

Revision number: 1 Revision date: 07/06/2018

1. IDENTIFICATION

Product name: Product code:

Product use: **Restrictions on use:**

Company: TCI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: WHMIS 2015:

Signal word:

Hazard Statement(s):

Combustible liquid Causes skin irritation Causes serious eye irritation

Warning!

Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention]

[Response]

[Storage] [Disposal]

Hazards not otherwise classified: [HNOC]



Tetramethylene Glycol Monovinyl Ether (stabilized with KOH) T1796

TCI AMERICA

SAFETY DATA SHEET

For laboratory research purposes. Not for drug or household use.

Emergency telephone number:

Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-286-7624 Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.) +1-703-527-3887 (International) **Responsible department:** TCI America Environmental Health Safety and Security +1-503-286-7624

Skin Corrosion/Irritation [Category 2] Eye Damage/Irritation [Category 2A] Flammable Liquids [Category 4]

Keep away from flames and hot surfaces. - No smoking. Wash hands and face thoroughly after handling. Wear protective gloves, eye protection. If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice or attention.

Take off contaminated clothing and wash it before reuse. 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 or attention. In case of fire: Use dry chemical, dry sand or foam to extinguish.

Store in a well-ventilated place. Keep cool. Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40 CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.).

May cause polymerization.

TCI AMERICA

3. COMPOSITION/INFORMATION ON INGREDIENTS

| 3. COMPOSITION/INFORMATION O | NINGREDIENTS |
|---|---|
| Substance/mixture: Components: Percent: CAS RN: Molecular Weight: Chemical Formula: Synonyms: Stabilizers: | Substance Tetramethylene Glycol Monovinyl Ether (stabilized with KOH) >97.0%(GC) 17832-28-9 116.16 C ₆ H ₁₂ O ₂ 4-Vinyloxybutanol (stabilized with KOH) Potassium hydroxide |
| 4. FIRST-AID MEASURES | |
| Description of first aid measures Inhalation: | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell. |
| Skin contact: | Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. |
| Eye contact: | 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. |
| Ingestion: | Get medical advice/attention if you feel unwell. Rinse mouth. |
| Symptoms/effects: Acute: Delayed: | Redness. No data available |
| Indication of any immediate medical attended to available. Notes to physician: No data available | |
| 5. FIRE-FIGHTING MEASURES | |
| Suitable extinguishing media: Unsuitable extinguishing media: | Dry chemical, foam, carbon dioxide. Water (It may scatter and spread fire.) |
| Specific hazards arising from the chemical: Hazardous combustion products: Other specific hazards: | This substance may polimerize explosively when heated or involved in a fire. Container may explode when heated. Combat fire from a sheltered position. These products include: Carbon oxides Closed containers may explode from heat of a fire. |
| Advice for firefighters: | Wear self-contained breathing apparatus if possible. |
| 6. ACCIDENTAL RELEASE MEASU | RES |
| Personal precautions, protective equipment and emergency procedures: | Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc. |
| Environmental precautions: Methods and materials for containment and cleaning up: | Prevent product from entering drains. Absorb spilled material in dry sand or inert absorbent before recovering it into a covered container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations. |
| Prevention of secondary hazards: | Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment. |
| 7. HANDLING AND STORAGE | |
| Precautions for safe handling: | Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from flames and hot surfaces. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid contact with skin, eyes and clothing. |
| Conditions for safe storage, including a Storage conditions: | ny incompatibilities Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store away from incompatible materials such as oxidizing agents. Light-sensitive |
| Packaging material: | Comply with laws. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Appropriate engineering controls: | Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath. |
|-----------------------------------|---|
| Personal protective equipment | |
| Respiratory protection: | Vapor respirator. Follow local and national regulations. |
| Hand protection: | Protective gloves. |
| Eye protection: | Safety glasses. A face-shield, if the situation requires. |
| Skin and body protection: | Protective clothing. Protective boots, if the situation requires. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state (20°C): Form: Colour: Odour: Odor threshold: Odour threshold: | Liquid Clear Colorless - Slightly pale No data available No data available No data available | yellow | |
|--|--|---|--|
| Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic viscosity: Log Pow: | No data available 86°C /1.7kPa (187°F) No data available 0.95 No data available No data available | pH: Vapour pressure: Vapour density: Dynamic Viscosity: Evaporation rate(Butyl | No data available No data available. No data available No data available No data available |
| Flash point: Flammability(solid, gas): | 80°C (176°F) No data available | Acetate=1): Autoignition temperature: Flammability or explosive limits: Lower: Upper: | 265°C (509°F) No data available No data available |
| Solubility(ies): [Water] [Other solvents] | No data available No data available | | |
| 10. STABILITY AND REACT | No data available | | |

Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products:

Chemical stability:

No data available Polymerization may occur under the influences of heat, light or on contact with polymerization initiators such as peroxides etc. No special reactivity has been reported. Heat, Open flame, Light Oxidizing agents Carbon dioxide, Carbon monoxide 11. TOXICOLOGICAL INFORMATION

| Acute Toxicity: No data available | | | | |
|---|---|--|-----------|-------------------|
| Skin corrosion/irritation: No data available | | | | |
| Serious eye damage/irritation: No data available | | | | |
| Respiratory or skin sensitization: No data available | | | | |
| Germ cell mutagenicity: No data available | | | | |
| Carcinogenicity: No data available | | | | |
| IARC: No data available | NTP: | No data available | OSHA: | No data available |
| Reproductive toxicity: No data available | | | | |
| Target organ(s): | No data available | | | |
| 12. ECOLOGICAL INFORMATION | | | | |
| Ecotoxicity: | | | | |
| Fish: | No data available | | | |
| Crustacea: | No data available | | | |
| Algae: | No data available | | | |
| Persistence / degradability: Bioaccumulative potential(BCF): Mobility in soil | No data available No data available | | | |
| Log Pow: | No data available | | | |
| Soil adsorption (Koc): | No data available | | | |
| Henry's Law (PaM ³/mol): | No data available | | | |
| 13. DISPOSAL CONSIDERATIONS | | | | |
| Disposal of product: | Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil. | | | |
| Disposal of container: Other considerations: | Dispose of as unu | sed product. Do not re-use empty con I, state and local regulations when di | ntainers. | |
| 14. TRANSPORT INFORMATION | | | | |
| DOT (US) | Non-hazardous for | r transportation. | | |
| IATA_ | Non-hazardous for | r transportation. | | |
| IMDG | Non-hazardous for | r transportation. | | |

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

| US Federal Regu | lations | | | |
|--------------------|---------------|--------------------------|----------------------|---|
| CERCLA Hazardo | ous substance | and Reportable Quantity: | | |
| SARA 313: | | Not Listed | | |
| SARA 302: | | Not Listed | | |
| State Regulation | s | | | |
| State Right-to-Kr | | | | |
| Massachuse | | Not Listed | | |
| New Jersey | | Not Listed | | |
| Pennsylvania | a | Not Listed | | |
| California Propos | sition 65: | Not Listed | | |
| Other Information | n | | | |
| NFPA Rating: | | | HMIS Classification: | |
| Health: | 2 | | Health: | 2 |
| Flammability: | 2 | | Flammability: | 2 |
| Instability: | 0 | | Physical: | 0 |
| International Inve | entories | | | |
| Canada: NDSL | | On NDSL | | |
| EC-No: | | 241-793-5 | | |
| | | | | |

16. OTHER INFORMATION

Revision date: 07/06/2018

Revision number: 1

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.