

FORTRESS®

30060 Lakeland Blvd.
Wickliffe, OH 44092

MSDS NO: 5203.0
DATE: 1/17/00
Replaces: same
Date: 7/5/97

MATERIAL SAFETY DATA SHEET

A. IDENTIFICATION AND EMERGENCY INFORMATION

Product Name: ACOUSTI SEAL

Chemical Name: N/A **CAS Number:** N/A, a complex mixture.

Product Appearance and Odor: a black medium consistency asphalt under coating with a slight petroleum hydrocarbon odor.

Emergency Telephone Number: Chemtrec 800-424-9300 24 hrs **MSDS Code No.:** 5203.0

B. COMPONENTS AND HAZARD INFORMATION

COMPONENTS	CAS NO.	ACGIH TLV	APPROXIMATE WT% CONCENTRATION
Petroleum Asphalt	8052-42-4	0.5mg/m ³ (fume)*	less than 45%
Mineral Spirits	64742-88-7	100 ppm*	less than 25%
Inorganic Fiber	65997-17-3	10.0mg/m ³ (dust)**	less than 15%
inorganic Filler	not est'd	10.0mg/m ³ (dust)**	less than 25%
Polydimethylsiloxane	63148-62-9	not est'd	less than 5%
Salts of alkylamids and esters	proprietary	not est'd	less than 5%

* 8 Hour TWA. ** As respirable dust.

Hazardous Materials Identification System: (HMIS RATING) **Health-1** **Flammability-2** **Reactivity-0**
Hazard Ranking: 0-Least 1-Slight 2-Moderate 3-High 4-Extreme

C. PRIMARY ROUTES OF ENTRY AND EMERGENCY FIRST AID PROCEDURES

Eye Contact: Mineral spirits, asphalt components, fibers and fillers can cause severe irritation, redness, tearing and blurred vision. Flush with large amounts of water for at least 15 minutes. **GET MEDICAL ATTENTION.**

Skin: Mineral spirits and asphalt components - clean exposed skin with waterless hand cleaners. Prolonged or repeated contact can cause irritation, defatting, and dermatitis. Note: skin contact with clothing saturated in mineral spirits can cause second degree burns. Remove contaminated clothing, wipe excess material from skin, thoroughly wash exposed area with soap and water. If irritation or redness develops and persists, seek medical attention.

Inhalation: Mineral spirits - excessive inhalation of vapors can cause irritation of nose and throat, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and even asphyxiation. Remove individual to fresh air. If irritation persists, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm and quiet. **GET MEDICAL ATTENTION.**

Ingestion: Aspiration hazard. DO NOT INDUCE VOMITING - transport to hospital immediately. **GET MEDICAL ATTENTION IMMEDIATELY.**
Note to Physician - perform gastric lavage in accordance with procedures for ingestion of petroleum products.

D. FIRE AND EXPLOSION HAZARD INFORMATION

Flash Point: (Minimum) 100° F TCC (Mineral Spirits) **Autoignition Temperature:** Not determined.

National Fire Protection Association (NFPA) - Hazard Identification: **Health-0** **Flammability-2** **Reactivity-0**

Handling Precautions: Keep containers tightly closed. Keep containers cool, dry and away from sources of ignition. Use this product with adequate ventilation. Material is COMBUSTIBLE. Material requires electrical grounding during material transfer process. All electrical equipment in storage or handling areas should be installed per NFPA requirements.

Flammable or Explosive Limits: (Approximate percent by volume in air for Mineral Spirits) Lower (LEL) 0.9% Upper (UEL) 6.7%

Extinguishing Media and Fire Fighting Procedures: Foam, carbon dioxide, dry chemical, or water fog. Do not direct water on substance. Water and foam may cause frothing. Note: water directed into heavy oil may cause severe foaming and splatter as it vaporizes. Treat as a fuel oil fire. Water may be used to cool closed containers. In sustained fires, use self-contained breathing apparatus.

Decomposition Products Under Fire Conditions: Carbon monoxide and dioxide, oxides of nitrogen and sulphur, and hydrocarbons from combustion. Hydrogen sulfide gas (H₂S) may be generated (see Section E of this MSDS for more H₂S information) when and if the product is heated above 450° F or if the product incurs fire conditions.

"Empty" Container Warning: Dispose of in an environmentally safe manner and in accordance with governmental regulations. "Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. For work on tanks, refer to OSHA regulation ANSI Z49.1 and other governmental and industrial references pertaining to cleaning, repairing, welding or other contemplated operations.

This is "RCRA" regulated hazardous waste and must be disposed in a permitted facility. Containers are hazardous waste if not emptied completely (less than 1 inch of residue).

E. HEALTH AND HAZARD INFORMATION

Variability Among Individuals: Health studies have shown that individual sensitivities vary from person to person. As a precaution, exposure to vapors, liquids, mists, or fumes should be minimized.

Effects of Overexposure: (Signs and symptoms of exposure) **Primary Routes of Exposure:** Inhalation, skin, and eye contact.

Health Hazards (including acute and chronic effects and symptoms of overexposure):

ACUTE: **Inhalation:** Upper respiratory tract (nose and throat) irritation. Possible central nervous system effects including headaches, dizziness, nausea and vomiting.

Skin Contact: Prolonged or repeated contact with the cold product may result in defatting and drying of the skin which may lead to irritation and dermatitis. Contact with the hot product will cause thermal burns. Skin contact with clothing saturated with mineral spirits can cause second degree burns.

Ingestion: May cause mouth, throat, and gastrointestinal tract irritation, nausea, vomiting and diarrhea. Aspiration of the mineral spirits portion of this product into the lungs can cause severe chemical pneumonitis which may be fatal.

CHRONIC: There are no studies to indicate that exposure to asphalt causes cancer or respiratory damage in man. However, this petroleum based product contains small amounts of polycyclic aromatic hydrocarbons which have been shown to cause cancer and respiratory damage in laboratory animals. Prolonged or repeated skin contact with this product may result in defatting and drying of the skin which may lead to irritation and dermatitis. In laboratory animal studies, prolonged and repeated inhalation exposures to hydrocarbon vapors similar to mineral spirits have resulted in kidney affects in male rats. The implications of these results for humans have not yet been determined.

Nature of Hazard and Toxicity Information:

IARC: In March, 1987, the International Agency for Research on Cancer (IARC) classified extracts of steam and air refined bitumens (such as cutback asphalts) as possibly carcinogenic to humans (Group 2B). This classification was based on a combined evaluation of published human and animal studies. IARC concluded that the human studies did not provide adequate evidence that extracts of steam and air-refined bitumens caused cancer in humans. No epidemiological study of workers exposed only to bitumens is available. The 2B classification was substantially based on experimental animal studies. Some bitumens (asphalts) diluted, dissolved or liquified in solvents (ie., cutback asphalt) have produced skin cancer in laboratory animals at the sites of application. Based on skin-painting data in laboratory animals, IARC has concluded that there is sufficient evidence of carcinogenicity of those extracts. IARC regards it as prudent to treat a material for which there is sufficient evidence of carcinogenicity in animals as if it is carcinogenic in humans.

ACGIH, NTP, OSHA: No components listed as carcinogens.

Additional Information: This petroleum based product contains small amounts of polycyclic aromatic hydrocarbons which have been shown to cause cancer and respiratory damage in laboratory animals. Therefore, good, prudent industrial hygiene practices as outlined in this MSDS should be followed.

WARNING: **Hydrogen sulfide (H₂S)**, an extremely flammable, colorless, highly toxic gas, is emitted from heated (above 450° F) asphalt and may accumulate in storage tanks and bulk transport compartments. Prolonged breathing (greater than 1 hour) of concentrations of H₂S around 50 ppm can produce eye and respiratory tract (mouth, nose and throat) irritation, and at high concentrations (around 1000 ppm) can result in rapid unconsciousness and death.

Since the sense of smell becomes rapidly insensitive to H₂S, its odor cannot be relied upon as an indicator of its concentration. Always use caution when working around closed bulk containers of asphalt. Use ventilation or work upwind from sources of fumes or vapors. Use supplied air respirators or self-contained breathing apparatus if the PEL or TLV for H₂S is exceeded.

Pre-existing Medical Conditions Which May be Aggravated by Exposure:

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Persons with a history of chronic skin or respiratory disorders may be at increased risk for worsening their conditions from exposure to this product.

F. PHYSICAL DATA

The following are approximate or typical values and should not be used for precise design purposes.

Boiling Range: 300° F IBP for Mineral Spirits	Vapor Pressure: Approx. 2.9mm Hg for Mineral Spirits
Specific Gravity: Greater than 1.00 for product	Vapor Density: (air = 1) Approx. 4.9 for Mineral Spirits
Molecular Weight: N/A, complex mixture	Percent Volatile by Volume: Less than 30
pH: Not determined	Solubility in Water @ 1 ATM and 77° F: Negligible
Evaporation Rate: (Ethyl Ether = 1) Approximately 70 for Mineral Spirits	Viscosity: A medium consistency coating 5,000-8,000 cps @ 77° F, brushable consistency

G. REACTIVITY

Stability: _____ unstable X stable

Upon heating above 450° F, hydrogen sulfide gas (H₂ S) may be generated. See Section E of this MSDS for more information on H₂ S.

Hazardous Polymerization: _____ may occur X will not occur

Hazardous Decomposition Products: Carbon monoxide and dioxide, oxides of nitrogen and sulphur, hydrocarbons from combustion.

Incompatibility (Material to Avoid): Avoid contact with strong oxidizing agents such as: liquid chlorine, concentrated oxygen, sodium or calcium hypochlorite.

Conditions to Avoid: Avoid all sources of ignition, including conditions that may generate static electricity. Avoid extreme temperatures. Avoid contact with strong oxidizers.

H. ENVIRONMENTAL INFORMATION

Steps to be taken if spilled or released:

- Shut off and eliminate all ignition sources.
- Keep people away.
- Recover free product; add sand, earth, or other suitable absorbents.
- Minimize skin contact and breathing vapors.
- Ventilate confined spaces; open all windows and doors.
- Keep product out of sewers and water courses by diking or impounding.
- Advise authorities if product has entered or may enter sewers, water courses or extensive land areas.
- ASSURE CONFORMITY WITH APPLICABLE GOVERNMENTAL REGULATIONS.
- Recovered material may be incinerated in approved facility.

EPA Hazardous Waste Number: D001 (Ignitable per 40 CFR 260.21).

Reportable Quantity (RQ), EPA Regulation 40 CFR 302: (CERCLA Section 102): Not established.

Threshold Planning Quantity (TPQ), EPA Regulation 40 CFR 355: (SARA Section 301-304): Not established.

Toxic Chemical Release Reporting, EPA Regulation 40 CFR 372: (SARA Section 313):

None present in reportable quantities, less than 1%.

EPA Hazard Classification Code:	Acute Hazard XXX	Chronic Hazard	Fire Hazard XXX	Pressure Hazard	Reactive Hazard	Not Applicable
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I. PROTECTION AND PRECAUTIONS

Ventilation: Use only with ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air. Use explosion-proof equipment. No smoking or open lights.

Respiratory Protection: If under normal conditions of use, irritation occurs, or if the TLV is exceeded, use a NIOSH/MSHA approved air purifying respirator with organic vapor cartridges or canisters and a dust/mist prefilter. In situations where the concentration of H₂ S exceeds the PEL or TLV, supplied air respirators or self-contained breathing apparatus are required. Always use respiratory protection in accordance with your company's respiratory protection program and OSHA regulations under 29 CFR 1910.134.

Protective Gloves: Use chemical resistant gloves, if needed, to avoid prolonged or repeated skin contact.

Eye Protection: Use safety glasses, splash goggles or face shield when eye contact may occur.

Other Protective Equipment: Use chemical resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.

Work Practices/Engineering Controls: Keep containers closed when not in use. DO NOT STORE NEAR HEAT, SPARKS, FLAME OR STRONG OXIDANTS. To prevent fire or explosion risk from static accumulation and discharge, effectively ground product transfer system in accordance with NFPA standard for petroleum products.

Personal Hygiene: Minimize breathing vapor or mist. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry clean before reuse. Remove contaminated shoes and thoroughly clean and dry before reuse. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

J. TRANSPORTATION AND OSHA LABEL INFORMATION

Transportation Incident Information: For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Guidebook for Hazardous Materials Incidents, DOT P 5800.3.

DOT Identification Number: Non bulk packages are exempt from DOT HM-181 regulations.

OSHA REQUIRED LABEL INFORMATION: In compliance with hazard and right-to-know requirements, the following OSHA Hazard Warnings should be found on a label, bill of lading or invoice accompanying this product. CAUTION! COMBUSTIBLE! Note: product label will contain additional non-OSHA information.

K.

OTHER

The information and recommendations contained herein are to the best of THE BREWER COMPANY'S knowledge and belief, accurate and reliable as of the date issued. THE BREWER COMPANY does not warrant or guarantee their accuracy or reliability, and THE BREWER COMPANY shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the users consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. It is also the users responsibility to make certain that it is relying upon the most recent, updated, information and recommendations available from THE BREWER COMPANY.

The Environmental Information included under Section H hereof as well as the Hazardous Material Identification System (HMIS) and National Fire Protection Association (NFPA) ratings have been included by THE BREWER COMPANY in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with THE BREWER COMPANY'S interpretation of the available data.

For Other Product Information Contact:

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FORTRESS ® QUALITY ROOFING PRODUCTS