



BituChem Building Products
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BITUMEN EMULSIONS HOT JOINT PAINT

This data sheet has been prepared in accordance with the requirements of the chemicals (Hazards, Information and Packaging) Regulations (CHIP) and the Approved Code of Practice (ACOP).

Known Misuses / Abuses
None Known

1. Identification of the Substance / Preparation, and of the Company / Undertaking.

Product: Hot Joint Paint
Company: BituChem Building Products Ltd
Address: Laymore Road, Forest Vale Industrial Estate, Cinderford, Glos, GL14 2YH
Telephone: 01594 826768

2. Composition / Information on Ingredients

Chemical Composition

Bitumen - May contain proprietary additives.

Hazardous Components

No component is present at sufficient concentration to require a hazardous classification. This material can contain hydrogen sulphide (H₂S), F+, T+, N R12 extremely flammable, R26 very toxic by inhalation, R50 very toxic to aquatic organisms.

3. Hazard Identification

This product can be delivered, stored and used at temperatures above 100°C.
Contact with hot product may cause burns.

For quality, technical, health, safety and environmental reasons, bitumen should not be overheated during handling and storage. Operating temperatures should be kept as low as possible to minimise fume generation. BituChem recommends however that, as a general rule, bitumen temperature should be kept in the range of 130°C to 200°C and never exceed the industry recommended maximum safe working temperature of 230°C. At temperatures above 230°C, significant decomposition can occur, with an increased risk of generating flammable/hazardous atmospheres. If exposure to bitumen fume generated at temperatures above 200°C cannot be precluded, skin and inhalation exposure should be avoided by ensuring adequate workplace ventilation and if necessary the use of appropriate personal protective equipment.

Vapours containing hydrogen sulphide may accumulate during storage or transport and may also be vented during filling of tanks. Hydrogen sulphide has a typical 'bad egg' smell but at high concentrations the sense of smell is rapidly lost, therefore do not rely on sense of smell for detecting hydrogen sulphide. Use specially designed measuring instruments for determining its concentration.

4. First Aid Measures

Eyes

Cold product . Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists.
Hot product . Flood with water to dissipate heat. In the event of any product remaining, do not try to remove it other than by continued irrigation with water.
Obtain medical attention immediately.

Skin

Cold product . Wash contaminated skin with soap and water. Remove contaminated clothing and wash underlying skin as soon as reasonably practicable.
Hot product . Flood skin with cold water to dissipate heat, cover with clean cotton or gauze, obtain medical advice immediately.

Ingestion

If contamination of the mouth occurs, wash out thoroughly with water.
Except as a deliberate act, the ingestion of large amounts of product is unlikely. If it should occur, do not induce vomiting; obtain medical advice.

Inhalation

If inhalation of mists, fumes or vapour causes irritation to the nose or throat, or coughing, remove to fresh air. If symptoms persist obtain medical advice.
EXPOSURE TO HYDROGEN SULPHIDE
Casualties suffering ill effects as a result of exposure to hydrogen sulphide should be immediately removed to fresh air and medical assistance obtained without delay.
Unconscious casualties must be placed in the recovery position. Monitor breathing and pulse rate and if breathing has failed, or is deemed inadequate, respiration must be assisted,



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preferably by the mouth to mouth method. Administer external cardiac massage if necessary. Seek medical attention immediately.

Medical Advice

Treatment should in general be symptomatic and directed to relieving any effects.

Where skin burns occur the area should be immediately immersed in cold water until the bitumen is thoroughly cooled. Do not attempt to remove the bitumen from the skin as it provides an airtight sterile covering over the burn which will eventually fall away with the scab as the burn heals. If for any reason the bitumen must be removed, this can be done using a slightly warmed medical paraffin. Kerosene and other solvents should never be used. All burns should receive medical attention. It should be noted that bitumen contracts on cooling and where a limb is encased care should be taken to avoid the development of a tourniquet effect.

Inhalation of hydrogen sulphide may cause central respiratory depression leading to coma and death. It is irritant to the respiratory tract causing chemical pneumonitis and pulmonary oedema. The onset of pulmonary oedema may be delayed for 24 to 48 hours. Treat with oxygen and ventilate as appropriate. Keep casualty under surveillance for 48 hours in case pulmonary oedema develops.

5. Fire-Fighting Measures

Use foam, dry powder or water fog. DO NOT USE water jets.

Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus. Water may be used to cool nearby heat exposed areas/objects/packages. Avoid spraying directly into storage containers because of the danger of boil-over.

Combustion Products

Toxic fumes may be evolved on burning or exposure to heat.
See Stability and Reactivity, Section 10 of this Safety Data Sheet.

6. Accidental Release Measures

Depending upon its temperature the product may be liquid, semi-solid or solid. Protect drains from spills and prevent entry of product, since this may result in blockage on cooling. Should blockage occur, notify the appropriate authority immediately. Scrape up bulk of material and remove remainder with sand or other suitable inert absorbent material.

If spillage has occurred in a confined space, ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry.
In the case of spillage on water, the product will sink and recovery may be difficult.
In the case of large spills contact the appropriate authorities. If spillage occurs call the Environment Agency Emergency Hotline on 0800 807060. (24 hours a day, 7 days a week).

7. Handling and Storage

Handling

Mechanical handling of palletised products reduces the hazards of manual lifting. Where manual lifting is unavoidable, use correct kinetic lifting techniques.

Handling Precautions

Contact with hot product may cause burns. Avoid contact with eyes. If splashing is likely to occur wear a full face visor or chemical goggles as appropriate. Avoid skin contact. Good working practices, high standards of personal hygiene and plant cleanliness must be maintained at all times. Wash hands thoroughly after contact. When product is heated to high temperatures, vapour, mists or fumes will be given off and may condense, contaminating the skin or clothing of operatives. Prolonged or repeated contact with this condensate may give rise to dermatitis or other skin conditions of a serious or irreversible nature. Regular periodic self inspection of the skin is recommended, especially those areas subject to contamination. In the event of any localised changes in appearance or texture of the skin being noticed, medical advice should be sought without delay. Use disposable cloths and discard when soiled. Do not put soiled cloths into pockets. It is advisable that all who are engaged in operations in which contact with hydrogen sulphide may be reasonably anticipated, should be trained in the techniques of emergency resuscitation and in the care of the unconscious patient.

Storage

Protect from frost.

8. Exposure Control/Personal Protection

Exposure Limits

Ensure good ventilation.

Avoid, as far as reasonably practical, inhalation of vapour, mists or fumes generated during use.



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Relevant exposure limits are:
Asphalt, petroleum fumes

UK publication EH40 (Workplace Exposure Limits):
Workplace exposure limit:
Long-term exposure limit (8 hour TW A reference period) 5mg/m³
Short-term exposure limit (15 minute reference period) 10mg/m³

Hydrogen Sulphide
UK publication EH40 (Workplace Exposure Limits):
Workplace Exposure Limit: Long-term exposure limit (8 hour TW A reference period) 5ppm, 7mg/m³
Short-term exposure limit (15 minute reference period) 10ppm, 14 mg/m³

Protective Clothing

When handling hot product, suitable protective clothing of an appropriate standard should be worn. Depending on the type of operation this may include:

- Visor to protect the face and head covering with neck flap.
- Gauntlets (heat resistant and impervious to bitumen)
- Overalls, impervious to bitumen, covering full body and limbs with legs worn over boots.
- Protective boots.

Protective clothing should be regularly dry cleaned. Change heavily contaminated clothing as soon as reasonably practicable; dry clean, launder and preferably starch before re-use. Wash any contaminated underlying skin with soap and water.

Respiratory Protection

If operations are such that the excessive generation of vapour, mist or fume may be anticipated, to which operators may unavoidably be exposed, then suitable approved respiratory equipment should be worn. Note: Approved air-supplied breathing apparatus must be worn where there may be potential for inhalation of hydrogen sulphide gas. The use of respiratory equipment must be strictly in accordance with the manufacturers' instructions and any statutory requirements governing its selection and use.

9. Physical and Chemical Properties.

Typical Values

Grades:

Test method Units
Physical state Solid
Colour black
Odour bituminous
Density @ 15°C ASTM D 1298 kg/m³ >1000
Flash point (COC) ASTM D 92 °C 220 min
Solubility in water g/l >0.1

10. Stability and Reactivity

Products of this type are stable and unlikely to react in a hazardous manner under normal conditions of use. Hazardous polymerisation reactions will not occur. This material is combustible.

Materials to Avoid

Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition products will vary with conditions. Incomplete combustion will generate smoke, carbon dioxide and hazardous gases, including carbon monoxide, hydrogen sulphide and oxides of sulphur. Overheating in storage may cause partial vaporisation and decomposition with the production of toxic hydrogen sulphide gas (H₂S).

11. TOXICOLOGICAL INFORMATION

Eyes

Will cause burns if hot material contacts eyes.

Skin

Will cause burns if hot material contacts skin. When product is heated to high temperatures, vapour, mists or fumes will be given off and may condense, contaminating the skin or clothing of operatives. Prolonged or repeated contact with this condensate may give rise to dermatitis or other skin conditions of a serious or irreversible nature.

Ingestion

Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea.

Inhalation

At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. Vapour, mists or fumes may contain polycyclic aromatic



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hydrocarbons some of which are known to produce skin cancer. The inhalation of vapour, mists or fumes over long periods may therefore be hazardous.

12. Ecological Information

Mobility

Spillages are unlikely to penetrate soil.

Persistence and degradability

This material is not biodegradable.

Bio accumulative potential

This material is not expected to bio accumulate.

Aquatic toxicity

Unlikely to cause long term effects in the aquatic environment.

13. Disposal Considerations

Dispose as a controlled waste in accordance with local bye-laws and regulations.

14. Transport Information

Not classified as a dangerous substance for conveyance.

15. Regulatory Information.

Not dangerous for supply.

16. Other Information

The references set out below give further information on specific aspects.

Legislation

Chemicals (Hazards, Information and Packaging) Regulations.
Carriage of Dangerous Goods by Road and Rail (Classification, Packaging and Labelling). Regulations.
Control of Substances Hazardous to Health Regulations.
Environmental Protection Act.
The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations.
The Road Traffic (Carriage of dangerous Substances in packages etc.) Regulations.

Guidance Notes

EH26 Occupational Skin Disease : Health and Safety Precautions.
EH40 Occupational Exposure Limits.

British Standards

BS 434 Part 1 Specification for Bitumen Road Emulsions.
BS3690 Part 1 Specification for Bitumen for Roads and Other Paved Areas.