



7/1/20

SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 (REACH)

1. PRODUCT IDENTIFICATION

Trade Name(s): ECOSIL-C5, ECOSIL EXTRA STRENGTH, ECOSIL SUPER, & ECOSIL

Product Description: Silicone water-based sealer

Chemical Name: Silicone Emulsion

Synonyms: N/A

CAS No: N/A

Manufacturer/Supplier:

EPRO Services, Inc.

PO Box 347

Derby, KS 67037

800-882-1896 (8:00am – 5:00pm CST)

2. HAZARD(S) IDENTIFICATION

Potential Health Effects

Ingestion: No adverse effects are expected under normal conditions of use.

Skin: No adverse effects are expected under normal conditions of use.

Inhalation: No adverse effects due to inhalation are expected. Aerosols of this product may have a high potential for inhalative toxicity. Avoid inhalation of aerosols.

Eyes: No adverse effects are expected under normal conditions of use.

Medical Conditions Aggravated: None known.

Subchronic (Target Organ): Reproductive hazard

Chronic Effects / Carcinogenicity: This product or one of its ingredients present at 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.

Routes of Exposure: No anticipated routes of exposure.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Hazardous ingredients

Chemical Name	CAS-No	%
Octamethylcyclotetrasiloxane	556-67-2	.06 - 1.9
Alkylphenoethoxylate	9036-19-5	.06 – 1.8
Coco Alkyl Bix (2-Hydroxyethyl)	61791-10-4	.06 – 1.8
Alcohols (C=9-11) –iso-, (C=10) – rich, ethoxylated	78330-20-8	.02 - .6

Non-Hazardous ingredients

Chemical Name	CAS-No	%
Water	7732-18-5	94 - 72
Aminoethylaminopropylpolysiloxane	68554-54-1	2.1 – 21.6
Other mixtures		.2 - 1

4. FIRST-AID MEASURES

General advice: In case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

Ingestion: Do NOT induce vomiting. Get medical attention.

Skin: Wash area with soap and water.

Inhalation: Move to fresh air. Get medical attention if symptoms persist.

Eyes: Immediately flush with plenty of water or eyewash solution for up to 15 minutes. Consult a physician for specific advice.

Note to physician: Treat symptomatically and supportively.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray, Alcohol-resistant foam, Dry chemical, Carbon dioxide

Unsuitable extinguishing media: None known

Specific hazards during firefighting: Exposure to combustion products may be a hazard to health

Hazardous combustion products: Carbon oxides, Silicon oxides, Formaldehyde

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

Special protective equipment for firefighters: Wear self-contained breathing apparatus. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Wipe, scrape, or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section.

Do not allow runoff to sewer, waterway, or ground.

7. HANDLING AND STORAGE

Ventilation: Use only with adequate ventilation

Safe Handling: Avoid inhalation of vapor or mist. Do not swallow. Do not get in eyes. Avoid prolonged or repeated contact with skin. Handle in accordance with good industrial hygiene and safety practice. Keep container tightly closed. Take care to prevent spills, waste and minimize release to environment.

Conditions for safe storage: Keep in properly labeled containers. Keep tightly closed. Store at room temperature. Do NOT freeze.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	Cas-No	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Octamethylcyclotetrasiloxane	556-67-2	TWA	10 ppm	DCC OEL

Exposure guidelines

Ingredients	Cas-No	Source	Value
Octamethylcyclotetrasiloxane	556-67-2	Z_INTLZOEL, REL	5 ppm

Absence of values indicates none found.

PEL – OSHA Permissible Exposure Limit; TLV – ACGIH Threshold Limit Value: TWA – Time Weighted Average;

INTL REL – Internal Recommended Exposure Limit

Hazardous components without workplace control parameters

Ingredients	Cas-No
Alcohols (C=9-11) –iso-, (C=10) – rich, ethoxylated	78330-20-8

ENGINEERING CONTROLS

Eyewash bottle with clean water. Provide eyewash station and safety shower.

Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations

Personal protective equipment

Respiratory: No personal protective equipment normally required.

Hand: Impervious gloves. Wash hands before breaks and at end of workday.

Eye: Chemical resistant goggles must be worn. If splashes are likely to occur, wear face-shield.

Skin: Select appropriate protective clothing based on chemical resistant data.

Hygiene measures: Ensure that eye flushing systems and safety showers are located close to working places.

Do not eat, drink or smoke. Wash contaminated clothing before re-use. These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White liquid

Boiling Point: 212°F, 100°C

Specific Gravity (H₂O = 1): 1.0

Vapor Density (Air = 1): +1

pH: No data available

Solubility in Water: Soluble

Odor: Mild odor

Freezing Point: 32°F, 0°C

Vapor Pressure: No data available

Evaporation Rate (Butyl Acetate = 1): <1

Flash point: None

Flammable limits: None

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous polymerization: Does not occur

Hazardous thermal decomposition: Formaldehyde

Incompatible materials: None known

Conditions to avoid: None known

11. TOXICOLOGICAL INFORMATION

GENERAL

Aerosols of this product have a high inhalation toxicity potential. Therefore, when spraying this product and mixtures thereof with other components, exposure must be completely avoided. The use of respiratory equipment is mandatory for all spray applications.

ACUTE ORAL

LD50; Species: Rat; > 5,000 mg/kg;

CARCINOGENICITY

The National Toxicology Program (NTP) classifies formaldehyde as known to be a human carcinogen with respect to nasopharyngeal cancer, sinonasal cancer and myeloid leukemia. The International Agency for Research on Cancer (IARC) classifies formaldehyde as carcinogenic to humans. U.S. OSHA regulates formaldehyde as a potential human carcinogen. See the OSHA Formaldehyde Workplace Standard at 29 CFR 1920.1048 (the OSHA Standard). Safe handling and use instructions are provided in this MSDS and in the OSHA Standard. OSHA has identified 0.5 ppm, calculated as an eight-hour time-weighted average (TWA) concentration, as the Action Level. Please review and understand the guidance contained in this MSDS, and refer to the OSHA Standard for regulatory requirements that might be applicable to your operation and use. Many studies and other evaluations have been performed concerning formaldehydes potential to cause cancer.

OTHER

Octamethylcyclotetrasiloxane

Ingestion: Rodents given large doses via oral gavages of Octamethylcyclotetrasiloxane (1600 mg/kg day, 14 days) developed increased liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appear normal) as well as hypertrophy (increased cell size).

Inhalation: In inhalation studies, laboratory rodents exposed to Octamethylcyclotetrasiloxane (300 ppm five days week, 90 days) developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. Inhalation studies utilizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical of industrial usage (5-10 ppm) showed no toxic effects in rodents.

Range finding reproductive studies were conducted (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation) with Octamethylcyclotetrasiloxane (D4). Rats were exposed to 70 and 700 ppm. In the 700 ppm group, there was a statistically significant reduction in mean litter size and in implantation sites. No D4 related clinical signs were observed in the pups and no exposure related pathological findings were found.

Interim results from a two generation reproductive study in rats exposed to 500 and 700 ppm D4 (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation) resulted in a statistically significant decrease in live mean litter size as well as extended periods of off-spring delivery (dystocia). These results were not observed at the 70 and 300ppm dosing levels.

Preliminary results from an ongoing 24-month combined chronic/oncogenicity study in rats exposed to 10, 30, 150, or 700 ppm D4 showed test-article related effects in the kidney (male and female) and uterus of rats

exposed for 12 to 24 months. These effects include increased kidney weight and severity of chronic nephropathy, increased uterine weight, increased incidence of endometrial cell hyperplasia, and an increased incidence of endometrial adenomas. All of these effects are limited to the 700 ppm exposure group.

These results have been shown to be rat-specific. Further studies are ongoing.

In developmental toxicity studies, rats and rabbits were exposed to Octamethylcyclotetrasiloxane at concentrations up to 700 ppm and 500 ppm respectively. No teratogenic effects (birth defects) were observed in either study.

SENSITIZATION

No data available.

SKIN IRRITATION

Species: Rabbit

EYE IRRITATION

Species: Rabbit; Result: No eye irritation

MUTAGENICITY

No data available.

OTHER EFFECTS OF OVEREXPOSURE

Animal studies have shown that inhalation of aerosols of aminosilicones or aminosilicone emulsions may be hazardous. A NIOSH approved respirator should be worn if processing of this material is likely to cause an aerosol or mist.

12. ECOLOGICAL INFORMATION (non-mandatory)

Ecotoxicity

Ingredients:

Alcohols, (C=9-11) -iso-, (C=10) -rich, ethoxylated:

Toxicity to fish: LC50 (Danio rerio (zebra fish)): > 1 - 10 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and
Other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l
Exposure and time: 48 h
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.022 mg/l
Exposure time: 96 h
Remarks: No toxicity at the limit of solubility.

Toxicity to daphnia and other
aquatic invertebrates: EC50 (Daphnia sp.): > 0.015 mg/l
Exposure time: 48 h
Remarks: No toxicity at the limit of solubility.

Toxicity to algae: EC50 (Pseudokirchneriella subcapitata (green algae)): >0.022 mg/l

Exposure time: 96 h
Remarks: No toxicity at the limit of solubility.
NOEC (Pseudokirchneriella subcapitata (green algae)): 0.022 mg/l
Exposure time: 96 h

Toxicity to fish (Chronic toxicity) NOEC (Oncorhynchus mykiss (rainbow trout)): ≥ 0.0044 mg/l
Remarks: No toxicity at the limit of solubility.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC (Daphnia sp.): >0.0079 mg/l
Exposure time: 21 d
Remarks: No toxicity at the limit of solubility.

M-Factor (Chronic aquatic toxicity): 1

Toxicity to bacteria: IC50: $> 10,000$ mg/l
Method: ISO 8192

Ecotoxicology Assessment
Chronic aquatic toxicity: May cause long lasting harmful effects to aquatic life.

Persistence and degradability

Ingredients:

Alcohols, (C=9-11) -iso-, (C=10) -rich, ethoxylated:

Biodegradability: Result: rapidly degradable
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Biodegradability: Result: Not readily biodegradable.
Biodegradation: 3.7 %
Exposure time: 28 d
Method: OECD Test Guideline 310

Stability in water: Degradation half-life: 69.3 - 144 h (24.6 °C) pH: 7
Method: OECD Test Guideline 111

Bioaccumulative potential

Ingredients:

Alcohols, (C=9-11) -iso-, (C=10) -rich, ethoxylated:

Bioaccumulation: Bioconcentration factor (BCF): < 500
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Partition coefficient: n-octanol/water: log Pow: 6.48 (25.1 °C)

Mobility in soil

No data available

Other adverse effects

Ingredients:

Octamethylcyclotetrasiloxane: Results of PBT and vPvB assessment: Remarks: Octamethylcyclotetrasiloxane (D4) meets the current REACh Annex XIII criteria for PBT and vPvB. In Canada D4 has been assessed and deemed to meet the PiT criteria. However, D4 does not behave similarly to known PBT/vPvB substances. The weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D4 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms.

13. DISPOSAL CONSIDERATIONS (non-mandatory)

This product does not meet the criteria of hazardous waste if discarded in its purchased form. Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION (non-mandatory)

This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

15. REGULATORY INFORMATION (non-mandatory)

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 31 1/312 Hazards

Acute Health Hazard

Chronic Health Hazard

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right to Know

Dimethyl siloxane, hydroxy-terminated	70131-67-8	.06 – 1.9%
Water	7732-18-5	72 – 94%
Alcohols, (C=9-1 1) -iso-, (C=10) -rich, ethoxylated	78330-20-8	.02 - .6%
Acetic acid	64-19-7	.012 - .12%

New Jersey Right to Know

Dimethyl siloxane, hydroxy-terminated	70131-67-8	.06 – 1.9%
Water	7732-18-5	72 – 94%
Alcohols, (C=9-1 1) -iso-, (C=10) -rich, ethoxylated	78330-20-8	.02 - .6%

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

This information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designated only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.