

## 1 Identification

- **Product identifier**
- **Trade name:** triethoxy(vinyl)silane
- **Article number:** 2756, 4590
- **CAS Number:**  
78-08-0
- **EC number:**  
201-081-7
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** Chemical for research, development, manufacturing and analysis
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Biosolve B.V.  
Leenderweg 78, 5555 CE Valkenswaard, the Netherlands.  
Tel: +31-(0)40-2071300  
Fax: +31-(0)40-2048537  
Email: info@biosolve-chemicals.com
- 
- Biosolve Chimie  
20 Rue Roger Husson, 57260 Dieuze, France  
Tel: +33 3 878 675 80/81/82/83/84/85  
Email: info@biosolvechimie.com
- 
- Bio-Lab Ltd.  
POB 34038, Jerusalem 91340, Israel  
Tel: + 972 -2- 584 1111  
Fax: + 972 -2- 584 1110  
Email: info@biolab-chemicals.com
- **Information department:** Product safety department
- **Emergency telephone number:** During normal opening times: +972 2 584 1111

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

H226 Flammable liquid and vapour.



GHS07

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Flammable.

- **Information concerning particular hazards for human and environment:** Not applicable.

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· **Label elements**

· **Labelling according to EU guidelines:**

*The product has been classified and marked in accordance with directives on hazardous materials.*

· **Risk phrases:**

*Flammable.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



*Health = 0*

*Fire = 2*

*Reactivity = 0*

· **HMIS-ratings (scale 0 - 4)**



*Health = 0*

*Fire = 2*

*Reactivity = 0*

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

*78-08-0 triethoxy(vinyl)silane*

· **Identification number(s)**

· **EC number:** 201-081-7

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist consult doctor.

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

*No further relevant information available.*

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

*CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· Eye protection:



Tightly sealed goggles

## 9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Color:	Colorless
Odor:	Fruit-like
Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	156 °C (313 °F)

· Flash point: 38 °C (100 °F)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 245 °C (473 °F)

· Decomposition temperature: Not determined.

· Auto igniting: Not determined.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower:	0.53 Vol %
Upper:	15 Vol %

· Vapor pressure at 20 °C (68 °F): 7 hPa (5 mm Hg)

· Density at 20 °C (68 °F): 0.91 g/cm<sup>3</sup> (7.594 lbs/gal)

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic at 20 °C (68 °F):	0.7 mPas
Kinematic:	Not determined.

· Other information: No further relevant information available.

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### 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity:**
- |   |      |                      |
|---|------|----------------------|
| <b>LD/LC50 values that are relevant for classification:</b> |      |                      |
| Oral  | LD50 | 23000 mg/kg (rat)    |
| Dermal  | LD50 | 10000 mg/kg (rabbit) |
- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** No irritating effect.
  - **Sensitization:** No sensitizing effects known.
  - **Additional toxicological information:**
  - **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)** Substance is not listed.
  - **NTP (National Toxicology Program)** Substance is not listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.




### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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### 14 Transport information

· <b>UN-Number</b> · <b>DOT, ADR, IMDG, IATA</b>	UN1993
· <b>UN proper shipping name</b> · <b>DOT</b> · <b>ADR</b> · <b>IMDG, IATA</b>	Flammable liquids, n.o.s. (triethoxy(vinyl)silane) 1993 Flammable liquids, n.o.s. (triethoxy(vinyl)silane) FLAMMABLE LIQUID, N.O.S. (triethoxy(vinyl)silane)
· <b>Transport hazard class(es)</b> · <b>DOT</b>	
	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>ADR</b>	
	
· <b>Class</b> · <b>Label</b>	3 (F1) Flammable liquids 3
· <b>IMDG, IATA</b>	
	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>Packing group</b> · <b>DOT, ADR, IMDG, IATA</b>	III
· <b>Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b>	Warning: Flammable liquids 30 F-E, <u>S-E</u>
· <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	UN1993, Flammable liquids, n.o.s. (triethoxy(vinyl)silane), 3, III

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
- Section 355 (extremely hazardous substances): Substance is not listed.

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- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.
- **Product related hazard informations:**  
The product has been classified and marked in accordance with directives on hazardous materials.
- **Risk phrases:**  
Flammable.
- **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing MSDS:** Product safety department
- **Contact:** Product safety department
- **Abbreviations and acronyms:**  
*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*  
*ICAO: International Civil Aviation Organization*  
*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*  
*IMDG: International Maritime Code for Dangerous Goods*  
*DOT: US Department of Transportation*  
*IATA: International Air Transport Association*  
*ACGIH: American Conference of Governmental Industrial Hygienists*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*NFPA: National Fire Protection Association (USA)*  
*HMS: Hazardous Materials Identification System (USA)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*