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 90oC (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)                                    CAS Registry No.                                    Concentration (%)                        Classification: GHS                  Risk**

Bitumen                                                                8052-42-4  EC: 232-490-9                             35 - 40                                          Not Available                         Not Available

Gilsonite                                                              12002-43-6   EC:601-660-8                            12 - 20                                          Not Available                         Not Available

Aromatic Oil                                                       contact Manufacture                                  Proprietary                                   Carc. 2 H351                           Carc.; R40

Water                                                                   7732-185 EC: 231-791-2                                  38-40                                          Not Available                         Not Available

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 90oC 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                                                             200oC (400oF) 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/m3** | **ppm** | **mg/m3** |
| 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**>200oC (400 F)

**Boiling Point:**                                     100oC (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 90oC  (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 150oC (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 90oC (195 F) the carcinogenic potential is significantly reduced.

**Reproductive**        Insufficient data available to classify as a reproductive toxin.

**STOT- Single**           Not classified as causing organ effects from single exposure. However, inhalation of bitumen **Exposure**             fumes may cause headache, nausea and respiratory tract irritation. This material may

                                  Release trace quantities of hydrogen sulphide within storage facilities.

**STOT –repeated**     Not classified as causing organ effects from repeated exposure.

**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

**Bioaccumalative 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 or 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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