1. Identification

Product identifier used on the label

Triethyleneglycol divinyl ether

Recommended use of the chemical and restriction on use
Recommended use*: industrial chemicals

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company: BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1, CANADA

Telephone: +1 289 360-1300

Emergency telephone number

CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification

Molecular formula: C(10)H(18)O(4)
Chemical family: No data available.
Synonyms: Not Available. Usage: chemical used in synthesis and/or formulation of industrial products

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Classification of the product

No need for classification according to GHS criteria for this product.

Label elements

The product does not require a hazard warning label in accordance with GHS criteria.
Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

This product does not contain any components classified as hazardous under the referenced regulation.

4. First-Aid Measures

Description of first aid measures

General advice:
Remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air. Assist in breathing if necessary. Consult a physician.

If on skin:
Wash affected areas thoroughly with soap and water. Remove contaminated clothing. If irritation develops, seek medical attention.

If in eyes:
In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

If swallowed:
If person is conscious and can swallow, give two glasses of water. Induce vomiting. Immediate medical attention required.

Most important symptoms and effects, both acute and delayed

Symptoms: No significant symptoms are expected due to the non-classification of the product.

Indication of any immediate medical attention and special treatment needed

Note to physician
Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam
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Special hazards arising from the substance or mixture
Hazards during fire-fighting:
carbon oxides, nitrogen oxides
The substances/groups of substances mentioned can be released in case of fire. Under certain conditions in case of fire other hazardous combustion products may be generated.

Advice for fire-fighters
Protective equipment for fire-fighting:
Wear a self-contained breathing apparatus.

Further information:
Cool endangered containers with water-spray. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

Impact Sensitivity:
Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures
Personal precautions, protective equipment and emergency procedures
Handle in accordance with good industrial hygiene and safety practice.

Environmental precautions
Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up
For large amounts: Pump off product.
For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).
To clean the floor and all objects contaminated by this material, use plenty of water. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage
Precautions for safe handling
Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:
Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Conditions for safe storage, including any incompatibilities
Segregate from acids and acid forming substances.

Suitable materials for containers: Low density polyethylene (LDPE), Stainless steel 1.4301 (V2), Stainless steel 1.4401, glass, High density polyethylene (HDPE), Carbon steel (Iron)
Unsuitable materials for containers: Paper/Fibreboard

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

Storage stability:
Storage temperature: 25 °C
Storage duration: 24 Months
The product is stabilized, the shelf life should be noted. From the data on storage duration in this safety data sheet no agreed statement regarding the warrantee of application properties can be deduced.

additives:
Potassium hydroxide (CAS Number: 1310-58-3)

8. Exposure Controls/Personal Protection

No occupational exposure limits known.

**Personal protective equipment**

**Respiratory protection:**
Respiratory protection in case of vapour/aerosol release.

**Hand protection:**
Chemical resistant protective gloves, Suitable materials, rubber, plastic

**Eye protection:**
Tightly fitting safety goggles (chemical goggles).

**Body protection:**
No body protection required if used for intended purpose and satisfying generally accepted industrial hygiene rules.

**General safety and hygiene measures:**
Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Wash soiled clothing immediately.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>mild, ether-like</td>
<td></td>
</tr>
<tr>
<td>Odour threshold</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>colourless, clear</td>
<td></td>
</tr>
<tr>
<td>pH value</td>
<td>moderately soluble</td>
<td>(OECD Guideline 102)</td>
</tr>
<tr>
<td>Melting point</td>
<td>-12.6 °C (1,013 hPa)</td>
<td>(OECD Guideline 102)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>252.9 °C (1,013.3 hPa)</td>
<td>( Directive 92/69/EEC, A.9, closed cup)</td>
</tr>
<tr>
<td>Flash point</td>
<td>127 °C</td>
<td>( Directive 92/69/EEC, A.15)</td>
</tr>
<tr>
<td>Flammability</td>
<td>not flammable</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.</td>
<td>( Directive 92/69/EEC, A.9, closed cup)</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>For liquids not relevant for classification and labelling.</td>
<td>( Directive 92/69/EEC, A.15)</td>
</tr>
<tr>
<td>Autoignition</td>
<td>200 °C</td>
<td></td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Reactivity

Corrosion to metals:
Corrosive effects to metal are not anticipated.

Oxidizing properties:
Based on its structural properties the product is not classified as oxidizing.

Formation of flammable gases:
Information on hazardous decomposition products: Forms no flammable gases in the presence of water.

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
The product can polymerize if the shelf life or storage temperature are greatly exceeded.

**Conditions to avoid**
Avoid all sources of ignition: heat, sparks, open flame. Avoid heat.

**Incompatible materials**
boron trifluoride, acids

**Hazardous decomposition products**
Decomposition products:
Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.
Hazardous decomposition products: acetaldehyde, The substances/groups of substances mentioned may be released upon the reaction with water.

Thermal decomposition:
270 °C (DSC (DIN 51007))
Risk of exothermic self-accelerating decomposition above the indicated temperature.

### 11. Toxicological information

**Primary routes of exposure**
Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

**Acute Toxicity/Effects**

**Acute toxicity**
Assessment of acute toxicity: Of low toxicity after single ingestion. Of low toxicity after short-term skin contact.

**Oral**
Type of value: LD50
Species: rat (male/female)
Value: > 2,000 mg/kg (Guideline 92/69/EEC, B.1)
Limit concentration test only (LIMIT test).

**Inhalation**
No data available concerning acute toxicity. Study not necessary due to exposure considerations.

**Dermal**
Type of value: LD50
Species: rat (male/female)
Value: > 4,000 mg/kg (OECD Guideline 402)
Limit concentration test only (LIMIT test).

**Assessment other acute effects**
Assessment of STOT single:
Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

**Irritation / corrosion**
Assessment of irritating effects: Not irritating to the skin. Not irritating to the eyes.
Skin
Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Eye
Species: rabbit
Result: non-irritant
Method: OECD Guideline 405

Sensitization
Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Guinea pig maximization test
Species: guinea pig
Result: Non-sensitizing.
Method: OECD Guideline 406

Aspiration Hazard
not applicable

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies. The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies.

Genetic toxicity
Assessment of mutagenicity: No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The substance was not mutagenic in a test with mammals.

Carcinogenicity
Assessment of carcinogenicity: No data available concerning carcinogenic effects.

Reproductive toxicity
Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity
Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Symptoms of Exposure
No significant symptoms are expected due to the non-classification of the product.

12. Ecological Information

Toxicity
Aquatic toxicity
Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

**Toxicity to fish**
LC50 (96 h) > 100 mg/l, Brachydanio rerio (Directive 84/449/EEC, C.1)
The statement of the toxic effect relates to the analytically determined concentration.

**Aquatic invertebrates**
EC50 (48 h) > 100 mg/l, Daphnia magna (Directive 79/831/EEC)
The statement of the toxic effect relates to the analytically determined concentration.

**Aquatic plants**
EC50 (72 h) > 100 mg/l (growth rate), Scenedesmus subspicatus (Guideline 92/69/EEC, C.3)
The statement of the toxic effect relates to the analytically determined concentration.

EC10 (72 h) 98.5 mg/l (growth rate), Scenedesmus subspicatus (Guideline 92/69/EEC, C.3)
The statement of the toxic effect relates to the analytically determined concentration.

**Chronic toxicity to fish**
Study scientifically not justified.

**Chronic toxicity to aquatic invertebrates**
Study scientifically not justified.

**Assessment of terrestrial toxicity**
No data available.
Study scientifically not justified.

**Microorganisms/Effect on activated sludge**

**Toxicity to microorganisms**
OECD Guideline 209 activated sludge, industrial/EC20 (0.5 h): 900 mg/l
Nominal concentration.

**Persistence and degradability**

**Assessment biodegradation and elimination (H2O)**
Biodegradable.

**Elimination information**
69 % CO2 formation relative to the theoretical value (28 d) (OECD Guideline 310) (activated sludge, domestic)

**Assessment of stability in water**
In contact with water the substance will hydrolyse rapidly.

**Information on Stability in Water (Hydrolysis)**
\( t_{1/2} < 30 \text{ min (50 °C, pH value 4)}, \) (Directive 92/69/EEC, C.7, pH 4)
\( t_{1/2} 3,207 \text{ h (50 °C, pH value 9)}, \) (Directive 92/69/EEC, C.7, pH 9)
\( t_{1/2} 10.5 \text{ h (35 °C, pH value 7)}, \) (Directive 92/69/EEC, C.7, pH 7)

**Bioaccumulative potential**

Assessment bioaccumulation potential
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Bioaccumulation potential
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Mobility in soil
Assessment transport between environmental compartments
The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected.

Additional information
Adsorbable organically-bound halogen (AOX):
This product contains no organically-bound halogen.

13. Disposal considerations

Waste disposal of substance:
Incinerate in suitable incineration plant, observing local authority regulations. A waste code in accordance with the European waste catalog (EWC) cannot be specified, due to dependence on the usage. The waste code in accordance with the European waste catalog (EWC) must be specified in cooperation with disposal agency/manufacturer/authorities.

Container disposal:
Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Land transport
TDG
Not classified as a dangerous good under transport regulations

Sea transport
IMDG
Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO
Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations
Registration status:
Chemical DSL, CA released; restriction on quantity / not listed
CEPA/NSNR 1994, Schedule I

CEPA, NDSL
CEPA/NSNR 1994, max. Schedule II
Import by third parties up to 1,000 kg/a allowed

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2017/05/16

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

END OF DATA SHEET