

Material Safety Data Sheet

Polyguard CA-9 Mastic

1. Product and company identification

Product name	: Polyguard CA-9 Mastic
Material uses	: Not available.
Supplier/Manufacturer	: Polyguard Products, Inc. 3801 South Interstate 45 Ennis, TX 75119 Tel: (800)541-4994
MSDS authored by	: KMK Regulatory Services Inc.
In case of emergency	: CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887

2. Hazards identification

Emergency overview

Physical state	: Semi-liquid.
Odor	: Tar.
Signal word	: DANGER!
Hazard statements	: EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. CAUSES EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE RESPIRATORY TRACT IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER. CONTAINS MATERIAL WHICH MAY CAUSE HERITABLE GENETIC EFFECTS.
Precautionary measures	: Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Do not get on skin or clothing. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential acute health effects

Inhalation	: Slightly irritating to the respiratory system.
Ingestion	: May be harmful if swallowed.
Skin	: Irritating to skin. May cause sensitization by skin contact.
Eyes	: Irritating to eyes.

Potential chronic health effects

Chronic effects	: Contains material that can cause target organ damage. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: Contains material which may cause heritable genetic effects.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Target organs	: Contains material which may cause damage to the following organs: kidneys, lungs, the nervous system, the reproductive system, liver, peripheral nervous system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea, testes.

2. Hazards identification

Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Medical conditions aggravated by over-exposure** : Pre-existing skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Tar, coal	8007-45-2	30 - 60
Methyl ethyl ketone	78-93-3	10 - 30
Toluene	108-88-3	10 - 30
Phenanthrene	85-01-8	1 - 5
Fluoranthene	206-44-0	1 - 5
Naphthalene	91-20-3	0.1 - 1
Benz[a]anthracene	56-55-3	0.1 - 1
Chrysene	218-01-9	0.1 - 1
Benzo[a]pyrene	50-32-8	0.1 - 1
Indeno[1,2,3-cd]pyrene	193-39-5	0.1 - 1
Benz[e]acephenanthrylene	205-99-2	0.1 - 1
Benzo[j]fluoranthene	205-82-3	0.1 - 1
Benzo[k]fluoranthene	207-08-9	0.1 - 1
Dibenzo[b,def]chrysene	189-64-0	0.1 - 1
Benzo(r,s,t)pentaphene	189-55-9	0.1 - 1
Naphtho[1,2,3,4-def]chrysene	192-65-4	0.1 - 1

Canada

Name	CAS number	%
Tar, coal	8007-45-2	30 - 60
Methyl ethyl ketone	78-93-3	10 - 30
Toluene	108-88-3	10 - 30
Phenanthrene	85-01-8	1 - 5
Fluoranthene	206-44-0	1 - 5
Naphthalene	91-20-3	0.1 - 1
Benz[a]anthracene	56-55-3	0.1 - 1
Chrysene	218-01-9	0.1 - 1
Benzo[a]pyrene	50-32-8	0.1 - 1
Indeno[1,2,3-cd]pyrene	193-39-5	0.1 - 1
Benz[e]acephenanthrylene	205-99-2	0.1 - 1
Benzo[j]fluoranthene	205-82-3	0.1 - 1
Benzo[k]fluoranthene	207-08-9	0.1 - 1
Dibenzo[b,def]chrysene	189-64-0	0.1 - 1
Benzo(r,s,t)pentaphene	189-55-9	0.1 - 1
Naphtho[1,2,3,4-def]chrysene	192-65-4	0.1 - 1

3. Composition/information on ingredients

Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
Tar, coal	8007-45-2	Not regulated.	30 - 60	-	2	1	0	-
Toluene	108-88-3	UN1294	10 - 30	500 ppm	2	3	0	-
Methyl ethyl ketone	78-93-3	UN1193	10 - 30	3000 ppm	2	3	0	-
Phenanthrene	85-01-8	Not regulated.	1 - 5	80 mg/m ³	1	1	0	-
Fluoranthene	206-44-0	Not regulated.	1 - 5	-	1	1	0	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention if symptoms occur.
- Inhalation** : Move exposed person to fresh air. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call medical doctor or poison control center immediately.
- Protection of first-aiders** : Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : No specific treatment. Treat symptomatically.

5. Fire-fighting measures

- Flammability of the product** : Extremely flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
- Extinguishing media**
- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Water polluting material. May be harmful to the environment if released in large quantities. Hazardous to aquatic environment. May cause long-term adverse effects in the aquatic environment. Prevent leaking substances from running into the aquatic environment or the sewage system.
- Methods for cleaning up**
- Small spill** : Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

6. Accidental release measures

- Large spill** : Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Keep away from heat, sparks and flame.
- Storage** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
Methyl ethyl ketone	<p>ACGIH TLV (United States, 2/2010). STEL: 885 mg/m³ 15 minute(s). STEL: 300 ppm 15 minute(s). TWA: 590 mg/m³ 8 hour(s). TWA: 200 ppm 8 hour(s).</p> <p>NIOSH REL (United States, 6/2009). STEL: 885 mg/m³ 15 minute(s). STEL: 300 ppm 15 minute(s). TWA: 590 mg/m³ 10 hour(s). TWA: 200 ppm 10 hour(s).</p> <p>OSHA PEL (United States, 6/2010). TWA: 590 mg/m³ 8 hour(s). TWA: 200 ppm 8 hour(s).</p>
Toluene	<p>NIOSH REL (United States, 6/2009). STEL: 560 mg/m³ 15 minute(s). STEL: 150 ppm 15 minute(s). TWA: 375 mg/m³ 10 hour(s). TWA: 100 ppm 10 hour(s).</p> <p>OSHA PEL Z2 (United States, 11/2006). AMP: 500 ppm 10 minute(s). CEIL: 300 ppm TWA: 200 ppm 8 hour(s).</p> <p>ACGIH TLV (United States, 2/2010). TWA: 20 ppm 8 hour(s).</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hour(s). TWA: 375 mg/m³ 8 hour(s). STEL: 150 ppm 15 minute(s). STEL: 560 mg/m³ 15 minute(s).</p>

8. Exposure controls/personal protection

Phenanthrene	<p>OSHA PEL (United States, 6/2010). TWA: 0.2 mg/m³ 8 hour(s). Form: Benzene soluble</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 0.2 mg/m³ 8 hour(s). Form: Benzene soluble</p> <p>ACGIH TLV (United States, 2/2010). STEL: 79 mg/m³ 15 minute(s). STEL: 15 ppm 15 minute(s). TWA: 52 mg/m³ 8 hour(s). TWA: 10 ppm 8 hour(s).</p> <p>NIOSH REL (United States, 6/2009). STEL: 75 mg/m³ 15 minute(s). STEL: 15 ppm 15 minute(s). TWA: 50 mg/m³ 10 hour(s). TWA: 10 ppm 10 hour(s).</p> <p>OSHA PEL (United States, 6/2010). TWA: 50 mg/m³ 8 hour(s). TWA: 10 ppm 8 hour(s).</p>
Naphthalene	
Chrysene	
Benzo[a]pyrene	

Canada

<u>Occupational exposure limits</u>		TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	
Toluene	US ACGIH 2/2010	20	-	-	-	-	-	-	-	-	[1]
	AB 4/2009	50	188	-	-	-	-	-	-	-	
	BC 9/2010	20	-	-	-	-	-	-	-	-	
	ON 7/2010	20	-	-	-	-	-	-	-	-	
	QC 6/2008	50	188	-	-	-	-	-	-	-	
Methyl ethyl ketone	US ACGIH 2/2010	200	590	-	300	885	-	-	-	-	[1]
	AB 4/2009	200	590	-	300	885	-	-	-	-	
	BC 9/2010	50	-	-	100	-	-	-	-	-	
	ON 7/2010	200	590	-	300	885	-	-	-	-	
	QC 6/2008	50	150	-	100	300	-	-	-	-	
Naphthalene	US ACGIH 2/2010	10	52	-	15	79	-	-	-	-	[1] [1]
	AB 4/2009	10	52	-	15	79	-	-	-	-	
	BC 9/2010	10	-	-	15	-	-	-	-	-	
	ON 7/2010	10	52	-	15	79	-	-	-	-	
	QC 6/2008	10	52	-	15	79	-	-	-	-	
Benzo[a]pyrene		-	0.005	-	-	-	-	-	-	-	

[1]Absorbed through skin.

Mexico

Occupational exposure limits

Ingredient	Exposure limits
Methyl ethyl ketone	<p>NOM-010-STPS (Mexico, 9/2000). LMPE-CT: 885 mg/m³ 15 minute(s). LMPE-CT: 300 ppm 15 minute(s). LMPE-PPT: 590 mg/m³ 8 hour(s). LMPE-PPT: 200 ppm 8 hour(s).</p>
Toluene	<p>NOM-010-STPS (Mexico, 9/2000). Absorbed through skin. LMPE-PPT: 188 mg/m³ 8 hour(s). LMPE-PPT: 50 ppm 8 hour(s).</p>

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Use explosion-proof ventilation equipment.

8. Exposure controls/personal protection

- Hygiene measures** : Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
- Personal protection**
- Respiratory** : Not required under normal conditions of use. 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. Ensure an MSHA/NIOSH-approved respirator or equivalent is used.
- Hands** : Use gloves appropriate for work or task being performed. Recommended: Natural rubber (latex).
- Eyes** : Safety eyewear should be used when there is a likelihood of exposure. Recommended: Safety glasses with side shields.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Lab coat.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Personal protective equipment (Pictograms) :



9. Physical and chemical properties

- Physical state** : Semi-liquid.
- Flash point** : Closed cup: -12.2°C (10°F) [Tagliabue.]
- Flammable limits** : Lower: 2%
- Odor** : Tar.
- Boiling/condensation point** : 79.4°C (174.9°F)
- Relative density** : 1.04
- Vapor pressure** : 9.3 kPa (70 mm Hg) [20°C]
- Volatility** : 40.4% (v/v)
- Evaporation rate** : 5.7 (ether (anhydrous) = 1)
- Solubility** : Insoluble in the following materials: cold water and hot water.

10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Avoid exposure - obtain special instructions before use. Do not swallow.
- Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials and acids.
- Hazardous decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Tar, coal	LD50 Dermal	Rabbit	>7950 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Methyl ethyl ketone	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-
Phenanthrene	LD50 Oral	Rat	1.8 g/kg	-
Fluoranthene	LD50 Dermal	Rabbit	3180 mg/kg	-
	LD50 Oral	Rat	2 g/kg	-
Naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Dermal	Rat	>2500 mg/kg	-
	LD50 Oral	Rat	490 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Tar, coal	Skin - Mild irritant	Human	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Pig	-	24 hours 250 microliters	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
Methyl ethyl ketone	Skin - Mild irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	-	-
Naphthalene	Skin - Mild irritant	Rabbit	-	-	-
Benzo[a]pyrene	Skin - Mild irritant	Mouse	-	-	-

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Tar, coal	-	1	-	-	Proven.	-
Toluene	A4	3	-	-	-	-
Phenanthrene	-	3	-	-	-	-
Fluoranthene	-	3	-	-	Possible	-
Naphthalene	A4	2B	-	None.	Possible	-
Benz[a]anthracene	A2	2A	-	-	Possible	-
Chrysene	A3	3	-	+	-	-
Benzo[a]pyrene	A2	2A	-	-	Possible	-
Indeno[1,2,3-cd]pyrene	-	2B	-	-	Possible	-
Benz[e]acephenanthrylene	A2	2B	-	-	Possible	-
Benzo[j]fluoranthene	-	2B	-	-	Possible	-
Benzo[k]fluoranthene	-	2B	-	-	Possible	-
Dibenzo[b,def]chrysene	-	2B	-	-	Possible	-
Benzo[r,s,t]pentaphene	-	2B	-	-	Possible	-
Naphtho[1,2,3,4-def]chrysene	-	2B	-	-	Possible	-

IDLH : Not available.

Synergistic products : Not available.

12. Ecological information

Ecotoxicity : Water polluting material. May be harmful to the environment if released in large quantities.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Tar, coal	Acute EC50 0.18 ppm Fresh water	Daphnia - Daphnia magna - Larvae	48 hours
	Acute LC50 0.43 to 0.5 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
Toluene	Acute EC50 12500 ug/L Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 6000 ug/L Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 15.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours
	Acute LC50 5500 ug/L Fresh water	Fish - Oncorhynchus kisutch - Fry - 1 g	96 hours
Methyl ethyl ketone	Chronic NOEC 28000 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
	Acute LC50 >520000 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
	Acute LC50 >400 ppm Marine water	Fish - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling) - 8 to 15 mm	96 hours
	Chronic NOEC <70000 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
	Chronic NOEC 400 ppm Marine water	Fish - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling) - 8 to 15 mm	96 hours
Phenanthrene	Acute EC50 324 ug/L Fresh water	Algae - Pseudokirchneriella subcapitata	3 days
	Acute EC50 0.117 mg/L Fresh water	Daphnia - Daphnia magna - Adult - 0.004 g	48 hours
	Acute EC50 0.049 mg/L Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 0.046 g	96 hours
Fluoranthene	Chronic NOEC 0.05 mg/L Fresh water	Fish - Carassius auratus - 9 cm - 24.2 g	4 days
	Acute EC50 4140 ug/L Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 54400 ug/L Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute IC50 >159 ug/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 5.32 ug/L Marine water	Crustaceans - Americamysis bahia - 24 to 48 hours	48 hours
	Acute LC50 1.6 to 2 ug/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.1 to 0.1 ug/L Marine water	Fish - Pleuronectes americanus - 28 days	96 hours
Naphthalene	Chronic NOEC 85 ug/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 1600 ug/L Fresh water	Daphnia - Daphnia magna - Neonate - <=24 hours	48 hours
	Acute LC50 2350 ug/L Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 213 ug/L Fresh water	Fish - Melanotaenia fluviatilis - Larvae - 1 days	96 hours
Benzo[a]pyrene	Chronic NOEC 600 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
	Acute EC50 5 ug/L Fresh water	Algae - Scenedesmus acutus	72 hours
	Acute LC50 0.25 mg/L Fresh water	Daphnia - Daphnia magna - Neonate - <48 hours	48 hours

13. Disposal considerations








Waste disposal : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1139	COATING SOLUTION	3	II		-
TDG Classification	UN1139	COATING SOLUTION	3	II		-
Mexico Classification	UN1139	COATING SOLUTION	3	II		-
IMDG Class	UN1139	COATING SOLUTION. Marine pollutant (Tar, coal, Phenanthrene)	3	II	 	-
IATA-DGR Class	UN1139	COATING SOLUTION	3	II	 	-

PG* : Packing group

Exemption to the above classification may apply.

AERG : 127

15. Regulatory information

United States

HCS Classification : Flammable liquid
Irritating material
Sensitizing material
Carcinogen
Target organ effects

U.S. Federal regulations : TSCA 4(a) final test rules: Naphthalene; Biphenyl; Acetone; Methyl ethyl ketone
TSCA 8(a) CAIR: Phenanthrene; Pyrene
TSCA 8(a) PAIR: Naphthalene; Biphenyl; Amorphous silica
United States inventory (TSCA 8b): All components are listed or exempted.
TSCA 12(b) one-time export: Naphthalene; Biphenyl; Acetone; Methyl ethyl ketone
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Tar, coal; Phenanthrene; Fluoranthene; Methyl ethyl ketone; Toluene
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Tar, coal: Immediate (acute) health hazard, Delayed (chronic) health hazard; Phenanthrene: Immediate (acute) health hazard, Delayed (chronic) health hazard; Fluoranthene: Delayed (chronic) health hazard; Methyl ethyl ketone: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Toluene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

15. Regulatory information

Clean Water Act (CWA) 307: Phenanthrene; Fluoranthene; Pyrene; Naphthalene; Anthracene; Benz[a]anthracene; Chrysene; Acenaphthene; Benzo[a]pyrene; Indeno[1,2,3-cd]pyrene; Benz[e]acephenanthrylene; Benzo[j]fluoranthene; Benzo[k]fluoranthene; Dibenz[b,def]chrysene; Benzo(r,s,t)pentaphene; Naphtho[1,2,3,4-def]chrysene; Dibenz[a,h]anthracene; Toluene; Vinyl chloride

Clean Water Act (CWA) 311: Naphthalene; Quinoline; Toluene; Vinyl acetate

Clean Air Act (CAA) 112 regulated toxic substances: Vinyl acetate

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Listed

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	Methyl ethyl ketone	78-93-3	10 - 30
	Toluene	108-88-3	10 - 30
	Phenanthrene	85-01-8	1 - 5
	Fluoranthene	206-44-0	1 - 5
	Naphthalene	91-20-3	0.1 - 1
	Benz[a]anthracene	56-55-3	0.1 - 1
	Chrysene	218-01-9	0.1 - 1
	Benzo[a]pyrene	50-32-8	0.1 - 1
	Indeno[1,2,3-cd]pyrene	193-39-5	0.1 - 1
	Benz[e]acephenanthrylene	205-99-2	0.1 - 1
	Benzo[j]fluoranthene	205-82-3	0.1 - 1
	Benzo[k]fluoranthene	207-08-9	0.1 - 1
	Dibenzo[b,def]chrysene	189-64-0	0.1 - 1
	Benzo(r,s,t)pentaphene	189-55-9	0.1 - 1
Naphtho[1,2,3,4-def]chrysene	192-65-4	0.1 - 1	
Dibenz[a,h]anthracene	53-70-3	0 - 0.1	
Supplier notification	Methyl ethyl ketone	78-93-3	10 - 30
	Toluene	108-88-3	10 - 30
	Phenanthrene	85-01-8	1 - 5
	Fluoranthene	206-44-0	1 - 5
	Naphthalene	91-20-3	0.1 - 1
	Benz[a]anthracene	56-55-3	0.1 - 1
	Chrysene	218-01-9	0.1 - 1
	Benzo[a]pyrene	50-32-8	0.1 - 1
	Indeno[1,2,3-cd]pyrene	193-39-5	0.1 - 1
	Benz[e]acephenanthrylene	205-99-2	0.1 - 1
	Benzo[j]fluoranthene	205-82-3	0.1 - 1
	Benzo[k]fluoranthene	207-08-9	0.1 - 1
	Dibenzo[b,def]chrysene	189-64-0	0.1 - 1
	Benzo(r,s,t)pentaphene	189-55-9	0.1 - 1
Naphtho[1,2,3,4-def]chrysene	192-65-4	0.1 - 1	

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: Tar, coal; Phenanthrene; Fluoranthene; Toluene; Methyl ethyl ketone

15. Regulatory information

- New York** : The following components are listed: Tar, coal; Phenanthrene; Fluoranthene; Naphthalene; Benz[a]anthracene; Chrysene; Benzo[a]pyrene; Indeno[1,2,3-cd]pyrene; Benz[e]acephenanthrylene; Benzo[k]fluoranthene; Benzo(r,s,t)pentaphene; Toluene; Methyl ethyl ketone
- New Jersey** : The following components are listed: Tar, coal; Phenanthrene; Fluoranthene; Naphthalene; Benz[a]anthracene; Chrysene; Benzo[a]pyrene; Indeno[1,2,3-cd]pyrene; Benz[e]acephenanthrylene; Benzo[j]fluoranthene; Benzo[k]fluoranthene; Dibenzo[b,def]chrysene; Benzo(r,s,t)pentaphene; Naphtho[1,2,3,4-def]chrysene; Toluene; Methyl ethyl ketone
- Pennsylvania** : The following components are listed: Tar, coal; Phenanthrene; Fluoranthene; Naphthalene; Benz[a]anthracene; Chrysene; Benzo[a]pyrene; Indeno[1,2,3-cd]pyrene; Benz[e]acephenanthrylene; Benzo[j]fluoranthene; Benzo[k]fluoranthene; Dibenzo[b,def]chrysene; Benzo(r,s,t)pentaphene; Naphtho[1,2,3,4-def]chrysene; Toluene; Methyl ethyl ketone

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Toluene	No.	Yes.	No.	7000 µg/day (ingestion) 13000 µg/day (inhalation)
Phenanthrene	Yes.	No.	No.	No.
Fluoranthene	Yes.	No.	No.	No.
Pyrene	Yes.	No.	No.	No.
Naphthalene	Yes.	No.	Yes.	No.
Anthracene	Yes.	No.	No.	No.
Benz[a]anthracene	Yes.	No.	0.033 µg/day (ingestion)	No.
Chrysene	Yes.	No.	0.35 µg/day (ingestion)	No.
Benzo[a]pyrene	Yes.	No.	Yes.	No.
Indeno[1,2,3-cd]pyrene	Yes.	No.	No.	No.
Benz[e]acephenanthrylene	Yes.	No.	0.096 µg/day (ingestion)	No.
Carbazole	Yes.	No.	Yes.	No.
Benzo[j]fluoranthene	Yes.	No.	0.11 µg/day (ingestion)	No.
Benzo[k]fluoranthene	Yes.	No.	No.	No.
Dibenzo[b,def]chrysene	Yes.	No.	0.0054 µg/day (ingestion)	No.
Benzo(r,s,t)pentaphene	Yes.	No.	0.005 µg/day (ingestion)	No.
Naphtho[1,2,3,4-def]chrysene	Yes.	No.	No.	No.
Dibenz[a,h]anthracene	Yes.	No.	Yes.	No.
Vinyl acetate	Yes.	No.	No.	No.
Quinoline	Yes.	No.	No.	No.
Vinyl chloride	Yes.	No.	Yes.	No.

Canada

- WHMIS (Canada)** : Class B-2: Flammable liquid
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

- Canadian NPRI** : The following components are listed: Phenanthrene; Fluoranthene; Toluene; Methyl ethyl ketone
- CEPA Toxic substances** : The following components are listed: Polycyclic aromatic hydrocarbons; Naphthalene; Polycyclic aromatic hydrocarbons; Polycyclic aromatic hydrocarbons; Polycyclic aromatic hydrocarbons; Polycyclic aromatic hydrocarbons; Polycyclic aromatic hydrocarbons; Polycyclic aromatic hydrocarbons; Polycyclic aromatic hydrocarbons; Polycyclic aromatic hydrocarbons; Polycyclic aromatic hydrocarbons
- Canada inventory** : All components are listed or exempted.

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.

15. Regulatory information

Mexico

Classification :



International regulations

International lists :

- Australia inventory (AICS):** Not determined.
- China inventory (IECSC):** Not determined.
- Japan inventory:** Not determined.
- Korea inventory:** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.

16. Other information

Label requirements : EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. CAUSES EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE RESPIRATORY TRACT IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER. CONTAINS MATERIAL WHICH MAY CAUSE HERITABLE GENETIC EFFECTS.

Hazardous Material Information System (U.S.A.) : **Health** : 2 * **Flammability** : 3 **Physical hazards** : 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) : **Health** : 2 **Flammability** : 3 **Instability** : 0

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Canada

WHMIS (Canada) :



History

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16. Other information

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Dr. Luc Séguin, PhD chemist, 25 years as a professional in regulatory compliance



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