

GSB 88[®] SDS

Section 1. PRODUCT IDENTIFICATION / COMPANY INFORMATION

Trade Name: GSB-88[®]

Synonyms: Asphalt Emulsion, GSB-88, Asphalt Sealer, Fog Seal, Cationic Bitumic Emulsion

Uses and uses advised against: USE-Asphalt Sealer, fog seal.

Manufactured b: Asphalt Systems Inc... 2775 w 1500 s, Salt lake City,
UT 84104 phone (801)972-2757

Chemical Emergency: Spill, Leak, Fire, Exposure, or Acccident Call Chemtrec Day or night, Within USA and Canada 800-824-9300 CCN1842 or 703-537-3887 (collect calls accepted)

Section 2: Hazard Identification

GHS Classification (s) Carcinogenicity: Category 2
Serious Eye Damage / Eye irritation: Category 2b
Aquatic Toxicity (chronic): Category 3
Skin Corrosion / Irritation: Category3

Label Elements:

Signal Word: Warning

Pictogram:

Hazard Statement (s)

Causes Mild Skin Irritation
Causes Eye irritation
Suspected of Causing Cancer
Harmful to Aquatic Life with long lasting effects.

Prevention Statement (s)

Do not handle until all safety precautions have been read and understood.
Do not get in eyes, on skin, or on clothing
Wash Thoroughly after handling.
Avoid release to the environment
Use personal protective equipment as required.

Response Statement (s) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice / attention.

IF eye irritation persists: Get medical advice / attention.

Storage Statement (s)

Store in a well-ventilated place.

Store locked up.

Disposal Statement (s) Dispose of contents / container in accordance with relevant regulations

Other Hazards Avoid direct contact with heated material above 90°C (190 F) Once cured, the inert solid material is considered non-hazardous.

Please see package labelling or manufacturer's literature for more detail on usage, handling, storage and disposal under different applications.

Hazardous Materials Identification System (HMIS)

Health	Flammability	Reactivity	Basis
1	0	0	0

Section 3 Composition

Component Name (s) No. GHS	Flammability Risk	Reactivity Concentration (%)	Basis CAS Registry Classification:
Bitumen 9 Available	35 - 40	8052-42-4 Not Available	EC: 232-490- Not Available Not
Gilsonite 8 Available	12 - 20	12002-43-6 Not Available	EC:601-660- Not Available Not
Aromatic Oil Manufacture H351	Proprietary Carc.; R40	contact	Carc. 2
Water 2 Available	38-40	7732-185 Not Available	EC: 231-791- Not Available Not

Emulsifier	Contact	
Manufacture	proprietary	Not
Available	Not Available	

Caution: there maybe the possibility of volatile vapors developing under extreme heat conditions

Section 4. FIRST AID MEASURES

Eye Contact: If contact with hot material occurs, flush gently with cold running water. Adhered material should only be removed under the medical direction. Seek immediate medical advice.

Skin Contact: If contact with hot material occurs, drench area immediately with cold water, do not attempt to remove material adhered to skin. Seek immediate medical attention.

Inhalation: If inhaled, remove from contaminated area. To protect rescuer, use a Type A (organic vapor) respirator or an air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.

Ingestion: For advice, contact a Poison Information center or a doctor (at once). If swallowed, do not induce vomiting. Do not give anything to drink unless directed by a physician. Never give anything by mouth to a person who is not fully conscious. If significant amounts are swallowed or irritation or discomfort occurs, seek medical attention immediately.

First aid Facilities: Eye Wash facilities and safety shower are recommended.

Most important symptoms and effects, both acute and delayed

Avoid contact with hot material, as burns may result. Bitumen's, occupational exposure to straight run bitumen and their emissions curing road paving, are classified as possibly carcinogenic to humans (IARC Group 2B) However, since this product is not intended to be heated above 90°C the carcinogenic potential is significantly reduced.

Immediate medical attention and special treatment needed

Burns caused by bitumen require special medical treatment. Consultation with a burns specialist experienced in bitumen burns is advisable in the first instance.

Bitumen burns: If hot bitumen contacts the skin, flush immediately with water and make no attempt to remove it. Use wet, cold towels, if face, neck, shoulder, or back etc. are burnt. Cool burn areas for 30 minutes and seek immediate medical attention. Where bitumen completely circles a limb, it may have a tourniquet effect and should be split longitudinally as it cools. If eye burns result flush with water for 15 minutes, pad and seek immediate medical attention.

Section 5. FIRE FIGHTING MEASURES

NFPA Flammability classification:	NFPA Class IIIB combustible material
Flash Point	200°C (400°F) Minimum
Lower Flammable Limit	NA
Upper Flammable Limit	NA
Auto-ignition Temperature	NA

Extinguishing Media: In case of fire, use water fog, dry chemical or carbon dioxide extinguisher or spray. DO NOT USE water jet.

Special Hazards arising from the substance or mixture; Combustible. May evolve toxic gases (carbon/ sulphur/ nitrogen oxides, hydrogen sulphide, hydrocarbons) when heated to decomposition.

Advice for Firefighters; Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including self-contained breathing apparatus (SCBA) when combating fire. Use water fog to cool intact container and nearby storage areas.

Hazchem code;

None Allocated

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures; Wear Personal Protective equipment (PPE) as detailed in section 8 of the SDS Clear area of all unprotected personnel. Ventilate area where possible. Allow material to cool. Contact emergency services where appropriate

Environmental Precautions; Contain material and prevent product from entering drains and waterways. Collect and seal in properly labelled containers for disposal. If contamination of sewers or waterways has occurred, contact local emergency services.

Methods of Cleaning up; contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand or similar) collect and place in suitable containers for disposal. Eliminate all ignition sources.

Reference to other sections; See Section 8 and 13 for exposure controls and disposal.

Section 7. HANDLING AND STORAGE

Precautions for safe handling; before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

Conditions for safe storage, including any incompatibilities; Store in well-ventilated area removed from ignition sources, oxidizing agents and foodstuffs. Keep storage vessels closed when not in use. Take precautionary measures against static electricity discharges.

Specific end use (s); not applicable.

Section 8. EXPOSURE CONTROLS / PERSON PROTECTION

Control Parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Bitumen Fume	SWA (AUS)	--	5	--	--

Biological Limes

No biological limits values have been entered for this product

Exposure controls

Engineering controls; Avoid inhalation by working upwind where possible. Use in well ventilated areas. Maintain vapor /fume levels below the recommended exposure standards. Maintain fume levels below the recommended exposure standard.

PPE

Personal protective equipment (PPE) should meet national recommended standards. Check with PPE suppliers.

Eye / Face Wear a face-shield or splash proof goggles when handling hot material. Wear safety glasses when handling cold material.

Hands Wear heat resistant leather or insulated gloves when handling hot material. Wear chemical resistant gloves (i.e. Nitrile) when handling cold material.

Body Avoid contact with skin and clothing. Wear impervious coveralls and heat resistant boots when handling hot material. When the risk of skin exposure is high, an impervious chemical suit may be required.

Respiratory Where an inhalation risk exists in enclosed or partly enclosed environments (i.e. underground parking, large tanks, tunnels etc.) wear a type-A class P1 (organic gases /vapors and particulate) respirator, dependent on a site specific risk assessment.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:	Brown liquid (in Use): Black semi-solid thermoplastic material (when cured)
Odor:	Bitumen like odor
Flammability	Class C2 Combustible
Flash Point	>200°C (400 F)
Boiling Point:	100°C (212 F)
Melting point:	NA
Evaporation Rate	NA
PH:	2-7
Vapor Density (air = 1):	NA
Specific Gravity:	1.014
Solubility:	Insoluble
Vapor Pressure:	NA
Upper explosion limit:	NA
Lower explosion limit:	NA
Partition coefficient:	NA

Auto ignition temperature:	NA
Decomposition temperature:	NA
Viscosity:	NA
Explosive properties:	NA
Oxidizing properties:	NA
Odor threshold :	NA

Other Information

Max Temp in use ambient to 90°C (195 F)

Section 10. STABILITY AND REACTIVITY

Reactivity: Carefully review all information provided in section 10.

Chemical Stability: Stable under recommended conditions of storage.

Possibility of hazardous reactions: Polymerization is not expected to occur.

Conditions to avoid: Keep away from extreme heat, strong acids, and strong oxidizing conditions.

Incompatible materials: incompatible with oxidizing agents (eg. Hypochlorite)

Hazardous Decomposition Products: May evolve toxic gases (carbon / sulphur/ nitrogen sulphide, hydrocarbons) when heated to decomposition.

Section 11. TOXICOLOGICAL INFORMATION

Toxicity Data: Asphalt

Acute Toxicity No known data is available for this product. Based on available data, the classification criteria are not met. Inhalation may cause headache, nausea and respiratory tract irritation. Once cured, the inert solid material is considered non-hazardous.

Skin Contact with hot material can result in skin burns. Exposure to asphalt fumes (in the unlikely event of heating above 150°C (300 F) may cause dermatitis and photosensitizations. Once cured, the inert semi solid material is considered non-hazardous.

Eye Contact with hot material can result in eye burns. . Exposure to asphalt fumes may cause irritation, redness, or pain. Once cured, the inert semi solid material is considered non-hazardous.

Sensitization This product is not known to be a skin or respiratory sensitizer.

- Mutagenicity** Insufficient data available to classify as a mutagen.
- Carcinogenicity** Bitumen's, occupational exposure to straight-run bitumen's and their emissions during road paving, are classified as possibly carcinogenic to humans (IARC group 2B) it is strongly suggested that temperature plays an important role in determining the degree of exposure and also the carcinogenic potential of bitumen emissions. Therefore, since this product is not intended to be heated above 90°C (195 F) the carcinogenic potential is significantly reduced.
- Reproductive** Insufficient data available to classify as a reproductive toxin.
- STOT- Single bitumen Exposure** Not classified as causing organ effects from single exposure. However, inhalation of fumes may cause headache, nausea and respiratory tract irritation. This material may Release trace quantities of hydrogen sulphide within storage facilities.
- STOT –repeated Exposure** Not classified as causing organ effects from repeated exposure.
- Aspiration** This product is not expected to present an aspiration hazard.

Section 12. ECOLOGICAL INFORMATION

Toxicity

When set, the bulk of the bitumen dispersed in asphalt is fairly inert, and should not present an environmental hazard under normal conditions.

Persistence and degradability

Can be expected to biodegrade slowly

Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

Mobility in soil

Emulsifies in water. Spillages are unlikely to penetrate soil.

Other Adverse effects

Avoid uncured emulsion run off into storm water drainage system.

Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste disposal For small amounts dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.

Legislation Dispose of in accordance with relevant local legislation.

Section 14. TRANSPORTATION INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	Land Transport (ADG)	Sea Transport (IMDG / IMO)	Air Transport (IATA / ICAO)
UN Number	None Allocated	None Allocated	None Allocated
Proper Shipping Name	None Allocated	None Allocated	None Allocated
Transport Hazard Class	None Allocated	None Allocated	None Allocated
Packing Group	None Allocated	None Allocated	None Allocated

Environmental Hazards No Information provided

Special Precautions for User

Hazchem Code None Allocated

Section 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the uniform Scheduling of Medicines and Poisons (SUSMP)

Classification Safe work Australia criteria is based on the Globally Harmonized System (GHS) of Classification and Labelling chemicals.

The classification and phrases listed below are based on the approved criteria for classifying hazardous substances (NOHSC: 1008 (2004))

Hazard Codes Carc. Carcinogen

N Dangerous for the Environment

Risk Phrases R40 Limited evidence of a carcinogenic effect.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety Phrases S36/37 Wear suitable protective clothing and gloves.

Inventory listing (s) **AUSTRALIA: AICS (Australia inventory of chemical substances)**

All components are listed on AICS, or are exempt.

Section 16. ADDITIONAL INFORMATION

Additional Information**Personal protective equipment guidelines:**

The recommendation for protective equipment contain within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is mad.

Health effects from exposure: it should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risk and apply control methods where appropriate.

Scale for NFPA and HMIS Ratings:

0-least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE- Personal Protective Equipment Index Recommendation, *- Chronic Effect Indicator. These values are obtained using the guidelines or published evaluations prepared by the National Fire Protections Association (NFPA) or the National Paint and Coatings Association (for HMIS ratings).

ABBREVIATIONS: **TLV** – Threshold Limit Value

TWA – Time Weighted Average

STEL – Short-term Exposure Limit

REL/PEL – Recommended/ Permissible Exposure Limit

NA – Not Applicable

CAS – Chemical Abstract Service Number

ACGIH – American conference of governmental industrial hygienists

CNS – Central Nervous System

EC No. – EC No - European Community Number

GHS – Globally Harmonized System

LC50 – Lethal Concentration, 50% / Median Lethal Concentration

LD50 – Lethal Dose, 50% / Median Lethal Dose

Mg/m³ - Milligrams per Cubic Meter

OEL – Occupational Exposure Limit

PEL - Permissible exposure limit

PH – relates to hydrogen ion concentration using a scale of 0 (high Acidic) to 14 Highly Alkaline).

Ppm – parts per million

REACH – Regulation of Registration, evaluation, authorization and restriction of chemicals

STOT-RE – Specific target organ toxicity (repeated Exposure)

STOT-SE – Specific Target organ toxicity (single Exposure)

SUSMP – Standard for the uniform scheduling of medicines and poisons

SWA – Safe Work Australia

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The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of the product.

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