

SAFETY DATA SHEET

SECTION 1) IDENTIFICATION

Product ID: Tenon Ultimate Barrier ES
Product Name: Concrete Curing and Sealing Product
Revision Date: Apr 14, 2023 **Date Printed:** Oct 08, 2024
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: TCC Materials
Address: 2025 Centre Pointe Blvd, Mendota Heights, MN, US, 55120
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Product/Recommended Uses:

SECTION 2) HAZARDS IDENTIFICATION

Classification

Flammable Liquids - Category 3
Aspiration Hazard - Category 1
Carcinogenicity - Category 2
Germ Cell Mutagenicity - Category 1B
Reproductive Toxicity - Category 2
Skin Irritation - Category 2
Acute aquatic toxicity - Category 2

Safety data sheet prepared in accordance to the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

Pictograms



Signal Word

Danger

Hazardous Statements - Health

H304 - May be fatal if swallowed and enters airways
H351 - Suspected of causing cancer
H340 - May cause genetic defects
H361 - Suspected of damaging fertility or the unborn child
H315 - Causes skin irritation

Hazardous Statements - Physical

H226 - Flammable liquid and vapor

Hazardous Statements - Environmental

H401 - Toxic to aquatic life

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

Precautionary Statements - Prevention

P273 - Avoid release to the environment.

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves, protective clothing, eye protection/face protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting equipment.

P242 - Use only non-sparking tools.

P243 - Take action to prevent static discharges.

P264 - Wash thoroughly after handling.

Precautionary Statements - Response

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P308 + P313 - IF exposed or concerned: Get medical advice/attention.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P370 + P378 - In case of fire: Use carbon-di oxide, alcohol foam, water spray or dry chemical to extinguish.

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P321 - Specific treatment (see First-Aid on this label).

P332 + P313 - If skin irritation occurs: Get medical advice/attention.

P362 + P364 - Take off contaminated clothing. And wash it before reuse.

Precautionary Statements - Storage

P405 - Store locked up.

P403 + P235 - Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal

P501 - Dispose of contents/container in accordance with local/national/international regulations.

Hazards Not Otherwise Classified (HNOC)

None.

Acute toxicity of 26% of the mixture is unknown

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	GHS Classifications	% By Weight
0000616-38-6	CARBONIC ACID, DIMETHYL ESTER	N.A.	45% - 70%
9060-84-8	ACRYLIC RESIN	N.A.	15% - 40%
0064742-95-6	AROMATIC HYDROCARBON MIXTURE >C9	Acute Tox. Oral 5, H303; Asp. Tox. 1, H304; Carc. 2, H351; Flam. Liq. 3, H226; Muta. 1B, H340; Skin Irr. 2, H315	10% - 30%

CAS	Chemical Name	GHS Classifications	% By Weight
0017980-47-1	SILANE, TRIETHOXY(2-METHYLPROPYL)-	Aquatic Acute 3, H402; Eye Irr. 2, H319; Flam. Liq. 4, H227	0% - 5%
0029911-27-1	DIPROPYLENE GLYCOL MONOPROPYL ETHER	N.A.	0% - 5%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. Get Medical advice/attention if you feel unwell. If exposed/If you feel unwell/If concerned: Call a POISON CENTER/doctor. Eliminate all ignition sources if safe to do so.

Eye Contact

If eye irritation persists: Get medical advice/attention. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face.

Skin Contact

If skin irritation occurs or you feel unwell: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Take off immediately contaminated clothing. Store contaminated clothing under water and wash before re-use or discard. Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes.

Ingestion

Rinse mouth. Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position. IF exposed or concerned: Get medical advice/attention.

Most important symptoms and effects, both acute and delayed

No data available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. No specific treatment is required. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Treat according to symptoms (decontamination, vital functions), no known specific antidote. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Small Fire : Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire : Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use straight stream of water.

Specific Hazards Arising from the Chemical

Fire will produce irritating gases. Runoff may pollute waterways Most vapors are heavier than air. Vapors may form explosive mixtures with air Vapors will spread along ground and collect in low or confined areas (sewers, basements, tanks) Vapors may travel to source of ignition and flash back. Many liquids are lighter than water. Containers may explode in fire. May form an ignitable vapor/air mixture in closed tanks or containers.

Precautions for Firefighters

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Equipment

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Stay uphill and/or upstream. Ventilate closed spaces before entering. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Evacuate and isolate hazard area and keep unauthorized personnel away. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. A vapor-suppressing foam may be used to reduce vapors.

Protective Equipment

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

Do not breathe vapor or mist. Do not get on skin, eyes or clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Dike far ahead of liquid spill for later disposal.

Methods and Materials for Containment and Cleaning up

Ventilate area after clean-up is complete. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-sparking tools to collect absorbed material.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use.

Avoid breathing vapor or mist.

Use good personal hygiene practices.

Eating, drinking and smoking in work areas is prohibited.

Remove contaminated clothing and protective equipment before entering eating areas.

All containers must be properly labelled.

Do not get in eyes, on skin, or on clothing.

Eyewash stations and showers should be available in areas where this material is used and stored

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits.

The use of local ventilation is recommended to control emissions near the source.

Report ventilation failures immediately.

Storage Room Requirements

Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Keep containers securely sealed when not in use. Containers that have been opened must be carefully resealed to prevent leakage. Indoor storage should meet OSHA standards and appropriate fire codes. Empty containers retain residue and may be dangerous. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and strong oxidizers. Store in approved containers and protect against physical damage. Take precautionary measures against electrostatic discharge. To avoid fire or explosion, dissipate static electricity during transfer by ground and bonding containers and equipment before transferring material.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids.

Skin Protection

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Use of chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and microorganisms. Examples of preferred glove barrier materials include: Butyl rubber, Polyethylene, Chlorinated polyethylene, Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Viton, Neoprene, Polyvinyl chloride ("PVC" or "vinyl"), Nitrile/butadiene rubber ("nitrile" or "NBR").

Full contact Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M).

Splash contact Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 30 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M).

Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations	OSHA TWA (mg/m3)
AROMATIC HYDROCARBON MIXTURE >C9	[(L)]; [5 (I)];	(L)			[A2]; [A4];	URT irr	[A2]; [A4];	2000

Chemical Name	OSHA TWA (ppm)	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA Carcinogen	OSHA Skin designation	OSHA Tables (Z1, Z2, Z3)	NIOSH TWA (mg/m3)	NIOSH TWA (ppm)
AROMATIC HYDROCARBON MIXTURE >C9	500					1		

Chemical Name	NIOSH STEL (mg/m3)	NIOSH STEL (ppm)	NIOSH Carcinogen
AROMATIC HYDROCARBON MIXTURE >C9			

(L) - Exposure by all routes should be carefully controlled to levels as low as possible, irr - Irritation, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	8.63 lb/gal
Specific Gravity	1.03
% Solids By Weight	N/A
Appearance	N/A
Odor Description	N/A
pH	N/A
Water Solubility	Insoluble in water
Flammability	Flash point below 73°F/23°C
Flash Point	59.00 °F
Viscosity	N/A
Lower Explosion Level	N/A
Upper Explosion Level	N/A
Vapor Density	N/A

Freezing Point	N/A
Melting Point	N/A
Low Boiling Point	N/A
Evaporation Rate	N/A
Coefficient Water/Oil	N/A

SECTION 10) STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical Stability

Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions/Polymerization

Will not occur.

Conditions To Avoid

Avoid all possible sources of ignition, heat, sparks, flame, build up of static electricity and contact with incompatible materials.

Incompatible Materials

Strong bases, acids, and oxidizing agents.

Hazardous Decomposition Products

Oxides of carbon.

SECTION 11) TOXICOLOGICAL INFORMATION

Acute Toxicity

The Acute Toxicity Estimate (ATE) for an oral exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for a dermal exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for an inhalation (vapour) exposure to this mixture is >20 mg/l

Aspiration Hazard

May be fatal if swallowed and enters airways

Carcinogenicity

Suspected of causing cancer

Germ Cell Mutagenicity

May cause genetic defects

Respiratory/Skin Sensitization

Based on available data, the classification criteria are not met.

Reproductive Toxicity

Suspected of damaging fertility or the unborn child

Serious Eye Damage/Irritation

Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation

Causes skin irritation

Specific Target Organ Toxicity - Repeated Exposure

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Potential Health Effects - Miscellaneous

0064742-95-6 AROMATIC HYDROCARBON MIXTURE >C9

The following medical conditions may be aggravated by exposure: skin disorders. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

SECTION 12) ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.

SECTION 14) TRANSPORT INFORMATION

	U.S. DOT Information	IMDG Information	IATA Information
UN Number:	UN1139	UN1139	UN1139
UN proper shipping name:	Coating solution (includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining)	Coating solution (includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining)	Coating solution (includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining)
Transport Hazard class(es)	3	3	3
Packing group	III	III	III
Hazardous substance (RQ)	No Data Available	No Data Available	No Data Available
Environmental hazards	No Data Available	No Data Available	No Data Available
Special precautions for user	No Data Available	No Data Available	No Data Available

Transport in bulk according to Annex II of MARPOL and the IBC code	No Data Available	No Data Available	No Data Available
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SECTION 15) REGULATORY INFORMATION

Safety, health and environmental regulations

The product has been evaluated against the following relevant regulations: U.S.A Toxic Substance Control Act (TSCA) California Proposition 65 Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312 Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313 Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103

CAS	Chemical Name	% By Weight	Regulation List
0000616-38-6	CARBONIC ACID, DIMETHYL ESTER	45.00% - 70.00%	SARA312, TSCA - Toxic Substances Control Act (TSCA)
0064742-95-6	AROMATIC HYDROCARBON MIXTURE >C9	10.00% - 30.00%	SARA312, TSCA - Toxic Substances Control Act (TSCA)
0017980-47-1	SILANE, TRIETHOXY(2-METHYLPROPYL)-	0.00% - 5.00%	SARA312, TSCA - Toxic Substances Control Act (TSCA)
0029911-27-1	DIPROPYLENE GLYCOL MONOPROPYL ETHER	0.00% - 5.00%	SARA312, TSCA - Toxic Substances Control Act (TSCA)

The information in this Section does not list non-hazardous components that might have relevant TSCA - Toxic Substances Control Act (TSCA), SARA312 regulatory values, if they are present at less than 1%. Please contact manufacturer for more information.

SECTION 16) OTHER INFORMATION

Glossary

ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL- Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

Version 1.0:

Revision Date: Apr 14, 2023

First Edition.

Full text of H-Statements referred to under Section 3

- H319 Causes serious eye irritation
- H315 Causes skin irritation
- H227 Combustible Liquid
- H226 Flammable liquid and vapor
- H402 Harmful to aquatic life
- H304 May be fatal if swallowed and enters airways
- H303 May be harmful if swallowed
- H340 May cause genetic defects
- H351 Suspected of causing cancer

DISCLAIMER

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