



Flammability: 1

Health: 2\*

Physical hazard: 0

# MATERIAL SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name PES 181 Anti Abrasion Wearing Compound - Resin/Side A  
Version # 3.0  
Revision date January 2011  
Company information Plant Equipment & Services, Inc.  
5401 Highway 21 West  
Bryan, TX 77803  
Emergency 979-779-8700 www.pes-solutions.com  
Chemtrec (800) 424-9300  
International (703) 527-3887

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Component(s)	CAS #	Percent
Aluminum oxide	1344-28-1	< 40
Benzyl Alcohol	100-51-6	< 2.5
Bisphenol-A-(Epichlorohydrin) polymer	25068-38-6	< 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 skin contact. Irritating to skin. Harmful in contact with eyes. Danger of serious damage to health by prolonged exposure. May cause breathing disorders and lung damage.

Potential short term health effects

- Eyes Contact may irritate or burn eyes. Eye contact may result in corneal injury.
- Skin Components of the product may be absorbed into the body through the skin. Irritating to skin. May cause sensitization by skin contact.
- Inhalation May cause breathing disorders and lung damage.
- Ingestion Do not ingest.

Target organs Eyes. Respiratory system. Skin.

## 4. FIRST AID MEASURES

First aid

- Eye contact Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention if irritation develops or persists.
- Skin contact Remove and isolate contaminated clothing and shoes. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Immediately flush skin with running water for at least 20 minutes.
- Inhalation If breathing is difficult, give oxygen. Move to fresh air. Get medical attention, if needed.
- Ingestion Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Drink plenty of water. Do not induce vomiting without medical advice.

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. Take off contaminated clothing and shoes immediately.

## 5. FIRE FIGHTING MEASURES

Suitable extinguishing media Small Fires: Dry chemical, CO2, water spray or regular foam.  
Large Fires: Water spray, fog or regular foam.

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.
Flash point	470 oF (243.3 oC) Pensky-Martens Closed Cup

## 6. ACCIDENTAL RELEASE MEASURES

Evacuation procedures	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.
Personal precautions	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.
Methods for cleaning up	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.

## 7. HANDLING AND STORAGE

Handling	Avoid contact with eyes. Do not get this material in contact with skin or eyes. Do not handle or store near an open flame, heat or other sources of ignition. Surfaces may become slippery after spillage.
Storage	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)

Aluminum oxide 1344-28-1 10 Mg/m<sup>3</sup> TWA (particulate matter containing no asbestos and < 1% crystalline silica)

ACGIH - Threshold Limits Values - TLV Basis - Critical Effects

Aluminum oxide 1344-28-1 lung; irritation

OSHA - Final PELs - Time Weighted Averages (TWAs)

Aluminum oxide 1344-28-1 15 Mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

### 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. Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection Wear appropriate chemical resistant clothing. Wear appropriate chemical resistant gloves. Wear suitable protective clothing.

General 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 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	21.322 lb/gal
Form	Liquid.
Specific gravity	2.5587

## 10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Stability	Stable at normal conditions.
Conditions to avoid	Direct sources of heat.
Incompatibility	None known.

## 11. TOXICOLOGICAL INFORMATION

Local effects Risk of serious damage to eyes. Components of the product may be absorbed into the body through the skin. Irritating to skin. May cause sensitization by skin contact.

### 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
Bisphenol-A-(Epichlorohydrin) polymer	25068-38-6	Oral LD50 Rat: 11400 mg/kg; Oral LD50 Mouse: 15600 mg/kg

Sensitization May cause sensitization by skin contact.

### Carcinogenicity

ACGIH - Threshold Limits Values - Carcinogens

Aluminum oxide	1344-28-1	A4 - Not Classifiable as a Human Carcinogen
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Chronic toxicity Prolonged or repeated exposure may cause lung injury.

Routes of exposure Skin contact.

## 12. ECOLOGICAL INFORMATION

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

### Environmental effects

Ecotoxicity - Freshwater Fish Species Data

Benzyl Alcohol Ecotoxicity - Microtox Data	100-51-6	96 Hr LC50 fathead minnow: 460 mg/L (Static); 96 Hr LC50 bluegill: 10 mg/L (Static)
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
Ecotoxicity - Water Flea Data		
Benzyl Alcohol	100-51-6	48 Hr EC50 water flea: 23 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

Aluminum oxide	1344-28-1	1.0 % de minimis concentration (fibrous form only)
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Inventory - European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

Aluminum oxide	1344-28-1	215-691-6
Benzyl Alcohol	100-51-6	202-859-9

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

Aluminum oxide	1344-28-1	Present
Benzyl Alcohol	100-51-6	Present
Bisphenol-A-(Epichlorohydrin) polymer	25068-38-6	XU

Occupational safety and health administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes
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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: 2  
 Flammability: 1  
 Instability: 0

International regulations

Canada - 2004 NPRI (National Pollutant Release Inventory)  
 Aluminum oxide 1344-28-1 Part 1, Group 1 Substance (fibrous form)  
 Canada - WHMIS - Ingredient Disclosure List

Aluminum oxide	1344-28-1	1 % (English Item 44, French Item 195)
Benzyl Alcohol	100-51-6	1 % (English Item 169, French Item 170)

State regulations

Massachusetts - Right To Know List

Aluminum oxide	1344-28-1	Present
Benzyl Alcohol	100-51-6	Present

New Jersey - Right to Know Hazardous Substance List

Aluminum oxide 1344-28-1 sn 2891

Pennsylvania - RTK (Right to Know) List

Aluminum oxide	1344-28-1	Environmental hazard
Benzyl Alcohol	100-51-6	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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