SAFETY DATA SHEET

Revision date 23-March-2023

| 1. Identification | | |
|---|--------------------------|--|
| Product identifier | | |
| Product Name | MONOTHIOGLYCEROL | |
| Other means of identification | | |
| Product Code(s) | M1177 | |
| UN/ID no | UN2810 | |
| Synonyms | None | |
| Recommended use of the chemical and restrictions on use | | |
| Recommended use | No information available | |
| Restrictions on use | No information available | |
| Details of the supplier of the safety data sheet | | |
| <u>Supplier Address</u> Spectrum Chemical Mfg. Corp. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000 | | |

Emergency telephone number

Emergency Telephone

Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification

| Acute toxicity - Oral | Category 4 |
|--|-------------|
| Acute toxicity - Dermal | Category 3 |
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2A |
| Specific target organ toxicity (single exposure) | Category 3 |

Hazards not otherwise classified (HNOC)

Not applicable

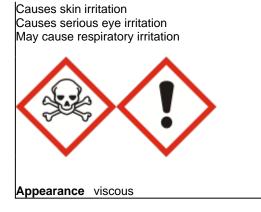
Label elements

Danger

<u>Hazard statements</u> Harmful if swallowed Toxic in contact with skin



Revision Number 2



Physical state Liquid

Odor Slight

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Specific treatment (see .? on this label) Specific treatment (see .? on this label) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention IF ON SKIN: Wash with plenty of water and soap Call a POISON CENTER or doctor if you feel unwell Take off immediately all contaminated clothing and wash it before reuse If skin irritation occurs: Get medical advice/attention IF INHALED: Remove person to fresh air and keep comfortable for breathing Call a POISON CENTER or doctor if you feel unwell IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell Rinse mouth

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

No information available.

3. Composition/information on ingredients

Substance

| Chemical name | CAS No | Weight-% |
|------------------|---------|----------|
| Monothioglycerol | 96-27-5 | 100 |

4. First-aid measures

Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

| Inhalation | Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur. | |
|--|--|--|
| Eye contact | Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub affected area. | |
| Skin contact | Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. | |
| Ingestion | Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention. | |
| Self-protection of the first aider | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing. | |
| Most important symptoms and effects, both acute and delayed | | |
| Symptoms | May cause redness and tearing of the eyes. Burning sensation. | |
| Indication of any immediate medical attention and special treatment needed | | |
| Note to physicians | Treat symptomatically. | |

5. Fire-fighting measures

| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. CAUTION: Use of water spray when fighting fire may be inefficient. | |
|--|---|--|
| Large Fire | | |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. | |
| Specific hazards arising from the chemical | No information available. | |
| Hazardous combustion products | Carbon dioxide (CO2). Sulfur oxides. | |
| Explosion data Sensitivity to mechanical impact none. | | |
| Sensitivity to static discharge | none. | |
| Special protective equipment for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. | |

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

| Personal precautions | Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. |
|--|--|
| Other information | Refer to protective measures listed in Sections 7 and 8. |
| Methods and material for containment and cleaning up | |
| Methods for containment | Prevent further leakage or spillage if safe to do so. |

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Take off contaminated clothing and wash before reuse. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

| Storage Conditions | Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach |
|--------------------|--|
| | of children. Store locked up. Keep refrigerated. |

8. Exposure controls/personal protection

Control parameters

Exposure Limits

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Appropriate engineering controls

| Engineering controls | Showers Eyewash stations Ventilation systems. |
|------------------------------------|--|
| Individual protection measures, su | ch as personal protective equipment |
| Eye/face protection | Wear safety glasses with side shields (or goggles). |
| Hand protection | Wear suitable gloves. Impervious gloves. |
| | |
| Skin and body protection | Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. |
| Respiratory protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| General hygiene considerations | Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. |

9. Physical and chemical properties

Information on basic physical and chemical properties

| Physical state | Liquid |
|----------------|--------------------------|
| Appearance | viscous |
| Color | Colorless light yellow |
| Odor | Slight |
| Odor threshold | No information available |

| <u>Property</u> pH Melting point / freezing point Boiling point / boiling range Flash point Evaporation rate Flammability (solid, gas) | <u>Values</u> no data available no data available 118 °C / 244.4 °F >112.78 °C / >235 °F no data available no data available | Remarks • Method None known None known None known None known None known None known |
|--|--|--|
| Flammability Limit in Air Upper flammability or explosive limits | No data available | None known |
| Lower flammability or explosive limits | No data available | |
| Vapor pressure Vapor density Relative density Water solubility Solubility(ies) Partition coefficient Autoignition temperature Decomposition temperature | No data available no data available 1.234-1.295 Slightly soluble in water Very soluble in Acetone Slightly soluble in Benzene Insoluble in Ether No data available no data available | None known None known None known None known None known None known None known None known |
| Kinematic viscosity Dynamic viscosity | no data available No data available | None known None known |
| Other information Explosive properties Oxidizing properties Softening point Molecular weight VOC Content (%) Liquid Density Bulk density | No information available No information available No information available 108.15 No information available No information available No information available | |

10. Stability and reactivity

| Reactivity | No information available. |
|------------------------------------|--|
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | None under normal processing. |
| Conditions to avoid | None known based on information supplied. |
| Incompatible materials | Strong acids. Strong bases. Strong oxidizing agents. |

Hazardous decomposition products None known based on information supplied.

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11. Toxicological information

Information on likely routes of exposure

Product Information

| Inhalation | Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. |
|--------------|--|
| Eye contact | Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation. |
| Skin contact | Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). Toxic in contact with skin. |

Ingestion

Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. May cause redness and tearing of the eyes.

Acute toxicity

Numerical measures of toxicity

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

| Skin corrosion/irritation Serious eye damage/eye irritation Respiratory or skin sensitization Germ cell mutagenicity | Classification based on data available for ingredients. Irritating to skin. Classification based on data available for ingredients. Causes serious eye irritation. No information available. No information available. |
|---|---|
| Reproductive toxicity | No information available. |
| STOT - single exposure STOT - repeated exposure Aspiration hazard | No information available. No information available. No information available. |
| Other adverse effects | No information available. |
| Interactive effects | No information available. |

12. Ecological information

| Ecotoxicity | The environmental impact of this product has not been fully investigated. |
|--|---|
| Persistence and degradability Bioaccumulation | No information available. Inherently biodegradable. |
| Other adverse effects | No information available. |

| 13. Disposal considerations | | |
|--|---|--|
| Waste treatment methods | | |
| Waste from residues/unused products | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. | |
| Contaminated packaging | Do not reuse empty containers. | |

14. Transport information

| DOT | |
|----------------------|--------------------------------|
| UN/ID no | UN2810 |
| Proper shipping name | Toxic liquids, organic, n.o.s. |
| Hazard class | 6.1 |
| Special Provisions | III |
| Special Provisions | IB3, T7, TP1, TP28 |

Marine Pollutant Severe Marine Pollutant Description UN2810, Toxic liquids, organic, n.o.s., 6.1, III **Emergency Response Guide** 153 Number TDG UN/ID no. UN2810 Proper shipping name Toxic liquid, organic, n.o.s. Hazard class 6.1 **Packing Group** Ш **Special Provisions** 16 UN2810, Toxic liquid, organic, n.o.s., 6.1, III Description MEX UN-No UN2810 **Proper Shipping Name** Toxic liquid, organic, n.o.s. Hazard class 6.1 **Special Provisions** 223, 274 Packing Group Ш Description UN2810, Toxic liquid, organic, n.o.s., 6.1, III ICAO (air) UN/ID no. UN2810 Hazard class 6.1 **Packing Group** Ш A3, A4, A137 **Special Provisions** ΙΑΤΑ **UN** number UN2810 Hazard Class 6.1 Packing group III **Emergency Response Guide** 6L Number **Special Provisions** A3, A4, A137 IMDG **UN** number UN2810 **Hazard Class** 6.1 Packing group Ш F-A, S-A EmS-No **Special Provisions** 223, 274 Marine Pollutant NP1 RID **UN number** UN2810 Proper shipping name TOXIC LIQUID, ORGANIC, N.O.S. **Hazard Class** 6.1 Packing group III **Classification code** T1 **Special Provisions** 274.614 Description UN2810, TOXIC LIQUID, ORGANIC, N.O.S., 6.1, III Labels 6.1 ADR **UN number** UN2810 Proper shipping name Toxic liquid, organic, n.o.s. **Hazard Class** 6.1 Ш Packing group **Classification code** T1 **Tunnel restriction code** (E) 274, 614 **Special Provisions** Description UN2810, Toxic liquid, organic, n.o.s., 6.1, III, (E) Labels 6.1 ADN UN2810 **UN/ID No**

| Proper shipping name | Toxic liquid, organic, n.o.s. |
|-----------------------|---|
| Hazard Class | 6.1 |
| Packing Group | III |
| Classification code | T1 |
| Special Provisions | 274, 614, 802 |
| Description | UN2810, Toxic liquid, organic, n.o.s., 6.1, III |
| Hazard label(s) | 6.1 |
| Limited quantity (LQ) | 5 L |
| ventilation | VE02 |
| | VE02 PP, EP, TOX, A |

15. Regulatory information

International Inventories

TSCA

Complies

| DSL/NDSL | Complies |
|---------------|---|
| EINECS/ELINCS | Complies |
| ENCS | This product complies with ENCS: |
| IECSC | This product complies with China: |
| KECL | Complies |
| PICCS | Complies |
| AICS | All the constituents of this material are listed on the Australian Inventory of Chemical |
| AICS | All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS). |

Legend:

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

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

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information NFPA Health hazards 2 Flammability 0 Instability 0 Physical and chemical properties -HMIS Health hazards 2 Flammability 0 Physical hazards 0 Personal protection X Key or legend to abbreviations and acronyms used in the safety data sheet Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION TŴĂ TWA (time-weighted average) STEL STEL (Short Term Exposure Limit) Ceiling Maximum limit value Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization **Revision date** 23-March-2023 **Revision Note** No information available.

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 Safety Data Sheet