

Oxidized Asphalt

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations



UNITED ASPHALTS

NOSMELL

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Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Substance

Product Name: Oxidized Asphalt

CAS No: 64742-93-4

Product Code: CAS64742-93-4

Synonyms: Oxidized Petroleum Asphalt: ASTM D-312-16 No Smell Asphalt (Type I, II, III, & IV); ASTM D 449 (Type I, II, III, & IV)

1.2. Intended Use of the Product

Use of the substance/mixture: Low slope roofing and waterproofing asphalt.

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

Company

United Asphalts
P.O. Box 1034
Commerce City, CO 80022
Phone: 800-466-5431
<http://www.unitedasphalts.com>

Manufacturer

United Asphalts
4306 E 60th Ave
Commerce City, CO 80022
Phone: 800-466-5431

1.4. Emergency Telephone Number

Emergency Number : 800-466-5431

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Carc. 1B H350
Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



GHS08

Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H350 - May cause cancer.

Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves, protective clothing, and eye protection.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards

At elevated temperatures, this product will cause thermal burns and may release toxic hydrogen sulfide (H₂S). Hydrogen sulfide is a fatal and highly flammable gas with a rotten egg odor that quickly causes odor fatigue. Explosion can occur if hydrogen sulfide is allowed to accumulate in the headspace of closed systems in the presence of an ignition source. Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Name	Product Identifier	%	Classification (GHS-US)
Asphalt, oxidized	(CAS No) 64742-93-4	100	Carc. 1B, H350

The remaining components of this product are non-hazardous or are in small enough quantity as to meet regulatory thresholds for disclosure. These components contain no substances or impurities which would influence the classification of this product.

3.2. Mixture

Not applicable



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: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists. In molten form: Cool skin rapidly with cold water after contact with molten product. Removal of solidified molten material from skin requires medical assistance. Seek medical attention for thermal burns.

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. If eye irritation persists: Get medical advice/attention. In molten form: Flush with large amounts of water, lifting upper and lower lids occasionally. Remove contact lenses, if present and easy to do. Get medical attention. Obtain medical attention for thermal burns.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

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

Symptoms/Injuries: This product, if heated may release asphalt fumes. During processing, inhalation of fumes may cause dizziness and/or irritation to the eyes, nose, and throat. Hot molten product will cause thermal burns to the skin. May cause cancer.

Symptoms/Injuries After Inhalation: Toxic fumes may be generated from heating asphalt may be harmful if inhaled. Prolonged exposure may cause irritation. WARNING: irritating and toxic hydrogen sulfide gas may be present. Greater than 15 - 20 ppm 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 500 ppm can cause rapid unconsciousness and death if not promptly revived.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation. Risk of thermal burns on contact with molten product.

Symptoms/Injuries After Eye Contact: Eye contact with dust may cause mechanical irritation. Risk of thermal burns on contact with molten product.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects. Ingestion may cause nausea, vomiting and diarrhea.

Chronic Symptoms: According to the International Agency for Research on Cancer (IARC), exposure to oxidized asphalt is probably carcinogenic to humans.

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

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: Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire. 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.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Product may release explosive hydrogen sulfide gas.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

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

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe dust or fumes.

6.1.1. For Non-emergency Personnel

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

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

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Emergency Procedures: Ventilate area. 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.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Where possible allow molten material to solidify naturally. Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Allow liquid material to solidify before cleaning up. Clean up spills immediately and dispose of waste safely. Recover the product by vacuuming, shoveling or sweeping. Avoid generation of dust during clean-up of spills. Transfer spilled material to a 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.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: May release poisonous hydrogen sulfide. Hydrogen sulfide is a highly flammable, explosive gas under certain conditions, is toxic, 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. Heating: Correct application temperature is Equiviscous Temperature (EVT) which is the temperature that the asphalt in the mop bucket or mechanical spreader must be at to achieve asphalt consistency or viscosity necessary to ensure that the correct amount of asphalt is applied. Minimize temperature to which product is heated in the kettle to obtain EVT during application in order to maintain quality of installed material and reduce hazard from fumes, hydrogen sulfide, kettle coking and kettle flashes. Maximum kettle temperature should be 50 °F (10 °C) less than flash point to control generation of fumes and avoid possible explosion hazard but the product should never be heated over 500 °F (260 °C) regardless of flashpoint.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Do not handle until all safety precautions have been read and understood. Do not breathe dust or fumes.

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

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Deposits (carbonaceous materials and iron sulfides) can develop on the internal walls and roofs of tanks in case of long term storage. These deposits may be pyrophoric and self-ignite in contact with the air. Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Products: Strong oxidizers.

7.3. Specific End Use(s)

Low slope roofing and waterproofing asphalt.

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 ³)	0.5 mg/m ³ (fume, inhalable fraction)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen fume, coal tar-free
USA ACGIH	Biological Exposure Indices (BEI)	(Medium: urine - Time: end of shift at end of workweek - Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative))
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	5 mg/m ³ (fume)

*Exposure limits are not available specifically for oxidized asphalt. Instead, the exposure limits for a similar substance may be used as a reference.

Hydrogen sulfide (7783-06-4)		
USA ACGIH	ACGIH TWA (ppm)	1 ppm
USA ACGIH	ACGIH STEL (ppm)	5 ppm
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	15 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (ppm)	10 ppm
USA IDLH	US IDLH (ppm)	100 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm

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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. Ensure all national/local regulations are observed. Gas detectors should be used when toxic gases may be released. Gas detectors should be used when flammable gases or vapors may be released. Follow NIOSH guidelines for controlling exposure to fumes that are found in Asphalt Fume Exposures during the application of Hot Asphalt to Roofs DHHS (NIOSH) Publication No. 2003-112 (June 2003). Includes the use of kettles with afterburner or kettle loading systems when feasible; use of appropriate sized kettles for the project; ensure covers fit tightly, closing the lid when asphalt is not being added and also minimize the number of time the lid is opened; chop kegs of asphalt into small size pieces prior to opening lid of asphalt to reduce lid open time; placing kettle downwind from workers and with the lid facing away from building; place the kettle away from air intakes, doors and windows; restrict the access to the area around the kettle; calibrate the thermometers at the kettle routinely; and, adhere to the EVTs at point of application and use instated kettles and piping to minimize the kettle temperature needed to achieve the appropriate application EVT.

Personal Protective Equipment

: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing

Hand Protection

: Chemically resistant materials and fabrics.

: Wear 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

: When working with hot material, use suitable thermally protective 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	: Solid
Appearance	: Black semi-solid at 70 °F (21 °C)
Odor	: Petroleum odor
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: > 600 °F (316 °C)
Flash Point	: > 575 °F (302 °C)
Auto-ignition Temperature	: > 650 °F (343 °C)
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
Solubility	: Insoluble in water
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

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9.2. Other Information No additional information available.

SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2. Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, and incompatible materials.
- 10.5. Incompatible Materials:** Strong oxidizers.
- 10.6. Hazardous Decomposition Products:** Thermal decomposition generates: Hydrogen sulfide. Carbon oxides (CO, CO₂). Sulfur oxides. Nitrogen oxides. Organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects

Acute Toxicity: Not classified

Asphalt, oxidized (64742-93-4)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: May cause cancer.

Asphalt, oxidized (64742-93-4)	
IARC group	2A – IARC classified occupational exposures to oxidized asphalt and their emissions during roofing.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Toxic fumes may be generated from heating asphalt may be harmful if inhaled. Prolonged exposure may cause irritation. WARNING: irritating and toxic hydrogen sulfide gas may be present. Greater than 15 - 20 ppm 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 500 ppm can cause rapid unconsciousness and death if not promptly revived.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation. Risk of thermal burns on contact with molten product.

Symptoms/Injuries After Eye Contact: Eye contact with dust may cause mechanical irritation. Risk of thermal burns on contact with molten product.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects. Ingestion may cause nausea, vomiting and diarrhea.

Chronic Symptoms: According to the International Agency for Research on Cancer (IARC), exposure to oxidized asphalt is probably carcinogenic to humans.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : Not classified.

12.2. Persistence and Degradability

Oxidized Asphalt (64742-93-4)	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

Oxidized Asphalt (64742-93-4)	
Bioaccumulative Potential	Not established.

12.4. Mobility in Soil No additional information available.

12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

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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: Container may remain hazardous when empty. Continue to observe all precautions.

Ecology – Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S. at or above 100 C and below its flash point (including molten metals, molten salts, etc.) (OXIDIZED ASPHALT)

Hazard Class : 9

Identification Number : UN3257

Label Codes : 9

Packing Group : III

ERG Number : 128



14.2. In Accordance with IMDG

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S. (OXIDIZED ASPHALT)

Hazard Class : 9

Identification Number : UN3257

Packing Group : III

Label Codes : 9

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-P



14.3. In Accordance with IATA

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S. (OXIDIZED ASPHALT)

Identification Number : UN3257

Hazard Class : 9

Label Codes : 9



ERG Code (IATA) : 9L

*This product is not regulated as a hazardous material for transportation as solid packaged oxidized asphalt.

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Oxidized Asphalt (64742-93-4)	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard
Asphalt, oxidized (64742-93-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2 US State Regulations

Bitumens, extracts of steam-refined and air-refined (RR-00061-3)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Asphalt, oxidized (64742-93-4)	
U.S. - New Jersey - Right to Know Hazardous Substance List*	

*Oxidized asphalt is not on the Pennsylvania Right to Know Hazardous Substance List. However, a similar substance, asphalt (CAS 8052-42-4), is listed.

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

Revision Date : 09/29/2015

Other Information : 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:

Carc. 1B	Carcinogenicity Category 1B
H350	May cause cancer

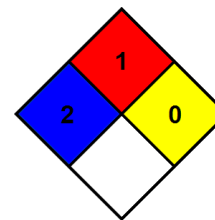
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- NFPA Health Hazard** : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
- NFPA Fire Hazard** : 1 - Must be preheated before ignition can occur.
- NFPA Reactivity** : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



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)