MATERIAL SAFETY DATA SHEET

Mule Hide Products Co., Inc.
P.O. Box 1057
Beloit, WI 53512-1057
800-786-1492

Date Prepared: 03/21/2005
Date Printed: 3/7/2007

MSDS SHEET EPDM-001

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	Mule-Hide All Purpose Sealant
Chemical Name	Mixture
Manufacturer	Henkel Corporation
Address	9 Furman Hall Court Greenville, SC 29609
Phone	864-232-3893
Internet	www.henkel.com
Emergency Phone	800-424-9300 Chemtrec
MSDS Number	EPDM-001
Effective Date	October 16, 2000
NFPA Rating	Health 2, Flammability 3, Reactivity 0 0-least, 1-slight, 2-moderate, 3-high, 4-extreme

Supplier: Mule-Hide Products Co., Inc.
P.O. Box 1057
Beloit, WI 53512-1057
608-365-3111
www.mulehide.com

SECTION 2 - PRODUCT INGREDIENTS

Ingredient Name	Common Name	CAS Number	% Weight	Exposure Limit (OSHA)	Exposure Limit (ACGIH)
Toluene (Notes 1, 2)		108-88-3	36	TWA 200 ppm STEL N/D	50 ppm N/D
Petroleum Oil (Note 3)		64741-88-4	N/R	5 MG/CUM N/D	5 MG/CUM 10 MG/CUM
Petroleum Oil (Note 3)		64742-01-4	N/R	5 MG/CUM N/D	5 MG/CUM 10 MG/CUM
Titanium Dioxide (Note 4)		13463-67-7	N/R	15 MG/CUM N/D	10 MG/CUM N/D
Polyethylene Wax (Note 5)		9002-88-4	N/R	N/D N/D	2 MG/CUM N/D
Hydrous Magnesium Silicate (Note 6)	Talc	14807-96-6	N/R	20 mppcf N/D	2 MG/CUM N/D
Silica – Crystalline (Note 7)	Quartz	1408-60-7	0.3	0.1 MG/CUM N/D	0.1 MG/CUM N/D

Codes: N/R = Not Required, N/A = Not Applicable, N/D = Not Determined, < = Less Than, > = Greater Than, MG/CUM = Milligrams Per Cubic Meter of Air

Hazardous components are listed in this section if they are present at or above 1% in the mixture. NTP, IARC and OSHA carcinogens are listed and footnoted if they are present at or above 0.1% in the mixture. Additional information may be found in section VI. Other components may be listed if deemed appropriate. The percent by weight given is an approximate formulation value for the component in the finished product and not a specification. Components not listed are deemed to be non-hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910, 1200. Components subject to the reporting requirements of Sara Title II Section 313 and 40 CFR Part 372 are identified in this section.

NOTES:
This product contains the following components subject to the reporting requirements of Sara Title III Section 313 and 40 CFR Part 372 in quantities greater than the “de minimis” level: TOLUENE

1. ACGIH skin absorption notation. Skin absorption may potentially contribute to the overall exposure to this material. Appropriate measures should be taken to prevent skin absorption so that the TLV is not invalidated.
2. The OSHA acceptable ceiling concentration is 300 PPM. The OSHA acceptable maximum peak above the acceptable ceiling concentration for an 8-hour shift is 500 PPM for a maximum duration of 10 minutes. NIOSH recommends limits of 100 PPM, 8-hour TWA, 150-PPM Stel.
3. Exposure limits are set for oil mist, mineral
4. Exposure limits are set for total dust. NIOSH recommends treating Titanium Dioxide as a potential human carcinogen and reducing exposure to the lowest feasible limit.
5. Exposure limits as for paraffin wax fume
6. Contains no asbestos fibers. ACGIH TLV-TWA is for respirable dust. NIOSH recommends a limit of 2 MG/CUM for respirable dust.
7. Exposure limits are set for respirable dust. Crystalline Silica is listed as a potential human carcinogen by IARC and NTP (see section VI). NIOSH recommends a limit of 0.05 MG/CUM, 8-hour TWA for respirable dust, and treating Crystalline Silica as a potential human carcinogen. This component is believed to be a low hazard material except in dust form. Avoid the generation of airborne dust, mist or fume.

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SECTION 3 - PHYSICAL/CHEMICAL DATA

Properties	Unit	Data
Appearance	N/A	Off-white paste
Boiling point	(Deg. F)	232
Evaporation Rate	(N-Butyl Acetate = 1)	For Product: N / D N/A Toluene: 2.0 Other Components: Negligible
Flash Point	deg F	42 Seta
Melting Point	(Deg. c~)	N/A
Odor	N/A	N/A
Ph (undiluted product)	N/A	N/A
Saturation in air	%	N/A
Solids Content	N/A	N/A
Specific gravity	lbs/gal	9.21
Vapor Density	Air = 1	3.2
Vapor Pressure	(MM HG § 68 deg. F)	For Product: N / D N/A Toluene: 22 Other Components: Negligible
Viscosity	cP	N/A
VOC	g/liter	N/A
Volatility	%	36
Water solubility	%	Negligible

SECTION 4 - FIRE AND EXPLOSION DATA

Flammability Properties

Flashpoint (deg. F):	42 Seta
Lower Flammable Limits	1.2
Upper Flammable Limits	7.0
Auto Ignition (deg. F)	896 (Toluene)

Fire Extinguishing Media
Dry chemical, Carbon Dioxide, foam, water spray or fog, and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this product, depending on size or potential size of fire and circumstances related to the situation. Dry chemical, Carbon Dioxide and foam are recommended. Water may be an ineffective extinguishing agent unless used under favorable conditions by experienced fire fighters trained in fighting all types of flammable liquid fires.

Personal Protection for Fire Fighting
Wear self-contained breathing apparatus when fighting fires. Water may be used to keep fire-exposed containers cool to prevent pressure build-up and possible auto ignition or explosion when exposed to extreme heat. Avoid spreading burning liquids with water used for cooling purposes. Fire protection and response strategy should be planned through consultation with local fire protection authorities or appropriate specialists.

Unusual Fire and Explosion Hazards:
This product is a solvent-based paste containing volatile, flammable solvent. Treat as a flammable liquid. Avoid open flames and other ignition sources in storage and in use, especially in spray applications.

This product should not be used where inadequate ventilation is likely or where vapor concentrations may become flammable.

All five-gallon pails and larger metal containers including tank cars and tank trucks should be grounded and/or bonded when material is transferred.

Closed containers may burst due to pressure build-up if exposed to temperatures at or near the boiling point of the product. Closed containers may rupture explosively, with product ignition, if exposed to extreme heat or fire.

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

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SECTION 5 - HAZARD IDENTIFICATION

Toxicity:
Follow all federal, state, and local regulations.

Routes and Effects of Exposure:

Eyes
Vapors are irritating, direct contact with the liquid or overexposure to its vapors or mists can cause irritation, stinging, burning, tearing, and redness, swelling and blurred vision. Eye effects may be accentuated if material is not promptly removed.

Skin
Contact may cause irritation. Prolonged or repeated contact can cause irritation, pain, burning, redness, defatting (drying, cracking or flaking of skin) and dermatitis (inflammation of skin), skin effects may be accentuated by liquid becoming trapped against the skin by contaminated clothing and shoes. Persons with pre-existing skin disorders may be more susceptible to the effects of this material.

Inhalation
Excessive inhalation of vapors or mists can cause nasal and respiratory irritation, headache, nausea, signs of nervous system depression (such as lightheadedness, dizziness, loss of coordination and equilibrium, drowsiness, weakness, fatigue), and possible unconsciousness in confined or poorly ventilated areas.

Ingestion
Can cause gastrointestinal irritation, headache, nausea, vomiting, diarrhea and signs of nervous system depression as for inhalation. Aspiration of material into the lungs during swallowing or vomiting can cause chemical Pneumonitis (lung inflammation and damage), which can be fatal.

Inhalation of aerosol or spray mist may cause severe irritation of the respiratory system (nose, throat, lungs, etc.), chemical Pneumonitis (lung inflammation and damage), and injury to other body systems from absorption of solvent through lungs.

Skin Absorption
Some component(s) of product can be absorbed in toxic amounts through the skin (including mucous membranes and eyes), especially from prolonged, repeated or widespread exposure. Persons with pre-existing skin disorders may be more susceptible to the effects of this material.

Note(s) to Physician:
Exposure to high concentrations of this material (E.G., in enclosed spaces or with deliberate abuse) may be associated with Cardiac Arrhythmias, Epinephrine and other Sympathomimetic drugs may initiate Cardiac Arrhythmias in persons exposed to this material. Other drugs with less Arrhythmogenic potential should be considered. If Sympathomimetic drugs are administered, observe for the development of Cardiac Arrhythmias.

Effects of Chronic Overexposure:
Toluene may be harmful to the human fetus based on positive test results with laboratory animals. Case studies reveal that prolonged intentional abuse of Toluene during pregnancy may cause birth defects in humans.

Prolonged intentional abuse of Toluene (such as by deliberate inhalation) may lead to brain damage characterized by disturbances in gait, personality changes, and loss of memory. Comparable central nervous system effects have not been shown to result from occupational exposure to Toluene. Chronic overexposure to Toluene has been suggested as a cause of kidney damage and cardiac sensitization in humans.

Overexposure to Toluene has apparently been found to cause central nervous system damage, effects on hearing, mild reversible liver effects, cardiac sensitization and respiratory tract damage in laboratory animals.

Overexposure to petroleum oils: The particular grade of petroleum oil contained in this product is blended from the severely solvent refined heavy paraffinic distillate Cas No. 64741-88-4, and the severely solvent refined residuum, Cas No. 64742-01-4. It contains less than 0.1% by weight of Polynuclear Aromatic Compounds and therefore is not considered as carcinogenic under the federal OSHA Hazard Communication Standard.

Prolonged or repeated exposure to high concentrations of Titanium Dioxide dust may cause lung damage. Symptoms may include coughing, sneezing, difficulty in breathing, shortness of breath, and sputum production.

In Lifetime Animal Inhalation studies of Respirable Titanium Dioxide at levels up to 250 mg/cum, no compound related clinical signs of toxicity were seen in the exposed animals. Slight pulmonary fibrosis was seen at 50 to 250 mg/cum of Respirable Titanium Dioxide but not at 10 or 50 mg/cum Respirable Titanium Dioxide. Microscopic lung tumors were seen in 25% of the rats exposed to 250 mg/cum Respirable Titanium Dioxide. The lung tumors observed in the rats were different from common human lung cancers relative to anatomic type and location, and occurred only at dust levels which overwhelmed the animals lung clearance mechanism and therefore, are of questionable biological relevance for man. Results of an epidemiology study showed that employees who had been exposed to Titanium Dioxide pigments were at no greater risk of developing lung cancer than were employees who had not been exposed. No Pulmonary Fibrosis was found in any of the employees and no associations were observed between Titanium Dioxide pigment exposure and chronic respiratory disease or lung abnormalities.

SECTION 5 - HAZARD IDENTIFICATION (CONT)

Wax is typically inert, on rare occasion, prolonged and repeated exposure to wax mist poses a risk of pulmonary disease such as chronic lung inflammation. This condition is usually asymptomatic as a result of repeated small aspirations, shortness of breath and cough are the most common symptoms. Wax fumes are generally a result of overheating. These fumes are known to be mildly irritating to the nose, throat, and eyes. Toxic vapors and fumes may be formed upon severe thermal degradation.

Prolonged exposure to excessive airborne concentrations of Talc can result in scarring of the lungs (Pneumoconiosis) or of the covering of the lungs (Pleural thickening). Pneumoconiosis may produce no symptoms of cough or shortness of breath, pleural thickening usually produces no symptoms, conditions can be determined by chest radiographic examination and pulmonary function test (FEV and FVC). Bronchial irritation may cause sputum production.

Overexposure to Respirable Crystalline Silica dust may result in respiratory disease including Silicosis, a form of progressive pulmonary fibrosis, and cancer. Simple Silicosis may only cause changes on chest x-ray. If the disease progresses, coughing, wheezing, difficult or painful breathing, shortness of breath and death may occur. Progression of symptoms can continue after dust exposure ceases.

Crystalline Silica is listed by the IARC (International Agency for Research on Cancer) as a probable human carcinogen (group 2A) based on limited evidence in humans and sufficient evidence in animals. Limited means that a positive association has been observed, but chance, bias or confounding factors could not be ruled out. Other human health studies have demonstrated a negative association for cancer; Crystalline Silica is also listed by the NTP (National Toxicology Program) as a substance that “may reasonably be anticipated to be a carcinogen”.

Medical Conditions Aggravated by Exposure:
Respiratory symptoms associated with pre-existing lung disorders (e.g., Asthma-like conditions) may be aggravated by exposure to this material. Skin contact may aggravate an existing dermatitis.

Person with pre-existing heart disorders may be more susceptible to irregular heartbeats (Arrhythmias) if exposed to high concentrations of Toluene. Pre-existing liver, kidney, hearing, central nervous system, and respiratory tract disorders may be aggravated by exposure to Toluene.

Other Health Information:
Reports have associated repeated and prolonged occupational overexposure to organic solvents with various neurotoxic effects including permanent brain and nervous system damage. Symptoms include loss of memory, loss of intellectual ability and loss of coordination. Chronic skin exposure to solvents may cause similar effects. Intentional misuse by deliberately concentrating and inhaling the contents of this product may be harmful.

Any proposed used of this product in elevated-temperature processes or in spray applications should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

SECTION 6 - FIRST AID PROCEDURES

Inhalation
If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet and get medical attention.

Skin Contact
Remove contaminated clothing. Thoroughly wash exposed skin areas with soap and water. Launder contaminated clothing before re-use. Discard contaminated shoes. See a physician if irritation or injury develops.

Ingestion
If material has been confined to mouth, rinse out mouth with water. Do not swallow water used for rinsing purposes.
If material has been swallowed, immediately drink two glasses of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Aspiration of material into the lungs due to vomiting can cause chemical Pneumonitis, which can be fatal. Keep person warm, quiet and get medical attention.

Eye Contact
Immediately flush with large amounts of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

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SECTION 7 - STABILITY/REACTIVITY DATA

Stability
Stable under normal conditions.

Conditions to Avoid
Avoid exposure to heat, sparks, open flames and other ignition sources, which induce combustion and/or thermal decomposition.

Incompatibility (Materials to avoid)
Avoid contact with strong oxidizing agents, strong acids and strong alkalis.

Hazardous Polymerization
Will not occur

Hazardous Combustion and Decomposition Products
Carbon monoxide, carbon dioxide, acrid (choking) smoke and fumes, various hydrocarbons, other unidentified toxic materials.

SECTION 8 - HANDLING, USE, AND DISPOSAL

Procedures for Spills/Leaks
Wear appropriate skin and eye protection during cleanup. Use respiratory protection if needed.

Small Spills: Absorb liquid on paper, rags, vermiculite, floor absorbent or other absorbent material and transfer to hood. Allow volatile portion to evaporate in hood. Allow sufficient time for vapors to completely clear hood ductwork. After volatile portion has evaporated, transfer remaining material to appropriately marked container.

Large Spills: Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage container. Remaining liquid may be taken up on sand, clay, earth, floor absorbent or other absorbent material and shoveled into containers. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

Storage
Handle with reasonable care. Keep product containers cool, dry and away from sources of ignition. Use and store this product with adequate ventilation. Avoid breathing spray mist. Avoid prolonged or repeated breathing of vapors. Avoid eye contact and prolonged or repeated skin contact. Keep product containers tightly closed when not in use. When opening containers, remove top slowly to relieve and pressure build-up. When dispensing from container, follow acceptable static grounding/bonding procedures for flammable liquids. Do not transfer to unmarked container. For industrial use only.

Practice safe working procedures and good personal hygiene. Use protective equipment when necessary. Wash thoroughly after handling and before eating, drinking, smoking or using toilet facilities.

Waste Disposal Method
Dispose of material in accordance with applicable local, county, state and federal regulations. As produced, this material is a product and not a waste.

SECTION 9 - EXPOSURE CONTROL/PERSONAL PROTECTION

Eye
Chemical splash goggles in compliance with OSHA regulations are recommended to safeguard against potential eye contact, irritation or injury. However, OSHA regulations also permit other type safety glasses (consult your safety equipment supplier).

Ventilation
General mechanical ventilation may be sufficient to keep product vapor and/or mist concentrations within specified TLV ranges. If general ventilation proves inadequate to maintain safe vapor and/or mist concentrations, supplemental local exhaust may be required.

Respiratory
Not normally required: However, if the TLV of the product or any component is exceeded, or if the product is heated during processing operations (application, drying, curing), or if the product is used in such a manner as to generate particulates (fume, dust, mist), a NIOSH approved respirator is advised in the absence of proper environmental control (see your safety equipment supplier), engineering or administrative controls should be implemented to reduce exposure.

Protective Clothing
The use of impermeable gloves is advised to prevent skin contact, or injury (see your safety equipment supplier). For operations where contact can occur, coveralls, apron and rubber foot covering are recommended. A safety shower and eyewash facility should be available.

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SECTION 10 - TRANSPORTATION

Shipping Name **Adhesive**

Labeling **NAERG: 128**

Labeling Required **Flammable Liquid**

Hazard Class **3** **UN1133 III**

SECTION 11 - MISCELLANEOUS INFORMATION

Other Precaustions
Product may corrode, degrade, or otherwise react with some metals and plastics upon prolonged contact. Consult with equipment supplier for proper construction materials for storage tanks, mixers, fittings, pipes and other storage and handling equipment.

Containers of this material may be hazardous when emptied, because emptied containers retain residues (vapors, liquids and/or solids), all hazard precautions given in this data sheet must be observed.

Additional Information
Contact Mule-Hide at 608-365-3111

MSDS Revision Summary
Revision Date April 1, 2004
Reason for Change New format

Disclaimer
The responsibility to provide a safe workplace is with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and to develop work practices and procedures for a safe environment.

The information herein has been compiled from sources believed to be reliable, and is accurate to the best of our knowledge. However, Mule-Hide Products Co., Inc. cannot give any guarantees regarding information from other sources, and expressly does not make any warranties, nor assume any liability for its use.

The OSHA Permissible Exposure Limits (PEL'S) contained in this Material Safety Data Sheet are the current limits as listed in the June 1993 Air Contaminants Final Rule, specified in Tables Z-1, Z-2, and Z-3 (Federal Register, 58:35338-35351, June 30, 1993; corrected in Federal Register, 58:40191, July 27, 1993; and subsequent amendments).

This is the end of MSDS