

# MATERIAL SAFETY DATA SHEET

2112C Fuel Injection Cleaner

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** 2112C Fuel Injection Cleaner  
**Product Use:** Cleaner.  
**Manufacturer/Supplier:** The Penray Companies Inc.  
440 Denniston Court  
Wheeling, IL, 60090  
**Phone Number:** 847-459-5000  
**Emergency Phone:** 800-752-7869  
**Date of Preparation:** June 9, 2012

## Section 2: HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

CAUTION

COMBUSTIBLE LIQUID. HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION. HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED.

**Potential Health Effects:** See Section 11 for more information.

**Likely Routes of Exposure:** Skin contact, skin absorption, eye contact, inhalation, and ingestion.

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** Harmful if swallowed. May cause stomach distress, nausea or vomiting.  
Harmful: may cause lung damage if swallowed.

**Inhalation:** May cause respiratory tract irritation. This product may be aspirated into the lungs and cause chemical pneumonitis.

**Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation.

**Signs and Symptoms:** Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Vapours may cause drowsiness and dizziness.

**Medical Conditions Aggravated By Exposure:** Asthma. Allergies.

**Target Organs:** Skin, eyes, gastrointestinal tract and respiratory system.

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Potential Environmental Effects:** May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.

## Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	Wt. %
Kerosene	8008-20-6	60 - 100
Light aromatic solvent naphtha (petroleum) (C8 to C10)	64742-95-6	1 - 5

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## Section 4: FIRST AID MEASURES

- Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.
- Skin Contact:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
- Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
- General Advice:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).
- Note to Physicians:** Symptoms may not appear immediately.

## Section 5: FIRE FIGHTING MEASURES

**Flammability:** Combustible by WHMIS/OSHA criteria.

**Means of Extinction:**

**Suitable Extinguishing Media:** Powder, water spray, foam, carbon dioxide.

**Unsuitable Extinguishing Media:** Not available.

**Products of Combustion:** May include, and are not limited to: oxides of carbon.

**Explosion Data:**

**Sensitivity to Mechanical Impact:** Not available.

**Sensitivity to Static Discharge:** Not available.

**Protection of Firefighters:** Containers may explode when heated. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## Section 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

**Environmental Precautions:** Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

**Methods for Containment:** Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

**Methods for Clean-Up:** Soak into absorbent material. Spills of this material are a slipping hazard. Thoroughly wash the area with water after a spill or leak. Allow gas to dissipate harmlessly into the atmosphere.

**Other Information:** Not available.

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## Section 7: HANDLING AND STORAGE

### Handling:

Keep away from sources of ignition. No smoking. Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Use only in well-ventilated areas. Handle and open container with care. When using do not eat or drink. Wash hands before eating, drinking, or smoking.

### Storage:

Keep out of the reach of children. Keep container tightly closed. Do not store at temperatures above 49 °C / 120 °F.

## Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

Ingredient	Exposure Limits	
	OSHA-PEL	ACGIH-TLV
Kerosene	Not available.	200 mg/m <sup>3</sup>
Light aromatic solvent naphtha (petroleum) (C8 to C10)	5 mg/m <sup>3</sup> (mist)	5 mg/m <sup>3</sup> (mist)

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

### Personal Protective Equipment:

**Eye/Face Protection:** Wear eye/face protection.

**Hand Protection:** Wear suitable gloves.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment.

**General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear.
<b>Colour:</b>	Amber.
<b>Odour:</b>	Petroleum odour.
<b>Odour Threshold:</b>	Not available.
<b>Physical State:</b>	Liquid.
<b>pH:</b>	Not available.
<b>Viscosity:</b>	Not available.
<b>Freezing Point:</b>	Not available.
<b>Boiling Point:</b>	~ 160 °C (~ 320 °F)
<b>Flash Point:</b>	~ 40 - 43.9 °C (~ 104 - 111.02 °F)
<b>Evaporation Rate:</b>	> 1 (Water = 1)
<b>Lower Flammability Limit:</b>	Not available.
<b>Upper Flammability Limit:</b>	Not available.

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<b>Vapor Pressure:</b>	< 5 mmHG
<b>Vapor Density:</b>	> 1 (Air = 1)
<b>Specific Gravity:</b>	0.81 - 0.91
<b>Solubility in Water:</b>	Insoluble.
<b>Coefficient of Water/Oil Distribution:</b>	Not available.
<b>Auto-ignition Temperature:</b>	Not available.
<b>Percent Volatile, wt. %:</b>	Not available.
<b>VOC content, wt. %:</b>	100%

## Section 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal storage conditions. Keep in a cool place.

**Conditions of Reactivity:** Heat. Incompatible materials.

**Incompatible Materials:** Oxidizers.

**Hazardous Decomposition Products:** May include, and are not limited to: oxides of carbon.

**Possibility of Hazardous Reactions:** No dangerous reaction known under conditions of normal use.

## Section 11: TOXICOLOGY INFORMATION

### EFFECTS OF ACUTE EXPOSURE

#### Component Analysis

Ingredient	LD <sub>50</sub> (oral)	LC <sub>50</sub>
Kerosene	> 5000 mg/kg, rat	> 5.28 mg/L 4hr, rat > 5.2mg/L 4hr, rat;
Light aromatic solvent naphtha (petroleum) (C8 to C10)	8400 mg/kg, rat	3400 ppm 4hr, rat

**Eye:** May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Skin:** May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Ingestion:** Harmful if swallowed. May cause stomach distress, nausea or vomiting. Harmful: may cause lung damage if swallowed.

**Inhalation:** May cause respiratory tract irritation. This product may be aspirated into the lungs and cause chemical pneumonitis. Vapours may cause drowsiness and dizziness.

### EFFECTS OF CHRONIC EXPOSURE

**Target Organs:** Not available.

**Chronic Effects:** Not hazardous by WHMIS/OSHA criteria.

**Carcinogenicity:** Not hazardous by WHMIS/OSHA criteria.

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen *
Kerosene	G-A3
Light aromatic solvent naphtha (petroleum) (C8 to C10)	Not listed.

\* See Section 15 for more information.

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**Mutagenicity:** Not hazardous by WHMIS/OSHA criteria.

**Reproductive Effects:** Not hazardous by WHMIS/OSHA criteria.

**Developmental Effects:**

**Teratogenicity:** Not hazardous by WHMIS/OSHA criteria.

**Embryotoxicity:** Not hazardous by WHMIS/OSHA criteria.

**Respiratory Sensitization:** Not hazardous by WHMIS/OSHA criteria.

**Skin Sensitization:** Not hazardous by WHMIS/OSHA criteria.

**Toxicologically Synergistic Materials:** Not available.

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** May cause long-term adverse effects in the aquatic environment.

**Persistence / Degradability:** Not available.

**Bioaccumulation / Accumulation:** Not available.

**Mobility in Environment:** Not available.

## Section 13: DISPOSAL CONSIDERATIONS

**Disposal Instructions:**

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

## Section 14: TRANSPORTATION INFORMATION

**DOT Classification**

ORM-D

**TDG Classification**

Limited Quantity

## Section 15: REGULATORY INFORMATION

**Federal Regulations**

**Canada:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**US:** MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200).

**SARA Title III**

Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Kerosene	Not listed.	Not listed.	Not listed.	Not listed.
Light aromatic solvent naphtha (petroleum) (C8 to C10)	Not listed.	Not listed.	Not listed.	Not listed.

**State Regulations**

**California Proposition 65:**

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

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## Global Inventories

### Ingredient

Kerosene  
Light aromatic solvent naphtha (petroleum) (C8 to C10)

Canada DSL/NDL	USA TSCA
DSL	Yes.
DSL	Yes.

## HMIS - Hazardous Materials Identification System

Health - 1      Flammability - 2      Physical Hazard - 0      PPE - B

## NFPA - National Fire Protection Association:

Health - 1      Fire - 2      Reactivity - 0

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

## WHMIS Classification(s):

Class B3 - Combustible Liquid  
Class D2B - Skin/Eye Irritant

## WHMIS Hazard Symbols:



## SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

**OSHA (O)** Occupational Safety and Health Administration.

**ACGIH (G)** American Conference of Governmental Industrial Hygienists.

A1 - Confirmed human carcinogen.  
A2 - Suspected human carcinogen.  
A3 - Animal carcinogen.  
A4 - Not classifiable as a human carcinogen.  
A5 - Not suspected as a human carcinogen.

**IARC (I)** International Agency for Research on Cancer.

1 - The agent (mixture) is carcinogenic to humans.  
2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.  
2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.  
3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.  
4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

**NTP (N)** National Toxicology Program.

1 - Known to be carcinogens.  
2 - Reasonably anticipated to be carcinogens.

## Section 16: OTHER INFORMATION

### Disclaimer:

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

**Expiry Date:** June 9, 2015

**Version #:** 2.0

**Prepared by:** Nexreg Compliance Inc.  
Phone: (519) 488-5126  
[www.nexreg.com](http://www.nexreg.com)

### SECTION 1: Identification

#### 1.1. Product identifier

Product name : 2312C  
Product code : PENRAY INTAKE VALVE CLEANER

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Fuel System cleaner

#### 1.3. Details of the supplier of the safety data sheet

##### Manufacturer

The Penray Companies, Inc.  
440 Denniston Ct.  
60090 Wheeling, IL  
T (800) 373-6729  
[rotto@penray.com](mailto:rotto@penray.com)

#### 1.4. Emergency telephone number

Emergency number : (800) 373-6729  
CHEMTREC (800) 424-9300  
CHEMTREC International +1 (703) 527-3887 24 hr

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-CA classification

Flam. Liq. 2 H225  
Skin Irrit. 2 H315  
Carc. 2 H351  
Repr. 2 H361  
STOT SE 3 H336  
STOT RE 2 H373  
Asp. Tox. 1 H304

#### 2.2. Label elements

##### GHS-CA labelling

Hazard pictograms (GHS-CA) :



Signal word (GHS-CA) :

Danger

Hazard statements (GHS-CA) :

H225 - Highly flammable liquid and vapour  
H315 - Causes skin irritation  
H351 - Suspected of causing cancer  
H361 - Suspected of damaging fertility or the unborn child  
H336 - May cause drowsiness or dizziness  
H373 - May cause damage to organs through prolonged or repeated exposure  
H304 - May be fatal if swallowed and enters airways

Precautionary statements (GHS-CA) :

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P233 - Keep container tightly closed  
P240 - Ground/bond container and receiving equipment  
P241 - Use explosion-proof electrical/ventilating/lighting equipment  
P242 - Use only non-sparking tools  
P243 - Take precautionary measures against static discharge  
P260 - Do not breathe dust/fume/gas/mist/vapours/spray  
P264 - Wash hands, forearms and face thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P308+P313 - IF exposed or concerned: Get medical advice/attention  
P303+P361+P364+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water  
P332+P313 - If skin irritation occurs: Get medical advice/attention  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P312 - Call a POISON CENTER or doctor if you feel unwell

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according to the Hazardous Products Regulations (HPR) WHMIS 2015

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor  
P331 - Do NOT induce vomiting  
P403+P235 - Store in a well-ventilated place. Keep cool  
P405 - Store locked up  
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS-CA)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%
Xylene	(CAS No) 1330-20-7	87.36
Ethylbenzene	(CAS No) 100-41-4	26.19
Toluene	(CAS No) 108-88-3	11.72

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : May cause drowsiness, dizziness and central nervous system depression. May cause respiratory tract irritation.

Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

### 4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Powder, water spray, foam, carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon, aldehydes, hydrocarbons.

Reactivity : No dangerous reaction known under conditions of normal use.

### 5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Use water spray to keep fire-exposed containers cool.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

### 6.2. Environmental precautions

No additional information available



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according to the Hazardous Products Regulations (HPR) WHMIS 2015

### 6.3. Methods and material for containment and cleaning up

- For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

### 6.4. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. Use only non-sparking tools. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Store locked up. Keep cool. Keep away from heat, sparks, and flame.

### 7.3. Specific end use(s)

Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Xylene (1330-20-7)		
ACGIH	ACGIH TWA (ppm)	100 ppm
ACGIH	ACGIH STEL (ppm)	150 ppm
Ethylbenzene (100-41-4)		
ACGIH	ACGIH TWA (ppm)	20 ppm
IDLH	US IDLH (ppm)	800 ppm (10% LEL)
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	435 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	545 mg/m <sup>3</sup>
NIOSH	NIOSH REL (STEL) (ppm)	125 ppm
Toluene (108-88-3)		
ACGIH	ACGIH TWA (ppm)	20 ppm
IDLH	US IDLH (ppm)	500 ppm
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	375 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	560 mg/m <sup>3</sup>
NIOSH	NIOSH REL (STEL) (ppm)	150 ppm

### 8.2. Exposure controls

- Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
- Hand protection : Wear chemically resistant protective gloves.
- Eye protection : Safety glasses or goggles are recommended when using product.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : A NIOSH approved respirator is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Environmental exposure controls : Maintain levels below Community environmental protection thresholds.
- Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear

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according to the Hazardous Products Regulations (HPR) WHMIS 2015

Colour	: Amber
Odour	: Petroleum odour
Odour threshold	: No data available
pH	: No data available
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 22 °C (~ 71 °F)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable
Vapour pressure	: No data available
Vapour pressure at 50 °C	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0.864 - 0.869
Relative density of saturated gas/air mixture	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, kinematic (calculated value) (40 °C)	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2. Chemical stability

Stable under normal storage conditions. May form flammable/explosive vapour-air mixture.

### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4. Conditions to avoid

Heat. Incompatible materials. Open flame.

### 10.5. Incompatible materials

Acids. Bases. Strong oxidizing agents.

### 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon, aldehydes, hydrocarbons.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified.

2312C	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 20 mg/l/4h

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according to the Hazardous Products Regulations (HPR) WHMIS 2015

<b>Xylene (1330-20-7)</b>	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	> 4350 mg/kg
LC50 inhalation rat	29.08 mg/l/4h
<b>Ethylbenzene (100-41-4)</b>	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	15400 mg/kg
LC50 inhalation rat	17.2 mg/l/4h
<b>Toluene (108-88-3)</b>	
LD50 oral rat	2600 mg/kg
LD50 dermal rabbit	12000 mg/kg
LC50 inhalation rat	12.5 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Suspected of causing cancer.

<b>Xylene (1330-20-7)</b>	
IARC group	3 - Not classifiable
<b>Ethylbenzene (100-41-4)</b>	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity
<b>Toluene (108-88-3)</b>	
IARC group	3 - Not classifiable

Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation	: May cause drowsiness, dizziness and central nervous system depression. May cause respiratory tract irritation.
Symptoms/injuries after skin contact	: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: May cause long-term adverse effects in the aquatic environment.
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### 12.2. Persistence and degradability

<b>2312C</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>2312C</b>	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations	: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.
Additional information	: Handle empty containers with care because residual vapours are flammable.

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according to the Hazardous Products Regulations (HPR) WHMIS 2015

### SECTION 14: Transport information

#### Transportation of Dangerous Goods (TDG)

In accordance with TDG

UN-No. (TDG) : UN3295  
Proper Shipping Name (Transportation of Dangerous Goods) : HYDROCARBONS, LIQUID, N.O.S. (Xylene, Ethylbenzene, Toluene)  
TDG Primary Hazard Classes : 3  
Hazard labels (TDG) :



Packing group : II

### SECTION 15: Regulatory information

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

### SECTION 16: Other information

Date of issue : 09/09/2016  
Revision date : 09/09/2016  
Indication of changes : None.  
Other information : None.

*Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.*

# MATERIAL SAFETY DATA SHEET

## PENRAY MOTOR PEP

### Section 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** PENRAY MOTOR PEP  
**Product Number:** 3016C  
**Product Use:** Tune-up treatment.  
**Manufacturer/Supplier:** The Penray Companies, Inc.  
440 Denniston Ct.  
Wheeling, IL 60090  
**Phone Number:** 847-459-5000  
**Emergency Phone:** Adverse Medical: 1-800-752-7869  
CHEMTREC 1-800-424-9300  
CHEMTREC International 703-527-3887 (collect)  
CANUTEC (Canada only) 613-996-666, or \*666 on cellular phone  
**Date of Preparation:** April 30, 2014

### Section 2: HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

CAUTION

COMBUSTIBLE LIQUID. HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION. HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED.

**Potential Health Effects:** See Section 11 for more information.

**Likely Routes of Exposure:** Skin contact, eye contact, inhalation, and ingestion.

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** Harmful if swallowed. May cause stomach distress, nausea or vomiting.  
Harmful: may cause lung damage if swallowed.

**Inhalation:** May cause respiratory tract irritation. This product may be aspirated into the lungs and cause chemical pneumonitis.

**Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation.

**Signs and Symptoms:** Symptoms may include discomfort or pain, excess blinking and tear production. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Medical Conditions Aggravated By Exposure:** Asthma. Allergies.

**Target Organs:** Skin, eyes, gastrointestinal tract, respiratory system.

**Potential Environmental Effects:** May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	Wt. %
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	40 - 70
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	30 - 60
Phenol, (tetrapropenyl) derivs., calcium salts	132752-19-3	0.1 - 1
Phenol, (tetrapropenyl) derivs.	74499-35-7	0.1 - 1

# MATERIAL SAFETY DATA SHEET

## PENRAY MOTOR PEP

### Section 4: FIRST AID MEASURES

**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

**Skin Contact:** In case of contact, immediately flush skin with plenty of soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

**Inhalation:** If inhaled, remove person to fresh air and keep them in a position comfortable for breathing. Get medical attention if condition worsens.

**Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Rinse mouth. Seek medical attention or call poison control immediately.

**General Advice:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).

**Note to Physicians:** Symptoms may not appear immediately.

### Section 5: FIRE FIGHTING MEASURES

**Flammability:** Combustible by WHMIS criteria.

**Means of Extinction:**

**Suitable Extinguishing Media:** Powder, foam, carbon dioxide, water fog.

**Unsuitable Extinguishing Media:** Do not use a direct stream of water.

**Products of Combustion:** May include, and are not limited to: oxides of carbon.

**Explosion Data:**

**Sensitivity to Mechanical Impact:** Not available.

**Sensitivity to Static Discharge:** Not available.

**Protection of Firefighters:** Use water spray to keep fire-exposed containers cool. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

### Section 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

**Environmental Precautions:** Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

**Methods for Containment:** Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

**Methods for Clean-Up:** Scoop up material and place in a disposal container. Provide ventilation.

**Other Information:** Not available.

# MATERIAL SAFETY DATA SHEET

## PENRAY MOTOR PEP

### Section 7: HANDLING AND STORAGE

**Handling:**

Keep away from sources of ignition. No smoking. Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Use only in well-ventilated areas. Handle and open container with care. Use non-sparking tools. When using do not eat or drink. Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

**Storage:**

Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Store in a cool place, away from incompatibles. Keep locked up. Keep away from heat, sparks, and flame.

### Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines**

Ingredient	Exposure Limits ACGIH-TLV
Distillates (petroleum), hydrotreated light naphthenic	5 mg/m <sup>3</sup> (mist)
Distillates (petroleum), solvent-refined heavy paraffinic	5 mg/m <sup>3</sup> (mist)
Phenol, (tetrapropenyl) derivs., calcium salts	Not available.
Phenol, (tetrapropenyl) derivs.	Not available.

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

**Personal Protective Equipment:**

**Eye/Face Protection:** Wear eye/face protection.

**Hand Protection:** Wear suitable gloves.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment.

**General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear.
<b>Colour:</b>	Amber.
<b>Odour:</b>	Petroleum odour.
<b>Odour Threshold:</b>	Not available.
<b>Physical State:</b>	Liquid.
<b>pH:</b>	Not available.
<b>Viscosity:</b>	Not available.
<b>Freezing Point:</b>	Not available.
<b>Boiling Point:</b>	Not available.
<b>Flash Point:</b>	~ 92.2 °C (~ 198 °F)
<b>Evaporation Rate:</b>	Not available.
<b>Lower Flammability Limit:</b>	Not available.

# MATERIAL SAFETY DATA SHEET

## PENRAY MOTOR PEP

<b>Upper Flammability Limit:</b>	Not available.
<b>Vapor Pressure:</b>	Not available.
<b>Vapor Density:</b>	Not available.
<b>Specific Gravity:</b>	0.867 - 0.877
<b>Solubility in Water:</b>	Not available.
<b>Coefficient of Water/Oil Distribution:</b>	Not available.
<b>Auto-ignition Temperature:</b>	Not available.
<b>Percent Volatile, wt. %:</b>	Not available.
<b>VOC content, wt. %:</b>	Not available.

### Section 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal storage conditions. Keep in a cool place.

**Conditions of Reactivity:** Heat. Incompatible materials. Open flame.

**Incompatible Materials:** Strong oxidizers.

**Hazardous Decomposition Products:** May include, and are not limited to: oxides of carbon.

**Possibility of Hazardous Reactions:** No dangerous reaction known under conditions of normal use.

### Section 11: TOXICOLOGY INFORMATION

#### EFFECTS OF ACUTE EXPOSURE

##### Component Analysis

Ingredient	LD <sub>50</sub> (oral)	LC <sub>50</sub>
Distillates (petroleum), hydrotreated light naphthenic	> 5000 mg/kg, rat	2.18 mg/L 4hr, rat
Distillates (petroleum), solvent-refined heavy paraffinic	> 5000 mg/kg, rat	< 5.7 mg/L 4 hr, rat
Phenol, (tetrapropenyl) derivs., calcium salts	Not available.	Not available.
Phenol, (tetrapropenyl) derivs.	Not available.	Not available.

**Eye:** May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production.

**Skin:** May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Ingestion:** Harmful if swallowed. May cause stomach distress, nausea or vomiting. Harmful: may cause lung damage if swallowed.

**Inhalation:** May cause respiratory tract irritation. This product may be aspirated into the lungs and cause chemical pneumonitis.

#### EFFECTS OF CHRONIC EXPOSURE

**Target Organs:** Not available.

**Chronic Effects:** Not hazardous by WHMIS criteria.

**Carcinogenicity:** Not hazardous by WHMIS criteria.

##### Ingredient

Distillates (petroleum), hydrotreated light naphthenic  
Distillates (petroleum), solvent-refined heavy paraffinic  
Phenol, (tetrapropenyl) derivs., calcium salts  
Phenol, (tetrapropenyl) derivs.

##### Chemical Listed as Carcinogen or Potential Carcinogen \*

Not listed.  
Not listed.  
Not listed.  
Not listed.



# MATERIAL SAFETY DATA SHEET

## PENRAY MOTOR PEP

\* See Section 15 for more information.

**Mutagenicity:** Not hazardous by WHMIS criteria.

**Reproductive Effects:** Not hazardous by WHMIS criteria.

**Developmental Effects:**

**Teratogenicity:** Not hazardous by WHMIS criteria.

**Embryotoxicity:** Not hazardous by WHMIS criteria.

**Respiratory Sensitization:** Not hazardous by WHMIS criteria.

**Skin Sensitization:** Not hazardous by WHMIS criteria.

**Toxicologically Synergistic Materials:** Not available.

### Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** May cause long-term adverse effects in the aquatic environment.

**Persistence / Degradability:** Not available.

**Bioaccumulation / Accumulation:** Not available.

**Mobility in Environment:** Not available.

### Section 13: DISPOSAL CONSIDERATIONS

**Disposal Instructions:**

This material must be disposed of in accordance with all local, state, provincial, and federal regulations. Empty containers may retain flammable product residues.

### Section 14: TRANSPORTATION INFORMATION

**TDG Classification**

Not regulated

### Section 15: REGULATORY INFORMATION

**Federal Regulations**

**Canada:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**Global Inventories**

**Ingredient**

Distillates (petroleum), hydrotreated light naphthenic  
Distillates (petroleum), solvent-refined heavy paraffinic  
Phenol, (tetrapropenyl) derivs., calcium salts  
Phenol, (tetrapropenyl) derivs.

**Canada  
DSL/NDSL**  
DSL  
DSL  
NDSL  
NDSL

**HMIS - Hazardous Materials Identification System**

Health - 1

Flammability - 2

Physical Hazard - 0

PPE - B

**NFPA - National Fire Protection Association:**

Health - 1

Fire - 2

Reactivity - 0

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

# MATERIAL SAFETY DATA SHEET

## PENRAY MOTOR PEP

**WHMIS Classification(s):**

Class B3 - Combustible Liquid

**WHMIS Hazard Symbols:****SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:****ACGIH (G)** American Conference of Governmental Industrial Hygienists.

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

**IARC (I)** International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

**NTP (N)** National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

<b>Section 16: OTHER INFORMATION</b>
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**Disclaimer:**

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**Prepared by:** Nexreg Compliance Inc.  
Phone: (519) 488-5126  
[www.nexreg.com](http://www.nexreg.com)