



# VINYLTRIISOPROPOXYSILANE

Safety Data Sheet SIV9210.0

Date of issue: 13/08/2015 Version: 1.0

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product form	: Substance
Physical state	: Liquid
Substance name	: VINYLTRIISOPROPOXYSILANE
Product code	: SIV9210.0
Formula	: C <sub>11</sub> H <sub>24</sub> O <sub>3</sub> Si
Synonyms	: TRIISOPROPOXYVINYLSILANE; ETHENYLTRIISOPROPOXYSILANE
Chemical family	: SILICATE ESTER

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1. Relevant identified uses

Use of the substance/mixture : Chemical intermediate

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

#### GELEST, INC.

11 East Steel Road  
Morrisville, PA 19067

#### USA

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

[info@gelest.com](mailto:info@gelest.com) - [www.gelest.com](http://www.gelest.com)

#### GELEST INC.

Fritz-Klatte-Strasse 8  
65933 Frankfurt

#### Germany

T +49 (0) 69 3535106-500 - F +49 (0) 69 3535106-501 - (M-F): 8:00 AM - 4:00 PM

[info@gelestde.com](mailto:info@gelestde.com) - [www.gelestde.com](http://www.gelestde.com)

### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Serious eye damage/eye irritation, Category 2	H319
Full text of H statements : see section 16	

#### Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H226 - Flammable liquid and vapour.  
H319 - Causes serious eye irritation.

Precautionary statements (CLP) :

P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

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smoking.  
P240 - Ground/bond container and receiving equipment.  
P264 - Wash hands thoroughly after handling.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 - If eye irritation persists: Get medical advice/attention.

### 2.3. Other hazards

Other hazards not contributing to the classification : Note: The hydrolysis product of vinyltriisopropoxysilane is isopropanol. Overexposure by skin absorption, inhalation or ingestion may have a narcotic effect (headache, nausea, drowsiness).

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type : Mono-constituent  
Name : VINYLTRIISOPROPOXYSILANE  
CAS-No. : 18023-33-1  
EC-No. : 241-931-4

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Tri(isopropoxy)vinylsilane	(CAS-No.) 18023-33-1 (EC-No.) 241-931-4	> 95	Flam. Liq. 3, H226 Eye Irrit. 2, H319
Isopropanol	(CAS-No.) 67-63-0 (EC-No.) 200-661-7 (EC Index-No.) 603-117-00-0		Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.  
First-aid measures after skin contact : Wash with plenty of water/....  
First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.  
First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Get medical advice/attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.  
Symptoms/effects after skin contact : May cause skin irritation.  
Symptoms/effects after eye contact : Causes serious eye irritation.  
Symptoms/effects after ingestion : No information available.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Water fog. Foam. Carbon dioxide. Dry chemical.  
Unsuitable extinguishing media : None known.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapour and mist.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges.

##### 6.1.1. For non-emergency personnel

Protective equipment : Wear protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal. Use only non-sparking tools.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapour and mist. Provide good ventilation in process area to prevent formation of vapour. Containers must be properly grounded before beginning transfer. Take precautionary measures against static discharge. Use only non-sparking tools.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment. Use explosion-proof electrical equipment.

Storage conditions : Keep container tightly closed. Keep in a cool place.

Incompatible materials : Oxidizing agent.

Storage area : Store in a well-ventilated place. Store away from heat.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Isopropanol (67-63-0)		
Austria	MAK (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup> (short time value for large casting)
Austria	MAK (ppm)	200 ppm (short time value for large casting)
Austria	MAK Short time value (mg/m <sup>3</sup> )	2000 mg/m <sup>3</sup> 2000 mg/m <sup>3</sup> (STEL for large casting valid till 12/31/2013)
Austria	MAK Short time value (ppm)	800 ppm 800 ppm (STEL for large casting valid till 12/31/2013)
Belgium	Limit value (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Belgium	Limit value (ppm)	200 ppm
Belgium	Short time value (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Belgium	Short time value (ppm)	400 ppm
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	980 mg/m <sup>3</sup>
Bulgaria	OEL STEL (mg/m <sup>3</sup> )	1225 mg/m <sup>3</sup>
France	VLE (mg/m <sup>3</sup> )	980 mg/m <sup>3</sup>
France	VLE (ppm)	400 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup> (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	200 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)

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Isopropanol (67-63-0)		
Germany	TRGS 903 Biological limit value	25 mg/l (Medium: whole blood - Time: end of shift - Parameter: Acetone) 25 mg/l (Medium: urine - Time: end of shift - Parameter: Acetone)
Greece	OEL TWA (mg/m <sup>3</sup> )	980 mg/m <sup>3</sup>
Greece	OEL TWA (ppm)	400 ppm
Greece	OEL STEL (mg/m <sup>3</sup> )	1225 mg/m <sup>3</sup>
Greece	OEL STEL (ppm)	500 ppm
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	200 ppm
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	400 ppm
Latvia	OEL TWA (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
USA IDLH	US IDLH (ppm)	2000 ppm (10% LEL)
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	980 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	400 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	1225 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (STEL) (ppm)	500 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	980 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	400 ppm
Spain	VLA-ED (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup> (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary or biocide compound)
Spain	VLA-ED (ppm)	200 ppm (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary or biocide compound)
Spain	VLA-EC (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Spain	VLA-EC (ppm)	400 ppm
Switzerland	KZGW (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Switzerland	KZGW (ppm)	400 ppm
Switzerland	MAK (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Switzerland	MAK (ppm)	200 ppm
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	999 mg/m <sup>3</sup>
United Kingdom	WEL TWA (ppm)	400 ppm
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	1250 mg/m <sup>3</sup>
United Kingdom	WEL STEL (ppm)	500 ppm
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	490 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (ppm)	200 ppm
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (ppm)	200 ppm
Finland	HTP-arvo (15 min)	620 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min) (ppm)	250 ppm
Hungary	AK-érték	500 mg/m <sup>3</sup>
Hungary	CK-érték	2000 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Ireland	OEL (15 min ref) (ppm)	400 ppm
Lithuania	IPRV (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	150 ppm
Lithuania	TPRV (mg/m <sup>3</sup> )	600 mg/m <sup>3</sup>
Lithuania	TPRV (ppm)	250 ppm
Norway	Grænseverdier (AN) (mg/m <sup>3</sup> )	245 mg/m <sup>3</sup>
Norway	Grænseverdier (AN) (ppm)	100 ppm
Norway	Grænseverdier (Korttidsverdi) (mg/m <sup>3</sup> )	245 mg/m <sup>3</sup>
Norway	Grænseverdier (Korttidsverdi) (ppm)	100 ppm

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Isopropanol (67-63-0)		
Poland	NDS (mg/m <sup>3</sup> )	900 mg/m <sup>3</sup>
Poland	NDSCh (mg/m <sup>3</sup> )	1200 mg/m <sup>3</sup>
Romania	OEL TWA (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup>
Romania	OEL TWA (ppm)	81 ppm
Romania	OEL STEL (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Romania	OEL STEL (ppm)	203 ppm
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Slovakia	NPHV (priemerná) (ppm)	200 ppm
Slovakia	NPHV (Hraničná) (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (ppm)	150 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	600 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	250 ppm
Canada (Quebec)	VECD (mg/m <sup>3</sup> )	1230 mg/m <sup>3</sup>
Canada (Quebec)	VECD (ppm)	500 ppm
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	985 mg/m <sup>3</sup>
Canada (Quebec)	VEMP (ppm)	400 ppm
Australia	TWA (mg/m <sup>3</sup> )	983 mg/m <sup>3</sup>
Australia	TWA (ppm)	400 ppm
Australia	STEL (mg/m <sup>3</sup> )	1230 mg/m <sup>3</sup>
Australia	STEL (ppm)	500 ppm
Portugal	OEL TWA (ppm)	200 ppm
Portugal	OEL STEL (ppm)	400 ppm
Portugal	OEL chemical category (PT)	A4 - Not Classifiable as a Human Carcinogen

## 8.2. Exposure controls

### Appropriate engineering controls:

Provide local exhaust or general room ventilation.

### Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

### Hand protection:

Neoprene or nitrile rubber gloves

### Eye protection:

Chemical goggles. Contact lenses should not be worn

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified organic vapor (black cartridge) respirator.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid.
Molecular mass	: 232.39 g/mol
Colour	: No data available
Odour	: characteristic.
Odour threshold	: No data available
Refractive index	: 1.3961
pH	: No data available
Relative evaporation rate (butylacetate=1)	: < 1
Melting point	: No data available

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Freezing point	: < 0 °C
Boiling point	: 179 - 181 °C
Flash point	: 51 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour.
Vapour pressure	: 4 mm Hg @ 60°C
Relative vapour density at 20 °C	: ~ 7
Relative density	: 0.8659
% Volatiles	: 86 %
Solubility	: Insoluble in water. Reacts with water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Material decomposes slowly in contact with moist air or with water liberating isopropanol. Hazardous polymerization can occur if product is heated over 150°C.

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

Isopropanol. Organic acid vapors. Silicon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Isopropanol (67-63-0)	
LD50 oral rat	1870 mg/kg
LD50 dermal rabbit	4059 mg/kg
LC50 inhalation rat (mg/l)	72600 mg/m <sup>3</sup> (Exposure time: 4 h)
ATE CLP (oral)	4396 mg/kg bodyweight
ATE CLP (dermal)	12800 mg/kg bodyweight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Isopropanol (67-63-0)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified



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Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: This compound liberates isopropanol on contact with moisture. Material generates isopropanol on contact with water or moisture in skin, eyes and mucous membranes and has an irritating, dehydrating effect on overexposed tissue.
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: May cause skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: No information available.
Reason for classification	: Expert judgment

### SECTION 12: Ecological information

#### 12.1. Toxicity

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

Isopropanol (67-63-0)	
LC50 fish 1	9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

Isopropanol (67-63-0)	
Log Pow	0.05 (at 25 °C)

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

Other adverse effects : This substance may be hazardous to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
Product/Packaging disposal recommendations	: Incinerate. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.
Ecology - waste materials	: Avoid release to the environment.

### SECTION 14: Transport information

#### 14.1. UN number

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR)	: 1993
UN-No. (IMDG)	: 1993
UN-No. (IATA)	: 1993
UN-No. (ADN)	: 1993
UN-No. (RID)	: 1993

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: FLAMMABLE LIQUID, N.O.S.
Proper Shipping Name (IMDG)	: FLAMMABLE LIQUID, N.O.S.
Proper Shipping Name (IATA)	: Flammable liquid, n.o.s.
Proper Shipping Name (ADN)	: FLAMMABLE LIQUID, N.O.S.
Proper Shipping Name (RID)	: FLAMMABLE LIQUID, N.O.S.
Transport document description (ADR)	: UN 1993 FLAMMABLE LIQUID, N.O.S. (VINYLTRIISOPROPOXYSILANE), 3, III, (D/E)
Transport document description (IMDG)	: UN 1993 FLAMMABLE LIQUID, N.O.S. (VINYLTRIISOPROPOXYSILANE), 3, III
Transport document description (IATA)	: UN 1993 Flammable liquid, n.o.s. (VINYLTRIISOPROPOXYSILANE), 3, III
Transport document description (ADN)	: UN 1993 FLAMMABLE LIQUID, N.O.S. (VINYLTRIISOPROPOXYSILANE), 3, III

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Transport document description (RID) : UN 1993 FLAMMABLE LIQUID, N.O.S. (VINYLTRIISOPROPOXYSILANE), 3, III

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 3  
Danger labels (ADR) : 3



#### IMDG

Transport hazard class(es) (IMDG) : 3  
Danger labels (IMDG) : 3



#### IATA

Transport hazard class(es) (IATA) : 3  
Hazard labels (IATA) : 3



#### ADN

Transport hazard class(es) (ADN) : 3  
Danger labels (ADN) : 3



#### RID

Transport hazard class(es) (RID) : 3  
Danger labels (RID) : 3



### 14.4. Packing group

Packing group (ADR) : III  
Packing group (IMDG) : III  
Packing group (IATA) : III  
Packing group (ADN) : III  
Packing group (RID) : III

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No



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Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : F1  
Special provisions (ADR) : 274, 601, 640E  
Limited quantities (ADR) : 5I  
Excepted quantities (ADR) : E1  
Packing instructions (ADR) : P001, IBC03, LP01, R001  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T4  
Portable tank and bulk container special provisions (ADR) : TP1, TP29  
Tank code (ADR) : LGBF  
Vehicle for tank carriage : FL  
Transport category (ADR) : 3  
Special provisions for carriage - Packages (ADR) : V12  
Special provisions for carriage - Operation (ADR) : S2  
Hazard identification number (Kemler No.) : 30  
Orange plates :



Tunnel restriction code (ADR) : D/E

#### - Transport by sea

Special provisions (IMDG) : 223, 274, 955  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P001, LP01  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T4  
Tank special provisions (IMDG) : TP1, TP29  
EmS-No. (Fire) : F-E  
EmS-No. (Spillage) : S-E  
Stowage category (IMDG) : A

#### - Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y344  
PCA limited quantity max net quantity (IATA) : 10L  
PCA packing instructions (IATA) : 355  
PCA max net quantity (IATA) : 60L  
CAO packing instructions (IATA) : 366  
CAO max net quantity (IATA) : 220L  
Special provisions (IATA) : A3  
ERG code (IATA) : 3L

#### - Inland waterway transport

Classification code (ADN) : F1  
Special provisions (ADN) : 274, 601, 640E  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP, EX, A  
Ventilation (ADN) : VE01  
Number of blue cones/lights (ADN) : 0

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### - Rail transport

Classification code (RID)	: F1
Special provisions (RID)	: 274, 601, 640E
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1, TP29
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Colis express (express parcels) (RID)	: CE4
Hazard identification number (RID)	: 30

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

VINYLTRIISOPROPOXYSILANE is not on the REACH Candidate List

VINYLTRIISOPROPOXYSILANE is not on the REACH Annex XIV List

VINYLTRIISOPROPOXYSILANE is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

VINYLTRIISOPROPOXYSILANE is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

% Volatiles : 86 %

#### 15.1.2. National regulations

##### Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

##### Denmark

Class for fire hazard : Class II-1

Store unit : 5 liter

Classification remarks : R10 <H226;H319>; Emergency management guidelines for the storage of flammable liquids must be followed

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Abbreviations and acronyms:

# VINYLTRISOPROPOXYSILANE

## Safety Data Sheet

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor

Other information : Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

SDS EU (REACH Annex II) - Custom

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The logo for Gelest, featuring the word "Gelest" in a large, white, serif font. The letters are set against a light blue background that is shaped like a right-angled triangle pointing to the right. The "G" and "e" are partially obscured by the left edge of the triangle.