Central Mix®

SECTION 1: Identification of the substance/mixture and of the supplier

Product name:
RPME

Manufacturer/Supplier Trade name:
Central Mix

Recommended uses of the product and uses restrictions on use:
Pavement preservation

Manufacturer Details
Petrochem Materials Innovation, LLC
6168 Innovation Way
Carlsbad, CA 92009
1-760-603-0961

Emergency telephone number:
Chemtrec 1-800-424-9300

SECTION 2: Hazards identification

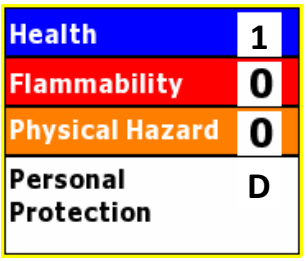
Classification of the substance or mixture:
Not classified for physical or health hazards under GHS.

Hazard statements:
The chief health hazard associated with end-use applications of this product would be irritation of contaminated skin and eyes.

Precautionary statements:
This product is a brown to black liquid or semisolid with a mild petroleum odor. The primary health hazards associated with this product under normal and recommended circumstances of use are from mechanical irritation of exposed tissues. This product is not flammable in emulsion form. Thermal decomposition of this product can produce black, sooty smoke, irritating vapors, and toxic gases (e.g., carbon oxides, nitrogen oxides, sulfur oxides). This product is not normally reactive. This product may be harmful to contaminated terrestrial and aquatic life. Emergency responders must wear proper personal protective equipment for the situation to which they are responding.

NFPA/HMIS

NFPA SCALE (0-4)



HMIS RATINGS (0-4)

SECTION 3: Composition/information on ingredients

Ingredients:		
Ingredient name	**CAS number**	**%**
RPME	None	15-45
1,2-Benzisothiazolin-3-one	002634-33-5	0-1
Ethanol	64-17-5	0-0.5
Polyethylene	9002-88-4	0-5
Alkylamines	CAS Proprietary	0-4.5
Fatty amine derivative	CAS Proprietary	0-5
Foam control agent	CAS Not Specified	0-5
Tetramethyl-5-decyne-4,7-diol,2,4,7,9-	126-86-3	0-2.5
Ethyl-1-Hexanol,2-	104-79-7	0-2.5
Natural rubber	9006-04-6	0-1
Styrene-Butadiene polymer	9003-55-8	0-1
Butyl rubber	308063-42-5	0-1
Naphthenic/Aromatic Extender Oil	64742-02-7	0-0.3
Carbon Black	1333-86-4	0-1.7
Gravel & crushed rock	CAS Not Specified	54-74
Crystalline silica	14808-60-7	0.6-1
Unspecified non-hazardous components	CAS Not Specified	0-10

SECTION 4 : First aid measures

Description of first aid measures

EYE EXPOSURE: If this product enters the eyes, immediately open victim's eyes while under gently running water. Use sufficient force to open eyelids. Have the contaminated individual "roll" eyes. The recommended minimum flushing time is 15 minutes. If any adverse effect, discomfort, or sight changes occur after 15 minutes of rinsing, victim must seek immediate medical attention.

SKIN EXPOSURE: If this product contaminates a small area of the skin, wash thoroughly with soap and water or waterless hand cleaner. If irritation develops or persists, consult a physician. If this product contaminates a large area of the skin, begin decontamination with running water for at least 15 minutes. Remove or cover gross contamination to avoid exposure to rescuers. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victims must seek medical attention if adverse effect occurs.

INHALATION: If mist or sprays generated by the liquid portion of this product are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Victim must seek immediate medical attention. Rescuers entering a closed vessel or tank to attempt rescue must wear positive-pressure, full face piece, Self-Contained Breathing Apparatus (SCBA) or supplied air, NIOSH-approved respirators.

INGESTION: If this product is swallowed, call a physician or poison control center for the most current information.

Most important symptoms and effects, both acute and delayed:

Skin, respiratory, and central nervous system conditions may be aggravated by overexposure to this product.

Recommendations for immediate medical attention and special treatment needed:

Treat symptoms. Eliminate overexposure.
DO NOT INDUCE VOMITING. Have victim rinse mouth with water if conscious. Never induce vomiting or give a diluent (e.g., water) to someone who is unconscious, having convulsions, or unable to swallow. If vomiting occurs, lean patient forward or place on left side (head-down position if possible) to maintain an open airway and prevent aspiration.

SECTION 5: Firefighting measures

Extinguishing media

Water Spray: YES (for cooling)
Carbon Dioxide: YES
Foam: YES
Dry Chemical: YES
Halon: YES
Other: Any "ABC" Class.

Special hazards arising from the substance or mixture:

When involved in a fire, this material may decompose and produce black, sooty smoke, irritating vapors and toxic gases (e.g., carbon oxides, nitrogen oxides, sulfur oxides). Containers of this product can rupture in a fire situation due to internal water vapor (steam) pressure.

Advice for firefighters:

Protective equipment:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment.

Additional information (precautions):

If possible, firefighters should control runoff water to prevent environmental contamination. Rinse contaminated equipment with soapy water before returning such equipment to service..

SECTION 6: Accidental release measures

Clean up small releases by shoveling up or scraping up and dispose of properly. Trained personnel using pre-planned procedures should respond to larger, uncontrolled releases. Proper protective equipment should be used. In case of a large spill, clear the affected area, protect people. Large spills should be cleaned up carefully, avoiding the generation of airborne mists or sprays of the liquid potion of this product. Minimum Personal Protective Equipment should be long-sleeved shirt, long pants, eye protection, steel toe boots, and gloves. Self-Contained Breathing Apparatus must be selected if releases that occur in confined or poorly ventilated areas or in situations in which the level of oxygen is below 19.5%. Strong precautions must be taken to avoid contamination of waterways. Close off sewers and take other measures to protect human health and the environment as necessary. Decontaminate the area thoroughly. Place all spill residue in an appropriate container and seal. Dispose of in accordance with applicable U.S. Federal, State, and local procedures or appropriate standards of Canada (see Section 13, Disposal Considerations).

SECTION 7: Handling and storage

Precautions for safe handling:

WORK AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing mists or sprays generated by the liquid potion of this product. Use in a well-ventilated location. Remove contaminated clothing immediately. Skin contact should be minimized. If any skin contact occurs, clean asphalt from skin with waterless hand cleaner and then wash skin with soap and water. Do not use solvents to clean product from skin. Solvents may contain ingredients that are carcinogenic and/or cause skin irritation. Launder or discard contaminated clothing. Discard contaminated leather material.

STORAGE AND HANDLING PRACTICES: All employees who handle this material should be trained to handle it safely. Open containers slowly on a stable surface. Keep container tightly closed when not in use. Heating of the product to near boiling temperature of water [100·C (212·F)] may cause the product to separate into layers. Keep product from freezing; freezing will cause the product to permanently separate into layers. Store away from incompatible materials (see Section 10, Stability and Reactivity). Material should be stored in secondary containers or in a diked area as appropriate. Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. CAUTION: When solvents (e.g., diesel fuel, fuel oil, naphtha, etc.) are used to clean out the container, tank, transport, pump, or piping system and are therefore introduced into the container with RPME, the solvent may float to the surface. The vapor space above the liquid surface may have the same fire hazards as a container of the solvent. The container or tank should be labeled and treated in accordance with the hazards of the solvent in addition to the hazards of the RPME.

BULK SHIPMENTS: Bulk shipments of this product should be loaded and unloaded in strict accordance with truck manufacturer recommendation and all established onsite safety procedures. Appropriate personal protective equipment must be used (see Section 8). All loading and unloading equipment must be inspected prior to each use. Loading and unloading operations must be attended at all times. Trucks must be level and wheels must be locked or blocked prior to loading or unloading. Truck and material-handling equipment must be verified to be correct for receiving this product and be properly prepared prior to starting the transfer operations. Hoses must be verified to be free of incompatible chemicals prior to connection to the truck. Valves and hoses must be verified to be in the correct positions before starting transfer operations.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Make certain that application equipment is locked and tagged-out safely if necessary. Collect all reinstates and dispose of according to applicable U.S. Federal, State, or local procedures or appropriate Canadian standards.

SECTION 8: Exposure controls/personal protection

Exposure Limits:

CHEMICAL NAME	CAS #	% v/v	ACGIH-TLV		OSHA-PEL		NIOSH		
			TWA mg/m^3	STEL mg/m^3	TWA mg/m^3	STEL mg/m^3	TWA mg/m^3	STEL mg/m^3	IDLH mg/m^3
Petroleum Asphalt (exposure limits are for Asphalt fume)	8052-42-4	30.0–60.0	0.5 (inhalable fraction as benzene-soluble aerosol)	NE	NE	NE	NE	5, ceiling (15 min)	NE
Hydrogen Sulfide	7783-06-4	0.1–1.0	14 NIC 1.4	21 NIC 7	NE	28 ceiling; 70 10 min peak, once per 8-hr shift	NE	15 ceiling (10 min)	140

NE = Not Established NIC = Notice of Intended Change.

Appropriate Engineering controls:
This product is normally used and applied outdoors; mechanical or other type of ventilation should not be needed. If this product is used in an area that does pose an inhalation hazard, use adequate ventilation to ensure exposure levels are maintained below the limits provided in Section 2 (Composition and Information on Ingredients) if applicable. A source of water should be nearby use for rinsing of contaminated skin or eyes.

Respiratory protection:

None normally required for routine industrial use.

Protection of skin:

Clothing such as protective coveralls with long sleeves and full length legs should be worn to minimize contact with skin. Employees should wear lined nitrile or leather gloves for routine industrial use.

Eye protection:

Splash goggles or safety glasses and full coverage face shield must be worn at all times when handling this product.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Semisolid liquid, brown to black	**Explosion limit lower:** **Explosion limit upper:**	Not Determined Not Determined
Odor:	mild petroleum odor	**Vapor pressure:**	Not established
Odor threshold:	Not established	**Vapor density:**	Similar to water
pH-value:	Not established	**Relative density:**	Not Determined
Melting/Freezing point:	Not determined	**Solubility in water:**	Dispersible.
Initial boiling point and boiling range:	> 100·C (212·F)	**Partition coefficient (n-octanol/water):**	Not Determined
Flash point (closed cup):	Not Determined	**Auto/Self-ignition temperature:**	Not Determined
Evaporation rate:	Not Determined	**Decomposition temperature:**	Not Determined
Flammability (solid, gaseous):	Not Determined	**Viscosity:**	Not Determined

SECTION 10: Stability and reactivity

Reactivity: Nonreactive under normal conditions.

Chemical stability: Stable under normal conditions.

Other:
DECOMPOSITION PRODUCTS: The products of thermal decomposition from this product include black, sooty smoke, irritating vapors and toxic gases (e.g., carbon oxides, nitrogen oxides, sulfur oxides, and trace amounts of acrolein, aldehydes and ketones).
MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: This product is not compatible with strong oxidizers, strong acids, strong bases, and amines.
HAZARDOUS POLYMERIZATION: Will not occur.
CONDITIONS TO AVOID: Avoid exposure to and contact with extreme temperatures and incompatible materials.

SECTION 11: Toxicological information

Inhalation
No significant adverse health effects are expected to occur upon short-term exposure to this product at ambient temperatures. Asphalt fumes have been associated with irritation of eyes nose and throat. Also, lower respiratory effects have been reported. Hydrogen sulfide (H2S) can evolve when this product is stored or handled at elevated temperatures. H2S can cause respiratory irritation and hypoxia. At low concentrations, H2S has an odor of rotten eggs. At higher concentrations, H2S odor is not apparent. DO NOT use odor as an indicator of exposure to H2S.

Skin irritation
Heated asphalt can cause burns to the skin. May cause skin irritation with redness, an itching or burning feeling, and swelling of the skin. Exposure to sunlight and to asphalt vapors may amplify tendency for sunburns.

Eye irritation
Heated asphalt can cause burns to the eyes. Mists, vapors or fumes from this material can cause eye irritation with tearing, redness, or a stinging or burning feeling.

Ingestion
Contact with heated asphalt may cause burns. If asphalt at ambient temperatures is swallowed, no significant adverse health effects are anticipated. If swallowed in large quantities, asphalt can obstruct the intestine.

Further information
Heated asphalt could release hydrogen sulfide gas. Toxic amounts H2S could accumulate inside vessels containing heated asphalt.

Numerical Measures of Toxicity
Asphalt
Acute oral toxicity: LD50 rat Dose: 5,001 mg/kg
Acute dermal toxicity: LD50 rat Dose: 2,001 mg/kg

Listings
NTP
This product, Asphalt (CAS-No.: 8052-42-4), may contain trace amounts of benzene a chemical known to cause cancer.
IARC
Asphalt (Bitumen) (CAS-No.: 8052-42-4) Group 2B possibly carcinogenic to humans.
OSHA
This product, Asphalt (CAS-No.: 8052-42-4), may contain trace amounts of benzene a chemical known to cause cancer.

SECTION 12: Ecological information

ENVIRONMENTAL STABILITY

Hydrocarbons (such as the main components of this product) are not photolyzed or hydrolyzed to any great extent. This product will not evaporate or biodegrade readily in the environment. All work practices should be aimed at preventing releases to the environment. In the event of a release to soil, the contaminated soil should be removed if possible. Additional environmental data for components of this product are provided as follows:

ASPHALT:

Solubility
Insoluble

Biodegradation
The biodegradation of both an n-alkane and several carboxylated cycloalkanes was examined within tailings produced by the extraction of bitumen from the Athabasca oil sands. The carboxylated cycloalkanes examined were structurally similar to naphthenic acids that have been associated with the acute toxicity of oil sand tailings. The biodegradation potential of naphthenic acids was estimated by determining the biodegradation of both the carboxylated cycloalkanes and hexadecane in oil sand tailings. Carboxylated cycloalkanes were biodegraded within oil sand tailings, although compounds with methyl substitutions on the cycloalkane ring were more resistant to microbial degradation. Microbial activity against hexadecane and certain carboxylated cycloalkanes was found to be nitrogen- and phosphorus-limited. (Type of asphalt used in this test report not indicated)

Effect of material on plants or animals
Large releases may have adverse effects on plant and animal life.

Effect of chemical on aquatic life
This product may adversely affect aquatic life if released into an aquatic environment. If high concentrations of the product are released to an aquatic environment, death of fish, animals, and invertebrates may occur.

SECTION 13: Disposal considerations

Waste disposal recommendations:

Preparing wastes for disposal
Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations or with regulations of Canada. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

EPA waste number
Not applicable for wastes consisting only of this product. NOTE: If solvents are used to clean piping and/or pumps and are therefore introduced into the tank of RPME, the resulting mixture may be regulated as a flammable material. See Section 7, Handling and Storage, for further information.

SECTION 14: Transport information

THIS PRODUCT IS NOT HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME:	Not applicable.
HAZARD CLASS NUMBER and DESCRIPTION:	Not applicable.
UN IDENTIFICATION NUMBER:	Not applicable.
PACKING GROUP:	Not applicable.
DOT LABEL(S) REQUIRED:	Not applicable.
EMERGENCY RESPONSE GUIDEBOOK No. (2004)	Not applicable.

MARINE POLLUTANT: This product is not designated by the DOT to be a Marine Pollutant (49 CFR 172.101, Appendix B).

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is not considered as dangerous good, per regulations of Transport Canada.

SECTION 15: Regulatory information

ADDITIONAL UNITED STATES REGULATIONS:

U.S. SARA 302 and 304 REPORTING REQUIREMENTS: Components of this product are subject to the reporting requirements of Sections 302 and 304 of Title III of the Superfund Amendments and Reauthorization Act, as follows:

CHEMICAL NAME	SARA 302 (40 CFR 355, Appendix A)	SARA 304 (40 CFR Table 302.4)
Hydrogen Sulfide	Yes	Yes

U.S. SARA THRESHOLD PLANNING QUANTITY: Hydrogen Sulfide = 500 lbs. (226 kg). The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lbs. (4,540 kg) may apply to this product, per 40 CFR 370.20.

U.S. SARA SECTIONS 311/312 HAZARDOUS CHEMICAL REPORTING: This product has requirements of hazardous chemical reporting, as per 40 CFR, Part 370:

IMMEDIATE HEALTH (Acute Health Hazard)	DELAYED HEALTH (Chronic Health Hazard)	FIRE	SUDDEN RELEASE	REACTIVE
Yes	Yes (fumes)	No	No	No

U.S. SARA SECTION 313 HAZARDOUS CHEMICAL REPORTING: The Hydrogen Sulfide component of this product has reporting requirements under Section 313; however, these requirements are currently under an administrative stay.

U.S. TSCA INVENTORY STATUS: The components of this product listed by CAS number in Section 2 (Composition and Information on ingredients) are listed on the TSCA Inventory.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Hydrogen Sulfide= 100 lbs. (45.4 kg)

SECTION 16: Other information

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.