



MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	UNISOURCE® ASPHALT 1000 ES	
CHEMICAL FAMILY	Petroleum Hydrocarbon	
COMPANY IDENTIFICATION	UniSource Energy, Inc. 40 Shuman Blvd, Suite 290 Naperville, IL 60563 Phone: 630-470-6030 Fax: 630-470-6031	
EMERGENCY TELEPHONE NUMBERS	UniSource Energy, Inc. 1-800-444-5510	CHEMTREC 1-800-424-9300

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

CAS Number	Material or Component	% By Weight
8052-42-4	ASPHALT	100
7783-06-4	HYDROGEN SULFIDE (IN VAPOR SPACE)	< 0.2

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING! HEATED MATERIAL CAN CAUSE THERMAL BURNS.
DO NOT INTRODUCE WATER INTO CONTACT WITH HOT ASPHALT.
VAPORS MAY CONTAIN HYDROGEN SULFIDE GAS (H₂S) WHICH CAN BE HARMFUL IF INHALED.
PROLONGED CONTACT WITH COLD MATERIAL OR CONDENSED VAPORS MAY IRRITATE SKIN.
MAY BE HARMFUL IF SWALLOWED.

ROUTES OF ENTRY: Absorbed through dermal contact, eye contact, inhalation, ingestion.

POTENTIAL ACUTE HEALTH EFFECTS

Eyes: May cause eye irritation.

Skin: Prolonged unprotected exposure will cause skin irritation. Heated material can cause thermal burns.

Inhalation: Prolonged breathing of vapors should be avoided because of potential chronic effects. Vapors which evolve from heated asphalt may contain hydrogen sulfide (H₂S). These can accumulate in containers during storage or transport. Inhalation of H₂S can be harmful or fatal.

Ingestion: Swallowing this material may be harmful.

POTENTIAL CHRONIC HEALTH EFFECTS

Carcinogenic Effects

Not listed by NTP, IARC, OSHA or ACGIH as carcinogenic.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE

Personnel with pre-existing skin disorders should avoid contact with this product.

Health studies have shown that many petroleum hydrocarbons pose potential human health risks which may vary from person to person. Exposure to liquids, vapors, mists, or fumes should be minimized.

(See Toxicological Information – Section 11)

SECTION 4 FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water while holding eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. If irritation occurs, get immediate medical attention.

SKIN CONTACT: For contact with hot molten material, cool area with water. Do not attempt to remove congealed solid material. Get immediate medical attention. Clean skin with waterless hand cleaner. Do not use petroleum solvents to remove solid.

INHALATION: Allow the victim to rest in a well-ventilated area. Seek medical attention.



SECTION 5	FIRE FIGHTING MEASURES
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FLAMMABILITY CLASS: IIIB Combustible

FLASH POINT: > 232.2°C (> 450°F)

PRODUCTS OF COMBUSTION: May produce incomplete combustion products (CO, CO₂).

FIRE AND EXPLOSION HAZARDS

Water directed into elevated temperature material may cause severe foaming and splatter as it vaporizes.

EXTINGUISHING MEDIA

Use water fog or spray, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

FIRE FIGHTING INSTRUCTIONS

Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Use water spray to cool fire exposed surfaces and to protect personnel.

Small Fire: Use DRY chemical powder, halon and CO₂.

Large Fire: Use water spray, fog or foam. DO NOT use water jet.

PROTECTIVE CLOTHING (FIRE)

Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear (Bunker gear).

NFPA HAZARD ID

Health: 1	Fire Hazard: 1	Reactivity: 0	Special Notice: None
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HMIS HAZARD ID

Health: 1	Flammability: 1	Physical Hazard : 0	Personal Protection: None
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SECTION 6	ACCIDENTAL RELEASE MEASURES
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NOTIFICATION PROCEDURES

U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. Report spills to local authorities and/or the National Response Center at (800) 424-8802 as appropriate or required.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding area. Eliminate all (potential) sources of ignition in the vicinity of the spill or released vapor. Handling equipment must be grounded to prevent sparking.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if it can be done without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Water Spill: Stop leak if it can be done without risk. Confine the spill immediately with booms. Warn other vessels. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Contain spill and safely stop the flow, warning personnel to stay away. Eliminate all sources of ignition and ventilate. Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. Water spray may reduce vapor, but may not prevent ignition in closed spaces. Recover with appropriate pumping equipment or with suitable absorbent.

Small Spills: Absorb with an inert material such as clay or sand. Place in appropriate non-leaking container. Seal tightly for proper disposal.

Note: Local regulations may prescribe or limit action to be taken.

SECTION 7	HANDLING AND STORAGE
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HANDLING

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Keep away from incompatibles such as oxidizing agents.

Do not attempt to refill or clean containers since residue is difficult to remove.

DO NOT ingest. Do not breathe gas, fumes, vapor, or spray. Do not eat, drink or smoke in areas of use or storage. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately, showing them the container or the label. Avoid contact with skin and eyes.

Use good personal hygiene practices. Wash thoroughly after handling this product.



STORAGE

Outside storage is recommended. Keep away from heat and all possible sources of ignition. Do not eat, drink or smoke in areas of use or storage.

All efforts should be made to prevent any leaks or spills. Storage tanks containing this product should be engineered to prevent contact with water resources, as this material could contaminate the water resources. Surface spills can reach groundwater through porous soil or cracked surfaces. The storage tanks should be monitored regularly for leaks. Where spills or leaks are possible, a comprehensive response plan should be developed and implemented.

Vapors containing hydrogen sulfide (H₂S) can accumulate in containers during storage. Inhalation can be harmful or fatal.

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

PERSONAL PROTECTION

Eyes: Safety glasses with side shields.

Body: Flame retardant clothing covering the entire body

Respiratory: Use a MSHA/NIOSH approved respirator or equivalent at high concentrations.

Hands: Chemical resistant gloves if contact is possible.

Feet: Safety slip-proof shoes in areas where spills or leaks can occur.

PROTECTIVE CLOTHING

Splash goggles, Full suit, Vapor respirator, Boots, Gloves.

A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

THRESHOLD LIMIT VALUE

The best practice is to maintain concentrations of all atmospheric contaminants as low as practical using engineering controls and work rules. Appropriate personal protective equipment may be used for additional protection of the worker from exposure. For application of TLV's or PEL's consult an industrial hygienist.

Material or Component	Exposure Limits
ASPHALT	ACGIH TLV: 5 mg/m ³ 8 hours
HYDROGEN SULFIDE (IN VAPOR SPACE)	ACGIH TLV & OSHA PEL: 10 ppm ACGIH & OSHA STEL: 15 ppm

Consult local authorities for acceptable exposure limits.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE AND APPEARANCE: Viscous liquid

ODOR: Mild petroleum odor

COLOR: Black

BOILING POINT: > 400°C (> 750°F)

SPECIFIC GRAVITY: 0.99 – 1.03 @ 60°F

SOLUBILITY IN WATER: Negligible

SECTION 10

STABILITY AND REACTIVITY

STABILITY AND REACTIVITY: The product is stable under normal conditions.

CONDITIONS TO AVOID: Sources of ignition.

INCOMPATIBILITY WITH VARIOUS SUBSTANCES: Reactive/ incompatible with strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: May produce incomplete combustion products (COx)

HAZARDOUS POLYMERIZATION: No

**SECTION 11 TOXICOLOGICAL INFORMATION**

ROUTES OF EXPOSURE: Inhalation, ingestion, skin, eye contact.

ACUTE TOXICITY

Skin: Prolonged unprotected exposure will cause skin irritation. Heated material can cause thermal burns.

Inhalation: Prolonged breathing of vapors should be avoided because of potential chronic effects. Vapors which evolve from heated asphalt may contain hydrogen sulfide (H₂S). These can accumulate in containers during storage or transport. Inhalation of H₂S can be harmful or fatal.

CHRONIC TOXICITY

Contains Polynuclear Aromatic Hydrocarbons (PAHs), some of which may be types shown to induce skin cancer in mice in lifetime skin-painting tests at the site of application. Prolonged unprotected exposure will cause skin irritation.

OTHER TOXIC EFFECTS ON HUMANS

May be irritating to eyes, skin and respiratory system. Aspiration hazard if swallowed. Can enter lungs and cause damage.

(See Section 3 – Hazards Identification)

TOXICOLOGICAL DATA

In accordance with the current OSHA Hazard Communication Standard criteria, this product does not require a cancer hazard warning.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY: Ecological testing has not been conducted on this product.

SECTION 13 DISPOSAL CONSIDERATIONS**WASTE DISPOSAL**

Disposal can occur only in properly permitted facilities in accordance with federal, state, and local regulations.

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete. This material, when discarded or disposed of, may be a hazardous waste according to Federal Regulations (40 CFR 261). Under the Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the material to characterize and determine, at the time of disposal, whether the material is a hazardous waste subject. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authorities.

Consult your local or regional authorities.

SECTION 14 TRANSPORT INFORMATION**U.S. DOT CLASSIFICATION FOR BULK SHIPMENTS**

Proper Shipping Name: Elevated temperature liquid, n.o.s. (Asphalt), 9, UN3257, PGIII

Hazard Class & Division: 9 Combustible liquid

UN/NA Number: UN 3257

Packing Group: III

SECTION 15 REGULATORY INFORMATION**U.S. FEDERAL REGULATIONS**

OSHA: Hazardous by definition 29 CFR 1910.1200 (Hazard Communication Standard). Contains a component listed by ACGIH.

TSCA: All components are listed.

CERCLA: This product is exempt from CERCLA reporting requirements under 40 CFR Part 302.4. There is no RQ for the product or any component greater than 1% or 0.1% (carcinogen). However, if spilled into waters of the US, it may be reportable under 33 CFR Part 153 if it produces a sheen.



SARA 302: There is no TPQ for this product under 40 CFR Part 355. However, if heated, vapors may contain H₂S which is on Extremely Hazardous Substances List (TPQ 10,000 lbs; RQ 2,000 lbs).

SARA 313: Product is exempt from reporting requirements of 40 CFR Part 372.

RCRA: This product is not subject to 40 CFR Part 268.30 land ban on the disposal of certain hazardous wastes.

SECTION 16**OTHER INFORMATION****REVISIONS**

This Material Safety Data Sheet (MSDS) has been created to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-1998).

DATE PREPARED: MARCH 2011**UNISOURCE® ASPHALT 1000 ES**

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