



SAFETY DATA SHEET: TETRAETHYLENE GLYCOL

IN CASE OF TRANSPORTATION EMERGENCY CONTACT:

CHEMTREC:(800) 424-9300

ALL OTHER INQUIRIES:
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1. IDENTIFICATION

PRODUCT NAME: TETRAETHYLENE GLYCOL
CAS NO: 112-60-7
PRODUCT USES: LABORATORY CHEMICALS, MANUFACTURE OF SUBSTANCES

2. HAZARDS IDENTIFICATION

NOT A HAZARDOUS SUBSTANCE OR MIXTURE

GHS LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS: Not a hazardous substance or mixture

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS - NONE

3. COMPOSITION

SYNONYMS: Bis[2-(2-hydroxyethoxy)ethyl]ether, Tetra(ethylene glycol), Tetraglycol
FORMULA: C₈H₁₈O₅

No components need to be disclosed according to the applicable regulations

4. FIRST AID MEASURES

If inhaled-
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact-
Wash off with soap and plenty of water.

In case of eye contact-
Flush eyes with water as a precaution.

If swallowed-
Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed-
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed-
No data available

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. For personal protection see section 8.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

For precautions see section 2

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Store under inert gas.

Storage class (TRGS 510): Combustible liquids

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: Form: clear, viscous liquid Color: colorless

Odor: No data available

Odor Threshold: No data available

pH: No data available

Melting point/freezing point: Melting point/range: -5.6 °C (21.9 °F) - lit.

Initial boiling point and boiling range: 314 °C (597 °F) - lit.

Flash point: 182 °C (360 °F) - closed cup

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapour pressure : < 0.01 hPa (< 0.01 mmHg) at 20 °C (68 °F)

Vapour density: 6.71 - (Air = 1.0)

Relative density: 1.125 g/cm³ at 25 °C (77 °F)

Water solubility: 1,000 g/l at 25 °C (77 °F) - soluble

Partition coefficient: n- octanol/water: No data available

Auto-ignition temperature: 349 °C (660 °F)

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Other safety information

Relative vapor density: 6.71 - (Air = 1.0)

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents, Strong bases

Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 30,000 mg/kg

Inhalation: No data available

LD50 Dermal - Rabbit - male and female - > 18,000 mg/kg
(OECD Test Guideline 402)

No data available

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 20 h

Serious eye damage/eye irritation

Eyes - Rabbit
Result: Mild eye irritation - 24 h (OECD Test Guideline 405)

Respiratory or skin sensitisation
Maximisation Test (GPMT) - Guinea pig
Result: Does not cause skin sensitisation. (OECD Test Guideline 406)

Germ cell mutagenicity
Ames test
Salmonella typhimurium Result: negative

Rat - male Result: negative

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
RTECS: XC2100000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - > 10,000 mg/l - 96 h
Toxicity to daphnia and static test LC50 - Daphnia magna (Water flea) - 7,746 mg/l - 48 h other aquatic invertebrates

Persistence and degradability

Biodegradability aerobic - Exposure time 20 d
Result: 90 - 100 % - Readily biodegradable
(OECD Test Guideline 301A)

Bioaccumulative potential
No data available

Mobility in soil
No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

3,6,9-Trioxaundecane-1,11-diol CAS-No. 112-60-7

New Jersey Right To Know Components

3,6,9-Trioxaundecane-1,11-diol CAS-No. 112-60-7

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

HMIS Rating

Health hazard: 0

Chronic Health Hazard:

Flammability: 1

Physical Hazard 0

NFPA Rating
Health hazard: 0
Fire Hazard: 1
Reactivity Hazard: 0

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