Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
Multi-Purpose Silicone Sealant (Aluminum)

Product Use
Silicone sealant

Restrictions on Use
For industrial use only.

Manufacturer Information

Carlisle HVAC Products
900 Hensley Lane
Wylie, TX 75098
www.carlislehvac.com

Medical Emergency:
CHEMTREC (USA): (800) 424-9300

MSDS Assistance – 972-442-6545
Technical Assistance – 888-229-2199
Customer Service – 888-229-0199

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
Reproductive Toxicity - Category 2

GHS Label Elements

Symbol(s)

Signal Word
Warning

Hazard Statement(s)
Suspected of damaging fertility

Precautionary Statement(s)

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves / protective clothing / eye protection / face protection. Wash well after handling. Contaminated work clothing should not be allowed out of work place.

Response
SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention / advice. Get medical attention / advice if you feel unwell.
EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritant persists get medical attention / advice.
If exposed or concerned: get medical attention or advice. 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

Other Hazards
No additional information available.

Substance formed under the conditions of use
This product reacts with water, moisture or humid air to evolve following compounds: Acetic acid
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. Titanium oxide.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
17689-77-9	Ethyltriacetoxysilane	1 – 5
4253-34-3	Methylacetoxysilane	1 – 5
13463-67-7	Titanium oxide	<1
64742-46-7	Distillates (petroleum), hydrotreated middle	<20 – 30
556-67-2	Octamethylcyclotetrasiloxane (impurity)	<1

Section 4 - FIRST AID MEASURES

Description of Necessary Measures
If exposed or concerned: Get medical advice / attention. Ensure that medical personnel are aware materials involved and take precautions to protect themselves. Wash contaminated clothing before reuse.

Inhalation
Remove to fresh air. Call a physician if symptoms develop or persist.

Skin
Wash off with soap and plenty of water. For minor skin contact, avoid spreading material on unaffected skin. If skin irritation or rash occurs: get medical attention / advice. Take off contaminated clothing and wash before use.

Eyes
Immediately flush 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 developed or persists.

Ingestion
Wash out mouth. Get medical attention immediately.

Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

Most Important Symptoms/Effects

Acute
Direct contact with eyes may cause temporary irritation.

Delayed
May damage fertility or the unborn child.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2)

Unsuitable Extinguishing Media
None known.

Special Hazards Arising from the Chemical
By heating and fire, harmful vapors / gases may be formed.

Advice for firefighters
Firefighters must use standard protective equipment including flame retardant coat, helmet, gloves, rubber boots and self-contained breathing apparatus.

Fire Fighting Measures
Move containers from fire area if you can do so without risk.

Section 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 product and place into a container for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for reuse.

Environmental Precautions
Prevent further leakage or spillage if safe to do so.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling
Provide adequate ventilation. Use care in handling/storage. Obtain special instructions before use. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Pregnant and breastfeeding women must not handle this product. Do not breathe mist or vapor. Avoid contact with eyes. Avoid contact with skin. Avoid long term exposure.

Conditions for Safe Storage, Including any Incompatibilities
Stored locked up. Keep container tightly closed. Keep out of reach of children. Store in a cool dry place out of direct sunlight. Keep in original container.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Titanium oxide	13463-67-7	
ACGIH:	10 mg/m3 TWA	
OSHA (US):	15 mg/m3 PEL	
Distillates (petroleum) hydrotreated middle	64742-46-7	
NIOSH:	5 mg/m3 TWA (Mist)	10 mg/m3 ST (Mist)
OSHA (US):	5 mg/m3 TWA (Mist)	
Acetic acid	64-19-7	
ACGIH:	15 ppm STEL	10 ppm TWA
NIOSH:	37 mg/m3 15 ppm STEL	25 mg/m3 10 ppm TWA
OSHA (US):	25 mg/m3 10 ppm PEL	

Biological limit value
No biological exposure limits for the ingredient(s).

Engineering Controls
Provide adequate general and local exhaust. Provide eyewash station. Pay attention to ventilation such as local exhaust, mechanical and or / door open for at least 24 hours after applications.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection
Tightly sealed safety glasses according to EN 166.

Skin Protection
Wear protective gloves. 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. When using, do not eat, drink or smoke. Keep away from food or drink. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the work place. Handle in accordance with good industrial hygiene and safety practice.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Aluminum paste	**Physical State**	Paste
Odor	Acetic acid	**Color**	aluminum
Odor Threshold	Not available	**pH**	Not available
Melting Point	Not available	**Boiling Point**	Not available
Freezing point	Not available	**Evaporation Rate**	<1 (Butyl Acetate=1)
Boiling Point Range	Not available	**Flammability (solid, gas)**	Not available
Autoignition	Not available	**Flash Point**	141.8° F (> 96° C) Closed cup
Lower Explosive Limit	Not available	**Decomposition**	Not available
Upper Explosive Limit	Not available	**Vapor Pressure**	Negligible (25° C)
Vapor Density (air=1)	> 1 (air=1)	**Specific Gravity (water=1)**	Not available
Water Solubility	Not soluble	**Partition coefficient: n-octanol/water**	Not available
Viscosity	Not available	**Solubility (Other)**	Not soluble

Density	.97 (25° C) (relative)	**VOC**	29 grams per liter

Other Information
No additional information available.

Section 10 - STABILITY AND REACTIVITY

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

Chemical Stability
Stable under normal conditions.

Possibility of Hazardous Reactions
Hazardous polymerization does not occur.

Conditions to Avoid
None known.

Incompatible Materials
Strong oxidizing agents. Water and moisture.

Hazardous decomposition products
This product reacts with water, moisture, or humid air to evolve following compounds. Acetic acid. Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition product: Carbon dioxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation
Prolonged inhalation may be harmful.

Skin Contact
No adverse effects due to skin contact are expected.

Eye Contact
Direct contact with eyes may cause temporary irritation.

Ingestion
Expected to be a low ingestion hazard.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and the following selected endpoints are published:

Acetic acid
Oral LD50 Mouse 4960 mg/kg
Oral LD50 Rabbit 1200 mg/kg

Oral LD50 Rat 3.31 g/kg
Dermal LD50 Rabbit 1060 mg/kg
Inhalation LC50 Guinea Pig 5000 ppm, 1 hour
Inhalation LC50 Mouse 5620 ppm, 1 hour
Inhallation LC50 Rat 11.4 mg/l, 4 hours

Distillates (petroleum) hydrotreated middle
Oral LD50 Rate >5,000 mg/kg
Inhalation LC50 Rat 1.78 mg/l, 4 hours
Dermal LD50 Rat >2,000 mg/kg

Skin corrosion / irritation
Causes severe skin burns and eye damage. (Acetic acid)
Skin-Rabbit: 500 mg/24hr.MILD (Octamethylcyclotetrasiloxane)

Serious eye damage / eye irritation
Causes severe skin burns and eye damage. (Acetic acid)
Skin-Rabbit: 500 mg/24hr.MILD (Octamethylcyclotetrasiloxane)

Respiratory Sensitization
No data available.

Dermal Sensitization
No data available.

Component Carcinogenicity

Titanium oxide	13463-67-7
OSHA:	2B Possibly carcinogenic to humans

Germ Cell Mutagenicity
No data available.

Reproductive Toxicity
Octamethylcyclotetrasiloxane administered to rats by whole body inhalation at concentrations of 500 and 700 ppm for 70 days prior to mating, through mating, gestation and lactation resulted in decreases in live litter size. Additionally, increases in the incidence of deliveries of offspring extending over an unusually long time period (dystocia) were observed at these concentrations. Statistically significant alterations in these parameters were not observed in the lower concentrations evaluated (300 and 70 ppm). In a previous range-finding study, rats exposed to vapor concentrations of 700 ppm had decreases in the number of implantation sites and live litter size. The significance of these findings to humans is not known. (Octamethylcyclotetrasiloxane).

Specific Target Organ Toxicity - Single Exposure
No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure
Repeated inhalation or oral exposure of mice and rats to Octamethylcycotetrasiloxane produced an increase in liver size. No gross histopathological or significant clinical chemistry effects were observed. An increase in liver metabolizing enzymes, as well as a transient increase in the number of normal cells (hyperplasia) followed by an increase in cell size (hypertrophy) were determined to be the underlying causes of the liver enlargement. The biochemical mechanisms producing these effects are highly sensitive in rodents, while similar mechanisms in humans are insensitive. A two year combined chronic and carcinogenicity assay was conducted on Octamethylcyclotetrasiloxane. Rats were exposed by whole-body vapor inhalation 6hrs /day, 5 days a week for up to 104 weeks to 0, 10, 30, 150 or

700 ppm of Octamethylcyclotetrasiloxane. The increase in incidence of (uterine) endometrial cell hyperplasia and uterine adenomas (benign tumors) were observed in female rats at 700 ppm. Since these effects only occurred at 700 ppm, a level that greatly exceeds typical workplace or consumer exposure, it is unlikely that industrial, commercial or consumer uses of products containing Octamethylcyclotetrasiloxane would result in a significant risk to humans. (Octamethylcyclotetrasiloxane).

Aspiration hazard
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard. Distillates (petroleum), hydrotreated middle.

Medical Conditions Aggravated by Exposure
Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

Additional Data
This product reacts with water, moisture or humid air to evolve following compounds: Acetic acid.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity
Octamethylcyclotetrasiloxane: May cause long lasting harmful effects to aquatic life.

Component Analysis - Aquatic Toxicity

Titanium oxide	13463-67-7
Fish:	LC50 96 h Fundulus Heteroclitus >1000 mg/l
Invertebrate	EC50 48 h Daphnia magna >1000 mg/l
Acetic acid	64-19-7
Fish:	Lc50 96 h Leponis Macrochirus 75 mg/l
Invertebrate	EC50 48 h Daphnia magna 65 mg/l

Persistence and Degradability
No information available for the product.

Bioaccumulative Potential
Bio concentration Factor (BCF) / (Flathead minnow): 12400 Octamethylcyclotetrasiloxane.

Mobility
No information available for the product.

Other Toxicity
No additional information available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods
Can be land-filled for cured product or burned in a chemical incinerator equipped with an afterburner and scrubber. Do not dispose the emptied container unlawfully. Observe all federal, state & local laws.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
UN/NA #: Not regulated

IATA Information:
UN#: Not regulated

IMDG Information:
UN#: Not regulated

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations
This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Ammonia	7664-41-7
SARA 302:	500 lb TPQ
SARA 313:	1 % de minimis concentration (includes anhydrous Ammonia and aqueous Ammonia from water dissociable Ammonium salts and other sources, 10% of total aqueous Ammonia is reportable under this listing)
CERCLA:	100 lb final RQ; 45.4 kg final RQ
OSHA (safety):	10000 lb TQ anhydrous); 15000 lb TQ solution, >44% Ammonia by weight)
SARA 304:	100 lb EPCRA RQ
Ethylene glycol	107-21-1
SARA 313:	1 % de minimis concentration
CERCLA:	5000 lb final RQ; 2270 kg final RQ
Methanol	67-56-1

SARA 313:	1 % de minimis concentration
CERCLA:	5000 lb final RQ; 2270 kg final RQ
Carbamic acid mixture	Trade Secret
CERCLA:	10 lb final RQ; 4.54 kg final RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C)
Acute Health: Yes **Chronic Health:** Yes **Fire:** No **Pressure:** No **Reactivity:** No

U.S. State Regulations
The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Titanium oxide	13463-67-7	No	Yes	No	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
WARNING! This product contains a chemical known to the state of California to cause cancer
WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects

Titanium oxide	13463-67-7
Carc:	carcinogen , 9/2/2011 (airborne, unbound particles of respirable size)

Component Analysis - Inventory
Titanium Oxide (1343-67-7)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 1 Fire: 1 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

NFPA Ratings

Health: 1 Fire: 1 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes
New SDS: March 24, 2016

Key / Legend
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical

Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:
The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, CCWI Company must rely upon the hazard evaluation of such components submitted by that product's manufacturer or importer. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.