



Themec Company, Inc.
 123 West 23rd Avenue, Kansas City, MO 64116-3064
 Emergency Telephone: 800-535-5053 (INFOTRAC)
 Telephone: 816-474-3400

Material Safety Data Sheet (MSDS)

For coatings, resins and related materials, approved by the U.S. Department of Labor as essentially similar to form OSHA-20, meets requirements of CFR 29 Part 1910.1200, OSHA'S hazard communication standard. NPCA 1-84

PREPARED DATE: 07/17/2003 Series: F046H0413A Product Class: COAL TAR-POLYAMIDE SERIES 46H H.B. TNEME-TAR Page 1 of 2

SECTION 2 - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS#	% By Wt.	VAPOR PRESS. MMHG @ 68 °F	OCCUPATIONAL EXPOSURE LIMITS					
				ACGIH			OSHA		
				TLV - TWA	TLV - STEL	TLV - C	PEL - TWA	PEL - STEL	PEL - C
REFINED COAL TAR PITCH (CONTAINS PPAH'S)	65996-93-2	26.52		0000.200 MG/M3			0000.200 MG/M3		
POLYAMIDE RESIN		11-20							
MODIFIED ALIPHATIC AMINE		1-5							
TALC (RESPIRABLE DUST)	14807-96-6	31-40		0002.000 MG/M3					
XYLENE**	1330-20-7	12.00	5.100	0100.000 PPM	0150.000 PPM		0100.000 PPM		
ETHYL BENZENE**	100-41-4	2.72	6.000	0100.000 PPM	0125.000 PPM		0100.000 PPM		

** SARA Reportable Product

This product contains one or more reported carcinogens or suspected carcinogens which are noted NTP, IARC, or OSHA-Z in the other limits recommended column. This substance contains a material classified as a hazardous air pollutant. Where exposure may occur, engineering and administrative controls must be instituted to maintain an exposure level below 0.2 mg/m3 for benzene soluble coal tar pitch volatiles and PPAH's (particulate polycyclic aromatic hydrocarbons). If these controls are not adequate, the use of an appropriate NIOSH/MSHA approved respirator is required. Avoid all skin and eye contact. This product contains pigment dusts which may be released when subjected to abrasive blasting, sanding, or grinding. The information contained in this section is considered confidential and proprietary and should be used only for safety and health purposes.

SECTION 3 - HEALTH HAZARD INFORMATION

EMERGENCY OVERVIEW: POTENTIAL HEALTH EFFECTS: EYE: Severe irritation. Redness, tearing, blurred vision. May result in permanent visual loss. Corrosive responses, burns. SKIN: Allergic skin responses. Discoloration. Can be a skin sensitizer. Corrosive skin responses. INHALATION - OVEREXPOSURE TO SOLVENT VAPORS OR SPRAY MIST: Nasal and respiratory irritation, anesthetic effects, dizziness, possible unconsciousness and asphyxiation, stupor, weakness, fatigue, nausea, and headache. INHALATION - OVEREXPOSURE TO FREE PIGMENT DUST: Coughing, wheezing, shortness of breath, restricted nasal passages, lung injury. INGESTION: Gastrointestinal irritation, nausea, vomiting, diarrhea, death, aspiration into the lungs which can be fatal. CHRONIC EFFECTS: Coal tar pitch contains benzene soluble coal tar pitch volatiles. Repeated or prolonged exposure to these volatiles by heating, spraying, or skin contact presents an increased risk of developing lung, skin, and other cancers. Where repeated or prolonged exposure to benzene soluble coal tar pitch volatiles or PPAH's (particulate polycyclic aromatic hydrocarbons) may occur, there is an increased risk of developing lung, skin or other cancers. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the vapors may be harmful or fatal. Prolonged or repeated contact with skin may cause primary irritation, dermatitis, or allergic skin reactions. Based on an International Agency for Research on Cancer (IARC) conclusion that there is "sufficient evidence in experimental animals for the carcinogenicity of ethyl benzene and inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that ethyl benzene is possibly carcinogenic to humans" (Group 2B). TARGET ORGANS: Can cause lung damage. Can cause eye damage. Can cause skin damage. Can cause respiratory tract damage. Can cause gastrointestinal tract damage. Can cause liver damage. Can cause kidney damage. Can cause cancer. Risk of cancer depends on duration and level of exposure. Can cause nervous system effects. Can cause skin sensitization. OTHER: This product when mixed with other components acquires the hazards of all components. PRIMARY ROUTES OF ENTRY: Dermal and Inhalation. PROPOSITION 65: This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Flush immediately with large amounts of clean water under low pressure for at least 15 minutes. Consult a physician. SKIN CONTACT: Wash affected area with soap and water. Remove contaminated clothing. Dispose of or launder accordingly. Consult a physician if skin irritation persists. INHALATION: Remove affected individual to fresh air. Treat symptomatically. If breathing is difficult, administer oxygen. If breathing has stopped give artificial respiration. Consult a physician. INGESTION: Drink 1 or 2 glasses of water to dilute. Do not induce vomiting. Consult a physician or poison control center IMMEDIATELY. Treat symptomatically. NOTE TO PHYSICIAN: Exposure may aggravate persons with eczema, skin sensitization, or other chronic skin disorders and allergies.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION	FLASHPOINT	EXPLOSION LEVEL LOW	EXPLOSION LEVEL HIGH	FLAMMABILITY LIMITS LOWER	FLAMMABILITY LIMITS HIGHER
	81.0 °F	1.0	-N/A	-N/A	-N/A

EXTINGUISHING MEDIA: Foam, carbon dioxide, and dry chemical. FIRE-FIGHTING PROCEDURES AND EQUIPMENTS: Keep away from heat, open flames, sparks, and areas where static charge may be generated. Do not apply to hot surfaces due to possible fire and explosion risk. For closed containers, pressure build-up and possible explosion might occur due to extreme heat exposure. Solvent vapors are heavier than air and may travel considerable distance to a source of ignition and flash back. Water may be used to cool unruptured containers. Wear self-contained breathing apparatus with a full facepiece operated in pressure-demand or other positive pressure mode to prevent inhalation of hazardous decomposition products. Use appropriate extinguishing media to control fire. Water may cause violent frothing if sprayed directly into containers of burning liquid.

SECTION 6 - SPILL OR LEAK PROCEDURES

CLEAN-UP: Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

SECTION 7 - SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Store in dry area. Keep closures tight and upright to prevent leakage. Do not store in high temperature areas or near fire or open flame. Refer to product data sheet for recommended storage temperatures. SPECIAL COMMENTS: Prevent prolonged breathing of airborne contaminants such as vapor, spray mists, or dusts. Prevent contact with skin and eyes. Do not take internally. Keep out of reach of children. Do not reuse or alter containers without proper industrial cleaning. Do not weld or flame cut empty, uncleaned containers due to potential fire and explosion hazard. Consult product data sheet for proper application instructions.

SECTION 8 - SAFE HANDLING AND USE INFORMATION

HYGIENIC PRACTICES: Wash hands and other contaminated skin areas with warm soap and water before eating. EYE PROTECTION: Use chemical resistant splash type goggles. RESPIRATORY PROTECTION: Respiratory protective devices must be used when engineering and administration controls are not adequate to maintain Threshold Limit Values (TLV) and Permissible Exposure Limits (PEL) of airborne contaminants below the listed values for those hazardous ingredients identified in Section II of this MSDS. Observe OSHA regulations for respirator use (CFR 29, 1910.134) whenever a respirator is used. Particulate, chemical cartridge, air purifying half-mask respirators can be used within certain limitations; consult the respirator manufacturer for specific uses and limitations. Where airborne contaminant concentrations are unknown, the use of a NIOSH/MSHA approved fresh-air supplied respirator is mandatory. OTHER PROTECTION: Use Chemical resistant gloves. Use protective cream where skin contact is likely. Use chemical resistant coveralls or apron to protect against skin and clothing contamination. VENTILATION: Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH's Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product. Heavier than air solvent vapors should be removed from lower levels of work area due to potential explosion hazard and all ignition sources (non-explosion proof equipment) should be eliminated if flammable mixtures will be encountered.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE	VAPOR DENSITY	LOWER BOILING RANGE	HIGHER BOILING RANGE	FORMULA WEIGHT BY VOLUME	VOC IN LBS PER GALLON	EVAPORATION RATE	%VOLATILE BY WEIGHT
6.00	-N/A	275.0 °F	288.0 °F	11.2534 LB/GL	1.688	9.400 (Ether = 1)	15.001

SECTION 10 - STABILITY AND REACTIVITY

INCOMPATIBILITIES: Strong oxidizing agents. Bases. Acids. Water, alcohols, amines, strong bases, metal components, surface active materials. DECOMPOSITION: Carbon monoxide, carbon dioxide, hydrocarbon fragments Nitrogen monoxide, nitrogen dioxide CONDITIONS TO AVOID: Epoxy compounds under uncontrolled conditions. Heat, sparks, open flames. POLYMERIZATION: Will not occur. STABILITY: Stable.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Dispose of in accordance with Federal, state, and local regulations regarding pollution.

SECTION 16 - HMIS INFORMATION

Health: 3 Flammability: 3 Reactivity: 1

This is a condensed MSDS, providing safety and health information pertinent to the complete product series. Physical constants such as Wt./Gal., VOC content and chemical constituents will vary with color. Safety and health information may also vary with color. Certain colors may contain Carbon Black and Crystalline Silica, which have been identified as reported or suspected carcinogens. Prolonged inhalation of respirable dusts containing Crystalline Silica may result in the development of a lung disease known as silicosis. For a complete, color-specific MSDS, please contact your local Tnemec representative listed at www.tnemec.com.

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910. To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.



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PREPARED DATE: 07/17/2003 Series: F046H0413B Product Class: EPOXY SERIES 46H H.B. TNEME-TAR CONV Page 1 of 2

SECTION 2 - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS#	% By Wt.	VAPOR PRESS. MMHG @ 68 °F	OCCUPATIONAL EXPOSURE LIMITS					
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				TLV - TWA	TLV - STEL	TLV - C	PEL - TWA	PEL - STEL	PEL - C
TALC (RESPIRABLE DUST)	14807-96-6	41-50		0002.000 MG/M3					
XYLENE**	1330-20-7	13.20	5.100	0100.000 PPM	0150.000 PPM		0100.000 PPM		
ETHYL BENZENE**	100-41-4	3.30	6.000	0100.000 PPM	0125.000 PPM		0100.000 PPM		
BISPHENOL A TYPE EPOXY RESIN		31-40							

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SECTION 4 - FIRST AID MEASURES

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6.00	-N/A	275.0 °F	288.0 °F	12.1662 LB/GL	2.007	9.400 (Ether = 1)	16.505

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