

Section 1: IDENTIFICATION

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|------------------------------------|--|
| Product Name: | Asphalt (Superior) |
| Synonyms: | Asphalt PG 52-28 Asphalt PG 52-34 Asphalt PG 58-28 Asphalt PG 58-34 PMB Asphalt PG 58-34 Asphalt PG 58H-34 Asphalt PG 64-28 Asphalt PG 64-28NV Asphalt PG 64-34 Asphalt PG 64-34P Asphalt PG 70-28 Asphalt PG 76-28 Asphalt PG 64-22 |
| Product Use: | Paving and road-coating; roofing; sealing and joint filling; special paints; adhesive in electrical laminates and hot-melt compositions; diluent in low-grade rubber products; fluid loss control in hydraulic fracturing of oil wells; medium for radioactive waste disposal; pipeline and underground cable coating; rust-preventive hotdip coatings; base for synthetic turf; water-retaining barrier for sandy soils; supporter of rapid bacterial growth in converting petroleum components to protein. |
| Restrictions on Use: | Not available. |
| Manufacturer/Supplier: | Superior Refining Company, LLC (Husky Energy) 2407 Stinson Ave Superior, WI 54880 |
| Phone Number: | 403-298-6111 |
| Emergency Phone: | Chemtrec: 1-800-424-9300 877-262-2111 |
| Date of Preparation of SDS: | October 14, 2020 |

Section 2: HAZARD(S) IDENTIFICATION**GHS INFORMATION****Classification:** Carcinogenicity, Category 2**LABEL ELEMENTS****Hazard****Pictogram(s):****Signal Word:** Warning**Hazard Statements:** Suspected of causing cancer.

Precautionary Statements

Prevention: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves, protective clothing, eye protection and face protection.

Response: IF exposed or concerned: Get medical attention.

Storage: Store locked up.

Disposal: Dispose of contents and container in accordance with applicable regional, national and local laws and regulations.

Hazards Not Otherwise Classified: Not applicable.

Ingredients with Unknown Toxicity: 100% of this product mixture consists of ingredient(s) of unknown acute toxicity.

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

This material is considered hazardous by the Hazardous Products Regulations.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

| Hazardous Ingredient(s) | Common name / Synonyms | CAS No. | % wt./wt. |
|-------------------------------------|------------------------|-------------|-----------|
| Asphalt | Not available. | 8052-42-4 | 100 |
| Hydrogen sulfide (H ₂ S) | Hydrogen sulphide | 7783-06-4 | Trace |
| Polycyclic Aromatic Hydrocarbons | Not available. | 130498-29-2 | 0.1 - 1 |

Section 4: FIRST-AID MEASURES

Inhalation: If inhaled: Call a poison center or doctor if you feel unwell.

Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. This product may contain small amounts of Hydrogen sulphide which may accumulate in confined spaces. Inhalation of Hydrogen sulphide may cause loss of sense of smell, major irritation of the respiratory tract, headache, nausea, vomiting, dizziness, and fluid buildup in the lungs (pulmonary edema), which can be fatal. At 300 ppm unconsciousness may occur after 20 minutes. From 300 to 500 ppm, death can occur within minutes of continuous exposure. Above 500 ppm Hydrogen sulphide may cause instantaneous loss of consciousness and immediate death.

Eye Contact: If in eyes: Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.

Acute and delayed symptoms and effects: May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Hot liquid product may cause serious thermal burns on direct contact.

Skin Contact: If on skin (or hair): Rinse skin with water or shower. Get immediate medical advice/attention. Remove non-adhering contaminated clothing.

Cool adherent materials and burned areas with ice and/or cold water. Do not remove adherent material or clothing. Do not use solvents to remove asphalt from the skin. Wash contaminated clothing before reuse.

Acute and delayed symptoms and effects: May cause skin irritation. Signs/symptoms may include localized redness, swelling, and itching. Hot liquid product may cause serious thermal burns on direct contact. Asphalt fumes can increase susceptibility to sunburn.

Ingestion: If swallowed: Rinse mouth. Immediately call a poison center or doctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Acute and delayed symptoms and effects: Hot product may cause thermal burns. Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea, blood in the feces and/or vomitus may also be seen. If swallowed in large quantities, Asphalt can obstruct the intestine.

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Note to Physicians: Symptoms may not appear immediately.

Section 5: FIRE-FIGHTING MEASURES

FLAMMABILITY AND EXPLOSION INFORMATION

Not flammable or combustible by OSHA/WHMIS criteria. Substance may be transported hot. When heated, this material may evolve toxic and flammable Hydrogen sulphide.

If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Fire involving Tanks or Car/Trailer Loads: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Sensitivity to Mechanical Impact: This material is not sensitive to mechanical impact.

Sensitivity to Static Discharge: This material is sensitive to static discharge at temperatures at or above the flash point.

MEANS OF EXTINCTION

Suitable Extinguishing Media: Small Fire: Dry chemical, CO₂, water spray or regular foam.

Large Fire: Water spray, fog or regular foam. Move containers from fire area if you can do it without risk.

Unsuitable Extinguishing Media: Do not use straight streams. Do not spray water onto burning product as this may cause spattering and spreading of the flame.

Products of Combustion: Oxides of carbon. Oxides of sulphur.

Protection of Firefighters: Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic

gases. Vapors may cause dizziness or suffocation. Runoff from fire control or dilution water may cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6: ACCIDENTAL RELEASE MEASURES

- Emergency Procedures:** As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded.
- Personal Precautions:** Do not touch or walk through spilled material. Use personal protection recommended in Section 8.
- Environmental Precautions:** Prevent entry into waterways, sewers, basements or confined areas.
- Methods for Containment:** Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors. Contain hot liquid by dyking and allow to cool and solidify. Do not flush to sewer or allow to enter waterways.
- Methods for Clean-Up:** Sweep up and shovel into suitable containers for disposal. Use clean non-sparking tools to collect absorbed material.
- Other Information:** See Section 13 for disposal considerations.

Section 7: HANDLING AND STORAGE**Handling:**

Do not swallow. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands thoroughly after handling. Grounding of containers/pouring equipment is necessary when transferring hot liquid product. See Section 8 for information on Personal Protective Equipment.

Storage:

Store locked up. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children. Asphalt contains trace amounts of Hydrogen sulfide which can accumulate in vapour space of tanks and containers.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure Guidelines
Component**

Asphalt [CAS No. 8052-42-4]

ACGIH: 0.5 mg/m³ (TWA); A4; BEI; Inhalable fraction; For Asphalt (Bitumen) fume, as benzene-soluble aerosol

OSHA: No PEL established.

Hydrogen sulfide (H₂S) [CAS No. 7783-06-4]

ACGIH: 1 ppm (TWA); 5 ppm (STEL); (2009);

OSHA: 20 ppm (C); 50 ppm (Peak) (Maximum duration: 10 mins. once only if no other meas. exp. occurs.)
10 ppm (TWA); 15 ppm (STEL) [Vacated];

Polycyclic Aromatic Hydrocarbons [CAS No. 130498-29-2]

ACGIH: A2; BEI; Exposure by all routes should be carefully controlled to levels as low as possible (1990); For Benz[a]anthracene

OSHA: 0.2 mg/m³ (TWA); For benzene-soluble fraction.

PEL: Permissible Exposure Limit

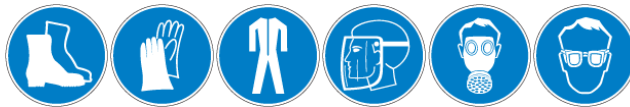
TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

C: Ceiling

Engineering Controls:

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, gas, etc.) below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT (PPE)**Eye/Face Protection:**

Wear chemical safety goggles. If product is hot, wear full face-shield. Use equipment for eye protection that meets the standards referenced by CSA Standard CAN/CSA-Z94.3 and OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.

Hand Protection:

Wear protective gloves. If product is hot, thermally protective gloves are recommended. Consult glove manufacturer specifications for further information.

Skin and Body Protection:

Wear protective clothing. Clothing with full length sleeves and pants should be worn.

Respiratory Protection:

If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator that meets the requirements of CSA Standard CAN/CSA-Z94.4, or self-contained breathing apparatus must be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.

General Hygiene Considerations:

Handle according to established industrial hygiene and safety practices. Consult a competent industrial hygienist to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance: | Black, brown viscous material. |
| Colour: | Black, brown. |
| Odour: | Strong. Characteristic. Hydrocarbon. |
| Odour Threshold: | Not available. |
| Physical State: | Liquid. |
| pH: | Not available. |
| Melting Point / Freezing Point: | Not available. |
| Initial Boiling Point: | Not available. |
| Boiling Range: | Not available. |
| Flash Point: | > 93.3 °C (200 °F) (Open Cup) |
| Evaporation Rate: | Not available. |
| Flammability (solid, gas): | Not applicable. |
| Lower Flammability Limit: | Not available. |
| Upper Flammability Limit: | Not available. |
| Vapor Pressure: | Not available. |
| Vapor Density: | Not available. |
| Relative Density: | 1 to 1.8 (Water = 1) |
| Solubilities: | Insoluble in the following materials: cold water and hot water. |
| Partition Coefficient: n-Octanol/Water: | Not available. |
| Auto-ignition Temperature: | Not available. |
| Decomposition Temperature: | Not available. |
| Viscosity: | > 25 cSt at 40 °C (104 °F) |
| Percent Volatile, wt. %: | Not available. |
| VOC content, wt. %: | Not available. |
| Density: | Not available. |
| Coefficient of Water/Oil Distribution: | Not available. |

Section 10: STABILITY AND REACTIVITY

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| Reactivity: | Contact with incompatible materials. Sources of ignition. Exposure to heat. |
| Chemical Stability: | Stable under normal storage conditions. |
| Possibility of Hazardous Reactions: | Contact between heated Asphalt and water can cause a violent eruption. |

Conditions to Avoid: Contact with incompatible materials. Sources of ignition. Exposure to heat.

Incompatible Materials: Acids. Bases. Oxidizers. Halogens.

Hazardous Decomposition Products: Hazardous sulphur dioxide, and related oxides of sulphur may be generated upon combustion.

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| Section 11: TOXICOLOGICAL INFORMATION |
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EFFECTS OF ACUTE EXPOSURE**Product Toxicity**

Oral: Not available.

Dermal: Not available.

Inhalation: Not available.

Component Toxicity

| Component | CAS No. | LD ₅₀ oral | LD ₅₀ dermal | LC ₅₀ |
|----------------------------------|-------------|-----------------------|-------------------------|-------------------|
| Asphalt | 8052-42-4 | Not available. | Not available. | Not available. |
| Hydrogen sulfide | 7783-06-4 | Not available. | Not available. | 444 ppm (rat); 4H |
| Polycyclic Aromatic Hydrocarbons | 130498-29-2 | Not available. | Not available. | Not available. |

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Bone marrow. Liver. Central nervous system.

Symptoms (including delayed and immediate effects)

Inhalation: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. This product may contain small amounts of Hydrogen sulphide which may accumulate in confined spaces. Inhalation of Hydrogen sulphide may cause loss of sense of smell, major irritation of the respiratory tract, headache, nausea, vomiting, dizziness, and fluid buildup in the lungs (pulmonary edema), which can be fatal. At 300 ppm unconsciousness may occur after 20 minutes. From 300 to 500 ppm, death can occur within minutes of continuous exposure. Above 500 ppm Hydrogen sulphide may cause instantaneous loss of consciousness and immediate death.

Eye: May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Hot liquid product may cause serious thermal burns on direct contact.

Skin: May cause skin irritation. Signs/symptoms may include localized redness, swelling, and itching. Hot liquid product may cause serious thermal burns on direct contact. Asphalt fumes can increase susceptibility to sunburn.

Ingestion: Hot product may cause thermal burns. Causes burns to nose, mouth, throat, and digestive tract. Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea, blood in the feces and/or vomitus may also be seen. If swallowed in large quantities, Asphalt can obstruct the intestine.

Skin Sensitization: Not available.

Respiratory Sensitization: Not available.

Medical Conditions Aggravated By Exposure: Not available.

EFFECTS OF CHRONIC EXPOSURE (from short and long-term exposure)

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Bone marrow. Liver. Kidneys. Central nervous system.

Chronic Effects: Prolonged or repeated contact may dry skin and cause irritation. This product contains Polycyclic Aromatic Hydrocarbons. Prolonged contact with these compounds has been associated with the induction of skin and lung tumours, anemia, disorders of the liver, bone marrow and lymphoid tissues. Hydrogen sulphide may reduce lung function; cause neurological effects such as headaches, nausea, depression and personality changes; eye and mucous membrane irritation; and damage to cardiovascular system.

Carcinogenicity: May cause cancer. Long-term or repeated exposures to Asphalt fumes are possibly carcinogenic to humans.

Component Carcinogenicity

| Component | ACGIH | IARC | NTP | OSHA | Prop 65 |
|----------------------------------|-------|-------------|-------------|------------------|---------|
| Asphalt | A4 | Group 2B | Not listed. | OSHA Carcinogen. | Listed. |
| Polycyclic Aromatic Hydrocarbons | A2 | Not listed. | List 2 | OSHA Carcinogen. | Listed. |

Mutagenicity: Not available.

Reproductive Effects: Not available.

Developmental Effects

Teratogenicity: Not available.

Embryotoxicity: Not available.

Toxicologically Synergistic Materials: Not available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

Persistence / Degradability: Not available.

Bioaccumulation / Accumulation: Not available.

Mobility in Environment: Not available.

Other Adverse Effects: Not available.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Instructions: Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Section 14: TRANSPORT INFORMATION

U.S. Department of Transportation (DOT)

Proper Shipping Name: UN3257, ELEVATED TEMPERATURE LIQUID, N.O.S.
(Asphalt), 9, PG III

Class: 9

UN Number: UN3257

Packing Group: III

Label Code:



Canada Transportation of Dangerous Goods (TDG)

Proper Shipping Name: Not regulated.

Class: Not applicable.

UN Number: Not applicable.

Packing Group: Not applicable.

Label Code: Not applicable.

Section 15: REGULATORY INFORMATION

Chemical Inventories

US (TSCA)

The components of this product are in compliance with the chemical notification requirements of TSCA.

Canada (DSL)

The components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

Federal Regulations

United States

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA Title III

| Component | Section 302 (EHS) TPQ (lbs.) | Section 304 EHS RQ (lbs.) | CERCLA RQ (lbs.) | Section 313 | RCRA CODE | CAA 112(r) TQ (lbs.) |
|----------------------------------|------------------------------|---------------------------|------------------|-------------|-------------|----------------------|
| Hydrogen sulphide | 500 | 100 | 100 | 313 | U135 | 10000 |
| Polycyclic Aromatic Hydrocarbons | Not listed. | Not listed. | Not listed. | 313 | Not listed. | Not listed. |

State Regulations**Massachusetts**

US Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

| Component | CAS No. | RTK List |
|----------------------------------|-------------|----------|
| Asphalt | 8052-42-4 | Listed. |
| Hydrogen sulphide | 7783-06-4 | E |
| Polycyclic Aromatic Hydrocarbons | 130498-29-2 | Listed. |

Note: E = Extraordinarily Hazardous Substance

New Jersey

US New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

| Component | CAS No. | RTK List |
|-------------------|-----------|----------|
| Asphalt | 8052-42-4 | Listed. |
| Hydrogen sulphide | 7783-06-4 | SHHS |

Note: SHHS = Special Health Hazard Substance

Pennsylvania

US Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

| Component | CAS No. | RTK List |
|----------------------------------|-------------|----------|
| Asphalt | 8052-42-4 | Listed. |
| Hydrogen sulphide | 7783-06-4 | E |
| Polycyclic Aromatic Hydrocarbons | 130498-29-2 | Listed. |

Note: E = Environmental Hazard

California**California Prop 65:**

WARNING This product can expose you to chemicals including Asphalt and Polycyclic Aromatic Hydrocarbons which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Section 16: OTHER INFORMATION**Disclaimer:**

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for their own particular use.

Date of Preparation of SDS: October 14, 2020

Version: 2.0

GHS SDS Prepared by: Deerfoot Consulting Inc.

Phone: (403) 720-3700