

Section 1 - PRODUCT AND COMPANY IDENTIFICATION**Material Name**

Asphalt

Product Code

Not available

Synonyms

Asphalt flux (Petroleum, Vacuum Tower Bottoms)

Product Use

For blending with asphalt. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

Restrictions on Use

None known.

Details of the supplier of the safety data sheet

Emerald Services, Inc.
42 Longwater Drive
Norwell, MA 02061

Phone: 1-800-669-5740

Emergency: 1-800-468-1760

Issue Date

March 9, 2021

Supersedes Issue Date

April 23, 2019

Original Issue Date

May 20, 2013

Section 2 - HAZARDS IDENTIFICATION**Classification in accordance with Schedule 1 of Canada's Hazardous Products Regulations (HPR) (SOR/2015-17) and paragraph (d) of 29 CFR 1910.1200 in the United States**

None needed according to classification criteria.

GHS Label Elements**Symbol(s)**

None needed according to classification criteria.

Signal Word

None needed according to classification criteria

Hazard Statement(s)

None needed according to classification criteria.

Precautionary Statement(s)**Prevention**

None needed according to classification criteria.

Response

None needed according to classification criteria.

Storage

None needed according to classification criteria.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

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Other Hazards

This product may be heated to temperatures greater than 100°C (212°F). Hot product can generate hydrogen sulfide, which can be fatal if inhaled and which is a highly flammable gas. Contact with hot material may cause serious thermal burns. Use only outdoors or in a well-ventilated area.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
129893-17-0	Lubricating oils, used, residues	99.9-100
7783-06-4	Hydrogen sulfide	<0.1

*The concentration of hydrogen sulfide dissolved in this product is less than 0.1 WT% but may give rise to vapor concentrations in the vapor portions of the storage tanks which may meet exposure limits.

Section 4 - FIRST AID MEASURES

Inhalation

Upon inhalation of hydrogen sulfide, remove person to fresh air and keep comfortable for breathing and immediately call a POISON CENTER or doctor/physician. If breathing is difficult, oxygen should be administered by qualified personnel.

Skin

For burns from contact with hot material, do NOT remove solidified material as this might cause skin tearing. Cover area with sterile, dry dressing and immediately get medical attention. If contact is with cooled material, remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.

Eyes

If hot product contacts eye, flush with water for at least 15 minutes and seek medical attention immediately. Do not attempt to remove cooled product from eye as it can cause tissue damage. If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Obtain medical advice if pain or redness develops or persists.

Ingestion

Do NOT induce vomiting. Immediately get medical attention. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

Most Important Symptoms/Effects

Acute

Cooled product may irritate the respiratory tract (nose, throat, and lungs), eyes, and skin. For hot product: Fatal if inhaled, thermal burns.

Delayed

No information on significant adverse effects.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Inhalation of hydrogen sulfide may cause respiratory depression and lead to death. Pulmonary edema may occur up to 48 hours after exposure – keep under observation. Call 1-800-468-1760 for additional information.

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Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical, water fog. Water spray or foam may cause frothing.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Hot product is a vapor explosion hazard indoors, outdoors, or in sewers. Vapors or gases may ignite at distant ignition sources and flash back. Most vapors are heavier than air and will spread along ground and collect in low or confined areas (drains, basements, tanks). Runoff may create fire or explosion hazard. Containers may rupture or explode if exposed to heat. Empty containers may retain product residue including flammable/explosive vapors. Product is not sensitive to mechanical impact or static discharge. For cooled product: Product may burn but does not ignite readily.

Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce hydrogen sulfide, sulfur oxides, carbon monoxide, unidentified organic compounds.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Keep storage containers cool with water spray.

Special Protective Equipment and Precautions for Firefighters

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. This product can generate hydrogen sulfide which can be fatal if inhaled and is a very flammable gas. Take precautions against contact with hot product.

Methods and Materials for Containment and Cleaning Up

Hot product: contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal. Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal. Contact with water will cause the product to solidify.
Cooled product: Collect and dispose in proper container.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

These products are normally handled at high temperatures. Vapors from hot material may be explosive: keep away from sparks or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, metal containers, including trucks and tank cars, should be grounded and bonded. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharges. Do not breathe vapor or mist. Use only outdoors or in a well-ventilated area. Wear respiratory protection. Sense of smell becomes rapidly fatigued and cannot be relied upon to warn of the continuous presence of hydrogen sulfide. Avoid contact with eyes Skin clothing shoes. Do not smoke when using these products. Do not put in mouth. Wear suitable protective gloves and eye/face protection.

Conditions for Safe Storage, Including any Incompatibilities

None needed according to classification criteria.

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Keep away from water when loading and unloading. Store in a dry place. Use dry container to avoid violent eruptions and splattering of hot product. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

Incompatible Materials

Acids, alkalis, oxidizing materials, halogens, reactive metals.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Hydrogen sulfide	7783-06-4
Alberta, New Brunswick	10 ppm TWA ; 14 mg/m ³ TWA; 15 ppm Ceiling ; 21 mg/m ³ Ceiling
British Columbia	10 ppm Ceiling
Manitoba	1 ppm TWA
Northwest Territories, Nunavut, Ontario, Saskatchewan	10 ppm TWA; 15 ppm STEL
Nova Scotia, Prince Edward Island	1 ppm TWA; 5 ppm STEL
Quebec	10 ppm TWAEV ; 14 mg/m ³ TWAEV; 15 ppm STEV ; 21 mg/m ³ STEV
Yukon	10 ppm TWA ; 15 mg/m ³ TWA; 15 ppm STEL ; 27 mg/m ³ STEL
ACGIH	1 ppm TWA; 5 ppm STEL
NIOSH	10 ppm Ceiling 10 min; 15 mg/m ³ Ceiling 10 min; 100 ppm IDLH
OSHA (US)	20 ppm Ceiling

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear safety glasses. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Eye wash fountain and emergency showers are recommended. Contact lens use is not recommended.

Skin Protection/Glove Recommendations

When products are heated and skin contact is likely, wear heat-resistant gloves, boots, and other protective clothing. To avoid prolonged or repeated contact with product where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

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Respiratory Protection

Sense of smell becomes rapidly fatigued and cannot be relied upon to warn of the continuous presence of hydrogen sulfide. Use NIOSH air-certified, air-supplied respirators (self-contained breathing apparatus or air-line) respiratory protective equipment when concentration of hydrogen sulfide may exceed applicable exposure limits. Protection provided by air purifying respirators is limited. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

Protective Materials

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Safety glasses, Gloves, and Lab coat or apron.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Hot product: Semi solid Cooled product: Solid	Physical State	Hot product: Semi solid Cooled product: Solid
Odor	Petroleum.	Color	Black.
Odor Threshold	0.1 ppm (Hydrogen sulfide)	pH	Not available
Melting Point	Not available	Boiling Point	426 °C (800 °F Minimum)
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	Not available	Flammability (solid, gas)	Not available
Autoignition Temperature	485 °C (905 °F Similar material)	Flash Point	288 °C [Cleveland Open Cup.] (550 °F Minimum)
Lower Explosive Limit	Not available	Decomposition temperature	Not available
Upper Explosive Limit	Not available	Vapor Pressure	0.2 mmHg @ 175°F °C (79° C)
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	0.96 (Approximate Water = 1)
Water Solubility	(Insoluble)	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Density	8 lb/gal (US Approximate)	Physical Form	Solid.
Pour Point	-6 °C (21 °F Maximum)		
Volatile Organic Compounds (As regulated)	100 WT% (as per 40 CFR part 51.100(s))	Molecular Weight	Not available.

Section 10 - STABILITY AND REACTIVITY

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Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions

Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials

Acids, alkalis, oxidizing agents, reactive halogens, or reactive metals. Avoid volatile solvents because contact may cause vapors from hot products to ignite. Avoid water because allowing hot product to contact water can cause violent eruptions, splatter hot material, or ignite flammable materials.

Hazardous decomposition products

Decomposition and combustion materials may be toxic. Burning may produce hydrogen sulfide, sulfur oxides, carbon monoxide and unidentified compounds.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

For hot product: High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). Inhaling hydrogen sulfide released from hot products in enclosed areas may cause unconsciousness, convulsions, suffocation, coma, and death. For cooled product: Mechanical irritation may occur.

Skin Contact

Heated material may cause thermal burns. For cooled product: May cause irritation.

Eye Contact

Heated material may cause thermal burns. May cause irritation.

Ingestion

May be harmful if swallowed. May cause, throat irritation, nausea, vomiting, diarrhea. Aspiration hazard: breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Hydrogen sulfide (7783-06-4)

Inhalation LC50 Rat 700 mg/m³ 4 h

Product Toxicity Data

Acute Toxicity Estimate

Inhalation - Dust and Mist	> 5 mg/L
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Immediate Effects

For hot product: Fatal if inhaled, thermal burns. Cooled product may irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

For hot product: thermal burns. Cooled product may irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.

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Respiratory Sensitization

Based on best current information, there is no known human sensitization associated with this product.

Dermal Sensitization

Based on best current information, there is no known human sensitization associated with this product.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA.

Germ Cell Mutagenicity

Based on best current information, there is no known mutagenicity associated with this product.

Tumorigenic Data

No data available

Reproductive Toxicity

Based on best current information, there is no known reproductive toxicity associated with this product.

Based on best current information, there is no known teratogenicity associated with these products.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Medical Conditions Aggravated by Exposure

Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Hydrogen sulfide	7783-06-4
Fish:	LC50 96 h Lepomis macrochirus 0.0448 mg/L [flow-through]; LC50 96 h Pimephales promelas 0.016 mg/L [flow-through]

Invertebrate Toxicity

No additional information is available.

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information is available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable federal, state and local regulations. The responsibility for proper waste disposal lies with the owner of the waste. Contact Emerald regarding proper recycling and disposal.

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Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S.

Hazard Class: 9

UN/NA #: UN3257

Packing Group: III

Required Label(s): 9

Further information: When product temperature is less than 212 °F (100 °C), not regulated for transport.

IATA Information:

Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S.

Hazard Class: 9

UN#: UN3257

Required Label(s): 9

Further information: When product temperature is less than 212 °F (100 °C), not regulated for transport.

IMDG Information:

Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S.

Hazard Class: 9

UN#: UN3257

Packing Group: III

Required Label(s): 9

Further information: When product temperature is less than 212 °F (100 °C), not regulated for transport.

TDG Information:

Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S.

Hazard Class: 9

UN#: UN3257

Packing Group: III

Required Label(s): 9

Further information: When product temperature is less than 212 °F (100 °C), not regulated for transport.

International Bulk Chemical Code

This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Hydrogen sulfide	7783-06-4
SARA 302:	500 lb TPQ
SARA 313:	1 % de minimis concentration
CERCLA:	100 lb final RQ ; 45.4 kg final RQ

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OSHA (safety):	1500 lb TQ
SARA 304:	100 lb EPCRA RQ

Chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

CAS No.	Name	Percent by Weight
7783-06-4	Hydrogen sulfide	< 0.1 %

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

No hazard categories applicable.

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Hydrogen sulfide	7783-06-4	Yes	Yes	Yes	Yes	Yes

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

Not listed under California Proposition 65.

Component Analysis - Inventory

Lubricating oils, used, residues (129893-17-0)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	No	No	No	No	No	No	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
No		No	No	No	No	No	No	

Hydrogen sulfide (7783-06-4)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
Yes		Yes	Yes	Yes	Yes	Yes	Yes	

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 1 Fire: 1 Instability: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

2021/12: Update to Section 1. Addition to Section 15.

Safety Data Sheet

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Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL), KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; KR REACH CCA - Korea Registration and Evaluation of Chemical Substances Chemical Control Act; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne - Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TH-TECI - Thailand - FDA Existing Chemicals Inventory (TECI); TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

Disclaimer:

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Emerald assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplied to the user.