

Material Safety Data Sheet

Mule-Hide TPO CUT-EDGE SEALANT

Date of Preparation: 09/15/2008

Revision: 007

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: TPO CUT-EDGE SEALANT

General Use: To Seal Cut Edges of Reinforced TPO Membrane **Chemical Formula:** Mixture

Supplier: Mule-Hide Products Co., Inc. 1195 Prince Hall Dr, Beloit, WI 53511 Phone: 800-786-1492

Manufacturer: Carlisle SynTec Incorporated, 1285 Ritner Highway, Carlisle, PA 17013, Phone: 800-479-6832
Emergency Phone Number: CHEMTREC (USA) 800-424-9300

Section 2 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Danger – Highly flammable liquid and vapor

Warning – Causes skin irritation

Warning – Causes eye irritation

Warning – May be harmful if swallowed and enters airways

Warning – Suspected of damaging fertility or the unborn child

Warning – May cause an allergic skin reaction

Warning – Suspected of causing genetic defects (skin)

Warning – May cause drowsiness or dizziness

Warning – May cause damage to organs (liver, kidney, ear) through prolonged or repeated exposure

Potential Health Effects

Primary Entry Routes: Skin contact, skin absorption, eye contact, inhalation, ingestion.

Acute Effects

Inhalation: Aspiration into lungs can cause chemical pneumonitis, which can be fatal.

Eye: irritation

Skin: irritation

Ingestion: Ingestion can cause gastrointestinal irritation, vomiting and diarrhea.

Carcinogenicity: IARC, NTP, and OSHA do not list this product as a carcinogen.

Medical Conditions Aggravated by Long-Term Exposure: Respiratory symptoms associated with pre-existing lung disorders, skin allergies, and pre-existing heart disorders may be aggravated by exposure to this material.

Chronic Effects: Moderate irritation of skin, eyes, and mucous membranes of upper respiratory tract on prolonged/repeated contact.

Dermatitis and defatting of skin. Overexposure may result in headache, dizziness, fatigue, nausea, possible unconsciousness and even asphyxiation. Chronic exposure may cause reversible kidney and liver injury. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

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†Sec. 8

Section 3 – Ingredient Information

Hazardous Ingredients	CAS Number	% wt
Xylene	1330-20-7	15-40
Toluene	108-88-3	40-70
Additional Ingredients	CAS Number	% wt

Section 4 - First Aid Measures

Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention immediately.

Eye Contact: Immediately flush eyes with running water for at least 15 minutes. Get medical attention.

Skin Contact: Immediately flush skin with running water and remove contaminated clothing. Wash exposed area with soap and water. Get medical attention.

Ingestion: DO NOT induce vomiting. Get medical attention immediately.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Special Precautions/Procedures: Whenever possible, remove the worker from the source of contamination.

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Section 5 - Fire-Fighting Measures

Flash Point: 39 °F (4 °C)
Flash Point Method: TCC
Autoignition Temperature: 986°F (530°C)
LEL: 1.2% v/v
UEL: 7.0% v/v



Flammability Classification: Division 2

Extinguishing Media: In case of fire, use dry chemical, carbon dioxide, or foam. Water may not be effective as an extinguishing agent. Water fog or spray may be used to provide a smothering effect on fire and to cool fire-exposed containers and surrounding combustibles. Do not use a solid stream of water because it can scatter and spread the fire.

Unusual Fire or Explosion Hazards: Flammable. Store and use away from all sources of heat, flame, or sparks. Do not smoke while applying. Vapors are heavier than air and may travel along ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other ignition sources at locations distant from material handling point and flash back. All containers should be grounded when material is transferred.

Hazardous Combustion Products: Carbon Monoxide and Carbon Dioxide

Fire-Fighting Instructions: This product contains solvents that are dangerous fire and explosion hazards when exposed to heat or flame. Fire fighters should wear self-contained breathing apparatus and full protective clothing with a full face piece operated in the positive pressure demand mode.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products (fumes, smoke, carbon monoxide, and carbon dioxide), wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill /Leak Procedures: Remove all sources of ignition. Avoid breathing vapors. Use self-contained breathing apparatus in enclosed area. Ventilate area. Contain and remove with inert absorbent materials and non-sparking tools.

Small Spills: For small liquid spills, take up with sand or other noncombustible absorbent material and place into closed containers for later disposal.

Large Spills: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

Regulatory Requirements: This material is considered to be a hazardous under RCRA. Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Use away from all sources of heat, flame, or sparks. Do not smoke while using. Handling equipment must be grounded to prevent sparking. Handle with non-sparking tools. Wash with soap and water before eating, drinking, or smoking. Launder contaminated clothing. KEEP OUT OF REACH OF CHILDREN.

Storage Requirements: Keep containers in a cool, dry, well-ventilated area away from all sources of heat, flame, and sparks. Store at 60-95°F (15.5-35°C) and out of sun. Keep containers tightly closed when not in use. Do not pressurize, cut, weld, or grind the containers or empty containers which may contain residual product and solvent vapors that may ignite explosively.

Section 8 - Exposure Controls / Personal Protection

Hazardous Ingredients:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Xylene	100 ppm	150 ppm	100 ppm	150 ppm	100 ppm	150 ppm	900 ppm
Toluene	200 ppm	150 ppm	20 ppm	None estab.	100 ppm	150 ppm	500 ppm

Engineering Controls: Do not use in enclosed areas without proper explosion-proof ventilation. General and local exhaust ventilation must be sufficient to control vapor concentrations and keep the vapor concentration below PEL.

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Respiratory Protection: Approved NIOSH respirator must be used if vapor concentration is 50 ppm or above.

Protective Clothing/Equipment: Long sleeves, long trousers to protect skin from sealant contact. Permeation resistant gloves (that meet ANSI/ISEA 105-2005) recommended. Protective glasses or goggles recommended, Industrial boots to protect feet from sealant contact. Protective skin creams or emollients useful.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

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Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance and Odor: Clear liquid with hydrocarbon solvent odor.
Odor Threshold: 1 ppm.
Vapor Pressure: 36.7 mm Hg at 30 °C (86°F)
Specific Gravity (H₂O=1, at 4°C/39°F): 0.873

Water Solubility: insoluble
Boiling Point: 110-120°C (230 - 248°F)
Freezing/Melting Point: not determined
% Volatile: 87.4
Evaporation Rate: faster than nBuAc
Vapor Density (Air=1): heavier than air
VOC: 762 gpl
Flash Point: 39 °F (4 °C)
Flash Point Method: TCC
Autoignition Temperature: 986°F (530°C)
LEL: 1.2% v/v
UEL: 7.0% v/v

Section 10 - Stability and Reactivity

Stability: Stable.

Possibility of Hazardous Reactions: Will not occur.

Chemical Incompatibilities: Strong oxidizing agents, acids and bases.

Conditions to Avoid: Heat, sparks, and flames; ignition sources; static electricity.

Hazardous Decomposition Products: In the event of partial combustion, fumes, smoke, carbon monoxide, and carbon dioxide may be released.

Section 11 - Toxicological Information

Toxicity Data:

Eye Effects: Irritant of eyes and mucous membranes

Skin Effects: Irritant.

Acute Inhalation Effects:

Narcotic, Central Nervous System depressant

Acute Oral Effects:

Oral-rat, LD₅₀: 4300 mg/kg, 5000 mg/kg

Oral-human LD₅₀: 50mg/kg (est. xylene)

Chronic Effects: Moderate irritation of skin, eyes, and mucous membranes of upper respiratory tract on prolonged/repeated contact. Dermatitis and defatting of skin. Chronic exposure may cause reversible kidney and liver injury, bone marrow hyperplasia, anemia, and central nervous system depression. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

Section 12 - Ecological Information

Ecotoxicity: No data available

Environmental Fate: No data available

Environmental Degradation: No data available

Soil Absorption/Mobility: No data available

Section 13 - Disposal Considerations

Disposal: Dispose of in accordance with all local, state, and federal regulations.

Disposal Regulatory Requirements: This material is considered to be hazardous waste under RCRA. It may be disposed of in an organometallic or organic lab pack that meets the requirements of 40 CFR 264.316 or 265.316.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Adhesive, containing a flammable liquid.

Shipping Symbols: none

Hazard Class: 3

ID No.: UN 1133

Packing Group: II

Label: red caution label required for 1 and 5 gallon pails only.

Special Provisions (172.102): 149, B52, IB2, T4, TP1, TP8

Packaging Authorizations

a) **Exceptions:** 173.150

b) **Non-bulk Packaging:** 173.173

c) **Bulk Packaging:** 173.242

Quantity Limitations

a) **Passenger, Aircraft, or Railcar:** 5L

b) **Cargo Aircraft Only:** 60L

Vessel Stowage Requirements

a) **Vessel Stowage:** B

b) **Other:** none

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Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Number: U220/U239 (Toluene/Xylene) (40 CFR 261.33)
RCRA Hazardous Waste Classification (40 CFR 261.131): Hazardous
TSCA (Toxic Substances Control Act) Status: TSCA (United States) – The intentional ingredients of this product are listed.
CERCLA Hazardous Substance (40 CFR 302.4) listed/unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112
CERCLA Reportable Quantity (RQ), 100 lb (45.4 kg) (as Xylene)
SARA 311/312 - Hazard Classes: Acute Health – Yes, Chronic Health – Yes, Fire - Yes
SARA Toxic Chemical (40 CFR 372.65): Xylene, CAS#1330-20-7, 15-40% and Toluene, CAS#180-88-3, 40-70%
SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed
Clean Air Act Data: Toluene; HAP Code: XOY; Xylene; HAP Code: XOY.
Clean Water Act: Toluene is listed as a priority pollutant. RQ: 1,000 lbs. (454.5 kg)
Clean Water Act: Xylene is listed. RQ: 100 lbs. (45.4 kg)

State Regulations:

California Proposition 65: This product contains the following chemical(s) known to the state of California to cause birth defects or other reproductive harm: Toluene.

Delaware Air Quality Management List: Toluene DRQ: 1,000; State: Must be reported to DRQ
Xylene DRQ: 100 State: Must be reported to DRQ

Massachusetts Hazardous Substance Codes: Toluene 108-88-3 2,4,5,6,F7,F8
Xylene 1330-20-7 2, 4, F8, F9

Michigan Critical Materials Register: Toluene 108-88-3 Report: -- Class: --
Xylene 1330-20-7

Minnesota Hazardous Substance: Toluene Codes: ANO Hazards: skin Carcinogen: No
Xylene Codes: ANO Hazards: -- Carcinogen: No

New Jersey RTK Hazardous Substance: Toluene Dot#: 1294 Substance#: 1866 TPQ: -- EHS: No
Xylene Dot#: 1307 Substance#: 2014 TPQ: -- EHS: No

New York List of Hazardous Substances: Toluene RQ Air: 1,000 RQ Land: 1 Acutely Hazardous: No
Xylene RQ Air: 1,000 RQ Land: 1 Acutely Hazardous: No

Pennsylvania Hazardous Substance Code: Methyl Benzene (Toluene) 108-88-3 Code: E
Dimethyl Benzene (Xylene) 1330-20-7 Code: E

Washington Air Contaminant	Toluene	Xylene
TWA (ppm)	100	100
TWA (mg)	375	435
STEL (ppm)	150	150
STEL (mg)	560	655

Canadian WHMIS Classification: Class: B Division 2 (Flammable Liquid)
Class: D Division 2B (Toxic by other means)

State Regulations: California Proposition 65: This product contains the following chemical(s) known to the state of California to cause birth defects or other reproductive harm: Toluene.

Section 16 - Other Information

Prepared By: Research & Development

Revision Notes: Section 8- Revised limits for Xylene and Toluene.

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