SAFETY DATA SHEET

Polyguard CA-9 Mastic

Section 1. Identification

GHS product identifier : Polyguard CA-9 Mastic

Product code : Not available.

Other means of : Not available.

identification

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Oil resistant, cold-applied coating used on buried steel substrates.

Manufacturer : Polyquard Products Inc.

4101 South Interstate 45

Ennis, TX 75119 Tel: 214-515-5000

Web site: www.polyguard.com

Supplier's details : IN-LINE PIGGING SOLUTIONS LTD.

220-40TH Avenue NE Calgary, AB T2E 2M7

Canada

Emergency telephone number (with hours of

operation)

: CHEMTREC, U.S.: 1-800-424-9300

International: +1-703-527-3887

24/7

Section 2. Hazards identification

OSHA/HCS status

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

Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 2

SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

SKIN SENSITIZATION - Category 1
GERM CELL MUTAGENICITY - Category 1

CARCINOGENICITY - Category 1A

TOXIC TO REPRODUCTION (Fertility) - Category 1B TOXIC TO REPRODUCTION (Unborn child) - Category 1B

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) -

Category 2

ASPIRATION HAZARD - Category 1
AQUATIC HAZARD (ACUTE) - Category 1
AQUATIC HAZARD (LONG-TERM) - Category 1

GHS label elements

Hazard pictograms









Signal word : Danger



Section 2. Hazards identification

Hazard statements

- : H225 Highly flammable liquid and vapor.
 - H319 Causes serious eye irritation.
 - H315 Causes skin irritation.
 - H317 May cause an allergic skin reaction.
 - H340 May cause genetic defects.
 - H350 May cause cancer.
 - H360 May damage fertility or the unborn child.
 - H304 May be fatal if swallowed and enters airways.
 - H336 May cause drowsiness or dizziness.
 - H373 May cause damage to organs through prolonged or repeated exposure. (hearing
 - H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

- : P201 Obtain special instructions before use.
 - P202 Do not handle until all safety precautions have been read and understood.
 - P280 Wear protective gloves. Wear eye or face protection. Wear protective clothing.
 - P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P241 Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
 - P242 Use only non-sparking tools.
 - P243 Take precautionary measures against static discharge.
 - P233 Keep container tightly closed.
 - P271 Use only outdoors or in a well-ventilated area.
 - P273 Avoid release to the environment.
 - P260 Do not breathe vapor.
 - P264 Wash hands thoroughly after handling.
 - P272 (OSHA) Contaminated work clothing must not be allowed out of the workplace.

Response

- P391 Collect spillage.
 - P314 Get medical attention if you feel unwell.
 - P308 + P313 IF exposed or concerned: Get medical attention.
- P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
- P301 + P310 + P331 IF SWALLOWED: Immediately call a POISON CENTER or
- physician. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated
- clothing. Rinse skin with water or shower.
- P302 + P352 + P363 IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.
- P333 + P313 If skin irritation or rash occurs: Get medical attention.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.
- Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 If eye irritation persists: Get medical attention.

Storage

- P405 Store locked up.
 - P403 Store in a well-ventilated place.
 - P235 Keep cool.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise

: None known.

classified



Section 3. Composition/information on ingredients

Substance/mixture
Other means of
identification

- : Mixture
- : Not available.

Ingredient name	%	CAS number
Pitch, coal tar-petroleum	30 - 60	68187-57-5
Butanone	10 - 30	78-93-3
Toluene	10 - 30	108-88-3
2-Butenedioic acid (2Z)-, polymer with chloroethene and ethenyl acetate	10 - 30	9005-09-8
Naphthalene	5 - 10	91-20-3
Anthracene	1 - 5	120-12-7
Benzene	0.1 - 1	71-43-2
Benzo[a]pyrene	0.1 - 1	50-32-8

United States: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.

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.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Skin contact

: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 20 minutes. Get medical attention.

Ingestion

: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

: Causes serious eye irritation.

Inhalation

: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact

: Causes skin irritation. May cause an allergic skin reaction.

Ingestion

: Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.



Section 4. First aid measures

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

> pain or irritation watering redness

Inhalation : Adverse symptoms may include the following:

nausea or vomiting

headache

drowsiness/fatique dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact : Adverse symptoms may include the following:

> irritation redness

reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion : Adverse symptoms may include the following:

> nausea or vomiting reduced fetal weight increase in fetal deaths skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet or water-based fire extinguishers.

Specific hazards arising from the chemical

: Highly flammable liquid and vapor. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products Decomposition products may include the following materials:

carbon dioxide carbon monoxide halogenated compounds



Section 5. Fire-fighting measures

Special protective actions for fire-fighters

Special protective equipment for fire-fighters

- : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

Spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. 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. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene 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. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.



Section 7. Handling and storage

Conditions for safe storage, : including any incompatibilities

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. Store locked up. 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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Pitch, coal tar-petroleum Butanone	None. ACGIH TLV (United States, 3/2018). TWA: 200 ppm 8 hours. TWA: 590 mg/m³ 8 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 200 ppm 10 hours. TWA: 590 mg/m³ 10 hours. STEL: 385 mg/m³ 15 minutes. STEL: 885 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 590 mg/m³ 8 hours.
Toluene	OSHA PEL Z2 (United States, 2/2013). TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. ACGIH TLV (United States, 3/2018). TWA: 20 ppm 8 hours.
2-Butenedioic acid (2Z)-, polymer with chloroethene and ethenyl acetate Naphthalene	None. ACGIH TLV (United States, 3/2018). Absorbed through skin. TWA: 10 ppm 8 hours. TWA: 52 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 10 ppm 10 hours. TWA: 50 mg/m³ 10 hours. STEL: 15 ppm 15 minutes. STEL: 75 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 10 ppm 8 hours. TWA: 50 mg/m³ 8 hours.
Anthracene	NIOSH REL (United States, 10/2016). TWA: 0.1 mg/m³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 0.2 mg/m³ 8 hours. Form: Benzene soluble
Benzene	ACGIH TLV (United States, 3/2018). Absorbed through skin. TWA: 0.5 ppm 8 hours. TWA: 1.6 mg/m³ 8 hours. STEL: 2.5 ppm 15 minutes. STEL: 8 mg/m³ 15 minutes. OSHA PEL Z2 (United States, 2/2013). TWA: 10 ppm 8 hours. CEIL: 25 ppm AMP: 50 ppm 10 minutes.

Section 8. Exposure controls/personal protection

Benzo[a]pyrene

NIOSH REL (United States, 10/2016).

TWA: 0.1 ppm 10 hours.

STEL: 1 ppm 15 minutes.

OSHA PEL (United States, 5/2018).

TWA: 1 ppm 8 hours.

STEL: 5 ppm 15 minutes.

NIOSH REL (United States, 10/2016).

TWA: 0.1 mg/m³ 10 hours.

OSHA PEL (United States, 5/2018).

TWA: 0.2 mg/m³ 8 hours. Form: Benzene soluble

Canada

Occupational exposure limits

Ingredient name	Exposure limits
Butanone	CA Alberta Provincial (Canada, 6/2018).
	15 min OEL: 300 ppm 15 minutes.
	8 hrs OEL: 200 ppm 8 hours.
	8 hrs OEL: 590 mg/m³ 8 hours.
	15 min OEL: 885 mg/m³ 15 minutes.
	CA British Columbia Provincial (Canada, 7/2018).
	TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes.
	CA Ontario Provincial (Canada, 1/2018).
	TWA: 200 ppm 8 hours.
	STEL: 300 ppm 15 minutes.
	CA Quebec Provincial (Canada, 1/2014).
	TWAEV: 50 ppm 8 hours.
	TWAEV: 150 mg/m³ 8 hours.
	STEV: 100 ppm 15 minutes.
	STEV: 300 mg/m³ 15 minutes.
	CA Saskatchewan Provincial (Canada, 7/2013).
	STEL: 300 ppm 15 minutes.
	TWA: 200 ppm 8 hours.
Toluene	CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.
	8 hrs OEL: 50 ppm 8 hours.
	8 hrs OEL: 188 mg/m³ 8 hours.
	CA British Columbia Provincial (Canada, 7/2018).
	TWA: 20 ppm 8 hours.
	CA Ontario Provincial (Canada, 1/2018).
	TWA: 20 ppm 8 hours.
	CA Quebec Provincial (Canada, 1/2014). Absorbed through skin. TWAEV: 50 ppm 8 hours.
	TWAEV: 38 ppm 8 hours.
	CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through
	skin.
	STEL: 60 ppm 15 minutes.
	TWA: 50 ppm 8 hours.
Naphthalene	CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.
	15 min OEL: 15 ppm 15 minutes.
	8 hrs OEL: 10 ppm 8 hours.
	8 hrs OEL: 52 mg/m³ 8 hours.
	15 min OEL: 79 mg/m³ 15 minutes.
	CA British Columbia Provincial (Canada, 7/2018). Absorbed through
	skin.
	TWA: 10 ppm 8 hours.
	CA Ontario Provincial (Canada, 1/2018). Absorbed through skin.
	TWA: 10 ppm 8 hours.
	CA Quebec Provincial (Canada, 1/2014).
	TWAEV: 10 ppm 8 hours. TWAEV: 52 mg/m³ 8 hours.
	STEV: 15 ppm 15 minutes.
	STEV: 79 mg/m³ 15 minutes.
	CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through
	skin.
	STEL: 15 ppm 15 minutes.
	TWA: 10 ppm 8 hours.
Anthracene	CA Saskatchewan Provincial (Canada, 7/2013).
	STEL: 0.6 mg/m³, (measured as benzene solubles) 15 minutes.

Section 8. Exposure controls/personal protection

TWA: 0.2 mg/m³, (measured as benzene solubles) 8 hours. Benzene CA Alberta Provincial (Canada, 6/2018). Absorbed through skin. 8 hrs OEL: 1.6 mg/m³ 8 hours. 15 min OEL: 2.5 ppm 15 minutes. 15 min OEL: 8 mg/m3 15 minutes. 8 hrs OEL: 0.5 ppm 8 hours. CA British Columbia Provincial (Canada, 7/2018). Absorbed through TWA: 0.5 ppm 8 hours. STEL: 2.5 ppm 15 minutes. CA Ontario Provincial (Canada, 1/2018). Absorbed through skin. TWA: 0.5 ppm 8 hours. STEL: 2.5 ppm 15 minutes. CA Quebec Provincial (Canada, 1/2014). TWAEV: 1 ppm 8 hours. TWAEV: 3 mg/m3 8 hours. STEV: 5 ppm 15 minutes. STEV: 15.5 mg/m³ 15 minutes. CA Quebec Provincial (Canada, 1/2014). Benzo[a]pyrene TWAEV: 0.005 mg/m3 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 0.6 mg/m³, (measured as benzene solubles) 15 minutes. TWA: 0.2 mg/m³, (measured as benzene solubles) 8 hours.

Appropriate engineering controls

: 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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures

: 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. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection

: 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. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Semi-liquid. Viscous.]

Color : Black. Odor : Tar.

Odor threshold : Not applicable. Hq : Not applicable. **Melting point** : Not available. : 79.4°C (174.9°F) **Boiling point**

: Closed cup: -12.2°C (10°F) [Tagliabue.] Flash point

Evaporation rate : 5.7 (ether (anhydrous) = 1)

Flammability (solid, gas) : Not available. Lower and upper explosive

(flammable) limits

: Lower: 2%

: 9.3 kPa (70 mm Hg) [room temperature] Vapor pressure

Vapor density : Not available.

Relative density : 1.04

Solubility Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-

octanol/water

: Not available.

Auto-ignition temperature : Not available. **Decomposition temperature** : Not available.

Viscosity : Dynamic (room temperature): 13000 to 20000 mPa·s (13000 to 20000 cP)

Flow time (ISO 2431) : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, Conditions to avoid

braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials and acids.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products should

not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Butanone	LD50 Dermal	Rabbit	6480 mg/kg	_
	LD50 Oral	Rat	2737 mg/kg	_
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
Naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
·	LD50 Oral	Rat	490 mg/kg	_
Benzene	LD50 Oral	Rat	930 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Butanone	Skin - Mild irritant	Rabbit	-	24 hours 14 mg	-
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Eyes - Mild irritant	Rabbit	-	870 µg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 µl	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
Naphthalene	Skin - Mild irritant	Rabbit	-	495 mg	-
Anthracene	Skin - Mild irritant	Mouse	-	118 µg	-
Benzene	Eyes - Moderate irritant	Rabbit	-	88 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 µl	-
	Skin - Mild irritant	Rabbit	_	24 hours 15 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Benzo[a]pyrene	Skin - Mild irritant	Mouse	-	14 µg	-

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
Anthracene	-	3	-
Benzene	+	1	Known to be a human carcinogen.
Benzo[a]pyrene	-	1	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Target organs
Butanone Toluene 2-Butenedioic acid (2Z)-, polymer with chloroethene and ethenyl acetate Anthracene	Category 3	Narcotic effects Narcotic effects Respiratory tract irritation Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Target organs
Toluene	Category 2	hearing organs
Benzene	Category 1	Not determined

Aspiration hazard



Section 11. Toxicological information

Name	Result
Toluene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness.

Skin contact: Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and

enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : Adverse symptoms may include the following:

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

irritation redness

reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

nausea or vomiting reduced fetal weight increase in fetal deaths skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate : No known significant effects or critical hazards.

effects

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate : No known significant effects or critical hazards.

effects

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects



Section 11. Toxicological information

General : May cause damage to organs through prolonged or repeated exposure. Once

sensitized, a severe allergic reaction may occur when subsequently exposed to very low

levels.

Carcinogenicity

: May cause cancer. Risk of cancer depends on duration and level of exposure.: May cause genetic defects.

Mutagenicity Teratogenicity

: May damage the unborn child.

Developmental effects

: No known significant effects or critical hazards.

Fertility effects

: May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	6519.47 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Butanone	Acute EC50 >500000 μg/L Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 5091000 µg/L Fresh water	Daphnia - Daphnia magna - Larvae	48 hours
	Acute LC50 3220000 µg/L Fresh water	Fish - Pimephales promelas	96 hours
Toluene	Acute EC50 11600 μg/L Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 μg/L Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Chronic NOEC 2 mg/L Fresh water	Daphnia - Daphnia magna	21 days
Naphthalene	Acute EC50 1.6 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2350 µg/L Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 213 µg/L Fresh water	Fish - Melanotaenia fluviatilis - Larvae	96 hours
	Chronic NOEC 0.5 mg/L Marine water	Crustaceans - Uca pugnax - Adult	3 weeks
	Chronic NOEC 1.5 mg/L Fresh water	Fish - Oreochromis mossambicus	60 days
Anthracene	Acute EC50 95 μg/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 3.6 µg/L Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 1.27 µg/L Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 6.08 μg/L Fresh water	Fish - Pimephales promelas - Sexually mature	5 weeks
Benzene	Acute EC50 1600000 µg/L Fresh water	Algae - Selenastrum sp.	96 hours
	Acute EC50 10 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 21 mg/L Marine water	Crustaceans - Artemia salina	48 hours
	Chronic EC10 >1360 mg/L Fresh water	Algae - Scenedesmus subspicatus	96 hours
	Chronic NOEC 98 mg/L Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 1.5 to 5.4 ul/L Marine water	Fish - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling)	4 weeks
Benzo[a]pyrene	Acute EC50 5 μg/L Fresh water	Algae - Scenedesmus acutus	72 hours
	Acute LC50 11 mg/L Marine water	Crustaceans - Gammarus duebeni	48 hours
	Acute LC50 0.25 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Chronic NOEC 12 µg/L Fresh water	Crustaceans - Eurytemora affinis - Nauplii	21 days

Persistence and degradability

There is no data available.

Bioaccumulative potential



Section 12. Ecological information

Product/ingredient name	LogPow	BCF	Potential
Butanone	0.3	-	low
Toluene	2.73	90	low
Naphthalene	3.4	36.5 to 168	low
Anthracene	4.65	2615	high
Benzene	2.13	11	low
Benzo[a]pyrene	6.13	-	high

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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 empty 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.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS#	Status	Reference number
Naphthalene	91-20-3	Listed	U165
Toluene	108-88-3	Listed	U220
Butanone	78-93-3	Listed	U159

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	UN1139	UN1139	UN1139	UN1139
UN proper shipping name	COATING SOLUTION	COATING SOLUTION	COATING SOLUTION. Marine pollutant (Naphthalene, Anthracene)	COATING SOLUTION
Transport hazard class(es)	3	3	3	3
Packing group	II	II	II	II
Environmental hazards	No.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Section 14. Transport information

AERG : 127

DOT-RQ Details : Benzo[a]pyrene 1 lbs / 0.454 kg

Benzene 10 lbs / 4.54 kg [1.3675 gal / 5.1767 L]

Additional information

DOT Classification : Reportable quantity 111.11 lbs / 50.444 kg [12.813 gal / 48.504 L]. Package sizes

shipped in quantities less than the product reportable quantity are not subject to the RQ

(reportable quantity) transportation requirements.

Remarks Limited Quantity Exemption

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous

Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark). The marine pollutant mark is not required when transported by road or rail.

Remarks Limited Quantity Exemption

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Emergency schedules F-E, S-E **Remarks** Limited Quantity Exemption

IATA : The environmentally hazardous substance mark may appear if required by other

transportation regulations.

Remarks Limited Quantity Exemption

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 307: Naphthalene; Anthracene; Benzo[a]pyrene; Benzene;

Toluene

Clean Water Act (CWA) 311: Naphthalene; Benzene; Toluene

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 302/304

No products were found.

SARA 304 RQ

: Not applicable.



SARA 311/312

Section 15. Regulatory information

Classification : FLAMMABLE LIQUIDS - Category 2

SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

SKIN SENSITIZATION - Category 1

GERM CELL MUTAGENICITY - Category 1

CARCINOGENICITY - Category 1A

TOXIC TO REPRODUCTION (Fertility) - Category 1B TOXIC TO REPRODUCTION (Unborn child) - Category 1B

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) -

Category 2

ASPIRATION HAZARD - Category 1

Composition/information on ingredients

Name	Classification
Pitch, coal tar-petroleum	CARCINOGENICITY - Category 1B
Butanone	FLAMMABLE LIQUIDS - Category 2
	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects)
	- Category 3
Toluene	FLAMMABLE LIQUIDS - Category 2
	SKIN CORROSION/IRRITATION - Category 2
	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
	TOXIC TO REPRODUCTION (Unborn child) - Category 2
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects)
	- Category 3
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing
	organs) - Category 2
	ASPIRATION HAZARD - Category 1
2-Butenedioic acid (2Z)-, polymer with chloroethene and ethenyl	SKIN CORROSION/IRRITATION - Category 2
acetate	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
N 10 1	irritation) - Category 3
Naphthalene	FLAMMABLE SOLIDS - Category 2
	ACUTE TOXICITY (oral) - Category 4
A made was a sur-	CARCINOGENICITY - Category 2
Anthracene	SKIN CORROSION/IRRITATION - Category 2
	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
	SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
	irritation) - Category 3
Benzene	FLAMMABLE LIQUIDS - Category 2
Delizerie	ACUTE TOXICITY (oral) - Category 4
	SKIN CORROSION/IRRITATION - Category 2
	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
	GERM CELL MUTAGENICITY - Category 1B
	CARCINOGENICITY - Category 1A
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
	ASPIRATION HAZARD - Category 1
Benzo[a]pyrene	SKIN SENSITIZATION - Category 1
	GERM CELL MUTAGENICITY - Category 1B
	CARCINOGENICITY - Category 1B
	TOXIC TO REPRODUCTION (Fertility) - Category 1B
	TOXIC TO REPRODUCTION (Unborn child) - Category 1B

SARA 313



Section 15. Regulatory information

	Product name	CAS number
Form R - Reporting requirements	Toluene Naphthalene Anthracene Benzene Benzo[a]pyrene	108-88-3 91-20-3 120-12-7 71-43-2 50-32-8
Supplier notification	Toluene Naphthalene Anthracene Benzene Benzo[a]pyrene	108-88-3 91-20-3 120-12-7 71-43-2 50-32-8

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

State regulations

Massachusetts : The following components are listed: Naphthalene; Anthracene; Toluene; Butanone

New York : The following components are listed: Naphthalene; Anthracene; Benzo[a]pyrene;

Benzene; Toluene; Butanone

New Jersey : The following components are listed: Naphthalene; Anthracene; Benzo[a]pyrene;

Benzene; Toluene; Butanone

Pennsylvania: The following components are listed: Naphthalene; Anthracene; Benzo[a]pyrene;

Benzene; Toluene; Butanone

California Prop. 65



WARNING: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Naphthalene, Anthracene and Benzo[a]pyrene, which are known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Canadian lists

Canada inventory (DSL: At least one component is not listed in DSL but all such components are listed in NDSL. NDSL)

Canadian NPRI: The following components are listed: Naphthalene; Anthracene; Toluene; Butanone

CEPA Toxic substances : The following components are listed: Naphthalene; Anthracene; Benzo[a]pyrene; Benzene

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
GERM CELL MUTAGENICITY - Category 1	Calculation method
CARCINOGENICITY - Category 1A	Calculation method
TOXIC TO REPRODUCTION (Fertility) - Category 1B	Calculation method
TOXIC TO REPRODUCTION (Unborn child) - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -	Calculation method
Category 3	
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) -	Calculation method
Category 2	
ASPIRATION HAZARD - Category 1	Expert judgment
AQUATIC HAZARD (ACUTE) - Category 1	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 1	Calculation method

Section 16. Other information

History

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Prepared by : KMK Regulatory Services Inc.

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as

modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

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