SAFETY DATA SHEET

1. Identification

Product identifier **KE-4898-T**

Other means of identification

Sales Code 8557S0

Recommended use RTV rubbers
RTV rubber for electrical, electronic and general industry (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	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Sensitization, skin	Category 1
	Reproductive toxicity (fertility, the unborn child)	Category 1B
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3
	Hazardous to the aquatic environment, long-term hazard	Category 3
OSHA defined hazards	Not classified.	

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

Label elements

Signal word Danger

Hazard statement Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May damage the unborn child. May damage fertility. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid release to the environment. Contaminated work clothing must not be allowed out of the workplace.

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. If exposed or concerned: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Storage Store locked up.

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: Methanol
HMIS® ratings	Health: 2* Flammability: 1 Physical hazard: 0

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Alkoxysilane(A)*		Proprietary*	5 - < 10
Alkoxysilane(B)*		Proprietary*	< 1
Alkoxysilane(C)*		Proprietary*	< 1
Organosilane*		Proprietary*	< 1
Organo tin fatty acid salts*		Proprietary*	< 0.3

Decomposition

Chemical name	CAS number	%
Methanol	67-56-1	

*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. Skin irritation. May cause redness and pain. May cause an allergic skin reaction.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	IF exposed or concerned: Get medical advice/attention. 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.
General fire hazards	No unusual fire or explosion hazards noted.

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.

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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. When using, do not eat, drink or smoke. 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 contact during pregnancy/while nursing. Avoid prolonged exposure.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep container tightly closed. Keep out of the reach of children. Store in a cool, dry place out of direct sunlight. 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
Organo tin fatty acid salts (CAS Proprietary)	PEL	0.1 mg/m3

Decomposition	Type	Value
Methanol (CAS 67-56-1)	PEL	260 mg/m3 200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Organo tin fatty acid salts (CAS Proprietary)	STEL	0.2 mg/m3
	TWA	0.1 mg/m3

Decomposition	Type	Value
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Organo tin fatty acid salts (CAS Proprietary)	TWA	0.1 mg/m3

Decomposition	Type	Value
Methanol (CAS 67-56-1)	STEL	325 mg/m3 250 ppm
	TWA	260 mg/m3 200 ppm

Biological limit values

ACGIH Biological Exposure Indices

Decomposition	Value	Determinant	Specimen	Sampling Time
Methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*

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

Exposure guidelines

Occupational Exposure Limits are not relevant to the current physical form of the product.

US. ACGIH Threshold Limit Values

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

Organo tin fatty acid salts (CAS Proprietary)	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.
	Can be absorbed through the skin.
TIN, ORGANIC COMPOUNDS, AS SN (CAS Proprietary)	Can be absorbed through the skin.

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

Methanol (CAS 67-56-1)	Skin designation applies.
Methanol(Impurity) (CAS 67-56-1)	Skin designation applies.
Organo tin fatty acid salts (CAS Proprietary)	Skin designation applies.

US. NIOSH: Pocket Guide to Chemical Hazards

Methanol (CAS 67-56-1)	Can be absorbed through the skin.
Methanol(Impurity) (CAS 67-56-1)	Can be absorbed through the skin.
Organo tin fatty acid salts (CAS Proprietary)	Can be absorbed through the skin.

US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A

Methanol (CAS 67-56-1)	Can be absorbed through the skin.
Methanol(Impurity) (CAS 67-56-1)	Can be absorbed through the skin.
Organo tin fatty acid salts (CAS Proprietary)	Can be absorbed through the skin.

Appropriate engineering controls
Provide adequate 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
Do not get in 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
Milk-white Translucent

Odor
Alcohol odor

Odor threshold
Not available.

pH
Not available.

Melting point/freezing point
Not applicable

Initial boiling point and boiling range
Not applicable

Flash point
140 °F (60 °C) Closed Cup (Does not sustain combustion)

Evaporation rate
< 1 (Butyl Acetate=1)

Flammability (solid, gas)
Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)
6.0 % v/v [Methanol]

Flammability limit - upper (%)
36.0 % v/v [Methanol]

Explosive limit - lower (%)
Not available.

Explosive limit - upper (%)
Not available.

Vapor pressure
Negligible (25 °C)

Vapor density
> 1 (air=1)

Relative density
1.05 (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	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Water, moisture.
Hazardous decomposition products	This product reacts with water, moisture or humid air to evolve following compounds: Methanol 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. Nitrogen oxides. Formaldehyde.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	No adverse effects due to inhalation are expected.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Dermatitis. Rash. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Alkoxysilane(A) (CAS Proprietary)		
Acute		
Oral		
LD50	Rat	> 2500 mg/kg
Alkoxysilane(B) (CAS Proprietary)		
Acute		
Dermal		
LD50	Rabbit	4290 mg/kg
Oral		
LD50	Rat	1570 - 3650 mg/kg
		1780 mg/kg
Alkoxysilane(C) (CAS Proprietary)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
		16 ml/kg

Components	Species	Test Results
Inhalation		
LC50	Rat	1.49 - 2.44 mg/l/4h
Oral		
LD50	Rat	2995 mg/kg
		2400 mg/kg
Organo tin fatty acid salts (CAS Proprietary)		
Acute		
Oral		
LD50	Rat	> 2000 mg/kg
Organosilane (CAS Proprietary)		
Acute		
Oral		
LD50	Rat	3.67 ml/kg

Decomposition	Species	Test Results
Methanol (CAS 67-56-1)		
Acute		
Dermal		
LD50	Rabbit	15800 mg/kg
Inhalation		
LC50	Rat	64000 ppm, 4 Hours
		87.5 mg/l, 6 Hours
Oral		
LD50	Mouse	7300 mg/kg
	Rabbit	14.4 g/kg
	Rat	5628 mg/kg

Skin corrosion/irritation
Causes visible necrosis of the skin tissue (Rabbit/60 Minutes) [Organosilane]
Causes severe skin burns and eye damage. [Organo tin fatty acid salts]
SKIN-RABBIT : Moderately irritating [Alkoxysilane(A)] [Alkoxysilane(C)]
SKIN-RABBIT : 5mg/24Hr SEVERE [Alkoxysilane(B)]

Serious eye damage/eye irritation
EYE-RABBIT : 0.75mg/24Hr SEVERE [Alkoxysilane(B)]
EYE-RABBIT : 15mg SEVERE [Alkoxysilane(C)]
Causes serious eye damage. [Organosilane] [Organo tin fatty acid salts]
EYE-RABBIT : MILD [Alkoxysilane(A)]

Respiratory or skin sensitization

Respiratory sensitization
Not available.

Skin sensitization
No skin sensitizing(guinea pigs) [Alkoxysilane(A)]
May cause an allergic skin reaction. [Alkoxysilane(B)] [Organo tin fatty acid salts]
Positive (Guinea pig) [Alkoxysilane(C)]

Germ cell mutagenicity
Suspected of causing genetic defects. [Organo tin fatty acid salts]
Negative(Bacteria) Positive(Chromosome analysis) Negative(Micronucleus test) [Alkoxysilane (A)]
Negative(Ames Test) [Alkoxysilane (B)]
Negative(Ames test, Chromosome analysis, Micronucleus test) [Alkoxysilane (C)]

Carcinogenicity
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity
May damage fertility or the unborn child. [Organo tin fatty acid salts]
Developmental toxicity: NOAEL 500mg/kg/day (Rat), Maternal toxicity: NOAEL 500mg/kg/day (Rat) [Alkoxysilane(C)]

Specific target organ toxicity - single exposure
May cause damage to the following organs.
Thymus. [Organo tin fatty acid salts]
Central nervous system. Optic nerves. [Methanol]

Specific target organ toxicity - repeated exposure
May cause damage to the following organs through prolonged or repeated exposure:
Thymus. [Organo tin fatty acid salts]

Aspiration hazard Not available.

Further information This product reacts with water , moisture or humid air to evolve following compounds: Methanol

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects. [Organo tin fatty acid salts]
Toxic to aquatic life. [Alkoxysilane(C)]

Components		Species	Test Results
Alkoxysilane(B) (CAS Proprietary)			
Aquatic			
Fish	LC50	Oryzias latipes	> 1000 mg/l, 48 hr
Alkoxysilane(C) (CAS Proprietary)			
Aquatic			
Algae	EbC50	Green algae (Selenastrum capricornutum)	5.5 mg/l, 72 hr
	ErC50	Green algae (Selenastrum capricornutum)	8.8 mg/l, 72 hr
Fish	LC50	Bluegill (Lepomis macrochirus)	> 100 mg/l, 96 hr
		Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hr
		Rainbow Trout	> 100 mg/l, 96 hr

Decomposition		Species	Test Results
Methanol (CAS 67-56-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 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 Not available.

Mobility in soil Not available.

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions Dispose of contents/container (in accordance with related regulations).

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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.

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 either on the TSCA Inventory List or exempted from notification requirement under TSCA. The product must be used in compliance with the low volume exemption.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 313 (TRI reporting)

US state regulations

US. Massachusetts RTK - Substance List

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

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

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

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

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.

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)	No
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	No

*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 06-01-2015

Version # 01

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.