

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	PES 181 ANTI ABRASION Wearing Compound - Hardener/Side B
Version #	3.0
Revision date	April 11, 2018
Company information	Plant Equipment & Services, Inc. 5401 Highway 21 West Bryan, TX 77803 ph: 979-779-8700 www.pes-solutions.com
Emergency	Chemtrec (800) 424-9300 International (703) 527-3887

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component(s)	CAS #	Percent
Benzyl Alcohol	100-51-6	< 20
Phenol	108-95-2	< 10
Triethylenetetramine	112-24-3	< 10
Non-hazardous and other components below reportable levels		> 60
Composition comments	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	

3. HAZARDS IDENTIFICATION

Emergency overview	May cause sensitization by inhalation. Irritating to respiratory system. Kidney injury may occur. Danger of serious damage to health by prolonged exposure. Toxic by inhalation, in contact with skin and if swallowed. May cause breathing disorders and lung damage. May cause liver damage. Causes skin and eye burns.
Potential short term health effects	
Eyes Skin	Toxic in contact with eyes. This product causes eye burns. Risk of serious damage to eyes.
Inhalation	Toxic in contact with skin. Causes skin burns.
Ingestion	Toxic by inhalation. May cause breathing disorders and lung damage. Irritating to respiratory system. May cause sensitization by inhalation.
Target organs	Toxic if swallowed. Do not ingest. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.
Main symptoms	Eyes. Kidney. Liver. Respiratory system. Skin. Liver injury may occur. Kidney injury may occur.

4. FIRST AID MEASURES

First aid	
Eye contact	Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately.
Skin contact	Get medical attention immediately. Remove and isolate contaminated clothing and shoes. Immediately flush skin with running water for at least 20 minutes. For minor skin contact, avoid spreading material on unaffected skin.
Inhalation	Call a physician or Poison Control Center immediately. Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately. If breathing is difficult, give oxygen. Get medical attention, if needed.
Ingestion	If material is ingested, immediately contact a physician or poison control center. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not use mouth-to-mouth method if victim ingested the substance.
Notes to physician	Symptoms may be delayed.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Immediate medical attention is required. Keep victim warm. In case of shortness of breath, give oxygen.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media	Carbon dioxide (CO ₂). Alcohol foam. Water spray. Water Fog. Polymer foam. Dry chemical powder.
Fire fighting equipment/instructions	Move containers from fire area if you can do it without risk. Do not scatter spilled material with high pressure water streams. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. ALWAYS stay away from tanks engulfed in flame. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. Cool containers with flooding quantities of water until well after fire is out.
Specific methods	In the event of fire, cool tanks with water spray. Water mist may be used to cool closed containers.
Flash point	220 oF (104.4 oC) Pensky-Martens Closed Cup

6. ACCIDENTAL RELEASE MEASURES

Evacuation procedures	Ventilate closed spaces before entering. Avoid inhalation of vapor, fumes, dust and/or mist from the spilled material. Stay upwind. Keep out of low areas. Keep unnecessary personnel away.
Containment procedures	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas. Use water spray to reduce vapors or divert vapor cloud drift.
Personal precautions	Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Ensure adequate ventilation. Use personal protective equipment. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for cleaning up	Avoid dust formation. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Dike far ahead of liquid spill for later disposal. Never return spills in original containers for re-use. Should not be released into the environment. Large Spills: Wet down with water and dike for later disposal. After removal flush contaminated area thoroughly with water.

7. HANDLING AND STORAGE

Handling	Do not breathe gas/fumes/vapor/spray. Do not get this material in your eyes, on your skin, or on your clothing. In case of insufficient ventilation wear suitable respiratory equipment. Do not handle or store near an open flame, heat or other sources of ignition. Surfaces may become slippery after spillage.
Storage	Keep out of the reach of children. Keep in a cool, well-ventilated place. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Do not freeze.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)		
Phenol	108-95-2	5 Ppm TWA
ACGIH - Threshold Limits Values - TLV Basis - Critical Effects		
Phenol	108-95-2	Irritation; CNS; blood
OSHA - Final PELs - Skin Notations		
Phenol	108-95-2	prevent or reduce skin absorption
OSHA - Final PELs - Time Weighted Averages (TWAs)		
Phenol	108-95-2	5 Ppm TWA; 19 mg/m ³ TWA

Personal protective equipment

Respiratory protection	A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. In case of insufficient ventilation wear suitable respiratory equipment.
Hand protection	Protective gloves.
Eye protection	Wear chemical goggles. Face-shield.
Skin and body protection	Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear appropriate chemical resistant gloves. Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent). Wear suitable protective clothing.

General	Structural firefighter's protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations. Avoid contact with the skin and the eyes.
Engineering measures to reduce exposure	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
Hygiene measures	Keep away from food and drink. Avoid contact with the skin and the eyes. Handle in accordance with good industrial hygiene and safety practice. When using do not smoke.

9. PHYSICAL & CHEMICAL PROPERTIES

Density	8 lb/gal
Form	Liquid.
Specific gravity	0.96

10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Stability	Stable at normal conditions.
Conditions to avoid	Direct sources of heat.
Incompatibility	Amines. Caustics. Isocyanates. Strong oxidizing agents. Will form explosive mixtures in air.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	Causes burns.
Local effects	Toxic by inhalation, in contact with skin and if swallowed. Liver toxicity. Irritating to respiratory system.

Component analysis - LD50

NIOSH - Selected LD50s and LC50s

Benzyl Alcohol	100-51-6	Oral LD50 Rat: 1230 mg/kg; Oral LD50 Mouse: 1360 mg/kg; Dermal LD50 Rabbit: 2 g/kg
Phenol	108-95-2	Oral LD50 Rat: 317 mg/kg; Oral LD50 Mouse: 270 mg/kg; Dermal LD50 Rabbit: 630 mg/kg
Triethylenetetramine	112-24-3	Oral LD50 Rat: 2500 mg/kg; Oral LD50 Mouse: 1600 mg/kg; Dermal LD50 Rabbit: 805 mg/kg

Sensitization May cause sensitization by inhalation.

Carcinogenicity

ACGIH - Threshold Limits Values - Carcinogens

Phenol 108-95-2 A4 - Not Classifiable as a Human Carcinogen

Chronic toxicity Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged or repeated exposure may cause lung injury.

Sub chronic toxicity Kidney injury may occur.

Further information Symptoms may be delayed.

Routes of exposure Inhalation. Skin contact. Ingestion.

12. ECOLOGICAL INFORMATION

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Environmental effects Harmful to aquatic life.

Ecotoxicity - Freshwater Fish Species Data

Benzyl Alcohol	100-51-6	96 Hr LC50 fathead minnow: 460 mg/L (Static); 96 Hr LC50 bluegill: 10 mg/L (Static)
Phenol	108-95-2	96 Hr LC50 fathead minnow: 24 mg/L (flow-through); 96 Hr LC50 rainbow trout: 8.9 mg/L (flow-through); 96 Hr LC50 bluegill: 23.88 mg/L (Static)
Ecotoxicity - Microtox Data		
Benzyl Alcohol	100-51-6	5 Min EC50 Photobacterium phosphoreum: 63.7 mg/L; 15 min EC50 Photobacterium phosphoreum: 63.7 mg/L; 30 min EC50 Photobacterium phosphoreum: 71.4 mg/L
Phenol	108-95-2	5 Min EC50 Photobacterium phosphoreum: 28.8 mg/L; 15 min EC50 Photobacterium phosphoreum: 31.6 mg/L
Ecotoxicity - Water Flea Data		
Benzyl Alcohol	100-51-6	48 Hr EC50 water flea: 23 mg/L
Phenol	108-95-2	48 Hr LC50 water flea: 23.0 mg/L

13. DISPOSAL CONSIDERATIONS

Disposal instructions Dispose in accordance with all applicable regulations. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

14. TRANSPORTATION INFORMATION

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

International Air Transport Association (IATA) Requirements

Not regulated as dangerous goods.

International Maritime Dangerous Goods (IMDG) Code Requirements

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

US federal regulations

CERCLA/SARA - Section 313 - Emission Reporting

Phenol 108-95-2 1.0 % de minimis concentration

Inventory - European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

Benzyl Alcohol	100-51-6	202-859-9
Phenol	108-95-2	203-632-7
Triethylenetetramine	112-24-3	203-950-6

Inventory - United States - Section 8(b) Inventory (TSCA)

Benzyl Alcohol	100-51-6	Present
Phenol	108-95-2	Present
Triethylenetetramine	112-24-3	Present

TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification

Phenol 108-95-2 Section 4

Occupational safety and health administration (OSHA)

29 CFR 1910.1200 Yes
hazardous chemical

CERCLA (superfund) reportable quantity

None

Superfund amendments and reauthorization act of 1986 (SARA)

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

NFPA ratings

Health: 3
Flammability: 1
Instability: 0

International regulations

Canada - 2004 NPRI (National Pollutant Release Inventory)

Phenol 108-95-2 Part 1, Group 1 Substance

Canada - WHMIS - Ingredient Disclosure List

Benzyl Alcohol	100-51-6	1 % (English Item 169, French Item 170)
Phenol	108-95-2	1 % (English Item 1261, French Item 1374)
Triethylenetetramine	112-24-3	0.1 % (English Item 1629, French Item 1669)

State regulations

Massachusetts - Right To Know List

Benzyl Alcohol	100-51-6	Present
Phenol	108-95-2	Extraordinarily hazardous
Triethylenetetramine	112-24-3	Present
New Jersey - Right to Know Hazardous Substance List		
Phenol	108-95-2	sn 1487
Triethylenetetramine	112-24-3	sn 1908
Pennsylvania - RTK (Right to Know) List		
Benzyl Alcohol	100-51-6	Present
Phenol	108-95-2	Environmental hazard
Triethylenetetramine	112-24-3	Present

16. OTHER INFORMATION

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release.

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