

Material Safety Data Sheet

Mule-Hide WEATHERED MEMBRANE CLEANER

Date of Preparation: 09/01/2008

Revision: 009

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: MULE-HIDE WEATHERED MEMBRANE CLEANER

General Use: Cleaning Solution for Weathered EPDM and TPO Membranes **Chemical Formula:** Mixture

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

Manufacturer: Carlisle SynTec Incorporated, 1285 Ritner Highway, Carlisle, PA 17013, Phone: 800-479-6832
24-Hour 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 serious eye irritation

Danger – May be fatal if swallowed and enters airways

Warning – May cause an allergic skin reaction

Warning – May cause drowsiness and dizziness

HMIS

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Potential Health Effects

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

Target Organs: May cause damage to the following organs: kidneys, lungs, liver, mucous membranes, upper respiratory tract, skin, eyes, central nervous system

Acute Effects

Inhalation: Breathing high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Breathing this material may cause central nervous system depression with symptoms including nausea, headache, dizziness, fatigue, drowsiness or unconsciousness. Breathing high concentrations of this material, for example, in an enclosed space or by intentional abuse, can cause irregular heartbeats which can cause death.

Eye: This product can cause transient mild eye irritation with short-term contact with liquid sprays or mists. Symptoms include stinging, watering, redness and swelling.

Skin: This material can cause skin irritation. The degree of irritation will depend on the amount of material that is applied to the skin and the speed and thoroughness that it is removed. Symptoms include redness, itching and burning of the skin. Repeated or prolonged skin contact can produce moderate irritation (dermatitis).

Ingestion: If swallowed, this material may irritate the mucous membranes of the mouth, throat and esophagus. It can be readily absorbed by the stomach and intestinal tract. Symptoms include a burning sensation of the mouth and esophagus, nausea, vomiting, dizziness, staggering gait, drowsiness, loss of consciousness, and delirium, as well as additional central nervous system effects. Due to its light viscosity, there is a danger of aspiration into the lungs during vomiting. Aspiration can result in severe lung damage or death.

Carcinogenicity: This product is not known to contain any components at concentrations above 0.1% which are considered carcinogenic by OSHA, IARC or NTP.

Medical Conditions Aggravated by Long-Term Exposure: Disorders of the following organs or organ systems that may be aggravated by significant exposure to this material include: skin, respiratory system, liver, kidneys and central nervous system.

Chronic Effects: Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

Section 3 – Ingredient Information

Hazardous Ingredients	CAS Number	% wt
Aliphatic Petroleum Distillate	64742-89-8	100
Additional Ingredients	CAS Number	% wt

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Section 4 - First Aid Measures

Inhalation: Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately.

Eye Contact: Check for and remove contact lenses. If irritation or redness develops, flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. Do not use eye ointment. Seek medical attention immediately.

Skin Contact: Remove contaminated shoes and clothing. Flush affected area with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. Do not use skin ointments. If skin surface is not damaged, clean affected area thoroughly with mild soap and water. Seek medical attention immediately.

Ingestion: Do not induce vomiting. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious. Do not leave victim unattended. Seek medical attention immediately.

Note to Physicians: INHALATION: Inhalation overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty breathing develops, evaluate for upper respiratory tract inflammation, bronchitis and pneumonitis. Administer supplemental oxygen with assisted ventilation, as required.

This material sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

INGESTION: If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

Section 5 - Fire-Fighting Measures

Flash Point: 65 °F (18 °C)

Flash Point Method: TCC

Autoignition Temperature: 450 °F (232 °C)

LEL: 0.9% v/v

UEL: 6.7% v/v

Flammability Classification: NFPA Class – 1B flammable liquid.

Extinguishing Media: SMALL FIRE: Use dry chemicals, carbon dioxide, foam, water fog or inert gas (nitrogen).

LARGE FIRE: Use foam, water fog or water spray. Water fog and spray are effective in cooling containers and adjacent structures. However, water can cause frothing and/or may not extinguish the fire. Water can be used to cool the external walls of vessels to prevent excessive pressure, autoignition or explosion. DO NOT use a solid stream of water directly on the fire as the water may spread the fire to a larger area.

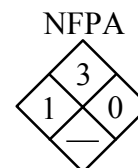
Unusual Fire or Explosion Hazards: Flammable Liquid! This material releases vapors at or below ambient temperatures.

When mixed with air in certain proportions and exposed to an ignition source, its vapor can cause a flash fire. Use only with adequate ventilation. Vapors are heavier than air and may travel long distances along the ground to an ignition source and flash back. A vapor and air mixture can create an explosion hazard in confined spaces such as sewers. If container is not properly cooled, it can rupture in the heat of a fire.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, smoke, fumes and/or unburned hydrocarbons may be released in a fire.

Fire-Fighting Instructions: Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus (SCBA) to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles.

Cover pooling liquid with foam. Containers can build pressure if exposed to radiant heat; cool adjacent containers with flooding quantities of water until well after the fire is out. Be aware that burning liquid will float on water. Notify appropriate authorities if liquid enters sewers or waterways.



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.

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Flammable Liquid! Release causes an immediate fire or explosion hazard. A vapor-suppressing foam may be used to reduce vapors. Eliminate all ignition sources. All equipment used when handling this material must be grounded. Stop the leak if it can be done without risk. Do not touch or walk through spilled material. Remove spillage immediately from hard, smooth walking surfaces. Prevent spilled material from entering waterways, sewers, basements or confined area. Absorb or cover with dry earth, sand or other non-combustible material and transfer to appropriate waste containers. Use clean, non-sparking tools to collect absorbed material.

For large spills, secure the area and control access. Prevent spilled material from entering sewers, storm drains, other drainage systems and natural waterways. Dike far ahead of a liquid spill to ensure complete collection. Water mist or spray may be used to reduce or disperse vapors; but it might not prevent ignition in closed spaces. This material will float on water and its run-off may create an explosion or fire hazard. In an urban area, cleanup spill as soon as possible; in natural environments, cleanup on advice from specialists. Pick up free liquid for recycle and/or disposal if it can be accomplished safely with explosion-proof equipment. Collect any excess material with absorbant pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal. Comply with all laws and regulations.

Section 7 - Handling and Storage

Handling Precautions: A spill or leak can cause an immediate fire or explosion hazard. Keep containers closed and do not handle or store near heat, sparks or other potential ignition sources. Do not contact with oxidizable materials. Do not breathe vapor. Use only with adequate ventilation and personal protection. Never siphon by mouth. Avoid contact with eyes, skin and clothing. Prevent contact with food and tobacco products. Do not take internally. **KEEP OUT OF REACH OF CHILDREN.**

Storage Requirements: Store and transport in accordance with applicable laws. Keep containers tightly closed and store in a cool, dry, well-ventilated place, plainly labeled and out of closed vehicles. Keep away from ignition sources. Ground all equipment containing this material. Containers should be able to withstand pressures expected from warming and cooling in storage. This flammable liquid should be stored in a separate safety cabinet or room.

Section 8 - Exposure Controls / Personal Protection

Hazardous Ingredients:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Aliphatic Petroleum Distillate	300 ppm	400 ppm	300 ppm	none estab.	350 ppm	none estab.	none estab.

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits of 300 ppm. All electrical equipment should comply with the National Electric Code. An emergency eye wash station and safety shower should be located near workstation.

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.

Administrative Controls:

Respiratory Protection: Odor is not an adequate warning for potentially hazardous air concentrations. For unknown vapor concentrations, use a positive-pressure, pressure-demand, self-contained breathing apparatus (SCBA), especially when entering a confined space or where the oxygen concentrations may be reduced because of an accumulation of vapors. For known vapor concentrations above the occupational exposure guidelines (see Section 2), use a NIOSH-approved organic vapor respirator, if adequate protection is provided. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).

Eye Protection: Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. Safety glasses/goggles should be worn during transfer operations or when there is a likelihood of misting, splashing or spraying of this material. Suitable eye wash water should be readily available.

Hand Protection: Avoid skin contact. Permeation resistant gloves (that meet ANSI/ISEA 105-2005) recommended. Wash hands with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities or leaving work.

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	Water Solubility: Very slight solubility in cold water (<0.1% w/w)
Appearance and Odor: Clear liquid with characteristic hydrocarbon solvent odor.	Boiling Range(°C): 127 to 144 (260 to 291°F)
Odor Threshold(ppm): Not available.	Freezing/Melting Point(°C): N/A
Vapor Pressure: 5 mm Hg at 20 °C (68°F)	Viscosity: <5 (cSt @ 40°C/104°F)
Vapor Density (Air=1): 4.1	% Volatile: 100
Density: average at 60°F (15.5°C) = 6.32 lbs/gal (calculated)	Evaporation Rate: 1.0 (n-Butyl acetate = 1.0)
Specific Gravity (H₂O=1, at 4°C/39°F): 0.76	VOC: 755 gpl
pH: N/A	Flash Point: 65 °F (18 °C)
	Flash Point Method: TCC
	Autoignition Temperature: 450 °F (232 °C)
	LEL: 0.9% v/v
	UEL: 6.7% v/v

Section 10 - Stability and Reactivity

Stability: Stable.

Possibility of Hazardous Reactions: Not expected to occur.

Chemical Incompatibilities: Strong acids, alkalis and oxidizers such as liquid chlorine and oxygen.

Conditions to Avoid: Keep away from heat, sparks, flame and strong oxidizing materials.

Hazardous Decomposition Products: Toxic gases or vapors, such as carbon monoxide and carbon dioxide, may be released in a fire. Contact with strong oxidizing agents may cause fire and explosions.

Section 11- Toxicological Information

Eye Effects: Studies on laboratory animals have associated similar materials with eye and respiratory tract irritation.

Acute Oral Effects: No data

Skin Effects: Studies on laboratory animals have shown similar materials to cause skin irritation after repeated or prolonged contact. Repeated direct application of Stoddard Solvent to the skin can produce defatting dermatitis and kidney damage in laboratory animals.

Chronic Effects: Rats developed kidney damage and elevated blood urea nitrogen levels when exposed to a concentration of 1.9 mg/L for 65 days. The kidney damage occurred only in male rats and appeared to involve both the tubules and glomeri. The significance of these animal study results to human health is unclear.

Carcinogenicity: No evidence

Mutagenicity: No evidence

Teratogenicity: No evidence

Section 12 - Ecological Information

Ecotoxicity: This mixture contains components that are potentially toxic to freshwater and saltwater ecosystems.

Environmental Fate: This mixture will normally float on water with its lighter components evaporating rapidly. In stagnant or slow-flowing waterways, a hydrocarbon layer can cover a large surface area. As a result, this covering layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway might be enough to cause a fish kill or create an anaerobic environment. This coating action can also be harmful or fatal to plankton, algae, aquatic life and water birds.

Section 13 - Disposal Considerations

Hazard characteristics and regulatory waste stream classification can change with product use. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

Disposal: Dispose of in accordance with all local, state, and federal regulations. Maximize material recovery for reuse or recycling. Recovered non-usable material may be regulated by US EPA as a hazardous waste due to its ignitability (D001) and/or its toxic (D018) characteristics. Conditions of use may cause this material to become a "hazardous waste", as defined by federal or state regulations. It is the responsibility of the user to determine if the material is a RCRA "hazardous waste" at the time of disposal.

Disposal Regulatory Requirements: Transportation, treatment, storage and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive.

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Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

US DOT Status: This material is regulated by the U.S. Department of Transportation.

Shipping Name: Paint related material, 3, UN1263 PG II

Shipping Symbols: Flammable

Hazard Class: 3

ID No.: UN1263

Packing Group: II

Label: red caution label required

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:** n/a

Section 15 - Regulatory Information

TSCA Inventory: This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

SARA 302/304 Emergency Planning and Notification: The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355: No components were identified in this material.

SARA 311/312 Hazard Identification: SARA Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: Fire, Acute (Immediate) Health Hazard, Chronic (Delayed) Health Hazard

SARA 313 Toxic Chemical Notification and Release Reporting: This product contains the following components in concentrations above de minimis levels that are listed as toxic chemicals in 40 CFR part 372 pursuant to the requirements of Section 313 of SARA: No components were identified.

CERCLA: The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQs) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product that may be subject to this statute are:
2,2,4-Trimethylpentane [CAS No. 540-84-1] RQ = 1000 lbs. (453.6 kg) Concentration 1-5%
Xylene, all isomers [CAS No. 1330-20-7] RQ = 100 lbs. (45.36 kg) Concentration < 0.5%
Ethylbenzene [CAS No. 100-41-4] RQ = 1000 lbs. (453.6 kg) Concentration < 0.1%
Benzene [CAS No. 71-43-2] RQ = 10 lbs (4.536 kg) Concentration < 0.005%

Clean Water Act (CWA): This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

California Proposition 65: This material may contain the following components which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):
Ethylbenzene: < 0.1%
Toluene: < 0.01%
Benzene: < 0.005%

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Delaware Air Quality Management List: none listed

Massachusetts Hazardous Substances List: none listed

Michigan Critical Materials Register: none listed

Minnesota Hazardous Substances List: none listed

New Jersey Right-to-Know Label: none listed

New York List of hazardous Substances: none listed

Pennsylvania Hazardous Substances List: none listed

EPA Regulations:

RCRA Hazardous Waste Number (40 CFR 261.33): Not listed

RCRA Hazardous Waste Classification (40 CFR 261.30 through 261.38): Not listed

SARA 311/312 Codes:

SARA Toxic Chemical (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ)

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

Section 16 - Other Information

Prepared By: Research & Development

Revision Notes: General Revision - Formatting Changes

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