

# Safety Data Sheet

## PentraZen EP

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### PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: PentraZen EP  
SDS Number: 492885  
Revision Date: Mar 10, 2026  
Version: 4.0  
  
Supersedes Date: Jan 04, 2021  
  
Product Type: Foaming Rust Penetrant  
  
Supplier Details: Zenex International  
1 Zenex Circle  
Cleveland, OH 44146  
  
Phone: (440)-232-4155  
Emergency: 1-800-535-5053

**NOTE:** The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. We provide this information as guidance for providing personal protection to your employees. The user has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. The user must meet all applicable safety and health standards. We provide this information as guidance for providing personal protection to your employees.

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### HAZARDS IDENTIFICATION

#### GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Physical, Flammable Aerosols, 1  
Health, Aspiration hazard, 1  
Health, Skin corrosion/irritation, 2  
Health, Serious Eye Damage/Eye Irritation, 2A  
Health, Specific target organ toxicity - Single exposure, 3

#### GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

#### GHS Hazard Pictograms:



#### GHS Hazard Statements:

H222 - Extremely flammable aerosol.  
H229 - Pressurized container; may burst if heated.  
H304 - May be fatal if swallowed and enters airways.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H336 - May cause drowsiness or dizziness.

#### GHS Precautionary Statements:

P101 - If medical advice is needed, have product container or label at hand.  
P102 - Keep out of reach of children.  
P103 - Read carefully and follow all instructions.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211 - Do not spray on an open flame or other ignition source.  
P251 - Do not pierce or burn, even after use.  
P261 - Avoid breathing mist, vapors or spray.  
P264 - Wash skin thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves, protective clothing, eye protection and face protection.  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P331 - Do NOT induce vomiting.

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P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
 P332 + P313 - If skin irritation occurs: Get medical attention.  
 P362 - Take off contaminated clothing and wash before reuse.  
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 - If eye irritation persists: Get medical attention.  
 P312 - Call a POISON CENTER or doctor if you feel unwell.  
 P403 + P405 Store in a well-ventilated place. Store locked up.  
 P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
 P501 - Dispose of contents and container in accordance with local, regional, national and international regulations.

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### COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Ingredients:		
CAS#	%	Chemical Name:
68476-86-8	15-25%	Petroleum gases, liquefied, sweetened
64742-52-5	50-60%	Distillates, petroleum, hydrotreated heavy naphthenic
141-78-6	1-4%	Acetic acid ethyl ester
8008-20-6	15-25%	Kerosene

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### FIRST AID MEASURES

Inhalation: Remove exposed individual to fresh air, protecting yourself. Restore breathing if necessary. Contact a physician.  
 Skin Contact: Wash with soap and water. Remove any contaminated clothing and launder before reusing. If irritation persists, seek medical attention.  
 Eye Contact: Flush with warm water for 15 minutes. Seek medical attention.  
 Ingestion: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

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### FIRE FIGHTING MEASURES

Flash Point: Flash point of propellant <0 degrees F.  
 LEL: Lower: 3.4 % (VOL.) Gas in air (propellant portion)  
 UEL: Upper: 18 % (VOL.) Gas in air (propellant portion)  
 Extinguishing Media: Dry chemical, carbon dioxide, halon, or foam is recommended. Water spray may be used to cool containers or structures. Halon may decompose into toxic materials and carbon dioxide will displace oxygen, take proper precautions when using these materials.  
 Unusual Fire & Explosion Hazards: This material may be ignited by extreme heat, sparks, flames or other ignition sources (static electricity). Vapors are heavier than air and will collect in low areas (sewers) or travel considerable distances. If containers are not cooled in a fire, they may rupture and ignite.  
 Special Fire Fighting Procedures: At elevated temperatures (over 130F) aerosol container may burst, vent or rupture; use equipment or shielding to protect personnel. Cooling exposed containers with streams of water may be helpful. Emergency responders should wear self-contained breathing apparatus. Wear other protective gear as conditions warrant. Keep unauthorized people out and try to contain spills or leaks if it can be done safely. Material will float on water, avoid spreading the fire.

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### ACCIDENTAL RELEASE MEASURES

Spill or Leak Instructions

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Contain spill with dikes of soil or nonflammable absorbent to minimize contaminated area. Avoid run-off into storm sewers and ditches leading to waterways. If required, notify state and local authorities. Place leaking containers in well-ventilated area. Clean up small spills by using a nonflammable absorbent or flushing sparingly with water. Contain larger spills with nonflammable diking or absorbent. Clean up by vacuuming or sweeping. Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Assess the spill situation, as the spill may not evolve large amounts of hazardous airborne contaminants in many outdoor spill situations. It may be advisable in some cases to simply monitor the situation until spilled product is removed.

### 7 HANDLING AND STORAGE

**Handling Precautions:** Store below 120°F in cool, dry area, out of direct sunlight and away from strong oxidizers. Do not puncture or burst. Use in accordance with good work place practices. Use with adequate ventilation. Keep containers closed when not in use. Always open containers slowly to allow any excess pressure to vent. Avoid breathing vapor. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Decontaminate soiled clothing thoroughly before re-use. Destroy contaminated leather clothing.

Empty containers may contain residues from the product. Treat empty containers with the same precautions as the material last contained. Do not cut, weld or apply heat to empty containers Do not incinerate

**Storage Requirements:** Store in a cool, dry area, away form heat or direct sunlight. Keep containers closed when not in use. Do not store with incompatible materials

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** General or dilution ventilation is frequently sufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Use a NIOSH approved respirator if ventilation is not adequate to maintain exposures below TLV levels.

**Personal Protective Equipment:** Protective Equipment:  
Use synthetic gloves if necessary to prevent excessive skin contact. Do not wear contacts and always use ANSI approved safety glasses or splash shield.

**Engineering Controls:**  
General or dilution ventilation is frequently sufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Use a NIOSH approved respirator if ventilation is not adequate to maintain exposures below TLV levels.

**Respiratory Protection:**  
Use adequate ventilation to maintain exposure limits. If the exposure limits of the products or any of its components is exceeded, an approved organic vapor mask should be used (consult your safety equipment supplier). Above exposure levels an approved self-contained breathing apparatus or airline respirator with full face-piece is required

**Other Suggested Equipment:**  
Eye wash station and emergency showers should be available. Spill containment equipment should be available.

**Discretion Advised:**  
We take no responsibility for determining what measures are required for personal protection in any specific application. The general information should be used with discretion.

Acetic acid ethyl ester cas#:(141-78-6) [1-4%]

Components with workplace control parameters

TWA 400 ppm USA. ACGIH Threshold Limit Values  
(TLV)

Eye & Upper Respiratory Tract irritation

TWA 400 ppm USA. OSHA - TABLE Z-1 Limits for

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1,400 mg/m3      Air Contaminants - 1910.1000

TWA      400 ppm      USA. Occupational Exposure Limits  
 1,400 mg/m3      (OSHA) - Table Z-1 Limits for Air  
    Contaminants

The value in mg/m3 is approximate.

TWA      400 ppm      USA. NIOSH Recommended  
 1,400 mg/m3      Exposure Limits

Kerosene cas#:(8008-20-6) [15-25%]

Components with workplace control parameters

TWA      200 mg/m3      USA. ACGIH Threshold Limit Values  
    (TLV)

Central Nervous System impairment

Upper Respiratory Tract irritation

Skin irritation

Application restricted to conditions in which there are negligible aerosol exposures

Confirmed animal carcinogen with unknown relevance to humans

Danger of cutaneous absorption

varies

TWA      100 mg/m3      USA. NIOSH Recommended  
    Exposure Limits

A refined petroleum solvent (predominantly C9-C16), which typically is 25% normal paraffins, 11% branched paraffins, 30% monocycloparaffins, 12% dicycloparaffins, 1% tricycloparaffins, 16% mononuclear aromatics & 5% dinuclear aromatics.

TWA      400 ppm      USA. OSHA - TABLE Z-1 Limits for  
 1,600 mg/m3      Air Contaminants - 1910.1000

### 9      PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Opaque Spray	<b>Odor:</b>	Petroleum
<b>Boiling Point:</b>	Liquid Portion: 360F	<b>Solubility:</b>	Insoluble in water
<b>Flammability:</b>	Extremely Flammable Aerosol	<b>Flash Point:</b>	Liquid Portion: 120F
<b>Vapor Pressure:</b>	>30 psi	<b>Vapor Density:</b>	>1 Air = 1
<b>Evap. Rate:</b>	>1 (n-Butyl Acetate = 1)	<b>VOC:</b>	20%

### 10      STABILITY AND REACTIVITY

**Chemical Stability:**      Stable

**Conditions to Avoid:**      Heat, spark, and open flame.

**Materials to Avoid:**      Strong Oxidizing Agents.

**Hazardous Decomposition:**      Depending on conditions, decomposition products may include the following materials: carbon oxides, halogenated compounds, carbon halides, hydrogen chloride, and possible traces of phosgene.

**Hazardous Polymerization:**      Will not occur.

### 11      TOXICOLOGICAL INFORMATION

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### Information on toxicological effects

#### Acute toxicity:

LD50 Oral - rat - 5,620 mg/kg

LC50 Inhalation - mouse - 2 h - 45,000 mg/m<sup>3</sup>

LD50 Dermal - rabbit - > 18,000 mg/kg

no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

#### Carcinogenicity:

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

#### Additional Information:

RTECS: AH5425000

Central nervous system depression, Drowsiness, narcosis, anemia  
Kidney - Irregularities - Based on Human Evidence

Kerosene cas#:(8008-20-6) [15-25%]

### Information on toxicological effects

#### Acute toxicity:

LD50 Oral - rabbit - 2,835 mg/kg Remarks: Behavioral:Muscle weakness. Lungs, Thorax, or Respiration:Respiratory stimulation.

Endocrine:Hypoglycemia.

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation: Skin - rabbit Result: Irritating to skin. - 24 h (Draize Test)

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

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### Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: Inhalation - Respiratory system

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: May be fatal if swallowed and enters airways.

### Additional Information:

RTECS: OA5500000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Severely Hydrotreated Heavy Naphthenic Petroleum Oil cas#(64742-52-5)

Acute Toxicity: Tests on similar materials show a low order of acute oral and dermal toxicity.

Acute Oral Effects: Tests on similar materials indicate low order of acute oral toxicity.

Acute Inhalation Effects: Low acute toxicity expected on inhalation.

Eye Irritation: Minimal irritation on contact. Eye irritation slight or practically non-irritating based on similar products. Skin Effects: Practically non-toxic if absorbed. Other similar highly refined products have not shown skin tumors in mouse skin painting studies.

Skin Irritation: May cause mild irritation with prolonged and repeated exposure.

Skin Sensitization: Skin sensitization is indicated as non-sensitizing based on data from similar products.

### Carcinogenicity:

Skin: Not considered a potential carcinogen based on IP346 DMSO of less than 3.0 wt%.

Genotoxicity: This product is considered non-mutagenic and has negative potential for tumor development based on results from Modified Ames Assay, with Mutagenic Index of less than 1.0.

This product is severely hydrotreated at greater than 800 psi, and does not require a cancer warning under OSHA Hazard Communication Standard (29 CFR 1910.1200). Similar products have not been listed in NTP reports, and are classified by IARC as having inadequate evidence of carcinogenicity. IARC indicates that based on preponderance of data highly refined mineral oils are not mutagenic either in vitro or in vivo. Severely hydrotreated naphthenic petroleum oils have not been found to be carcinogenic or potential carcinogens.

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)

Repeated skin contact with this product may cause dermatitis or an oil acne.

No test data available on product.

LD50 / LC50 - No data available

Sensitization None known.

Germ Cell Mutagenicity None known.

Carcinogenicity None known

Reproductive toxicity None known.

Specific target organ systemic toxicity (single exposure) None known.

Specific target organ systemic toxicity (repeated exposure) None known.

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## ECOLOGICAL INFORMATION

Acetic acid ethyl ester cas#:(141-78-6) [1-4%]

Information on ecological effects

### Toxicity:

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 350.00 - 600.00 mg/l - 96 h.

LC50 - Pimephales promelas (fathead minnow) - 220.00 - 250.00 mg/l - 96 h

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 2,300.00 - 3,090.00 mg/l - 24 h.

other aquatic invertebrates

LC50 - Daphnia magna (Water flea) - 560 mg/l - 48 h

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Toxicity to algae EC50 - Algae - 4,300.00 mg/l - 24 h.  
EC50 - SELENASTRUM - 1,800.00 - 3,200.00 mg/l - 72 h

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

Kerosene cas#:(8008-20-6) [15-25%]

Information on ecological effects

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

no data available

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#### DISPOSAL CONSIDERATIONS

Do not puncture or burn containers. Give empty, leaking, or full containers to disposal service equipped to handle and dispose of aerosol (pressurized) containers. Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste. See Section 9 - Physical and Chemical Properties.

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#### TRANSPORT INFORMATION

Aerosols (limited quantity),  
Class 2.1, ERG 126

AIR (IATA)  
Aerosols (limited quantity),  
Class 2.1, ERG 126, UN No. 1950

Vessel  
Aerosol (Limited Quantity), Class 2.1, UN No 1950

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**15****REGULATORY INFORMATION**

[%] RQ (CAS#) Substance - Reg Codes

[15-25%] Petroleum gases, liquefied, sweetened (68476-86-8) TSCA

[<0.2%] Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0) NJHS, TSCA

[50-60%] Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5) NJHS, TSCA

[<0.2%] Molybdenum sulfide (MoS<sub>2</sub>) (1317-33-5) TSCA

[1-4%] Acetic acid ethyl ester (141-78-6) CERCLA, MASS, OSHAWAC, PA, TOXICRCRA, TSCA, TXAIR, TXHWL

[15-25%] Kerosene (8008-20-6) MASS, PA, TSCA

[<0.5%] Fatty acids, tall-oil, reaction products with diethanolamine (68153-57-1) TSCA

[<0.15%] RQ(100LBS), Diethanolamine (111-42-2) CERCLA, GADSL, HAP, MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TXAIR

[<0.15%] RQ(100LBS), Naphthalene (91-20-3) CERCLA, CSWHS, EPCRAWPC, GADSL, HAP, MASS, NJHS, OSHAWAC, PA, PRIPOL, SARA313, TOXICPOL, TOXICRCRA, TSCA, TXAIR, TXHWL

**WARNING**

This product can expose you to chemicals including Diethanolamine, and Naphthalene, which are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## Regulatory Code Legend

RQ = Reportable Quantity

TSCA = Toxic Substances Control Act

NJHS = NJ Right-to-Know Hazardous Substances

CERCLA = Superfund clean up substance

MASS = MA Massachusetts Hazardous Substances List

OSHA = OSHA Workplace Air Contaminants

PA = PA Right-To-Know List of Hazardous Substances

TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)

TXAIR = TX Air Contaminants with Health Effects Screening Level

TXHWL = TX Hazardous Waste List

GADSL = Global Automotive Declarable Substance List (GADSL)

HAP = Hazardous Air Pollutants

SARA313 = SARA 313 Title III Toxic Chemicals

CSWHS = Clean Water Act Hazardous substances

EPCRAWPC = EPCRA Water Priority Chemicals

PRIPOL = Clean Water Act Priority Pollutants

TOXICPOL = Clean Water Act Toxic Pollutants

**16****OTHER INFORMATION**

# Safety Data Sheet

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**NFPA:** Health = 2, Fire = 3, Reactivity = 0, Specific Hazard = n/a

**HMIS III:** Health = 2, Fire = 3, Physical Hazard = 0



HMIS	
HEALTH	<input type="checkbox"/> 2
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	<input type="checkbox"/>

### Note:

The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. We make no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. This material may be released from gas, liquid, or solid materials made directly or indirectly from it. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards. Possession of an SDS does not indicate that the possessor of the SDS was a purchaser or user of the subject product.

Revision Date: Mar 10, 2026