



TYPE 4 (IV)

SECTION 1. IDENTIFICATION

Product Identifier	TYPE 4 (IV)
Other Means of Identification	BALT4
Other Identification	Asphalt / Bitumen
Recommended Use	This product is primarily used for roofing applications. However, there are a number of other industrial applications.
Restrictions on Use	None known.
Manufacturer	Bitumar USA, Inc., 6000 Pennington Avenue, Baltimore, Maryland, 21226, (410) 354-9550, www.bitumar.com
Emergency Phone No.	Canutec (Canada), (613) 993-6666; Cel. *666 (canada), 24/7 ChemTrec (US), (800) 424-9300, 24/7
Date of Preparation	septembre 19, 2016

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Carcinogenicity - Category 2

GHS Label Elements



Warning
Suspected of causing cancer.

Other Hazards

Hazard Not Otherwise Classified (HNOC): Contact with hot material can cause thermal burns.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Asphalt, oxidized	64742-93-4	70-100	
Asphalt (Bitumen)	8052-42-4	0-30	
Hydrogen sulfide	7783-06-4		

Notes

Sulphur and its derivatives are intrinsic to base asphalt. During storage or transit of hot asphalt, hydrogen sulphide may be generated.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

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Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact

For hot asphalt splash, cool affected body part with water immersion or shower. Do not attempt removal of asphalt but split longitudinally if asphalt covers limb circumferentially to avoid tourniquet effect. No attempt should be made to remove firmly adhering bitumen from the skin.

Once the bitumen has cooled, it will do no further harm. As healing takes place, the bitumen plaque will detach itself, usually after a few days.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water by allowing the water to flow over the bridge of the nose to the eyes for at least 20 minutes. Seek medical attention.

Ingestion

DO NOT induce vomiting because of danger of aspirating liquid into lungs. Seek medical attention.

Most Important Symptoms and Effects, Acute and Delayed

Symptoms may not appear immediately. Fume may cause respiratory irritation; Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness and nose and throat pain. Fume 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.

Immediate Medical Attention and Special Treatment

Special Instructions

No attempt should be made to remove firmly adhering bitumen from the skin. If solvent treatment is used, it should be followed by washing with soap and water, then the application of a proprietary refatting agent or skin cleansing cream. Only medically approved solvents may be used to remove bitumen from burns, as other solvents could cause further skin damage.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use water to keep non-leaking, fire-exposed containers cool.

SMALL FIRE: use DRY chemicals, foam, water spray or CO₂.

LARGE FIRE: use water spray, fog or foam.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

Carbon oxides (CO, CO₂), nitrogen oxides (NO_x), sulphur oxides (SO_x), sulphur compounds (H₂S), smoke and irritating fumes as products of incomplete combustion.

Special Protective Equipment and Precautions for Fire-fighters

For small outdoor fires, portable fire extinguishers may be used, and self contained breathing apparatus (SCBA) may not be required. For all indoor fires and any significant outdoor fires, SCBA is required. Respiratory and eye protection are required for fire fighting personnel.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Do not Touch or walk through spilled material. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Stop or reduce leak if safe to do so. Contain hot liquid by dyking and allow to cool and solidify. Break up and recover, see section 13 for disposal consideration.

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SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Asphalt may be transported hot. Avoid skin contact. Avoid eye contact. Avoid inhalation of product vapours or fumes. Ensure all equipment is grounded/bonded. During storage, transit and cooling of asphalt, hydrogen sulphide (H₂S) may accumulate in enclosed spaces such as tank cars. Open tank car hatches with caution. Maintain same precautions when gauging and sampling. Empty containers may contain product residue. Do not reuse containers without commercial cleaning and/or reconditioning. Personnel who handle this material should practice good personal hygiene during and after handling to help prevent accidental ingestion of this product. Wear proper personal protective equipment.

Conditions for Safe Storage

To maintain pumping ability, asphalt is kept heated to a suitable temperature; normally well above room temperature but below the flash point. Store in dry, well-ventilated area. Clear roof vents periodically to prevent accumulation of asphalt deposits from vapour accumulation. Store away from incompatible and reactive materials (see section 10). Ensure the storage containers are grounded/bonded.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Asphalt (Bitumen)	0.5 mg/m ³ (as benzene-soluble aerosol) A4					
Hydrogen sulfide	1 ppm	5 ppm				
Asphalt, oxidized	0.5 mg/m ³ (as benzene-soluble aerosol) A4					

Appropriate Engineering Controls

For normal application, special ventilation is not necessary. If user's operations generate vapours or fumes, use ventilation to keep exposure to airborne contaminants below the exposure limit. Make-up air should always be supplied to balance air removed by exhaust ventilation. Ensure that eyewash station and safety shower are close to work-station.

Individual Protection Measures

Eye/Face Protection

As a minimum, safety glasses with side shields should be worn when handling this material.

Skin Protection

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

Respiratory Protection

A minimum of NIOSH-approved air-purifying respirator with an organic vapour cartridge or canister with a dust, fume or mist filter (R, or P series) may be allowable under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. A NIOSH-approved positive-pressure, air-supplied respirator or self-contained breathing apparatus may be required under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Brown - black Viscous semi-solid.

Odour Asphalt

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Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not available (freezing)
Initial Boiling Point/Range	> 470 °C (878 °F)
Flash Point	> 230 °C (446 °F) (open cup)
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Nil at 37.8°C (100°F)
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	> 1
Solubility	Insoluble in water; Insoluble in alcohol, acids and alkalis. Soluble in oil turpentine, petroleum, carbon disulphide, chloroform, ether, and acetone
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	> 370 °C (698 °F)
Decomposition Temperature	Not available
Viscosity	150 - 2500 centipoises (dynamic)
Other Information	
Physical State	Solid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Stable under normal temperature conditions and recommended use.

Possibility of Hazardous Reactions

None known.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Incompatible materials.

Incompatible Materials

Oxidizing agents (e.g. peroxides), fluorine.

Hazardous Decomposition Products

Carbon Oxides (COx), sulfur Oxides (SOx), nitrogen oxides (NOx), hydrogen sulfide, hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Eye contact; skin contact; inhalation; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Asphalt (Bitumen)	Not available	Not available	Not available
Hydrogen sulfide	444 ppm (rat) (4-hour exposure)		

Skin Corrosion/Irritation

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Prolonged or repeated contact with skin may cause dermatitis or warty skin growths (keratosis). Contact with hot material can cause thermal burns.

Serious Eye Damage/Irritation

Vapours or fumes from the hot asphalt can cause irritation of the surface of the eyes as well as limbal pigmentation of the cornea. Contact with hot material can cause thermal burns.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No information was located.

Skin Absorption

No information was located.

Ingestion

No information was located.

Aspiration Hazard

May cause lung damage if aspirated based on physical properties (e.g. kinematic viscosity) and chemical family (hydrocarbon).

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

This product is not expected to be a skin or a respiratory tract sensitizer, based on the available data and the known hazards of the components.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Asphalt (Bitumen)	Group 2B	A4	Not Listed	Carcinogen
Asphalt, oxidized	Group 2A	A4	Not Listed	Carcinogen

Group 2A – Probably carcinogenic to humans. Group 2B – Possibly carcinogenic to humans.

Other Information

Contains:

HYDROGEN SULFIDE : Chronic health effects due to repeated exposures to low levels of H₂S have not been established. High level (700 ppm) acute exposure can result in sudden death. High concentrations will lead to cardiopulmonary arrest due to nervous system toxicity and pulmonary edema. Lower levels (150 ppm) may overwhelm sense of smell, eliminating warning of exposure. Symptoms of over exposure to H₂S include headache, fatigue, insomnia, irritability, and gastrointestinal problems. Repeated exposures to approximately 25 ppm will irritate mucosa membranes and the respiratory system and have been implicated in some eye damage.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Not Available.

Persistence and Degradability

Not Available.

Bioaccumulative Potential

Not Available.

Mobility in Soil

Not Available.

Other Adverse Effects

Not Available.

SECTION 13. DISPOSAL CONSIDERATIONS

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Disposal Methods

Dispose of waste at an appropriate treatment & disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT	UN3257	Elevated temperature liquid (Bitumen (Asphalt))	9	III

Special Precautions for User Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Emergency Response Guide No. 130

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

SECTION 16. OTHER INFORMATION

NFPA Rating	Health - 1	Flammability - 1	Instability - 0
SDS Prepared By	R&D and Technical group		
Phone No.	514-645-4561		
Date of Preparation	septembre 19, 2016		
Disclaimer	Bitumar Inc. customarily reviews and updates SDS within 90 days of new data availability in accordance with Canadian Hazardous Products Act. If you would like to verify if the MSDS you have is the most current, or you require any further information, please contact: www.bitumar.com Ontario/Central/Quebec & Eastern Canada, telephone: 514-645-4561; fax: 514-645-6978. For the USA: 410-354-9550. Fax: 410-354-9552. For other Product Safety Information: (514) 645-4561		

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