

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SILSBOND 01

MANUFACTURER: Calvary Industries, Inc.
9233 Seward Road
Fairfield, Ohio 45014

MANUFACTURED FOR: Ecosil Technologies, LLC
160A Donald Drive
Fairfield, OH, 45014

APPLICATION: Pretreatment

INFORMATION PHONE: (412) 321-9802

SECTION 2 - HAZARDS IDENTIFICATION

| | | |
|----------------------------|---------------|---|
| GHS Classification: | Physical | Not Classified |
| | Health | Harmful if Swallowed 4 – H302 Skin Irritation 3– H316 Eye Irritation 2B – H320 Respiratory Irritation 3 – H335 |
| | Environmental | Not Classified |

Label Elements: Signal Word **Warning!**



| HMIS RATING | |
|---------------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 0 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | B |

| | | |
|---------------------------|------|-----------------------------------|
| Hazard Statements: | H302 | Harmful if swallowed. |
| | H316 | Causes mild skin irritation. |
| | H320 | Causes eye irritation. |
| | H335 | May cause respiratory irritation. |

SAFETY DATA SHEET

PRODUCT NAME: SILSBOND 01

SECTION 2 - HAZARDS IDENTIFICATION (Continued)

| | |
|--------------------------------|---|
| Precautionary Statements: P261 | Avoid breathing dust/fume/mist/vapours/spray. |
| P264 | Wash hands thoroughly after handling. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P280 | Wear protective gloves/protective clothing/ eye protection/face protection. |

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| <u>COMPONENT</u> | <u>CAS NO.</u> | <u>Weight %</u> |
|-----------------------|----------------|-----------------|
| Fluorozirconic acid | 12021-95-3 | 0.6 – 1.2 |
| Organosilane oligomer | Trade Secret | 2.5 – 3.5 |
| Water | 7732-18-5 | > 95 |

SECTION 4 - FIRST AID MEASURES

EYES: Immediately flush eyes with water for 15 minutes. Get medical attention if irritation develops.

SKIN: Wash skin with soap and water. Remove contaminated clothing and launder before reuse.

INHALATION: Airborne mists of this product are not expected to cause adverse effects to the user. If exposed to excessive levels of dusts, mists or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

INGESTION: Administer 2 glasses of water or milk and induce vomiting. Obtain medical attention if symptoms develop. Treat patient symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water, CO₂, dry chemical, for fires in area. Use water spray to cool container exposed to fire; do not get water inside containers.

FIRE FIGHTING PROCEDURES: Wear self contained breathing apparatus with a full face-piece operated in the positive pressure mode and full body protection when fighting fires.

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PRODUCT NAME: SILSBOND 01

SECTION 5 - FIRE FIGHTING MEASURES (CONTINUED)

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product does not present any unusual hazards under fire conditions.

SPECIFIC HAZARDS: This product contains no specific hazards.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear appropriate protective gear described in Section 8 of this safety data sheet.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Dike area to contain spill. Collect and transfer to storage container.

Persons not wearing protective equipment (see section 8) should be excluded from area of spill until clean-up is completed.

WASTE DISPOSAL METHOD:

Dispose of in accordance with all local, state and federal regulations. Check with local POTW before sewerage material.

SECTION 7 - HANDLING AND STORAGE

HANDLING: ACIDIC PRODUCT CONTAINS FLUORIDE. Avoid contact with eyes, skin or clothing. Can cause severe skin irritation and fluoride-like burns which may not be immediately evident. Wear eye protection and impervious gloves. Wash contaminated clothes before reuse.

STORAGE: Do not store in direct sunlight or hot area. Open drums slowly to vent.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:

| <u>COMPONENT</u> | <u>CAS NO.</u> | <u>OSHA PEL</u> | <u>ACGIH TLV</u> |
|---------------------|----------------|---------------------|---------------------|
| Fluorozirconic Acid | 12021-95-3 | 5 mg/m ³ | 5 mg/m ³ |

RESPIRATORY PROTECTION: Under anticipated operating conditions no respiratory protection should be required. If the TLV is exceeded a NIOSH/MSHA approved respirator for amines and organic vapors should be worn.

SAFETY DATA SHEET

PRODUCT NAME: SILSBOND 01

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION (CONTINUED)

PROTECTIVE CLOTHING: Waterproof gloves made of neoprene, vinyl, rubber, polyethylene or PVC should be worn if exposure is expected to be prolonged. Safety glasses with side shields or chemical splash goggles should be worn.

ENGINEERING CONTROLS: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|------------------------------|------------------------|---|--------------|
| APPEARANCE | Clear colorless liquid | | |
| ODOR | Mild odor | VAPOUR PRESSURE | No Data |
| pH | 4.5-5.5 | VAPOUR DENSITY | No Data |
| FREEZING POINT | 32°F | SPECIFIC GRAVITY | 1.016 |
| BOILING POINT | >212°F | SOLUBILITY IN WATER | complete |
| FLASH POINT | No Data | AUTO-IGNITION TEMP | No Data |
| EVAPORATION RATE | No Data | VOLATILE ORGANIC COMPOUND (VOC) | 0 Lbs/gallon |
| UPPER/LOWER EXPLOSION LIMITS | No Data | PARTITION COEFFICIENT (n-Octanol/water) | No Data |

SECTION 10 - STABILITY AND REACTIVITY

GENERAL: This product is stable and hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS TO AVOID: Avoid contact with strong alkali, strong oxidizers, reactive metals, and chlorinated materials.

CONDITIONS TO AVOID: Contact with incompatible materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen fluoride is highly toxic and corrosive.

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SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Harmful or fatal if swallowed. Product can cause burns to contaminated eyes, skin, and any other contaminated tissue. Effects may be delayed. Inhalation exposure to high levels could cause pulmonary edema, which could result in death. Ingestion can result in severe gastric distress with possible vomiting, bloody diarrhea, hypocalcemia, CNS depression, shock, muscle spasms, and death.

ROUTES OF EXPOSURE: Eyes, Skin, Inhalation, Ingestion.

POTENTIAL HEALTH EFFECTS

EYES

Acute (Immediate): Causes eye irritation.

Chronic (Delayed): May cause burns.

SKIN

Acute (Immediate): No data available.

Chronic (Delayed): May cause dryness or irritation

INHALATION

Acute (Immediate): Breathing of mist may cause slight irritation to nasal and respiratory system.

Chronic (Delayed): No data available.

INGESTION:

Acute (Immediate): May cause vomiting or diarrhea.

Chronic (Delayed): May cause irritation to mucous membranes or gastrointestinal tract.

SECTION 12 - ECOLOGICAL INFORMATION

Ecological effects of this product are unknown. This product may be toxic to fish and marine organisms when applied to streams, rivers, ponds, or lakes.

SECTION 13 - DISPOSAL CONSIDERATIONS

If this product becomes a waste, as supplied, it does meet the criteria of a hazardous waste as defined under 40CFR261, in that it exhibits the characteristics of corrosive hazardous waste under Subpart D.

SAFETY DATA SHEET

PRODUCT NAME: SILSBOND 01

SECTION 13 - DISPOSAL CONSIDERATIONS (CONTINUED)

If this product becomes a waste it is the user's responsibility to dispose of the material in accordance with local, state and federal regulations.

SECTION 14 - TRANSPORT INFORMATION

DOT (Department of Transportation): This product is not regulated as a DOT hazardous material

SECTION 15 - REGULATORY INFORMATION

TSCA (Toxic Substance Control Act): Components used in this product are listed on the TSCA Inventory.

SARA TITLE III (Superfund Amendments and Reauthorization Act):

Section 311/312 Hazard Categories (Acute health, Chronic health, Fire, Reactive or Sudden Release of Pressure: NONE.

Section 313: The following toxic chemical(s) is (are) subject to the reporting requirements of the Emergency Planning and Community Right-to-Know Act of 1986 and 40CFR372.

| <u>CHEMICAL NAME</u> | <u>CAS#</u> | <u>WT.%</u> |
|----------------------|-------------|-------------|
|----------------------|-------------|-------------|

NONE

SECTION 16 - OTHER INFORMATION

The company urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the date shown. However, no warranty, expressed or implied, is given as to the results of the use of this information or the product to which it relates. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, or local laws. Since conditions for use of this product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Recipient assumes all responsibility for the use (alone or in combination with any other product), storage, or disposal of the product, including any resultant personal injury or property damage.

REVISED DATE: 1/11/2023

PREPARER: D. Zhu