



# PRODUCT DATA SHEET (MSDS/SDS)

## P.E.P (Oil)

### Product Identifier

Product Name: Petroleum Emulsion Product

Synonyms: CM S-2, CM S-2P, CM S-2S, CRS-1, CRS-1H, CRS-1HP, CRS-2, CRS-2H, CRS-2NV, CRS-2P, CRS-2P SAFLEA, CRS-2R, CSS-1, CSS-1H, CSS-1 DILUTE, CSS-1H DILUTE, CIR-EE, FDR-EE, LMCRS-2H, LMCQS-1H, PEP-C, PEP-C DILUTE, STE-1, QUICKSEAL, RS FOG SEAL, CQS-1HL, CQS-1HP, CQS-1H, CSS-1HP, CRS-2VHL, CRS-2L, CSS-FDR, CSS-CIR, MSE PM CQS-1HP

### Intended Use of the Product

Use of the substance/mixture: Asphalt. For professional use only.

Emergency Telephone Number

- EmergencyNumber : Chemtrec: 800-424-9300

### Hazards Identification:

#### 2.1. Classification of the Substance or Mixture Classification (GHS-US)

Acute Tox. 4 (Oral)	H302
Acute Tox. 4 (Inhalation:gas)	H332
Skin Irrit. 2	H315
Eye Dam. 1	H318
Resp. Sens. 1	H334
Skin Sens. 1	H317
Carc. 1A	H350
STOT SE 3	H336
STOT RE 1	H372
Asp. Tox. 1	H304
Aquatic Acute 2	H401
Aquatic Chronic 2	H411

### Label Elements

#### GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) :

- H302+H332 - Harmful if swallowed or if inhaled.
- H304 - May be fatal if swallowed and enters airways.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. H336 - May cause drowsiness or dizziness.  
H350 - May cause cancer.  
H372 - Causes damage to organs (bone marrow, liver, thymus) through prolonged or repeated exposure.  
H401 - Toxic to aquatic life.  
H411 - Toxic to aquatic life with long lasting effects

**Precautionary Statements (GHS-US) :**

P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P260 - Do not breathe vapors, mist, spray.  
P264 - Wash hands, forearms and exposed areas thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P272 - Contaminated work clothing must not be allowed out of the workplace.  
P273 - Avoid release to the environment.  
P280 - Wear protective clothing, protective gloves, face protection.  
P284 - [In case of inadequate ventilation] wear respiratory protection.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P304+P340 - IF INHALED: Remove person 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.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P310 - Immediately call a POISON CENTER/doctor.  
P321 - Specific treatment (see Section 4).  
P330 - Rinse mouth.  
P331 - Do NOT induce vomiting.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
P362 - Take off contaminated clothing and wash before reuse.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P391 - Collect spillage.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.  
P501 - Dispose of contents/container according to local, regional, national, and international regulations.

**Other Hazards**

Other Hazards: When heated, material emits irritating fumes. Contact with hot material - prevent serious burns.

**Unknown Acute Toxicity (GHS-US)**

No data available

**Mixture**

Full text of H-phrases: see section 16

The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

Name	Product identifier	%	Classification (GHS-US)
Water	(CAS No) 7732-18-5	5 - 90	Not classified
Asphalt	(CAS No) 8052-42-4	50 - 80	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 2, H351
Kerosine, petroleum	(CAS No) 8008-20-6	< 35	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Fuels, diesel, no. 2	(CAS No) 68476-34-6	< 35	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 3, H402 Aquatic Chronic 2, H411
Modifier	Proprietary	≤ 25	Acute Tox. 4 (Oral), H302 Eye Irrit. 2B, H320 Carc. 1A, H350
Emulsifier	Proprietary	≤ 2	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 STOT RE 1, H372 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Vulcanizing Agent	Proprietary	≤ 2	Eye Irrit. 2B, H320
Hydrogen chloride	(CAS No) 7647-01-0	≤ 1	Met. Corr. 1, H290 Acute Tox. 3 (Inhalation:gas), H331 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335
Hydrogen sulfide	(CAS No) 7783-06-4	< 1	Flam. Gas 1, H220 Acute Tox. 2 (Inhalation:gas), H330 Eye Irrit. 2A, H319 STOT SE 1, H370 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

### First Aid Measures:

Description of First Aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention. If burned by hot product, cool affected area immediately with cool water. Do not attempt to remove solidified material from skin. Seek medical attention immediately.

**First-aid Measures After Inhalation:** Immediately call a POISON CENTER or doctor/physician. If exposed or concerned: Get medical advice/attention.

**First-aid Measures After Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with plenty of water for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse. **First-aid Measures After Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

**First-aid Measures After Ingestion:** Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

**Most important symptoms and effects, both acute and delayed:**

**Symptoms/Injuries:** Harmful if swallowed. May cause an allergic skin reaction. Causes skin irritation. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness and dizziness. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

**Symptoms/Injuries After Inhalation:** Harmful if inhaled. May cause drowsiness or dizziness. May cause cancer by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Symptoms/Injuries After Skin Contact:** Causes skin irritation. May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** Causes serious eye damage.

**Symptoms/Injuries After Ingestion:** Harmful if swallowed. May be fatal if swallowed and enters airways. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

**Chronic Symptoms:** May cause cancer. Causes damage to organs through prolonged or repeated exposure.

**Indication of Any Immediate Medical Attention and Special Treatment Needed**

If you feel unwell, seek medical advice (show the label where possible).

**Fire-Fighting Measures:**

**Extinguishing Media**

**Suitable Extinguishing Media:** Water spray, fog, carbon dioxide, foam, dry chemical.

**Unsuitable Extinguishing Media:** Water or foam may cause frothing. Apply aqueous extinguishing media carefully to prevent frothing/steam explosion.

**Special Hazards Arising From the Substance or Mixture**

**Fire Hazard:** Will float and can be reignited on water surface.

**Explosion Hazard:** Use of water on product above 100 °C (212 °F) can cause product to expand with explosive force.

**Reactivity:** Stable under normal ambient conditions. Hazardous reactions may occur on contact with certain chemicals. Refer to incompatible materials.

**Advice for Firefighters**

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

**Firefighting Instructions:** Fight fire from safe distance and protected location. Use water spray or fog for cooling exposed containers. Do not allow run-off from fire fighting to enter drains or water sources.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

**Accidental Release Measures:**

**Personal Precautions, Protective Equipment and Emergency Procedures**

**General Measures:** Use only outdoors or in a well-ventilated area. Do not breathe fumes from fires or vapors from decomposition. Do not allow product to spread into the environment.

**For Non-emergency Personnel**

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

**For Emergency Responders**

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Ventilate area. Eliminate ignition sources. Stop leak if safe to do so.

**Environmental Precautions**

Avoid release to the environment. Contact competent authorities after a spill.

**Methods and Material for Containment and Cleaning Up**

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Do not take up in combustible material such as: saw dust or cellulosic material.

**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely. Cautiously neutralize spilled liquid. Notify authorities if liquid enters sewers or public waters.

**Reference to Other Sections**

See heading 8, Exposure Controls and Personal Protection

**Handling and Storage:**

**Precautions for Safe Handling**

**Additional Hazards When Processed:** Heated product may cause burns. When heated, material emits irritating fumes.

**Precautions for Safe Handling:** Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

**Conditions for Safe Storage, Including Any Incompatibilities**

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

**Incompatible Products:** Strong acids. Strong bases. Strong oxidizers.

**Specific End Use(s)**

Asphalt. For professional use only.

<b>Kerosine, petroleum (8008-20-6)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup> (application restricted to conditions in which there are negligible aerosol exposures)
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
<b>Fuels, diesel, no. 2 (68476-34-6)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
<b>Hydrogen sulfide (7783-06-4)</b>		
<b>USA ACGIH</b>	ACGIH TWA (ppm)	1 ppm
<b>USA ACGIH</b>	ACGIH STEL (ppm)	5 ppm
<b>USA NIOSH</b>	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (ceiling) (ppm)	10 ppm
<b>USA IDLH</b>	US IDLH (ppm)	100 ppm
<b>USA OSHA</b>	OSHA PEL (Ceiling) (ppm)	20 ppm
<b>Hydrogen chloride (7647-01-0)</b>		
<b>USA ACGIH</b>	ACGIH Ceiling (ppm)	2 ppm
<b>USA NIOSH</b>	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (ceiling) (ppm)	5 ppm
<b>USA IDLH</b>	US IDLH (ppm)	50 ppm
<b>USA OSHA</b>	OSHA PEL (Ceiling) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (Ceiling) (ppm)	5 ppm
<b>Asphalt (8052-42-4)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>

## **Exposure Controls/Personal Protection:**

### **Exposure Controls**

**Appropriate Engineering Controls** : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

### **Personal Protective Equipment**

Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.



## **PHYSICAL AND CHEMICAL PROPERTIES:**

### **Information on Basic Physical and Chemical Properties**

Physical State	: Liquid
Appearance Odor	: Dark brown
Odor Threshold	: Musty
pH	: No data available
Evaporation rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: > 100 °C (>212 °F)
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: No data available
Relative Density	: No data available
Solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Viscosity	: No data available

## **STABILITY AND REACTIVITY**

**Reactivity:** Stable under normal ambient conditions. Hazardous reactions may occur on contact with certain chemicals. Refer to incompatible materials.

**Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

10.4 Conditions to Avoid: Sparks, heat, open flame and other sources of ignition. Incompatible materials.

**Incompatible Materials:** Strong bases. Strong oxidizers.

**Hazardous Decomposition Products:** Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product particularly at elevated temperatures.

## **TOXICOLOGICAL INFORMATION:**

### **Information On Toxicological Effects**

**Acute Toxicity:** Harmful if swallowed. Harmful if inhaled.

<b>Cationic Asphalt Emulsion</b>	
ATE (Oral)	500.00 mg/kg body weight
ATE (Gases)	4,500.00 ppmV/4h
<b>Kerosine, petroleum (8008-20-6)</b>	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 5.28 mg/l/4h
<b>Fuels, diesel, no. 2 (68476-34-6)</b>	
LD50 Oral Rat	18.7 - 24.9 ml/kg
LD50 Dermal Rabbit	> 4300 mg/kg
ATE (Gases)	4,500.00 ppmV/4h
ATE (Vapors)	11.00 mg/l/4h
ATE (Dust/Mist)	3.60 mg/l/4h
<b>Hydrogen sulfide (7783-06-4)</b>	
LC50 Inhalation Rat	0.99 mg/l (Exposure time: 1 h)
LC50 Inhalation Rat	444 ppm/4h
<b>Hydrogen chloride (7647-01-0)</b>	
LD50 Oral Rat	700 mg/kg
LD50 Dermal Rabbit	> 5010 mg/kg
LC50 Inhalation Rat	781 ppm/4h (reported as 3124 ppm/1 h)
<b>Asphalt (8052-42-4)</b>	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
<b>Emulsifier</b>	
LD50 Oral Rat	574 mg/kg

**Skin Corrosion/Irritation:** Causes skin irritation.

**Serious Eye Damage/Irritation:** Causes serious eye damage.

**Respiratory or Skin Sensitization:** May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** May cause cancer.

<b>Hydrogen chloride (7647-01-0)</b>	
IARC group	3
<b>Asphalt (8052-42-4)</b>	
IARC group	2B

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** May cause drowsiness or dizziness.

**Specific Target Organ Toxicity (Repeated Exposure):** Causes damage to organs (bone marrow, liver, thymus) through prolonged or repeated exposure.

**Aspiration Hazard:** May be fatal if swallowed and enters airways.

**Symptoms/Injuries After Inhalation:** Harmful if inhaled. May cause drowsiness or dizziness. May cause cancer by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Symptoms/Injuries After Skin Contact:** Causes skin irritation. May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** Causes serious eye damage.

**Symptoms/Injuries After Ingestion:** Harmful if swallowed. May be fatal if swallowed and enters airways. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

**Chronic Symptoms:** May cause cancer. Causes damage to organs through prolonged or repeated exposure.

**ECOLOGICAL INFORMATION:**

**Toxicity**

**Ecology - General:** Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

<b>Kerosine, petroleum (8008-20-6)</b>	
<b>NOEC chronic fish</b>	0.098 mg/l (PETROTOX, Klimmish score: 2)
<b>Fuels, diesel, no. 2 (68476-34-6)</b>	
<b>LC50 Fish 1</b>	57 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
<b>Hydrogen sulfide (7783-06-4)</b>	
<b>LC50 Fish 1</b>	0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
<b>LC 50 Fish 2</b>	0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

**Persistence and Degradability:**

<b>Cationic Asphalt Emulsion</b>	
<b>Persistence and Degradability</b>	Not established. May cause long-term adverse effects in the environment.

**Bioaccumulative Potential:**

<b>Cationic Asphalt Emulsion</b>	
<b>Bioaccumulative Potential</b>	Not established.
<b>Hydrogen sulfide (7783-06-4)</b>	
<b>BCF fish 1</b>	(no bioaccumulation expected)
<b>Log Pow</b>	0.45 (at 25 °C)
<b>Asphalt (8052-42-4)</b>	
<b>BCF fish 1</b>	(no bioaccumulation expected)
<b>Log Pow</b>	> 6

<b>National Toxicity Program (NTP) Status</b>	Twelfth Report - Items under consideration.
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**Mobility in Soil** No additional information available

**Other Adverse Effects**

**Other Information**

: Avoid release to the environment

**DISPOSAL CONSIDERATIONS:**

**Waste treatment methods**

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, and international regulations.

**Ecology – Waste Materials:** This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

**TRANSPORT INFORMATION:**



**In Accordance with DOT**  
Not regulated for transport

**ERG Number** : 171

**In Accordance with IMDG**

**Proper Shipping Name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S. (contains Kerosene, Diesel fuels, Emulsifier)

**Hazard Class** : 9  
**Identification Number** : UN3082  
**Packing Group** : III  
**Label Codes** : 9  
**EmS-No. (Fire)** : F-A  
**EmS-No. (Spillage)** : S-F  
**Marine pollutant** : Marine pollutant

**In Accordance with IATA**

**Proper Shipping Name** : ENVIRONMENTALLY  
HAZARDOUS SUBSTANCE,  
Kerosene, Diesel fuels, Emulsifier  
**Packing Group** : III  
**Identification Number** : UN3082  
**Hazard Class** : 9  
**Label Codes** : 9  
**ERG Code (IATA)** : 9L



**REGULATORY INFORMATION:**

**US Federal Regulations**

<b>Water (7732-18-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Asphalt (8052-42-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Zinc compounds (RR-00578-7)</b>	
Listed on United States SARA Section 313	
<b>SARA Section 313 - Emission Reporting</b>	1.0 %

**US State Regulations GHS Full Text Phrases:**

<b>Emulsifier</b>	
<b>U.S. - California - Proposition 65 - Carcinogens List</b>	WARNING: This product contains chemicals known to the State of California to cause cancer.
<b>U.S. - California - Proposition 65 - Developmental Toxicity</b>	WARNING: This product contains chemicals known to the State of California to cause birth defects.
<b>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</b>	WARNING: This product contains chemicals known to the State of California to cause (Female) reproductive harm.
<b>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</b>	WARNING: This product contains chemicals known to the State of California to cause (Male) reproductive harm.

<b>Kerosine, petroleum (8008-20-6)</b>
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
<b>Fuels, diesel, no. 2 (68476-34-6)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List
<b>Hydrogen sulfide (7783-06-4)</b>
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List
<b>Hydrogen chloride (7647-01-0)</b>
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List
<b>Asphalt (8052-42-4)</b>
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
<b>Zinc compounds (RR-00578-7)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List

**Revision date** : 08/22/2014

**Other Information** : This document has been prepared in accordance with the

Acute Tox. 2 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 2
Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 2	Carcinogenicity Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Flam. Gas 1	Flammable gases Category 1
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Met. Corr. 1	Corrosive to metals Category 1

SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Resp. Sens. 1	Respiratory sensitisation Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H220	Extremely flammable gas
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H290	May be corrosive to metals
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation
H330	Fatal if inhaled
H331	Toxic if inhaled
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H350	May cause cancer
H351	Suspected of causing cancer
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*