

1. Identification

Product identifier	KE-3418
Other means of identification	
Sales Code	6097S0
Recommended use	RTV rubbers Ultra heat-resistant RTV rubber (gluing and sealing)
Recommended restrictions	Industrial use only.
Manufacturer/Importer/Supplier/Distributor information	
Name	Shin-Etsu Silicones of America, Inc.
Address	1150 Damar Drive, Akron, OH 44305 USA
Contact	Regulation compliance group
Telephone Number	+1-330-630-9860
Fax Number	+1-330-630-9855
Emergency Phone Number	Chemtrec: +1-800-424-9300 (Within US) Chemtrec: +1-703-527-3887 (Outside US)

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1B
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

*Hazards not stated here are "Not classified", "Not applicable" or "Classification not possible".

Label elements



Signal word	Warning
Hazard statement	Causes serious eye irritation. May cause an allergic skin reaction. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment.
Response	IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Collect spillage. Take off contaminated clothing and wash it before reuse.
Storage	Not available.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

Substance(s) formed under the condition of use

This product reacts with water, moisture or humid air to evolve following compounds:
Acetone
The following material is embedded in the product and not available as respirable dusts. When used as intended or as supplied, the product will not pose hazards.
Carbon black.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Carbon black		1333-86-4	10 - < 20
Alkenoxysilane*		Proprietary*	5 - < 10
Alkoxysilane(A)*		Proprietary*	1 - < 3
Alkoxysilane(B)*		Proprietary*	1 - < 3
Organosilane*		Proprietary*	< 1

Decomposition**Common name and synonyms****CAS number****%**

Chemical name			
Acetone		67-64-1	

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. For minor skin contact, avoid spreading material on unaffected skin. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Eye contact	Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention immediately.
Most important symptoms/effects, acute and delayed	Dermatitis. Rash. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	By heating and fire, harmful vapors/gases may be formed. Nitrogen oxides. (corrosive)
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet, gloves, rubber boots, and self-contained breathing apparatus.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Do not touch or walk through spilled material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
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Methods and materials for containment and cleaning up

Eliminate sources of ignition.

Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling

Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains. Use care in handling/storage. Do not breathe mist or vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Keep out of the reach of children. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS). Keep in original container.

8. Exposure controls/personal protection

Occupational exposure limits**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Carbon black (CAS 1333-86-4)	PEL	3.5 mg/m3
Decomposition	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Carbon black (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable fraction.
Decomposition	Type	Value	
Acetone (CAS 67-64-1)	STEL	500 ppm	
	TWA	250 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Carbon black (CAS 1333-86-4)	REL	0.1 mg/m3
Decomposition	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3 250 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Decomposition	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	25 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines**US - Tennessee OELs: Skin designation**

Methanol(Impurity) (CAS 67-56-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Methanol(Impurity) (CAS 67-56-1) Can be absorbed through the skin.

US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants

METHYL ALCOHOL; METHANOL (CAS 67-56-1) Can be absorbed through the skin.

US. Minnesota Hazardous Substances List (Minn. Rules 5206.0400).

Methanol(Impurity) (CAS 67-56-1)

Skin designation applies.

US. NIOSH: Pocket Guide to Chemical Hazards

Methanol(Impurity) (CAS 67-56-1)

Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Provide eyewash station.
Pay attention to ventilation such as local exhaust, mechanical and/or door open for at least 24 hours after application.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Tightly sealed safety glasses according to EN 166.

Skin protection**Hand protection**

Wear protective gloves.

Other

Wear suitable protective clothing.

Respiratory protection

If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Avoid contact with eyes. Avoid contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.
Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance**Form**

Paste.

Color

Black.

Odor

Acetone.

Odor threshold

Not available.

pH

Not measurable (Refer to water solubility)

Melting point/freezing point

No data

Initial boiling point and boiling range

Not applicable

Flash point

59 °F (15 °C) Closed Cup (Does not sustain combustion)

Evaporation rate

< 1 (Butyl Acetate=1)

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits**Flammability limit - lower (%)**

2.1 % v/v [Acetone]

Flammability limit - upper (%)

13.0 % v/v [Acetone]

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Negligible (25 °C)

Vapor density

> 1 (air=1)

Relative density

1.09 (25 °C)

Solubility(ies)**Solubility (water)**

Not soluble

Partition coefficient (n-octanol/water)

Not applicable

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

Not applicable

Other information**Molecular weight**

Not applicable

10. Stability and reactivity

Reactivity

No hazardous reaction known under normal conditions of use, storage and transport.

Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	None known.
Incompatible materials	Strong oxidizing agents. Do not mix with other materials. Water, moisture.
Hazardous decomposition products	This product reacts with water, moisture or humid air to evolve following compounds: Acetone. Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition product: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde . Nitrogen oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics
Dermatitis. Rash. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Alkenoxysilane		
<u>Acute</u>		
Inhalation		
LC50	Rat	> 5.83 mg/l
Oral		
LD50	Rat	> 5000 mg/kg
<u>Subacute</u>		
Inhalation		
NOEL	Rat	0.31 mg/l, 28 days
Alkoxysilane(A)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg 16 ml/kg
Oral		
LD50	Rat	2995 mg/kg 2400 mg/kg
Carbon black (CAS 1333-86-4)		
<u>Acute</u>		
Oral		
LD50	Rat	> 8000 mg/kg
Organosilane		
<u>Acute</u>		
Oral		
LD50	Rat	3.67 ml/kg

Decomposition	Species	Test Results
Acetone (CAS 67-64-1)		
<u>Acute</u>		
Inhalation		
LC50	Rat	50.1 mg/l, 8 Hours
Oral		
LD50	Mouse	3000 mg/kg
	Rabbit	5340 mg/kg
	Rat	5800 mg/kg
Skin corrosion/irritation	SKIN-RABBIT : MILD(P.I.I=0.2) [Alkenoxysilane] SKIN-RABBIT : Moderately irritating [Alkoxysilane(A)] Causes visible necrosis of the skin tissue (Rabbit/60 Minutes) [Organosilane]	
Serious eye damage/eye irritation	EYE-RABBIT :Minimal irritant [Alkenoxysilane] EYE-RABBIT : 15mg SEVERE [Alkoxysilane(A)] Causes serious eye damage. [Alkoxysilane(B)] [Organosilane] Causes serious eye irritation. [Acetone]	
Respiratory or skin sensitization		
Respiratory sensitization	Not available.	
Skin sensitization	No skin sensitizing(guinea pig) [Alkenoxysilane] Positive (Guinea pig) [Alkoxysilane(A)] May cause an allergic skin reaction. [Alkoxysilane(B)]	
Germ cell mutagenicity	Negative(Bacteria) Negative(Chromosome analysis) [Alkenoxysilane] Negative(Ames test, Chromosome analysis, Micronucleus test) [Alkoxysilane (A)]	
Carcinogenicity	The following material is embedded in the product and not available as respirable dusts. When used as intended or as supplied, the product will not pose hazards of the following material. Carbon black.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
	Carbon black (CAS 1333-86-4)	2B Possibly carcinogenic to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
	Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens		
	Not listed.	
Reproductive toxicity	Developmental toxicity: NOAEL 500mg/kg/day (Rat), Maternal toxicity: NOAEL 500mg/kg/day (Rat) [Alkoxysilane(A)]	
Specific target organ toxicity - single exposure	May cause damage to the following organs. Narcotic effects. [Acetone]	
Specific target organ toxicity - repeated exposure	Not available.	
Aspiration hazard	Not available.	
Further information	This product reacts with water , moisture or humid air to evolve following compounds: Acetone	

12. Ecological information

Ecotoxicity	Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. [Alkenoxysilane] Toxic to aquatic life. [Alkoxysilane(A)]
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Components		Species	Test Results
Alkenoxysilane			
Aquatic			
Crustacea	LC50	Daphnia	12.7 mg/l, 48 hr
Fish	LC50	Carp	18 mg/l, 96 hr

Components	Species		Test Results
Alkoxysilane(A)			
Aquatic			
Algae	EbC50	Green algae (Selenastrum capricornutum)	5.5 mg/l, 72 hr
	ErC50	Green algae (Selenastrum capricornutum)	8.8 mg/l, 72 hr
Crustacea	EC50	Daphnia magna	90 mg/l, 48 hr
			81 mg/l, 48 hr
	NOEC	Daphnia magna	> 1 mg/l, 21 day
Fish	LC50	Brachydanio rerio	597 mg/l, 96 hr
Decomposition			
Species			
Test Results			
Acetone (CAS 67-64-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	10294 - 17704 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
Persistence and degradability	Causes easily hydrolysis in water or atmosphere. [Alkoxysilane]		
Bioaccumulative potential	No data available.		
Mobility in soil	Not available.		
Other adverse effects	Not available.		

13. Disposal considerations

Disposal instructions	Follow applicable Federal, State and Local regulations.
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14. Transport information

DOT

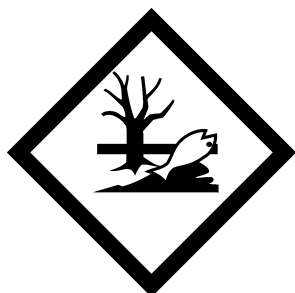
UN number	UN3077
UN proper shipping name	Environmentally hazardous substances, solid, n.o.s. (Alkenoxysilane)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Label(s)	9
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	8, 146, B54, IB8, IP3, N20, T1, TP33
Packaging exceptions	155
Packaging non bulk	213
Packaging bulk	240
REGULATED IN TRANSPORT for packages of greater than 119 gallons or 450 liters volume, or when shipped by water.	

IATA

UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Alkenoxysilane)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
ERG Code	9L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Alkenoxysilane)

Transport hazard class(es)**Class** 9**Subsidiary risk** -**Packing group** III**Environmental hazards****Marine pollutant** Yes**EmS** F-A, S-F**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** This product is not intended to be transported in bulk.**DOT; IATA; IMDG****Marine pollutant****General information**

IMDG Regulated Marine Pollutant. DOT Regulated Marine Pollutant. Sealed packets and articles containing less than 10 ml of an environmentally hazardous liquid, or containing less than 10 g of an environmentally hazardous solid are not regulated as dangerous goods.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 313 (TRI reporting)****US state regulations****US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Carbon black (CAS 1333-86-4)

Methanol(Impurity) (CAS 67-56-1)

US. Massachusetts RTK - Substance List

Carbon black (CAS 1333-86-4)

Methanol(Impurity) (CAS 67-56-1)

US. New Jersey Worker and Community Right-to-Know Act

Carbon black (CAS 1333-86-4)
Methanol(Impurity) (CAS 67-56-1)

US. Pennsylvania Worker and Community Right-to-Know Law

Carbon black (CAS 1333-86-4)
Methanol(Impurity) (CAS 67-56-1)

US. Rhode Island RTK

Methanol(Impurity) (CAS 67-56-1)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

The following material is embedded in the product and not available as respirable dusts. When used as intended or as supplied, the product will not pose hazards.
Carbon black.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Carbon black (CAS 1333-86-4) Listed: February 21, 2003

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Methanol(Impurity) (CAS 67-56-1) Listed: March 16, 2012

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	06-03-2015
Revision date	01-27-2017
Version #	02
HMIS® ratings	Health: 2 Flammability: 1 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 1 Instability: 0
NFPA ratings	

Disclaimer

This information is offered in good faith as typical values and not as a product specification. No warranty, expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

This product has been designed, manufactured and developed solely for general industrial use only. This product is not designed for, intended for use as, or suitable for, medical, surgical or other particular purposes. Users have the sole responsibility and obligation to determine the suitability of this product for any application, to make preliminary tests, and to confirm the safety of this product for their use. Users must never use this product for the purpose of implantation into the human body and/or injection into humans.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.