

PRODUCT NAME: ECO-TITE 5500
COLOR: TAN

REVISION DATE: May 31, 2015

1. PRODUCT AND COMPANY IDENTIFICATION

Identification Of The Substance Or Preparation

Commercial Product Name: ECO-TITE 5500

Manufacturer:

Silco Inc.
7635 St. Clair Avenue
Mentor, OH 44060
PHONE: 440-975-8886 FAX: 440-975-8887

General Description: Sealant / Adhesive
Physical Form: Paste
Color: Tan
Odor: slight odor

NFPA PROFILE: Health 1 Flammability 1 Instability/Reactivity 0

Note: NFPA = National Fire Protection Association

2. HAZARDS IDENTIFICATION

Classification Of The Substance Or Mixture

Classification (GHS):

| Class | Category | Route of exposure |
|-----------------------|-------------------------------------|-------------------|
| Reproductive toxicity | Category 2 (developmental toxicity) | |

GHS Label Elements

Signal Word: Warning



H-Code H361d Hazard Statements
Suspected of damaging the unborn Child

P-Code P280 Precautionary Statements
Wear protective gloves/protective clothing / eye protection

Reportable ingredients for labeling

Bis-trimethoxysilylpropylcarbamate-polypropyleneglycol
 Polypropyleneglycol
 Calcium carbonate
 Hydrophobic Silica
 Dioctyltin dilaurate

Other Hazards: Product hydrolyses under formation of methanol (CAS no. 67-56-1). Methanol is toxic by inhalation, in contact with skin and if swallowed. Methanol causes damage to organs. Methanol is highly flammable.

3. COMPOSITION/ INGREDIENTS

Chemical Characteristics: Silane-terminated polyether + filler +auxiliary.

Information On Ingredients:

| TYPE | CAS NO. | SUBSTANCE | Content (wt. %) | | Note |
|------|-------------|---------------------------------|-----------------|-------|--------|
| | | | Lower | Upper | |
| INHA | 2768-02-07 | Trimethoxy vinylsilane | | <2.0 | |
| INHA | 13822-56-5 | 3-(trimethoxysilyl) propylamine | | <2.0 | |
| VERA | 14808-60-07 | Quart | | <0.3 | C1, C2 |
| INHA | 3648-18-8 | Dioctyltin dilaurate | >0.1 | <0.2 | R |

Type: HYD - by-product upon hydrolysis, INHA – ingredient, NEBE – by-product, MONO – residual monomer, VERO – impurity, VUL – by-product upon vulcanization. *****NOTE:** C1 – IARC carcinogen, C2 – NTP carcinogen, C3 – OSHA carcinogen, NH – non-hazardous, R – reproductive toxin.

Substances listed in the Subsections “HAPS” and “California Proposition 65 Carcinogens / Reproductive Toxins” that are not listed in this section are only present at quantities below 0.1% for California Proposition 65 listed toxins or below 1% for non-carcinogenic HAPS or they are inextricable bound in the product.

4. FIRST AID MEASURES

General Information: Get medical attention immediately if irritation or symptoms occur. Before seeking medical remove contaminated clothing and shoes. Take a copy of the Safety Data Sheet when going for medical treatment.

After Inhalation: If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen.

After Contact With The Skin: If contact with skin, immediately flush skin with plenty of water for at least 15 min. Wash with soap and water.

After Contact With Eyes: If contact with eyes, immediately hold eyelids apart and flush with plenty of water for at least 15 min.

After Swallowing: For ingestion, if conscious, give no more than two glasses of water but do not induce vomiting. If vomiting does occur, give additional fluids. Get medical attention immediately.

Advice For The Physician: Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual disorders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. There may be a delay in the onset of these effects after exposure.

5. FIRE FIGHTING MEASURES

Flammable Properties:

Flash point.....: > 200°C (>392°F)
 Boiling point/boiling range.....: not applicable
 Lower explosion limit (LEL).....: not determined
 Ignition temperature.....: not determined

Method

(ISO 2692)

Fire and Explosion Hazards:

Material support combustion. Vapors are heavier than air and may travel along the ground, be moved by ventilation systems, settle in pits or low areas, and be ignited by ignition sources distant from the handling point. The material is lighter than water, burning spilled material will float on top of any water released from hose or sprinkler systems spreading the fire beyond the initial fire response area. Never use welding or cutting torch on or near any container of this material, even if empty, because an explosion could occur.

Recommended Extinguishing Media: Water mist, carbon dioxide, dry chemical or alcohol resistant foam.

Unsuitable Extinguishing Media: Sharp water jet.

Special Exposure Hazards Arising From The Substance Or Preparation Itself, Combustion

Products, Resulting Gases: Hazardous decomposition products: carbon dioxide, carbon monoxide, formaldehyde, silicon dioxide, nitrogen oxides and incompletely burnt hydrocarbons.

Fire Fighting Procedures: Cool endangered containers with water. Fire fighters should wear full protective clothing including a self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Precautions: Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes and skin. Avoid inhaling mists and vapors.

HAZWOPER PPE Level: D

Containment: Prevent material from entering surface waters, drains or sewers and soil. Contain any fluid that runs out using suitable material (e.g. earth). Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers. Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free number (800) 424-8802.

Methods For Cleaning Up: Do not flush away with water. For small amounts: Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers. Clean any slippery coating that remains using a detergent/soap solution or another biodegradable cleaner. Exhaust vapors.

7. HANDLING AND STORAGE

Handling

Precautions For Safe Handling: Ensure adequate ventilation. Keep away from incompatible substances in accordance with section 10.

Precautions Against Fire And Explosion: Product can separate methanol. Flammable vapors may accumulate and form explosive mixtures with air in containers, process vessels, including partial, empty and uncleaned containers and vessels, or other enclosed spaces. Keep away from sources of ignition and do not smoke. Take precautionary measures against electrostatic charging.

Storage

Conditions For Storage Rooms And Vessels: Make sure there is no possibility of entering the ground.

Advice For Storage Of Incompatible Materials: Not applicable

Further Information For Storage: Protect against moisture. Store in original container only. Keep container tightly closed and store in a cool, well ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Ventilation: Use with adequate ventilation. Recommended.

Local Exhaust: In case of potential decomposition products: Local exhaust ventilation which meets the requirements of ANSI Z9.2 is recommended to control airborne containments at the point of use. (to maintain concentration below TLV).

**Associate Substances With Specific Control Parameters Such As Limit Values
Maximum Airborne Concentrations At The Workplace:**

| CAS No. | Material | Type | mg/m ³ | ppm | Dust Fract. |
|---------|----------|-----------|-------------------|-------|-------------|
| 67-56-1 | Methanol | OSHA PEL | 260.0 | 200.0 | |
| 67-56-1 | Methanol | ACGIH TWA | | 200.0 | |

Re Methanol (CAS-no. 67-56-1): STEL is 250 ppm, skin notation (ACGIH); STEL is 250 ppm, skin notation (NIOSH).

Personal Protection Equipment (PPE)

Respiratory Protection: Respiratory protection is not normally required. A NIOSH approved air purifying respirator equipped with universal multi-containment, multi –gas/vapor cartridges and at least P-99 solid/aerosol particulate filters is recommended if overexposure to dusts, mists, or vapors could occur.

Hand Protection: Any liquid-tight rubber or vinyl rubber protective gloves.

Eye Protection: Safety glasses with side shields. Additional eye and face protection, splash-proof goggles, hood, full-faced respirator, or face shield is recommended if splashing occur.

Other Protective Clothing Or Equipment: Additional protective clothing or equipment is not normally required. Provide eye bath and safety shower.

General Hygiene And Protection Measures: Avoid contact with eyes, skin and clothing. Avoid breathing dust/vapor/mist/gas/aerosol. Do not eat, drink or smoke when handling. Follow standard industrial hygiene practices when using this material. Wash thoroughly after handling.

9. PHYSICAL/CHEMICAL CHARACTERISTICS

Appearance

Physical state/form.....: Paste

Color.....: Tan

Odor.....: characteristic

Safety Parameters

METHOD

Melting point/melting range..: not applicable

Boiling point/boiling range.....: not applicable

Flash point.....: >200°C (>392°F) (ISO 2592)

Ignition temperature.....: not determined

Lower explosion limit (LEL).....: not determined

Vapor pressure.....: not applicable

Density.....: 1.5 g/cm³

Water solubility/miscibility.....: not applicable

pH-Value.....: not applicable

VOC Content.....: 26 grams per liter

Viscosity (dynamic).....: 600,000 cps. at 23°C (73°F) (BROOKFIELD)

Explosion limits for released methanol: 5.5 - 44% (V).

10. STABILITY AND REACTIVITY

General Information: If stored and handled in accordance with standard industrial practices no hazardous reactions are known.
Conditions To Avoid: moisture
Materials To Avoid: Reacts with: water. Reaction causes the formation of: methanol.
Hazardous Decomposition Products: Under effect of humidity, water & protic agents: methanol
Further Information: Hazardous polymerization cannot occur.

11. TOXICOLOGICAL INFORMATION

General Information: Data derived for the product as a whole are of higher priority than data for single ingredients.

Acute Toxicity

Product Details:

| Route Of Exposure | Result/Effect | Species/Test System | Source |
|-------------------|-------------------------------|---------------------|-----------------------|
| Oral | LD ₅₀ :>2000 mg/kg | Rat | Conclusion by analogy |
| Dermal | LD ₅₀ :>2000 mg/kg | Rat | Conclusion by analogy |

Skin Corrosion/Irritation

Assessment:

Based on the available data a clinically relevant skin irritation hazard is not expected. Temporary symptoms of an irritation cannot be excluded if the adhesive product is removed mechanically after contact.

Product Details:

| Route Of Exposure | Result/Effect | Species/Test System | Source |
|-------------------|---------------|---------------------|-----------------------|
| Not irritating | | Rabbit | Conclusion by analogy |

Serious Eye Damage / Eye Irritation

Assessment:

Based on the available data a clinically relevant eye irritation hazard is not expected. Temporary symptoms of an irritation cannot be excluded if the adhesive product is removed mechanically after contact.

Product Details:

| Route Of Exposure | Result/Effect | Species/Test System | Source |
|-------------------|---------------|---------------------|-----------------------|
| Not irritating | | Rabbit | Conclusion by analogy |

Respiratory Or Skin Sensitization

Product Details:

| Route Of Exposure | Result/Effect | Species/Test System | Source |
|-------------------|-----------------|---------------------|-----------------------------------|
| Dermal | Not sensitizing | Guinea-pig; Buhler | Conclusion by analogy OECD 406 |

Germ Cell Mutagenicity

Assessment: For this endpoint no toxicological test data is available for the whole product.

Carcinogenicity

Assessment: For this endpoint no toxicological test data is available for the whole product.

Reproductive Toxicity

Assessment: For this endpoint no toxicological test data is available for the whole product.

Specific Target Organ Toxicity (Single Exposure)

Assessment: For this endpoint no toxicological test data is available for the whole product.

Specific Target Organ Toxicity (Repeated Exposure)

Assessment: For this endpoint no toxicological test data is available for the whole product.

Aspiration Hazard

Assessment: Based on the physical – chemical properties of the product no aspiration hazard must be expected.

Further Toxicological Information

Quartz has been classified by IARC as carcinogen group 1 (“carcinogen to humans”) and by NTP as known to be human carcinogen. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Data Related To Ingredients:

Product Of Hydrolysis (Methanol)

Methanol (CAS 67-56-1) is readily and rapidly absorbed at all exposure routes and is toxic by all routes. Methanol may cause irritation of the mucosa, as well as nausea, vomiting, headaches, vertigo and visual orders, including blindness (irreversible damage to the optic nerve), acidosis, spasms, narcosis and coma. There may be a delay in the onset of these effects after exposure.

12. ECOLOGICAL INFORMATION

Toxicity

Assessment:

Assessment based on ecotoxicological tests with similar products under consideration of the physical-chemical properties: For this product no effects on aquatic organisms, relevant or classification, are expected. According to current knowledge adverse effects on water purification plants are not expected.

Persistence And Degradability

Assessment: Silicone content: Biologically not degradable. Separation by sedimentation.

Data Related To Ingredients:

Product Of Hydrolysis (Methanol)

The product of hydrolysis (methanol) is readily biodegradable.

Bioaccumulative Potential

Assessment: No data known.

Mobility In Soil:

Assessment: No data known.

Other Adverse Effects:

Assessment: No data known.

13. DISPOSAL CONSIDERATIONS

Product Disposal

Recommendation: Material that cannot be used, reprocessed or recycled should be disposed of in accordance with federal, state and local regulations at an approved facility. Depending on the regulations, waste treatment methods may include, e.g., landfill or incineration.

Packaging Disposal

Recommendation: Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations. Uncleaned packaging should be treated with the same precautions as the material.



14. TRANSPORT INFORMATION

US DOT & CANADA TDG SURFACE

Valuation.....: Not regulated for transport

Transport By Sea IMDG-Code

Valuation.....: Not regulated for transport

Air Transport ICAO-TI/IATA-DGR

Valuation.....: Not regulated for transport

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status And TSCA Information: This material or its components are listed on or are in compliance with the requirements of the TSCA Chemical Substance Inventory.

TSCA 12(b) Export Notification: This material does not contain any TSCA 12(b) regulated chemicals.

CERCLA Regulated Chemicals: This material does not contain any CERCLA regulated chemicals.

SARA 302 EHS Chemicals: This material does not contain any SARA extremely hazardous substances.

SARA 311/312 Hazard Class: This product does not present any SARA 311/312 hazards.

SARA 313 Chemicals: This material does not contain any SARA 313 chemicals above the minimum levels.

HAPS (Hazardous Air Pollutants):

| CAS No. | Chemical | Upper Limit Wt. % |
|---------|-----------------------|-------------------|
| 67-56-1 | Methanol | 0.1477 |
| 68-12-2 | N,N-Dimethylformamide | 0.0004 |

U.S. State Regulations

California Proposition 65 Carcinogens: 14808-60-7 Quartz

California Proposition 65 Reproductive Toxins: 67-56-1 Methanol

Massachusetts Substance List: 1317-65-3 Calcium carbonate, 14808-60-7 Quartz

New Jersey Right-to-Know Hazardous Substance List: 14808-60-7 Quartz

Pennsylvania Right-to-Know Hazardous Substance List: 1317-65-3 Calcium Carbonate
14808-60-7 Quartz

Canadian Regulations: This product has been classified in accordance with the Hazard criteria of the CPR and the SDS contains all the information required by the CPR.

WHMIS Hazard Classes: None.

DSL Status: This material or one or more of its components is not listed on the Canadian Domestic Substances List.

Canadian Ingredient Disclosure List: 14808-60-07 Quartz

Details of International Registration Status

| | |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| South Korea (Republic of Korea) | ECL (Existing Chemicals list): This product is listed in, or complies with, the substance inventory. |
| Australia | AICS (Australian Inventory of Chemical Substances): This product is listed in, or complies with, the substance inventory. |
| Canada | DSL (Domestic Substance List): This product is listed in, or complies with, the substance inventory. |
| Philippines | PICCS (Philippine Inventory of Chemicals and Chemical Substances): This product is listed in, or complies with, the substances inventory. |
| United States of America (USA) | TSCA (Toxic Substances Control Act Chemical Substances Inventory): This product is listed in, or complies with, the substances inventory. |
| European Economic Area (EEA) | REACH (Regulation (EC) No 1907/2006): General note: the registration obligations for substances imported into the EEA or manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by the said supplier. The registration obligations for substances imported in the EEA by customers or the downstream users must be fulfilled by the latter. |

16. OTHER INFORMATION

Prepared by: Silco Inc.

These data are offered in good faith as typical values and not as product specifications. No warranty, either 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.

http: www.silco-inc.com

Glossary of Terms:

ACGTH – American Conference of Governmental Industrial Hygienists

DOT – Department of Transportation

hPa – Hectopascals

mPa*s – Milli Pascal-Seconds

OSHA – Occupational Safety and Health Administration

PEL – Permissible Exposure Limit

ppm – Parts per Million

SARA – Superfund Amendments and Reauthorization Act

STEL – Short Term Exposure Limit

TSCA – Toxic Substances Control Act

TWA – Time Weighted Average

WHMIS – Canadian Workplace Hazardous Materials Identification System

Flash Point Determination Methods

ASTM D56

ASTM D92, DIN 51376, ISO 2592

ASTM D93, DIN 51758, ISO 2719

ASTM D3278, DIN 55680, ISO 3679

DIN 51755

Common name

Tagliabue (Tag) closed cup

Cleveland open cup

Pensky-Martens closed cup

Setaflash or Rapid closed cup

Abel-Pensky closed cup

Conversion table:

Pressure: 1 hPa * 0.75 = 1 mm Hg = 1 torr; 1 bar = 1000 hPa

Viscosity: 1 mPa*s = 1 centipoise (cP)