

Material Name: Mule-Hide TPO Membrane and Realted Accessories

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Mule-Hide TPO Membrane (Standard, FR, EXTRA, Fleece Back and Self Adhered, etc.); Non-Reinforced Flashing and accessories constructed from membrane including Coverstrip, Corners, Pipe Seals, Sealant Pockets, Tubing Wraps, etc

Synonyms

Membrane, Tapes, Overlayment Strips and Accessories

Product Use

Roof and Waterproofing Membrane

Restrictions on Use

For industrial use only.

Manufacturer Information

Carlisle SynTec 1285 Ritner Highway Carlisle, PA 17013 USA Phone: +1-800-479-6832

Emergency Phone #: +1-800-424-9300 (Chemtrec)

Supplier Information

Mule-Hide Products Co., Inc 1195 Prince Hall Dr. Beloit, WI 53511 USA

Phone: 800-786-1492

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

The products listed above are considered "articles" as defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200 and are considered "manufactured articles" as defined by the Canadian Hazardous Products Act (R.S.C., 1985, c. H-3) and as such are exempt from the requirement for an SDS. Under normal conditions of use, these products do not pose a hazard in the workplace or to the building occupants. Since these products or "articles" pose no health hazard under normal conditions of use, there is no requirement for an SDS. In addition, "articles" are not included in the scope of the Globally Harmonized System (GHS). For that reason, the GHS labeling elements are not included on this SDS. Although these products are not subject to the OSHA or Canadian standards or GHS labelling elements, Carlisle would like to disclose as much health and safety information as possible to ensure that these products are handled and used properly. This SDS contains information critical to the safe handling and proper use of the products. It is recommended that this SDS should be retained and made available to the users of these products. In addition, the recommendations for handling and use of these products should be included in worker training programs.

GHS Label Elements

Symbol(s)

None required

Page 1 of 8 Issue date: 2015-05-01 Revision 1.0 Print date: 2015-07-06



Material Name: Mule-Hide TPO Membrane and Realted Accessories

Signal WordNone required

Hazard Statement(s)

None required

Precautionary Statement(s)

Prevention

None required

Response

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

Other Hazards

No additional information available.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
9010-79-1	Propylene ethylene copolymer	>50
Trade Secret	Flame retardants (non-hazardous)	>15
Trade Secret	Stabilizers	>5

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

None known.

Inhalation

Inhalation of vapor from this product during heat welding may cause respiratory tract irritation.

Skin

Exposure to hot surfaces during heat welding may cause thermal burns.

Eyes

Vapor from this product during heat welding may irritate eyes.

Ingestion

Cannot be ingested under normal circumstances.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Most Important Symptoms/Effects



Material Name: Mule-Hide TPO Membrane and Realted Accessories

Acute

None known

Delayed

None known

Note to Physicians

Nothing known to note

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use dry chemical, carbon dioxide, or water spray.

Unsuitable Extinguishing Media

None reported.

Special Hazards Arising from the Chemical

Oil bleeds from material when burning.

Hazardous Combustion Products

Toxic gases or vapors, such as carbon monoxide and other organic compounds may be released in a fire.

Advice for firefighters

Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

Fire Fighting Measures

Standard procedures for Class A fires. Use self-contained breathing apparatus (SCBA) and protective clothing for structural fire fighting.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Sweep up and dispose in accordance with all applicable regulations.

Environmental Precautions

Provide adequate ventilation during heat welding.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

None known. Suggest wearing protective gloves. Wash thoroughly after handling. KEEP OUT OF REACH OF CHILDREN.

Conditions for Safe Storage, Including any Incompatibilities



Material Name: Mule-Hide TPO Membrane and Realted Accessories

This product may react with strong oxidizing agents and should not be stored near such materials. Best to store rolls in areas protected by automatic sprinklers. Store product below 60°C (140°F) to prevent roll sticking at installation

Incompatible Materials

Strong oxidizing agents

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

No known exposure limits

Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Provide adequate ventilation. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Sunglasses which filter out ultraviolet light are strongly recommended since the white surface is highly reflective to sunlight

Skin Protection

Work boots and work clothing recommended

Respiratory Protection

A respiratory protection program that meets OSHA 1910.134, ANSI Z88.2 and / or CSA Z94.4-93 requirements must be followed whenever workplace conditions warrant use of a respirator.

Glove Recommendations

Wear protective gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White-on-black sheet; (white may be replaced by tan, gray, etc)	Physical State	solid
Odor	Slight waxy odor	Color	Black or white
Odor Threshold	Not available	pH	Not available
Melting Point	Not available	Boiling Point	Not available
Freezing point	>120	Evaporation Rate	Not available
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	>357 °C	Flash Point	>329 °C
Vapor Density (air=1)	Not available	Vapor Pressure	Not available

Page 4 of 8 Issue date: 2015-05-01 Revision 1.0 Print date: 2015-07-06



Material Name: Murl-Hide TPO Membrane and Realted Accessories

Water Solubility	Practically insoluble in water	Specific Gravity (water=1)	0.95 – 1.05
Viscosity	Not available	Solubility (Other)	Not available

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal conditions of use.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Keep away from heat, sparks or open flame

Incompatible Materials

None known

Hazardous decomposition products

Gases or vapors such as carbon monoxide, carbon dioxide, or oxides of nitrogen, and other organic compounds may be released in a fire.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

Unlikely under normal conditions

Skin Contact

Unlikely under normal conditions

Eye Contact

Unlikely under normal conditions

Ingestion

Unlikely under normal conditions.

Acute and Chronic Toxicity

No data available

Immediate Effects

No immediate effects known.

Delayed Effects

No delayed effects known.

Irritation/Corrosivity Data

Page 5 of 8 Issue date: 2015-05-01 Revision 1.0 Print date: 2015-07-06



Material Name: Mule-Hide TPO Membrane and Realted Accessories

My cause skin irritation with repeated contact. No other effects known.

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

No data available

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

No data available..

Specific Target Organ Toxicity - Single Exposure

No data available

Specific Target Organ Toxicity - Repeated Exposure

No data available

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

No data available.

Additional Data

No additional information available.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Component Analysis - Aquatic Toxicity

No data available

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information available.

Section 13 - DISPOSAL CONSIDERATIONS

Page 6 of 8 Issue date: 2015-05-01 Revision 1.0 Print date: 2015-07-06



Material Name: Mule-Hide TPO Membrane and Realted Accessories

Disposal Methods

(1) Recycle / reprocess; (2) Incineration including energy recovery of waste material in a permitted facility in accordance with local, state or federal regulations; (3) Landfilling in a licensed facility in accordance with local, state or federal regulations

Section 14 - TRANSPORT INFORMATION

US DOT Information:

UN/NA #: Not regulated

IATA Information: UN#: Not regulated

TDG Information: UN#: Not regulated

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan:

None

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: No Chronic Health: No Fire: No Pressure: No Reactivity: No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

None known

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

None known.

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL:

None known

Component Analysis - Inventory

Finished product is not hazardous. Component analysis not required.

Page 7 of 8 Issue date: 2015-05-01 Revision 1.0 Print date: 2015-07-06



Material Name: Mule-Hide TPO Membrane and Realted Accessories

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 0 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings

Health: 0 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes New SDS: May 1, 2015

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD -Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA -Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH -Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.

Page 8 of 8 Issue date: 2015-05-01 Revision 1.0 Print date: 2015-07-06