

SAFETY DATA SHEET

Preparation Date: 07/24/2019

Revision date 07/24/2019

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: D1594
Product Name: Diethylene Glycol Bis(2-chloroethyl) Ether

Other means of identification

Synonyms: 1,11-Dichloro-3,6,9-trioxaundecane
 Ether, bis(2-(2-chloroethoxy)ethyl)
 Tetraglycol dichloride
CAS #: 638-56-2
RTECS # KN0525000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

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

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 4

Label elements

Danger

Hazard statements

Toxic if swallowed
 Harmful in contact with skin



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF ON SKIN: Wash with plenty of water
Call a POISON CENTER or physician if you feel unwell
Wash contaminated clothing before reuse
IF SWALLOWED: Immediately call a POISON CENTER or physician
Rinse mouth

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	100

4. FIRST AID MEASURES

First aid measures

General Advice:

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact:

Flush eyes with water for 15 minutes. Get medical attention.

Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a

one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion: Toxic if swallowed. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

Most important symptoms and effects, both acute and delayed

Symptoms May cause eye/skin irritation
May cause irritation of respiratory tract

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂). hydrogen chloride gas.

Specific hazards May be ignited by heat, sparks or flames.

Special Protective Actions for Firefighters

Specific Methods: Water mist may be used to cool closed containers For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Absorb spill with inert material (e.g. vermiculite, dry sand or earth). Use appropriate tools to put the spilled solid in a suitable waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. All equipment used when handling the product must be grounded. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe vapors or spray mist. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:

Oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	None	None	None	None

Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	None	None	None	None

Australia and Mexico

Component	CAS No	Australia	Mexico
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	None	None

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles or Safety glasses with side-shields.

Skin and body protection: Chemical resistant apron
Long sleeved clothing
Gloves

Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	Appearance: Clear.	Color: Pale Yellow.
Odor: No information available.	Taste: No information available.	Formula: C8H16Cl2O3
Molecular/Formula weight (g/mole): 231.11	Flammability (solid, gas): no data available	Flashpoint (°C/°F): No information available
Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): No information available	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): No information available	Bulk density: No information available	Density (g/cm3): 1.18
Specific gravity: No information available	pH: No information available	Vapor pressure @ 20°C (kPa): No information available
Evaporation rate: No information available	Vapor density: No information available	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available	Viscosity: No information available

Miscibility:
No information available

Solubility:
No information available

10. STABILITY AND REACTIVITY

Reactivity

No information available

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Oxidizing agents

Hazardous decomposition products: Carbon oxides. Hydrogen chloride.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Skin. Ingestion.

Acute Toxicity

Component Information

Diethylene Glycol Bis(2-chloroethyl) Ether

CAS No 638-56-2

LD50/oral/rat = 180 mg/kg Oral LD50 Rat

LD50/oral/mouse = No information available

LD50/dermal/rabbit = 1620 µL/kg Dermal LD50 Rabbit

LD50/dermal/rat = No information available

LC50/inhalation/rat = No information available

LC50/inhalation/mouse = No information available

Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =

Value - Acute Toxicity = 180 mg/kg

LD50/oral/mouse =

Value - Acute Tox = No information available

LD50/dermal/rabbit

Value - Acute Toxicity = 1620 µL/kg

LD50/dermal/rat

VALUE - Acute Tox = No information available

LC50/inhalation/rat

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms**Skin Contact:** May cause skin irritation.**Eye Contact:** May cause eye irritation.**Inhalation** May cause irritation of respiratory tract.**Ingestion** May cause digestive (gastrointestinal) tract irritation.**Aspiration hazard** No information available.**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Chronic Toxicity** No information available.**Sensitization:** No information available.**Mutagenic Effects:** No information available**Carcinogenic effects:** Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)**IARC (International Agency for Research on Cancer)**NTP (National Toxicology Program)**OSHA (Occupational Safety and Health Administration of the US Department of Labor)***Reproductive toxicity** No data is available**Reproductive Effects:** No information available**Developmental Effects:** No information available**Teratogenic Effects:** No information available**Product code:** D1594**Product name:** Diethylene Glycol
Bis(2-chloroethyl) Ether**Page** 7 / 12

Specific Target Organ Toxicity

STOT - single exposure No information available.
STOT - repeated exposure No information available.
Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.
Persistence and degradability: No information available
Bioaccumulative potential: No information available.
Mobility in soil No information available
Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN2810
Proper Shipping Name: Toxic liquids, organic, n.o.s.
Hazard Class 6.1
Subsidiary Class No information available
Packing group: III
Emergency Response Guide Number 153
Marine Pollutant No data available
DOT RQ (lbs): No information available
Special Provisions IB3, T7, TP1, TP28
Symbol(s): No information available
Description: UN2810, Toxic liquids, organic, n.o.s. (Diethylene Glycol Bis(2-chloroethyl) Ether), 6.1, III

TDG (Canada)

UN-No: UN2810

Proper Shipping Name: Toxic liquid, organic, n.o.s.
Hazard Class 6.1
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant No Information available
Description: UN2810, TOXIC LIQUID, ORGANIC, N.O.S. (Diethylene Glycol Bis(2-chloroethyl) Ether), 6.1, III

ADR

UN Number UN2810
Proper Shipping Name: Toxic liquid, organic, n.o.s.
Transport hazard class(es) 6.1
Packing group III
Subsidiary Risk: No information available
Special Provisions 274, 614
Description: UN2810, TOXIC LIQUID, ORGANIC, N.O.S. (Diethylene Glycol Bis(2-chloroethyl) Ether), 6.1, III

IMDG

UN-No: UN2810
Proper Shipping Name: Toxic liquids, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant No information available
EMS: F-A
Special Provisions 223, 274
Description UN2810, TOXIC LIQUID, ORGANIC, N.O.S. (Diethylene Glycol Bis(2-chloroethyl) Ether), 6.1, III

RID

UN Number UN2810
Proper Shipping Name: Toxic liquid, organic, n.o.s.
Transport hazard class(es) 6.1
Subsidiary Risk: No information available
Packing group III
Special Provisions 274, 614
Description: UN2810, TOXIC LIQUID, ORGANIC, N.O.S. (Diethylene Glycol Bis(2-chloroethyl) Ether), 6.1, III

ICAO (air)

UN-No: UN2810
Proper Shipping Name: Toxic liquid, organic, n.o.s.
Hazard Class 6.1
Subsidiary Risk: No information available
Packing Group: III
Description: UN2810, TOXIC LIQUID, ORGANIC, N.O.S. (Diethylene Glycol Bis(2-chloroethyl) Ether), 6.1, III
Special Provisions A3, A4, A137

IATA

UN Number UN2810
Proper Shipping Name: Toxic liquid, organic, n.o.s.
Transport hazard class(es) 6.1
Subsidiary Risk: No information available
Packing group III
Precautionary Statements - Response 6L

Special Provisions Description:

No information available
UN2810, TOXIC LIQUID, ORGANIC, N.O.S. (Diethylene Glycol Bis(2-chloroethyl) Ether), 6.1, III

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	Not Listed	Not present	Not present	Not present	Not listed	Not listed	Not present

U.S. Regulations

Diethylene Glycol Bis(2-chloroethyl) Ether

Massachusetts RTK: Present

Pennsylvania RTK: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	None	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Not a dangerous product according to HPR classification criteria.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	Not Listed	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2	

EU - CLP (1272/2008)

R-phrase(s)

R25 - Toxic if swallowed

R21 - Harmful in contact with skin

S -phrase(s)

S36 - Wear suitable protective clothing

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Diethylene Glycol Bis(2-chloroethyl) Ether	638-56-2		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

T - Toxic

Xn - Harmful

T

Xn



16. OTHER INFORMATION

Preparation Date: 07/24/2019

Revision date: 07/24/2019

Product code: D1594

Product name: Diethylene Glycol Bis(2-chloroethyl) Ether

Prepared by:

Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet