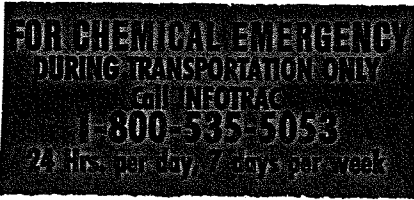


MATERIAL SAFETY DATA SHEET



PRODUCT NAME: SHIELD TITE WET SURFACE COATING

CODE: R-12

SECTION I PRODUCT INFORMATION

COMMON NAME: SHIELD TITE WET SURFACE COATING

CHEMICAL NAME: MIXTURE

CAS NO.: NAP

PRODUCT USE: ROOF RESATURANT

SUPPLIER: PIONEER/RANDUSTRIAL

ADDRESS: 4529 INDUSTRIAL PARKWAY
CLEVELAND, OHIO 44135

EMERGENCY PHONE NO.: (216) 671-5500

DATE ISSUED: FEBRUARY 9, 1989

DATE REVISED: AUGUST 14, 1991

SECTION II HAZARDOUS INGREDIENT INFORMATION

<u>INGREDIENT</u>	<u>%WT</u>	<u>CAS</u>	<u>PEL</u>	<u>TLV/ACGIH</u>	<u>LD50</u>	<u>LD50</u>
COAL TAR PITCH VOLATILES	NA	65996-93-2	0.2mg/m ³	0.2mg/m ³	NAV	NAV
COAL TAR	40-70	8007-45-2	NAV	NAV	NAV	NAV
PETROLEUM HYDROCARBON (*)	10-30	68553-00-4	NAV	NAV	NAV	NAV

(*) NIOSH RECOMMENDS A LIMIT OF 100 mg/m³ - 10h TWA

HAZARDOUS INGREDIENT STATEMENT:

The product contains roofing tar which has components considered to be carcinogens or potential carcinogens under the requirements specified by OSHA 29 CFR 1910.120 paragraph d-4. Coal tar pitch volatiles, soots, tars, and oils are listed as a carcinogenic category by OSHA, the National Toxicology Program, and the International Agency for Research on Cancer. This product is combustible. It contains tar which has the following substances considered by the State of California as known to cause cancer: Benz(a) anthracene, Benzene, Benzo(b)fluoranthene, Benzo(j)fluoranthene, Benzo (k)fluoranthene, Benzo(a)pyrene, Dibenz(a,h)acridine, Dibenz(a,j)acridine, Dibenz(a,h)anthracene, 7H-

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Dibenzo(c,g)carbazole, Dibenzo(a,e)pyrene, Dibenzo(a,h)pyrene, Dibenzo(a,i)pyrene, Dibenzo(a,l)pyrene, Indenol(1,2,3-cd)pyrene, Creosote, Chrysene. Product contains also petroleum distillates. The above ingredients are on the Pennsylvania list of Hazardous and Special Hazardous Chemicals and are a subset of coal tar pitch volatiles that is listed as a special hazardous substance.

NAV=NOT AVAILABLE
NAP=NOT APPLICABLE

SECTION III PHYSICAL & CHEMICAL DATA

- 1.) BOILING POINT: 150°C+
- 2.) SP GRAVITY: 1.2
- 3.) MELTING POINT: NAP
- 4.) VAPOR PRESSURE: 5mg Hg at 20°C
- 5.) VAPOR DENSITY: <1 (where air = 1)
- 6.) EVAPORATION RATE: NAP
- 7.) SOL. IN WATER: Negligible
- 8.) PH: Neutral
- 9.) % VOLATILES: Less than 5%
- 10) FREEZING POINT: NAP

ODOR AND APPEARANCE: Black semi-liquid with strong coal tar odor.

SECTION IV FIRE AND EXPLOSION DATA

- 1.) FLASH POINT: >150°F PMCC
- 2.) AUTOIGNITION TEMP.: Unknown
- 3.) LEL: NAV
- 4.) LUL: NAV
- 5.) HAZARD CLASSIFICATION:
FLAMMABLE: 2
HEALTH: 3
REACTIVITY: 0
SPECIAL: 0
(0=MINIMAL; 1=SLIGHT; 2=MODERATE; 3=SERIOUS; 4=SEVERE; HMIS RATING)
- 6.) EXTINGUISHING MEDIA: Carbon dioxide, water fog, dry chemicals.

- 7.) SPECIAL FIRE FIGHTING PROCEDURES: Fire fighters should wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode. Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter, especially if sprayed into containers of hot, burning liquid. Normal fire fighters procedures may be used.
- 8.) UNUSUAL FIRE AND EXPLOSION HAZARD: Never use welding or cutting torch on or near drum (even empty). Product can ignite explosively.
- A) SENSITIVITY TO IMPACT: No
- B) SENSITIVITY TO STATIC DISCHARGE: Yes

 SECTION V REACTIVITY DATA

- 1.) STABILITY: 0 (0=MINIMAL; 1=SLIGHT; 2=MODERATE; 3=SERIOUS; 4=SEVERE; HMIS RATING)
- 2.) MATERIALS TO AVOID: Strong oxidizers
- 3.) HAZARDOUS DECOMPOSITION: CO, CO₂ and unidentified organic compounds
- 4.) WILL POLYMERIZATION OCCUR: No

 SECTION VI HEALTH HAZARD DATA

- A) 1. ROUTES OF ENTRY
- A. INHALATION: 4
- B. SKIN: 4
- C. INGESTION: 3
- D. EYES: 4
- (0=MINIMAL; 1=SLIGHT; 2=MODERATE; 3=SERIOUS; 4=SEVERE; HMIS RATING)
2. CARCINOGENICITY: Coal Tar Pitch and Aromatic Process oils are known to cause cancer.
3. ACUTE & CHRONIC HEALTH HAZARD: Coal tar vapors are irritating to skin, eyes and respiratory tract. Direct skin contact and/or high vapor concentrations may cause burning or itching, changes in pigmentation, and skin eruptions. Direct eye contact may cause inflammation, discomfort, conjunctivitis, and possible abrasion of the cornea. In general acute oral toxicity is considered to be moderate, but ingestion is not likely to be a primary route of exposure. Symptoms of systemic poisoning after ingestion may include salivation, vomiting, respiratory difficulties, dizziness, headache, loss of pupillary reflexes, cyanosis, hypothermia, and mild convulsions. Aspiration of material into the lungs may cause chemical pneumonia which may lead to permanent and irreversible lung damage and even be fatal
4. EFFECTS OF CHRONIC EXPOSURE: High vapor concentrations or chronic exposure to levels above the TLV may lead to systemic symptoms (see acute oral toxicity symptoms). Prolonged or

repeated contact may lead to dermatitis and with poor hygienic practices, to skin cancer. Prolonged exposure may cause cancer and affect heart, skin, eyes, lungs, liver, kidneys, spleen and nervous system.

5. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Persons with pre-existing skin disorders may be at increased risk from overexposure. Exposure to vapors may aggravate pre-existing lung or bronchial conditions.
6. IRRITANCY: Irritating to bronchial system, eyes, skin.
7. SENSITIZATION: Possibly to skin rashes.
8. REPRODUCTIVE TOXICITY: None known.
9. TERATOGENICITY: None known.
10. MUTAGENICITY: None known.
11. TOXICOLOGICABLE SYNERGISTIC PRODUCTS: None known.

B.) EMERGENCY AND FIRST AID PROCEDURES:

Inhalation: Remove from exposure area to fresh air immediately. If breathing has stopped, give artificial respiration. Keep affected person warm and at rest. Give oxygen if respiration is shallow. GET MEDICAL ATTENTION.

Skin: Wash exposed area twice with waterless hand cleaner, soap and water, or mild detergent. Do not use solvents on skin as they may promote absorption of this material. Get medical attention if irritation or pain persists after washing.

Eyes: Rinse immediately with large amount of water for at least 15 minutes, occasionally lifting the eyelids. GET MEDICAL ATTENTION.

Ingestion: Do not induce vomiting. Give oxygen if respiration is shallow. GET MEDICAL ATTENTION. Do not give anything by mouth to an unconscious person.

Decontamination Procedures: Use emergency shower if available. Remove all contaminated clothing to prevent further absorption. Wash all clothing and exposed areas of the body twice with soap and water. Leather shoes that have been saturated should be discarded.

SECTION VII SAFE HANDLING AND USE

1. HANDLING AND STORAGE PRECAUTIONS: Ventilation/Engineering Controls: All operations should be conducted in well ventilated conditions to maintain exposure below TLVs. Product usually applied outdoors.
Personal Protective Equipment: Maintain ventilation and provide NIOSH approved half-face piece filter/chemical cartridge respirator or full face continuous control flow, positive pressure air supplied respirator as necessary for protection from coal tar pitch volatiles. Impervious gloves and chemical goggles should be worn. Boots impervious coats, face shield where necessary.

Personal Hygiene Practices: Contact lenses should not be worn when handling this material. Do not smoke or eat in areas where this material is handled. Wash hands thoroughly before eating or smoking. A complete soap and water shower should be taken at the end of each work day. Contaminated clothes should not be reworn until cleaned.

Storage and Handling Precautions: Protect containers against physical damage. Outside or detached storage is preferable. Inside storage should be in standard flammable liquids storage room or cabinet if material is flammable or combustible.

Contaminated Equipment Repair/Maintenance Precautions: Wear protective equipment when performing maintenance on contaminated equipment.

2. STEPS TO BE TAKEN IF RELEASED OR SPILLED:

For 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 tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

For small spills absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material and transfer to a hood.

3. WASTE DISPOSAL:

Small spill: Wear protective equipment as necessary. Allow volatile portion to evaporate under a hood. Allow sufficient time for vapors to completely clear hood duct work. Dispose of remaining material in accordance with applicable regulations.

Large spill: Wear protective equipment as necessary. Destroy by liquid incineration in accordance with applicable regulations. Contaminated absorbent may be deposited in a landfill in accordance with local, state and federal regulations.

4. OTHER PRECAUTIONS: Personnel should avoid inhalation of vapors and personal contact with compound. Do not get the compound in the eyes or skin. When handling, this compound must be kept away from all sources of ignition. Have respirator available. May be harmful if swallowed or inhaled in large amounts.

SECTION VIII CONTROL OR PREVENTIVE MEASURES

1. VENTILATION: See Section VII
2. GLOVES: See Section VII
3. EYE PROTECTION: See Section VII
4. CLOTHING: See Section VII

SECTION IX PREPARATION DATA

1. PREPARED BY: Andry Scholem
2. DATE PREPARED: August 14, 1991
3. PHONE NO.: (216) 641-7500

AUG 12 1993

PENNSYLVANIA WORKER AND COMMUNITY RIGHT-TO-KNOW
NON-HAZARDOUS INGREDIENT INFORMATION

<u>INGREDIENT</u>	<u>%WT</u>	<u>CAS</u>	<u>PEL</u>	<u>TLV/ACGIH</u>	<u>LD50</u>	<u>LD50</u>
ATTAPULGITE CLAY:	5-15	12174-11-7	(NATURAL OCCURRING CHEMICAL SUBSTANCE)			
a) MAGNESIUM ALUMINUM SILICATE	4.5-15	12174-11-7	15mg/m3	10 mg/m3	NAV	NAV
			total nuisance dust	total dust		
			5mg/m3			
			respirable fraction			
b) SILICA, CRYSTALLINE (QUARTZ)	0.05-1.5	14808-60-7	0.1 mg/m3	0.1 mg/m3	NAV	NAV
			respirable	respirable		
MINERAL FILLER	5-15					
a) CALCIUM CARBONATE	4.2-13.2	1317-65-3	15 mg/m3	10 mg/m3	NAV	NAV
b) MAGNESIUM CARBONATE	0.5-1.9	546-93-0	none	none	NAV	NAV
c) SILICA (CRYSTALLINE)	<0.05-0.15	14808-60-7	2.5mg/m3(*)	2.5mg/m3(*)	NAV	NAV
			(*)respirable dust containing <2%SiO2			

EPA 313 SUPPLIER NOTIFICATION:

This product contains roofing tar which contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-know Act of 1986 and of 40 CFR 372:

CAS #	Chemical Name	% by weight
91-20-3	Naphtalene	5.20 - 7.15
92-52-4	Biphenyl	0.65 - 0.98
100-42-4	Styrene	0.13
108-95-2	Phenol	0.32 - 0.65
120-12-7	Anthracene	0.65 - 0.98
1300-71-6	Xylene	0.32 - 0.65
1319-77-3	Cresol	0.65 - 0.98

The Information herein is believed to be accurate but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need, that the information is current, applicable, and suitable to their circumstances.