

### SECTION 1: IDENTIFICATION

#### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** LBM; CMS-2

#### 1.2. Intended Use of the Product

**Use of the substance/mixture:** Cold Paving

#### 1.3. Name, Address, and Telephone of the Responsible Party

##### Company

Russell Standard / Hammaker East

285 Kappa Drive

Suite 300

Pittsburgh, PA 15238

T: (800) 323-3053

[www.russellstandard.com](http://www.russellstandard.com)

#### 1.4. Emergency Telephone Number

**Emergency Number** : (800) 323-3053 (24 hours)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the Substance or Mixture

##### Classification (GHS-US)

Flam. Liq. 4 H227

Skin Irrit. 2 H315

Eye Irrit. 2A H319

Skin Sens. 1 H317

Muta. 1B H340

Carc. 1B H350

Repr. 2 H361

Aquatic Acute 3 H402

Aquatic Chronic 3 H412

Full text of H-phrases: see section 16

#### 2.2. Label Elements

##### GHS-US Labeling

##### Hazard Pictograms (GHS-US)



##### Signal Word (GHS-US)

: Danger

##### Hazard Statements (GHS-US)

: H227 - Combustible liquid.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H319 - Causes serious eye irritation.  
H340 - May cause genetic defects.  
H350 - May cause cancer.  
H361 - Suspected of damaging fertility or the unborn child.  
H402 - Harmful to aquatic life.  
H412 - Harmful to aquatic life with long lasting effects.

##### Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from extremely high or low temperatures, ignition sources, and incompatible materials. - No smoking.  
P261 - Avoid breathing vapors, mist, or spray.  
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.  
P272 - Contaminated work clothing must not be allowed out of the workplace.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves, protective clothing, and eye protection.  
P301+P310 - If swallowed: Immediately call a poison center or doctor.

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P302+P352 - If on skin: Wash with plenty of water.  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P321 - Specific treatment (see section 4 on this SDS).  
P331 - Do NOT induce vomiting.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

### 2.3. Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. May defat skin and cause contact dermatitis. Contains a small amount of hydrogen sulfide. Hydrogen sulfide is a fatal and highly flammable gas with a rotten egg odor that quickly causes odor fatigue. Heating of this product and storage under elevated temperatures or over long periods of time may release higher amounts of hydrogen sulfide. Hydrogen sulfide is also an asphyxiant. If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that can be fatal. Product may contain low levels of polynuclear aromatic hydrocarbons (PNAs). Evidence from animal studies indicates that prolonged exposure to various PNAs can cause cancer of the lungs, skin and other organs.

### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product Identifier	%	Classification (GHS-US)
Asphalt	(CAS No) 8052-42-4	65 - 70	Carc. 2, H351
Water	(CAS No) 7732-18-5	30 - 35	Not classified
Naphtha, petroleum, hydrotreated heavy	(CAS No) 64742-48-9	10 - 15	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1B, H350 Repr. 2, H361 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Fatty amine derivative/Alkyl amine mixture	(CAS No) Proprietary Mixture	0.25 - 0.875	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360 STOT SE 3, H336 STOT SE 3, H335 STOT SE 1, H370
Fatty amine derivatives	(CAS No) Proprietary Mixture	0.2 - 0.7	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317

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Ethyl alcohol	(CAS No) 64-17-5	0.06 - 0.35	Flam. Liq. 2, H225 Eye Irrit. 2A, H319
Hydrochloric acid	(CAS No) 7647-01-0	0.1 - 0.3	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 2, H401
Proprietary fatty polyamines	(CAS No) Proprietary Mixture	0.04 - 0.21	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Proprietary fatty amines	(CAS No) Proprietary Mixture	0.04 - 0.21	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Proprietary fatty polyamines	(CAS No) Proprietary Mixture	0.02 - 0.14	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400

Full text of H-phrases: see section 16

\*The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200]. In the event of an emergency, chemical identities and exact percentages of the proprietary ingredients may need to be disclosed to emergency personnel upon request.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First Aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**First-aid Measures After Skin Contact:** In contact with cold product: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists. In contact with hot product: Cool skin rapidly with cold water after contact with molten product. Removal of solidified molten material from skin requires medical assistance.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention. Protect skin and eyes from contact with molten material. Removal of solidified molten material from the eyes requires medical assistance.

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

### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/Injuries:** Causes skin irritation. Causes serious eye irritation. Skin sensitization. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. May be fatal if swallowed and enters airways. Risk of thermal burns on contact with molten product.

**Symptoms/Injuries After Inhalation:** Prolonged exposure may cause irritation. WARNING: irritating and toxic hydrogen sulfide gas may be present. Greater than 15-20ppm continuous exposure can cause mucous membrane and respiratory tract irritation. 50-500 ppm can cause headache, nausea, and dizziness. Continued exposure at these levels can lead to loss of reasoning and balance, difficulty in breathing, fluid in the lungs, and possible loss of consciousness. Greater than 500ppm can cause rapid unconsciousness and death if not promptly revived.

**Symptoms/Injuries After Skin Contact:** Causes skin irritation. Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction. Risk of thermal burns on contact with molten product.

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**Symptoms/Injuries After Eye Contact:** Contact causes severe irritation with redness and swelling of the conjunctiva. Risk of thermal burns on contact with molten product.

**Symptoms/Injuries After Ingestion:** May cause gastrointestinal irritation. Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Product may contain polynuclear aromatic hydrocarbons (PNAs). Evidence from animal studies indicates that prolonged exposure to various PNAs can cause cancer of the lungs, skin and other organs.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If burned by hot product, cool affected area immediately with cool water. Do not attempt to remove solidified material from skin. Seek medical attention immediately. If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Alcohol-resistant foam. Carbon dioxide (CO<sub>2</sub>). Dry chemical powder. Earth. Sand.

**Unsuitable Extinguishing Media:** Do not use water when molten material is involved, contact of hot product with water will result in a violent expansion as the water turns to steam causing explosion with massive force. A heavy water stream may spread burning liquid.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Combustible liquid.

**Explosion Hazard:** Contains a small amount of hydrogen sulfide. Hydrogen sulfide is a fatal, and highly flammable gas with a rotten egg odor that quickly causes odor fatigue. Heating of this product and storage under elevated temperatures or over long periods of time may release higher amounts of hydrogen sulfide. Hydrogen sulfide is also an asphyxiant.

**Reactivity:** Hazardous reactions will not occur under normal conditions. Reacts with strong oxidizers: increased risk of fire.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Remove containers from fire area if this can be done without risk. Do not get water inside containers. Do not apply water stream directly at source of leak. Do not breathe fumes from fires or vapors from decomposition.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Other Information:** Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Use special care to avoid static electric charges. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing.

#### 6.1.1. For Non-emergency Personnel

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

**Emergency Procedures:** Evacuate unnecessary personnel. Stop leak if safe to do so.

#### 6.1.2. For Emergency Responders

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

**Emergency Procedures:** Ventilate area. Eliminate ignition sources. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

### 6.3. Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Cool molten material to limit spreading. Allow liquid material to solidify before cleaning up. Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. See Section 13, Disposal Considerations.

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## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** Risk of thermal burns on contact with molten product. Contains Sulfur, may release small amounts of hydrogen sulfide. Hydrogen sulfide is a highly flammable, explosive gas under certain conditions, is a toxic gas, and may be fatal. Gas can accumulate in the headspace of closed containers, use caution when opening sealed containers. Heating the product or containers can cause thermal decomposition of the product and release hydrogen sulfide.

**Precautions for Safe Handling:** Do not handle until all safety precautions have been read and understood. Take precautionary measures against static discharge. Use only non-sparking tools. Do not get in eyes, on skin, or on clothing. Do NOT breathe (vapor, mist, gas). Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Product may release hydrogen sulfide: a specific assessment of inhalation risks from the presence of hydrogen sulfide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances. Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

**Storage Conditions:** Store in a dry, cool place. Store in a well-ventilated place. Keep container tightly closed. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Keep in fireproof place.

**Incompatible Products:** Strong acids, strong bases, strong oxidizers. Chlorine. Permanganates. Chlorates.

### 7.3. Specific End Use(s)

Cold Paving

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

Asphalt (8052-42-4)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (fume, inhalable fraction)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen fume, coal tar-free
USA NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (fume)
Hydrochloric acid (7647-01-0)		
USA ACGIH	ACGIH Ceiling (ppm)	2 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (ceiling) (ppm)	5 ppm
USA IDLH	US IDLH (ppm)	50 ppm
USA OSHA	OSHA PEL (Ceiling) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (Ceiling) (ppm)	5 ppm
Ethyl alcohol (64-17-5)		
USA ACGIH	ACGIH STEL (ppm)	1000 ppm
USA ACGIH	ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	1000 ppm
USA IDLH	US IDLH (ppm)	3300 ppm (10% LEL)
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

### 8.2. Exposure Controls

#### Appropriate Engineering Controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Ensure all national/local regulations are observed.

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**Personal Protective Equipment** : Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.



**Materials for Protective Clothing** : With molten material wear thermally protective clothing, otherwise: chemically resistant materials and fabrics.

**Hand Protection** : Wear protective gloves. If material is hot, wear thermally resistant protective gloves.

**Eye Protection** : Chemical safety goggles.

**Skin and Body Protection** : Wear suitable protective clothing.

**Respiratory Protection** : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Thermal Hazard Protection** : If material is hot, wear thermally resistant clothing.

**Other Information** : When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Black/Brown
Odor	: Asphalt
Odor Threshold	: No data available
pH	: 2 - 5
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: 212 °F (100 °C)
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: No data available
Relative Density	: No data available
Specific Gravity	: .9 - 1.1
Specific gravity / density	: 7.5 - 9.2 lb/gal
Solubility	: No data available
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: 100 - 450 SFS

**9.2. Other Information** No additional information available

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity:** Hazardous reactions will not occur under normal conditions. Reacts with strong oxidizers: increased risk of fire.

**10.2. Chemical Stability:** Stable under normal conditions. May form flammable or explosive vapor-air mixture.

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

**10.4. Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

**10.5. Incompatible Materials:** Strong acids, strong bases, strong oxidizers. Chlorine. Permanganates. Chlorates.

**10.6. Hazardous Decomposition Products:** Carbon oxides (CO, CO<sub>2</sub>). Hydrocarbons. Nitrogen oxides. Sulfur oxides. Hydrogen sulfide.

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## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Toxicological Effects

Acute Toxicity: Not classified

<b>Fatty amine derivative/Alkyl amine mixture</b>	
ATE (Oral)	100.00 mg/kg body weight
ATE (Dermal)	1,000.00 mg/kg body weight
ATE (Dust/Mist)	0.50 mg/l/4h
<b>Asphalt (8052-42-4)</b>	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 94.4 mg/m <sup>3</sup>
<b>Hydrochloric acid (7647-01-0)</b>	
LD50 Dermal Rabbit	> 5010 mg/kg
<b>Naphtha, petroleum, hydrotreated heavy (64742-48-9)</b>	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 3160 mg/kg
<b>Ethyl alcohol (64-17-5)</b>	
LD50 Oral Rat	10470 mg/kg
LD50 Dermal Rat	20 ml/kg
LC50 Inhalation Rat	124.7 mg/l/4h
<b>Proprietary fatty polyamines</b>	
ATE (Oral)	500.00 mg/kg body weight
<b>Proprietary fatty amines</b>	
ATE (Oral)	500.00 mg/kg body weight
<b>Proprietary fatty polyamines</b>	
ATE (Oral)	500.00 mg/kg body weight

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

pH: 2 - 5

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

pH: 2 - 5

**Respiratory or Skin Sensitization:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** May cause genetic defects.

**Carcinogenicity:** May cause cancer.

<b>Asphalt (8052-42-4)</b>	
IARC group	2B
National Toxicology Program (NTP) Status	Twelfth Report - Items under consideration.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
<b>Hydrochloric acid (7647-01-0)</b>	
IARC group	3
<b>Ethyl alcohol (64-17-5)</b>	
IARC group	1
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

**Reproductive Toxicity:** Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Aspiration Hazard:** Not classified.

**Symptoms/Injuries After Inhalation:** Prolonged exposure may cause irritation. WARNING: irritating and toxic hydrogen sulfide gas may be present. Greater than 15-20ppm continuous exposure can cause mucous membrane and respiratory tract irritation. 50-500 ppm can cause headache, nausea, and dizziness. Continued exposure at these levels can lead to loss of reasoning and balance, difficulty in breathing, fluid in the lungs, and possible loss of consciousness. Greater than 500ppm can cause rapid unconsciousness and death if not promptly revived.

**Symptoms/Injuries After Skin Contact:** Causes skin irritation. Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction. Risk of thermal burns on contact with molten product.

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**Symptoms/Injuries After Eye Contact:** Contact causes severe irritation with redness and swelling of the conjunctiva. Risk of thermal burns on contact with molten product.

**Symptoms/Injuries After Ingestion:** May cause gastrointestinal irritation. Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Product may contain polynuclear aromatic hydrocarbons (PNAs). Evidence from animal studies indicates that prolonged exposure to various PNAs can cause cancer of the lungs, skin and other organs.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

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

<b>Hydrochloric acid (7647-01-0)</b>	
LC50 Fish 1	3.25 - 3.5 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)
EC50 Daphnia 1	4.92 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>Naphtha, petroleum, hydrotreated heavy (64742-48-9)</b>	
LC50 Fish 1	2200 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
<b>Ethyl alcohol (64-17-5)</b>	
EC50 Daphnia 1	9268 - 14221 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
ErC50 (algae)	1000 mg/l

### 12.2. Persistence and Degradability

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<b>Persistence and Degradability</b>	May cause long-term adverse effects in the environment.
<b>Ethyl alcohol (64-17-5)</b>	
<b>Persistence and Degradability</b>	Not established.

### 12.3. Bioaccumulative Potential

<b>LBM; CMS-2</b>	
<b>Bioaccumulative Potential</b>	Not established.
<b>Asphalt (8052-42-4)</b>	
BCF fish 1	(no bioaccumulation expected)
Log Pow	> 6
<b>Ethyl alcohol (64-17-5)</b>	
Log Pow	-0.32
<b>Bioaccumulative Potential</b>	Not established.

**12.4. Mobility in Soil** No additional information available

### 12.5. Other Adverse Effects

**Other Information** : Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, and international regulations.

**Additional Information:** Handle empty containers with care because residual vapors are flammable.

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

## SECTION 14: TRANSPORT INFORMATION

### 14.1. In Accordance with DOT

**Proper Shipping Name** : ASPHALT at or above its flash point  
**Hazard Class** : 3  
**Identification Number** : NA1999  
**Label Codes** : 3  
**Packing Group** : III  
**ERG Number** : 130



**14.2. In Accordance with IMDG** Not regulated for transport

**14.3. In Accordance with IATA** Not regulated for transport



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## SECTION 15: REGULATORY INFORMATION

### 15.1 US Federal Regulations

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<b>SARA Section 311/312 Hazard Classes</b>	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
<b>Asphalt (8052-42-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>SARA Section 311/312 Hazard Classes</b>	Delayed (chronic) health hazard
<b>Hydrochloric acid (7647-01-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302 Listed on United States SARA Section 313	
<b>SARA Section 302 Threshold Planning Quantity (TPQ)</b>	500 (gas only)
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard
<b>SARA Section 313 - Emission Reporting</b>	1.0 % (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)
<b>Naphtha, petroleum, hydrotreated heavy (64742-48-9)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Water (7732-18-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Ethyl alcohol (64-17-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

### 15.2 US State Regulations

<b>Ethyl alcohol (64-17-5)</b>	
<b>U.S. - California - Proposition 65 - Carcinogens List</b>	WARNING: This product contains chemicals known to the State of California to cause cancer.
<b>U.S. - California - Proposition 65 - Developmental Toxicity</b>	WARNING: This product contains chemicals known to the State of California to cause birth defects.
<b>Asphalt (8052-42-4)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Hydrochloric acid (7647-01-0)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Ethyl alcohol (64-17-5)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

<b>Revision Date</b>	: 08/03/2015
<b>Other Information</b>	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

### GHS Full Text Phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1

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Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Flam. Liq. 4	Flammable liquids Category 4
Met. Corr. 1	Corrosive to metals Category 1
Muta. 1B	Germ cell mutagenicity Category 1B
Repr. 1B	Reproductive toxicity Category 1B
Repr. 2	Reproductive toxicity Category 2
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H227	Combustible liquid
H290	May be corrosive to metals
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life

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H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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

SDS US (GHS HazCom)