X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

## Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

| Component      | Canada - National Pollutant Release Inventory (NPRI) | Canadian Environmental Protection Agency (CEPA) - List of Toxic Substances | Canada's Chemicals Management Plan (CEPA) |
|----------------|--|--|---|
| 1,6-Hexanediol | Part 4 Substance                                     |  |   |

## Other International Regulations

## Authorisation/Restrictions according to EU REACH

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

| Component      | CAS-No   | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|----------------|----------|----------|------------------------------|---------------------------|--|
| 1,6-Hexanediol | 629-11-8 | Listed   | Not applicable               | Not applicable            | Not applicable                             |

| Component      | CAS-No   | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|----------------|----------|---|--|----------------------------|------------------------------------|
| 1,6-Hexanediol | 629-11-8 | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |

## 16. Other information

## Prepared By

Regulatory Affairs  
Thermo Fisher Scientific  
Email: EMSDS.RA@thermofisher.com

## Creation Date

10-February-2011

|                         |  |
|-------------------------|--|
| <b>Revision Date</b>    | 24-December-2021   |
| <b>Print Date</b>       | 24-December-2021   |
| <b>Revision Summary</b> | This document has been updated to comply with the requirements of WHMIS 2015 to align with the Globally Harmonised System (GHS) for the Classification and Labelling of Chemicals. |

**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**