

MATERIAL SAFETY DATA SHEET

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

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Date Prepared: 1/01/2007

LAW840300 BONDING CEMENT

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Identity: 5001 SHUR-GARD WATER BASED BONDING ADHESIVE
General or Generic ID: BONDING ADHESIVE
Chemical Name/Family: N/A - Mixture

Company: Imperial Adhesives, Inc.
6315 Wiehe Rd.
Cincinnati, Ohio 45237
513-351-1300
Emergency Telephone Number: 1-800-424-9300
24 hours every day

HMIS RATING

ACUTE HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0
HAZARD RATING: 0-Minimal 1 - Slight 2 - Moderate 3 - High 4 - Extreme \*-Chronic

2. HAZARDOUS COMPONENTS

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.

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

Table with 7 columns: COMPONENTS, % WT., ACGIH TLV-TWA, ACGIH TLV-STEL, OSHA PEL-TWA, OSHA PEL-STEL, NOTES. Rows include Vinyl Acetate and Rosin-Based Resin.

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: VINYL ACETATE.
(1) Vinyl acetate has been listed as a possible human carcinogen by IARC. The ACGIH has designated vinyl acetate as an "A3-Animal Carcinogen" (see Section VI). NIOSH recommends a 4-PPM 15-min TWA ceiling limit.
(2) Supplier has withheld the chemical name and CAS number.

3. PHYSICAL DATA

Appearance: White Emulsion Liquid
Approximate Boiling Point / Range (deg. F): 212\*
Approximate Density: 8.36 lbs/gal
Approximate percent volatile by weight: 48 (water)
PH: 6.0 - 7.0
Solubility in water: Not soluble - water dispersible

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### (3. PHYSICAL DATA Continued)

*Vapor Density (Air - 1):* 0.62\*

*Vapor Pressure (MM HG § 68 deg. F):* 17\*

*Evaporation Rate (N-Butyl Acetate = 1):* 0.2\*

*Flash Point (deg. F):* N/A

*Flammable/explosive limits (% volume in air):*

*Lower:* N/A

*Upper:* N/A

\* Values for water component

### 4. FIRE AND EXPLOSION HAZARD DATA

*Flash Point:* (See Section III)

*Flammable Limits:* (See Section III)

*Extinguishing Media:*

Liquid material is non-flammable. Water, foam, carbon dioxide and dry chemical are suitable for use on dry solids fire.

*Special Fire Fighting Procedures:*

Wear self-contained breathing apparatus when fighting fires. Water may be used to keep fire-exposed containers cool until fire is out.

*Unusual Fire and Explosion Hazards:*

No unusual fire or explosion hazards

Product will not burn but may spatter if the temperature exceeds the boiling point of water.

The solids portion of product is combustible and will decompose during combustion or under pyrolysis conditions giving off toxic fumes.

Closed containers may rupture if exposed to extreme heat or fire.

### 5. REACTIVITY DATA

*Stability:*

Stable under normal conditions

*Conditions to avoid:*

Coagulation may occur following freezing thawing, boiling, or the addition of chemicals.

*Incompatibility (Materials to avoid):*

Avoid contact with water sensitive materials and strong oxidizers.

*Hazardous Polymerization:*

Will not occur

*Hazardous Combustion and Decomposition Products:*

Carbon monoxide, carbon dioxide, acrid (choking) smoke and fumes, acetic acid, acrolein, acetaldehyde, crotonaldehyde, acetone, other unidentified organic compounds and toxic substances.

### 6. HEALTH HAZARD DATA

*Primary Routes of Entry:*

Inhalation, eye contact, skin contact

*Effects of Acute Overexposure:*

For each potential route of exposure

*Eye Contact:*

May cause irritation, redness, tearing.

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### (6. HEALTH HAZARD DATA Continued)

*Skin Contact:*

Prolonged or repeated contact may cause irritation.

*Skin Absorption:*

None known

*Inhalation:*

Excessive inhalation of vapors or mists can cause nasal and respiratory irritation.

Respiratory irritation from vinyl acetate may occur above 4 PPM in sensitive individuals and generally above 20 PPM. Exposure to mice and rats for 6 hours / day, 5 days / week over a two year period resulted in marked irritation to the respiratory tract at 600 PPM, slight irritation to the respiratory tract at 200 PPM, and no treatment related effects at 50 PPM.

*Ingestion:*

May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

*Emergency and First Aid Procedures:*

Get immediate medical attention if any symptoms of overexposure occur.

*If in Eyes:*

Flush with large quantities of water, lifting upper and lower eyelids occasionally. Get medical attention.

*If on Skin:*

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

*If Breathed:*

If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. Get medical attention.

*If Swallowed:*

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. Get medical attention immediately.

*Effects of Chronic Overexposure:*

This product contains a small amount of vinyl acetate (Monomer). An inhalation study using laboratory animals exposed to high concentrations (600 PPM, 200 PPM) of vinyl acetate for 6 hours per day, 5 days per week over a two year period has shown that such exposure resulted in the development of nasal tumors. Some of these tumors were shown to be carcinomas. There should be minimal risk when this product is used with ventilation adequate to maintain the atmospheric concentrations of vinyl acetate below the OSHA permissible and ACGIH recommended exposure limits.

Vinyl acetate has been listed by IARC (International Agency for Research on Cancer) as a possible human carcinogen (group 2B). Vinyl acetate is not listed by OSHA or NTP (National Toxicology Program) as a potential or proven human carcinogen. The ACGIH has designated vinyl acetate as an "A3-Animal Carcinogen". This designation refers to an agent, which is carcinogenic in experimental animals at relatively high dose, by route (s) of administration, at site (s), of histologic type (s), or by mechanism (s) that are not considered relevant to worker exposure. Available epidemiological studies do not confirm and increased risk of cancer in exposed humans. Available evidence suggests that vinyl acetate is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

Overexposure to Rosin-Based Resins: Rosin and some of its derivatives have been reported to cause skin sensitization or an allergic skin reaction such as a rash in susceptible individuals after repeated or prolonged skin contact. Skin contact with this or other Rosin derivatives after sensitization may cause an allergic skin reaction.

*Medical Conditions Aggravated by Exposure:*

May provoke asthmatic response in persons with asthma who are sensitive to airway irritants.

*Other Health Information:*

This product contains small amounts of Residual Monomer(s) and other organic volatiles. During storage and processing (application, drying, curing), trace amounts of Residual Monomer(s) and other volatiles may be released, no significant amount of exposure is anticipated when good industrial hygiene practices are observed.

Any proposed use 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.

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### 7. SPILL, LEAK AND DISPOSAL PROCEDURES

*Steps to be taken in case material is released or spilled:*

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 appropriately marked container.

*Large Spills:*

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.

*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.

### 8. SPECIAL PROTECTION INFORMATION

*Respiratory Protection:*

Not normally required: However, 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.

*Ventilation:*

General mechanical ventilation and/or local exhaust recommended.

Monomer vapors and/or other irritating and toxic vapors and fumes can be evolved when product is heated during processing operations (application, drying, curing), in such a case, use local exhaust ventilation at the point of Monomer evolution of sufficient velocity to remove vapors and/or fumes.

*Protective Gloves:*

The use of impermeable gloves is advised to prevent skin irritation in sensitive individuals (see your safety equipment supplier).

*Eye Protection:*

Safety glasses, chemical goggles and/or face shields are recommended to safeguard against potential eye contact, irritation or injury.

*Other Protective Equipment:*

For operations where contact can occur, coveralls, apron and rubber foot covering are recommended. A safety shower and eyewash facility should be available.

### 9. SPECIAL PRECAUTIONS AND OTHER COMMENTS

*Storage and Handling Precautions:*

Practice safe working procedures and good personal hygiene.

Use protective equipment when necessary, wash thoroughly after handling and before eating, drinking, and smoking or using toilet facilities.

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. Minimize contact with air to prevent inoculation with microorganisms, which can cause decomposition and moldy over-growth. When opening containers, remove top slowly to relieve and pressure build-up. Do not allow product to freeze. Do not transfer product to unmarked container. For industrial use only.

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**(9. SPECIAL PRECAUTIONS AND OTHER COMMENTS Continued)**

This product contains a small amount of Residual Vinyl Acetate (Monomer), vapors of which will accumulate in the unvented or poorly ventilated headspace above stored product. Residual monomer vapors are liberated during open handling, hot processing, specific applications, and drying processes. Increased Monomer concentrations are also likely to occur in the headspace of drums, storage and waste material containers, and near the product surface in general. Drums should be opened in a well-ventilated space. Thermal processing equipment should be ventilated to control gasses and fumes given off during processing. Environmental controls should be sufficient to ensure that airborne levels of Monomer vapors do not approach or exceed the OSHA permissible or ACGIH recommended exposure limits.

*Other Precautions:*

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.

*Other Comments:*

The responsibility to provide a safe workplace remains 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 practice procedures for a safe work environment.

The information contained herein is, to the best of our knowledge and belief, accurate, however, because the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all federal, state and local laws and regulations.

The recommended permissible exposure limits (PEL-TWA and PEL-STEL) indicated in Section II reflect the levels as revised by OSHA in 1989. The Eleventh Circuit Court of Appeals has repealed the 1989 levels. It is recommended that the lower (1989) permissible exposure limits be observed to ensure worker protection.