Conforms to ANSI Z400.5-2004 Standard (United States, Canada).

Material Safety Data Sheet

CA-14

1 . Product and company identification

Product name : CA-14

Material uses : Mastic.

Supplier/Manufacturer : Polyguard Products
3801 South Interstate 45
Ennis, TX 75119
Tel: 714-897-0700

Responsible name : Atrion Regulatory Services, Inc.

In case of emergency : CHEMTREC, U.S. : +1-800-424-9300 International: +1-703-527-3887

2 . Hazards identification

Physical state : Liquid. [Viscous.]

Odor : Aromatic.

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

Emergency overview : WARNING!

FLAMMABLE LIQUID AND VAPOR. HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid exposure during pregnancy. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Potential acute health effects

Inhalation : Harmful by inhalation. Irritating to respiratory system.

Ingestion : Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Skin : Irritating to skin. May cause dermatitis.

Eyes : Irritating to eyes.

Potential chronic health effects

Chronic effects : Contains material that can cause target organ damage.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

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 causes damage to the following organs: kidneys, liver, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

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

2 . Hazards identification

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 disorders involving any 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	%
Toluene	108-88-3	30 - 60
Pitch, petroleum, arom.	68187-58-6	10 - 30
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	5 - 10
Methanol	67-56-1	1 - 5

Canada

Name	CAS number	%
Toluene	108-88-3	30 - 60
Pitch, petroleum, arom.	68187-58-6	10 - 30
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	5 - 10
Methanol	67-56-1	1 - 5

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 : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention immediately.

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5 . Fire-fighting measures

Flammability of the product : Flammable liquid. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Extinguishing media

Suitable : Use dry chemical, CO_2, 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.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

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 : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

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).

Methods for cleaning up : Stop leak if without risk. Move containers from spill area. 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.

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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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 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. Do not reuse container.

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

Product name	Exposure limits
Toluene	**NIOSH REL (United States, 12/2001).** 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). **OSHA PEL Z2 (United States, 11/2006).** AMP: 500 ppm 10 minute(s). CEIL: 300 ppm TWA: 200 ppm 8 hour(s). **ACGIH TLV (United States, 1/2008).** TWA: 20 ppm 8 hour(s).
Distillates (petroleum), solvent-dewaxed heavy paraffinic	**NIOSH REL (United States, 12/2001).** STEL: 10 mg/m³ 15 minute(s). Form: Mist TWA: 5 mg/m³ 10 hour(s). Form: Mist
Methanol	**ACGIH TLV (United States, 1/2008). Absorbed through skin.** STEL: 328 mg/m³ 15 minute(s). STEL: 250 ppm 15 minute(s). TWA: 262 mg/m³ 8 hour(s). TWA: 200 ppm 8 hour(s). **NIOSH REL (United States, 12/2001). Absorbed through skin.** STEL: 325 mg/m³ 15 minute(s). STEL: 250 ppm 15 minute(s). TWA: 260 mg/m³ 10 hour(s). TWA: 200 ppm 10 hour(s). **OSHA PEL (United States, 11/2006).** TWA: 260 mg/m³ 8 hour(s). TWA: 200 ppm 8 hour(s).

Canada

Product name	Exposure limits
Toluene	**CA Alberta Provincial (Canada, 10/2006). Absorbed through skin.** 8 hrs OEL: 50 ppm 8 hour(s). 8 hrs OEL: 188 mg/m³ 8 hour(s). **CA British Columbia Provincial (Canada, 7/2007).** TWA: 20 ppm 8 hour(s). **CA Ontario Provincial (Canada, 3/2007).** TWAEV: 50 ppm 8 hour(s). **CA Quebec Provincial (Canada, 12/2006). Absorbed through skin.** TWAEV: 50 ppm 8 hour(s). TWAEV: 188 mg/m³ 8 hour(s).
Distillates (petroleum), solvent-dewaxed heavy paraffinic	**CA Alberta Provincial (Canada, 10/2006).** 8 hrs OEL: 5 mg/m³ 8 hour(s). Form: Mist 15 min OEL: 10 mg/m³ 15 minute(s). Form: Mist **CA Ontario Provincial (Canada, 3/2007).** TWAEV: 5 mg/m³ 8 hour(s). Form: mist STEV: 10 mg/m³ 15 minute(s). Form: mist **CA Quebec Provincial (Canada, 12/2006).** TWAEV: 5 mg/m³ 8 hour(s). Form: mist STEV: 10 mg/m³ 15 minute(s). Form: mist
Methanol	**CA Alberta Provincial (Canada, 10/2006). Absorbed through skin.** 8 hrs OEL: 262 mg/m³ 8 hour(s). 8 hrs OEL: 200 ppm 8 hour(s). 15 min OEL: 250 ppm 15 minute(s). 15 min OEL: 328 mg/m³ 15 minute(s).

8 . Exposure controls/personal protection

CA British Columbia Provincial (Canada, 7/2007). Absorbed through skin.
TWA: 200 ppm 8 hour(s).
STEL: 250 ppm 15 minute(s).
CA Ontario Provincial (Canada, 3/2007). Absorbed through skin.
TWAEV: 200 ppm 8 hour(s).
TWAEV: 260 mg/m³ 8 hour(s).
STEV: 250 ppm 15 minute(s).
STEV: 325 mg/m³ 15 minute(s).
CA Quebec Provincial (Canada, 12/2006). Absorbed through skin.
TWAEV: 200 ppm 8 hour(s).
TWAEV: 262 mg/m³ 8 hour(s).
STEV: 250 ppm 15 minute(s).
STEV: 328 mg/m³ 15 minute(s).

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, 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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Eyes : 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 or dusts.

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.

Respiratory : Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

Hands : 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.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state : Liquid. [Viscous.]

Flash point : Closed cup: 7.22°C (45°F) [Setaflash.]

Flammable limits : Lower: 1%
Upper: 8%

Color : Black.

Odor : Aromatic.

Boiling/condensation point : 100 to 121°C (212 to 249.8°F)

Specific gravity : 1.1

Vapor pressure : 5.1 kPa (38 mm Hg)

Vapor density : 3.2 [Air = 1]

Volatility : 31% (w/w)

Evaporation rate : 2.7 (Butyl acetate. = 1)

VOC : 330 (g/l).

Solubility : Very slightly soluble in the following materials: cold water and hot water.

10 . Stability and reactivity

Stability : The product is stable.

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

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. Do not allow vapor to accumulate in low or confined areas. Do not swallow.

Materials to avoid : 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.

Conditions of reactivity : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
Flammable in the presence of the following materials or conditions: heat.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Species	Dose	Result	Exposure
Toluene	Rabbit	14100 uL/kg	LD50 Dermal	-
	Rat	636 mg/kg	LD50 Oral	-
	Rat	6900 mg/kg	LD50 Unreported	-
Methanol	Rabbit	15800 mg/kg	LD50 Dermal	-
	Rat	5600 mg/kg	LD50 Oral	-
	Rat	64000 ppm	LC50 Inhalation Vapor	4 hours
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Rabbit	>5 g/kg	LD50 Dermal	-
	Rat	>5 g/kg	LD50 Oral	-

Inhalation : Harmful by inhalation. Irritating to respiratory system.

Ingestion : Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Skin : Irritating to skin. May cause dermatitis.

Eyes : Irritating to eyes.

11 . Toxicological information

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Toluene	A4	3	-	-	-	-
Methanol	-	-	-	None.	-	-

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Test	Species	Exposure	Result
Toluene	-	Daphnia	48 hours	Acute EC50 6000 ug/L
	-	Fish	96 hours	Acute LC50 13 to 15 mg/L
	-	Crustaceans	48 hours	Acute LC50 15500 ug/L
	-	Fish	96 hours	Acute LC50 7.3 ul/L
Methanol	-	Daphnia	48 hours	Acute LC50 3289 to 4395 mg/L
	-	Fish	96 hours	Acute LC50 19 to 20 ml/L
	-	Crustaceans	48 hours	Acute LC50 2500000 ug/L

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. 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. 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

AERG : 127

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		-
IMDG Class	UN1139	COATING SOLUTION	3	II		**Emergency schedules (EmS)** F-E, S-D
IATA-DGR Class	UN1139	COATING SOLUTION	3	II		-

PG* : Packing group

15 . Regulatory information

United States

HCS Classification : Flammable liquid
Toxic material
Irritating material
Target organ effects

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

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: Toluene; Methanol
SARA 311/312 MSDS distribution - chemical inventory - hazard identification
Toluene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Methanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: Toluene; Benzo[j]fluoranthene; 5-Methylchrysene; Benzo[a]pyrene; Benz[a]anthracene; Chrysene

Clean Water Act (CWA) 311: Toluene

Clean Air Act (CAA) 112 accidental release prevention No products were found.

Clean Air Act (CAA) 112 regulated flammable substances No products were found.

Clean Air Act (CAA) 112 regulated toxic substances No products were found.

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements :	Toluene	108-88-3	30 - 60
	Methanol	67-56-1	1 - 5
Supplier notification :	Toluene	108-88-3	30 - 60
	Methanol	67-56-1	1 - 5

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 : **Connecticut Carcinogen Reporting:** None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.
Louisiana Reporting: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: The following components are listed: Toluene; Methanol
Michigan Critical Material: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Hazardous Substances: The following components are listed: Toluene; Methanol
New Jersey Spill: None of the components are listed.
New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.
New York Acutely Hazardous Substances: The following components are listed: Toluene; Methanol
New York Toxic Chemical Release Reporting: None of the components are listed.
Pennsylvania RTK Hazardous Substances: The following components are listed: Toluene; Methanol
Rhode Island Hazardous Substances: None of the components are listed.

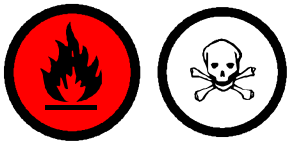
California Prop. 65 : **WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

15 . Regulatory information

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Toluene	No.	Yes.	No.	7000 µg/day (ingestion) 13000 µg/day (inhalation)
5-Methylchrysene	Yes.	No.	0.0084 µg/day (ingestion)	No.
Benzo[j]fluoranthene	Yes.	No.	0.11 µg/day (ingestion)	No.
Benzo[a]pyrene	Yes.	No.	Yes.	No.
Benz[a]anthracene	Yes.	No.	0.033 µg/day (ingestion)	No.
Chrysene	Yes.	No.	0.35 µg/day (ingestion)	No.
Silica crystalline, quartz	Yes.	No.	No.	No.

Canada

WHMIS (Canada) : Class B-2: Flammable liquid
Class D-1B: Material causing immediate and serious toxic effects (Toxic).
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).



Canadian lists : **CEPA Toxic substances:** None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed: Toluene; Methanol
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

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.

International regulations

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements : FLAMMABLE LIQUID AND VAPOR. HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Hazardous Material Information System (U.S.A.) :

Health	*	3
Fire hazard		3
Physical Hazard		0
Personal protection		

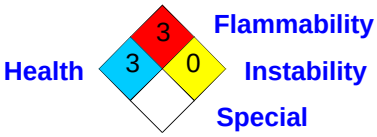
HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal
See section 8 for more detailed information on personal protection.

16 . Other information

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

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005.

Date of issue : 11/15/2008

Version : 1

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.