

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

### 1.1 Product identifier

Trade name: KE-347-T

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

General use: Sealing agent  
For industrial purposes only

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

Company name: Shin-Etsu Silicones Europe B.V.

Street/POB-No.: Bolderweg 32

Postal Code, city: 1332 AV Almere  
Netherlands

Telephone: +31 36-5493-170

Telefax: +31 36-5326-459

Dept. responsible for information:

QA department,

Telephone: +31 36-5493-179, Email: sds@shinetsusilicones.eu

### 1.4 Emergency telephone number

Telephone: +31 36-5493-170

Only available during office hours.

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to EC regulation 1272/2008 (CLP)

Flam. Liq. 3; H226 Flammable liquid and vapour.

Skin Irrit. 2; H315 Causes skin irritation.

Eye Irrit. 2; H319 Causes serious eye irritation.

### 2.2 Label elements

#### Labelling (CLP)



Signal word:

**Warning**

Hazard statements:

H226

Flammable liquid and vapour.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

**Precautionary statements:**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use water spray jet, foam or carbon dioxide to extinguish.
P501	Dispose of contents/container to hazardous or special waste collection point.

**Special labelling**

EUH208	Contains 3-Aminopropyltriethoxysilane. May produce an allergic reaction.
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**2.3 Other hazards**

With exposure to moisture, product will release acetone.  
 Acetone: Highly flammable liquid and vapour.  
 Potentially explosive mixtures may form if adequate ventilation is not provided.  
 Inhaling can lead to irritations of the respiratory tract and mucous membrane.  
 Higher doses may have a narcotic effect.

**Results of PBT and vPvB assessment:**

No data available

**SECTION 3: Composition / information on ingredients**

3.1 Substances: not applicable

**3.2 Mixtures**

Chemical characterisation: Organopolysiloxane mixture

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 239-362-1 CAS 15332-99-7	Tris(Isopropenyloxy)vinylsilane	3 - 10 %	Flam. Liq. 3; H226.
REACH 01-2119480479-24-xxxx EC No. 213-048-4 CAS 919-30-2	3-Aminopropyltriethoxysilane	0.3 - 1 %	Acute Tox. 4; H302. Skin Corr. 1B; H314. Skin Sens. 1; H317.
EC No. 274-092-8 CAS 69709-01-9	N,N,N',N'-Tetramethyl-N'-[3-(trimethoxysilyl)propyl]guanidin	0.3 - 1 %	Skin Corr. 1B; H314. Eye Dam. 1; H318.

Full text of H- and EUH-statements: see section 16.

Additional information: With exposure to moisture, product will release acetone.  
 Contains silicon dioxide.  
 The maximum workplace exposure limits are, where necessary, listed in section 8.

**SECTION 4: First aid measures**
**4.1 Description of first aid measures**

General information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Take off contaminated clothing and wash it before reuse.

In case of inhalation: Move victim to fresh air. Seek medical treatment in case of troubles.

- Following skin contact: Wash with generous amount of water and soap. In case of skin reactions, consult a physician.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.
- After swallowing: Rinse mouth with water.  
Never give anything by mouth to an unconscious person.  
Consult physician immediately.

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

Causes serious eye irritation. Causes skin irritation.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media:

Foam, extinguishing powder, water spray jet, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet.

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

Flammable liquid and vapour. With air, vapours form potentially explosive mixtures, which are heavier than air. Vapours may proceed on the ground over great distances and cause fire and backflashes.

In case of fire may be liberated: Formaldehyde, nitrogen oxides (NO<sub>x</sub>), silicon dioxide, traces of incompletely burned carbon compounds, carbon monoxide and carbon dioxide.

#### 5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Hazchem-Code: •3Y

Do not breathe fumes. Move undamaged containers from immediate hazard area if it can be done safely.

Do not allow water used to extinguish fire to enter drains, ground or waterways.

### SECTION 6: Accidental release measures

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

Keep unprotected people away. Eliminate all ignition sources if safe to do so.

Provide adequate ventilation. Do not breathe vapours.

Avoid contact with skin and eyes. Wear appropriate protective equipment.

Do not touch or step on spilled substance.

#### 6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

If necessary notify appropriate authorities.

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

Wipe up with absorbent material (eg. cloth, fleece). Cleaning surfaces by wiping, brushing  
In case of spills of large quantities: Stop leak if safe to do so. Dam spills. Cover spilled material with plastic sheet. Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).  
Never return spills in original containers for re-use.

Additional information: Use explosion-proof equipment and non-sparking tools/utensils.

### 6.4 Reference to other sections

Refer additionally to section 8 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling: Use only in well-ventilated areas.

Provide adequate ventilation, and local exhaust as needed.

Avoid contact with skin, eyes, and clothing. Do not breathe vapours.

Wear appropriate protective equipment. When using do not eat, drink or smoke.

Wash hands before breaks and after work.

Take off contaminated clothing and wash it before reuse.

Precautions against fire and explosion:

Use only closed, grounded equipment with this product. Use explosion-proof equipment and non-sparking tools/utensils. Keep away from sources of ignition - No smoking. Do not weld.

Take precautionary measures against static discharges.

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

Requirements for storerooms and containers:

Keep away from heat sources, sparks and open flames. Protect from direct sunlight.

Keep only in the original container in a cool, well-ventilated place. Keep container tightly closed and dry. Protect from humidity and water.

Hints on joint storage: Avoid contact with oxidizing agents, water and humidity.

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
67-64-1	Acetone	Europe: IOELV: TWA	1210 mg/m <sup>3</sup> ; 500 ppm
		Great Britain: WEL-STEL	3620 mg/m <sup>3</sup> ; 1500 ppm
		Great Britain: WEL-TWA	1210 mg/m <sup>3</sup> ; 500 ppm
		Ireland: 8 hours	1210 mg/m <sup>3</sup> ; 500 ppm IOELV

## 8.2 Exposure controls

Explosion protection required. Provide adequate ventilation, and local exhaust as needed. Pay attention to ventilation such as local exhaust, mechanical and/or door open for at least 24 hours after application.

## Personal protection equipment

### Occupational exposure controls

- Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.
- Hand protection: Protective gloves according to EN 374. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Eye protection: Tightly sealed goggles according to EN 166.
- Body protection: Wear suitable protective clothing.
- General protection and hygiene measures:  
Keep away from heat sources, sparks and open flames.  
Do not breathe vapours. Avoid contact with skin, eyes, and clothing.  
When using do not eat, drink or smoke.  
Eye wash facility must be provided.  
Wash hands before breaks and after work.  
Take off contaminated clothing and wash it before reuse.

## Environmental exposure controls

If necessary notify appropriate authorities.

# SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

- Appearance: Physical state at 20 °C and 101.3 kPa: liquid  
Form: paste  
Colour: milky-white, translucent
- Odour: like acetone
- Odour threshold: No data available
- pH value: No data available
- Melting point/freezing point: No data available
- Initial boiling point and boiling range: No data available
- Flash point/flash point range: 25 °C (c.c.)
- Evaporation rate: (butyl acetate =1) <= 1 (tris(Isopropenyloxy)vinylsilane)
- Flammability: Flammable liquid and vapour.
- Explosion limits: LEL (Lower Explosion Limit): (Decomposition: acetone) 2.10 Vol-%  
UEL (Upper Explosive Limit): (Decomposition: acetone) 13.00 Vol-%
- Vapour pressure: at 25 °C: <= 1.3 hPa (tris(Isopropenyloxy)vinylsilane)
- Vapour density: (air =1) >= 1
- Density: at 25 °C: 1.05 g/mL
- Water solubility: insoluble
- Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, dynamic:	at 25 °C: 55 Pa*s
Explosive properties:	No data available
Oxidizing characteristics:	No data available

## 9.2 Other information

Additional information: No data available

# SECTION 10: Stability and reactivity

## 10.1 Reactivity

Flammable liquid and vapour.  
With exposure to moisture, product will release acetone.

## 10.2 Chemical stability

Stable under recommended storage conditions.

## 10.3 Possibility of hazardous reactions

No dangerous reactions with proper and specified storage and handling

## 10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames.  
Protect from moisture contamination.

## 10.5 Incompatible materials

Water, humidity, strong oxidizing agents

## 10.6 Hazardous decomposition products

Acetone.  
Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition products: Formaldehyde, nitrogen oxides (NO<sub>x</sub>), silicon dioxide, traces of incompletely burned carbon compounds, carbon monoxide and carbon dioxide.

Thermal decomposition: No data available

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Toxicological effects:	Acute toxicity (oral): Lack of data. Acute toxicity (dermal): Lack of data. Acute toxicity (inhalative): Lack of data. Skin corrosion/irritation: Skin Irrit. 2; H315 = Causes skin irritation. Serious eye damage/irritation: Eye Irrit. 2; H319 = Causes serious eye irritation. Sensitisation to the respiratory tract: Lack of data. Skin sensitisation: Lack of data. Germ cell mutagenicity/Genotoxicity: Lack of data. Carcinogenicity: Lack of data. Reproductive toxicity: Lack of data. Effects on or via lactation: Lack of data. Specific target organ toxicity (single exposure): Lack of data. Specific target organ toxicity (repeated exposure): Lack of data. Aspiration hazard: Lack of data.
Other information:	Information about 3-Aminopropyltriethoxysilane: LD50 Rat, oral: 1570-3650 mg/kg LD50 Rabbit dermal: 4290 mg/kg Information about tris(Isopropenyloxy)vinylsilane: LD50 Rat, oral: >5000 mg/kg Information about N,N,N',N'-Tetramethyl-N"-[3-(trimethoxysilyl)propyl]guanidin: LD50 Rat, oral: 3,67 mL/kg Information about acetone (Decomposition): LD50 Rat, oral: 5800 mg/kg LC50 Rat inhalative: 50,1 g/m <sup>3</sup> /8h

### Symptoms

In case of inhalation:  
Inhaling can lead to irritations of the respiratory tract and mucous membrane.  
Higher doses may have a narcotic effect.  
After contact with skin: Redness, pain.  
After eye contact: Causes tears, redness, stinging, oedema (swelling), visual disorders

## SECTION 12: Ecological information

### 12.1 Toxicity

Aquatic toxicity:	Information about tris(Isopropenyloxy)vinylsilane: Fish toxicity: LC50 <i>Oryzias latipes</i> : >1000ppm Information about 3-Aminopropyltriethoxysilane: Fish toxicity: LC50 <i>Brachydanio rerio</i> : 934 mg/L/96h Daphnia toxicity: EC50 <i>Daphnia magna</i> (Big water flea): 331 mg/L/48h
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### 12.2 Persistence and degradability

Further details:	No data available
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**12.3 Bioaccumulative potential**

Partition coefficient: n-octanol/water:

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

No data available

**12.6 Other adverse effects**

General information: Do not allow to enter into ground-water, surface water or drains.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Waste key number: 08 04 09\* = Waste adhesives and sealants containing organic solvents or other dangerous substances

MFSU = manufacture, formulation, supply and use

\* = Evidence for disposal must be provided.

Recommendation: Incinerate according to applicable local, state and federal regulations.

**Contaminated packaging**

Waste key number: 15 01 02 = Plastic packaging or 150104 = Metallic packaging

Recommendation: Handle empty containers with care. Incineration may cause explosion.

Do not re-use the empty container.

Dispose of waste according to applicable legislation.

**SECTION 14: Transport information****14.1 UN number**

ADR/RID, IMDG, IATA-DGR:

UN 1993

**14.2 UN proper shipping name**

ADR/RID, IMDG, IATA-DGR:

UN 1993, FLAMMABLE LIQUID, N.O.S. (tris(Isopropenyloxy)vinylsilane)

**14.3 Transport hazard class(es)**

ADR/RID: Class 3, Code: F1

IMDG: Class 3, Subrisk -

IATA-DGR: Class 3

**14.4 Packing group**

ADR/RID, IMDG, IATA-DGR:

III





## 14.5 Environmental hazards

Marine pollutant: no

## 14.6 Special precautions for user

### Land transport (ADR/RID)

Warning board: ADR/RID: Kemmler-number 30, UN number UN 1993  
Hazard label: 3  
Special provisions: 274 601  
Limited quantities: 5 L  
EQ: E1  
Contaminated packaging - Instructions: P001 IBC03 LP01 R001  
Special provisions for packing together: MP19  
Portable tanks - Instructions: T4  
Portable tanks - Special provisions: TP1 TP29  
Tank coding: LGBF  
Tunnel restriction code: D/E

### Sea transport (IMDG)

EmS: F-E, S-E  
Special provisions: 223, 274, 955  
Limited quantities: 5 L  
Excepted quantities: E1  
Contaminated packaging - Instructions: P001, LP01  
Contaminated packaging - Provisions: -  
IBC - Instructions: IBC03  
IBC - Provisions: -  
Tank instructions - IMO: -  
Tank instructions - UN: T4  
Tank instructions - Provisions: TP1, TP29  
Stowage and handling: Category A.  
Properties and observations: -  
Segregation group: none

### Air transport (IATA)

Hazard label: Flamm. liquid  
Excepted Quantity Code: E1  
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y344 - Max. Net Qty/Pkg. 10 L  
Passenger and Cargo Aircraft: Pack.Instr. 355 - Max. Net Qty/Pkg. 60 L  
Cargo Aircraft only: Pack.Instr. 366 - Max. Net Qty/Pkg. 220 L  
Special provisions: A3  
Emergency Response Guide-Code (ERG): 3L

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

No data available

## SECTION 15: Regulatory information

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

#### National regulations - Great Britain

Hazchem-Code: •3Y  
No data available

#### National regulations - EC member states

Further regulations, limitations and legal requirements:  
Use restriction according to REACH annex XVII, no.: 3

### 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

## SECTION 16: Other information

### Further information

Wording of the H-phrases under paragraph 2 and 3:

H226 = Flammable liquid and vapour.  
H302 = Harmful if swallowed.  
H314 = Causes severe skin burns and eye damage.  
H315 = Causes skin irritation.  
H317 = May cause an allergic skin reaction.  
H318 = Causes serious eye damage.  
H319 = Causes serious eye irritation.  
EUH208 = Contains 3-Aminopropyltriethoxysilane. May produce an allergic reaction.

Reason of change: Changes in section 2: Classification, labelling  
Changes in section 3: Composition / information on ingredients  
General revision

Date of first version: 27/1/2016

### Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.