



PRODUCT DATA SHEET

BITUMEN EMULSION.

GRADES : C69B4 (formally K1-70)
C60B4 (formally K1-60)
C40B4 (formally K1-40)

PRODUCT DESCRIPTION :

Emulsions of Bitumen in Water, with small quantities of emulsifier, hcl & kerosene. Manufactured to BS EN 13808 : 2005.

PRODUCT USE :

The above stated emulsions are used in a variety of applications. Surface Dressing, Tack coating, Grouting, Slurry Sealing and Dust suppression are but a few of the many and varied common uses. Applications such as cold mix and defer-set macadam are less common.

TYPICAL PROPERTIES :

APPEARANCE : Dark brown liquid which turns black after application to road surface or upon contact with aggregate.

ODOUR : Heavy Hydrocarbon with slight kerosene smell on some grades.

BITUMEN GRADE : 100 to 200 pen grade typically.

MISCIBILITY IN WATER : 100 %

BOILING POINT : 100 - 102 deg C

FREEZING POINT : minus 5 to 0 deg C

HEALTH AND SAFETY HIGHLIGHTS :

Under normal conditions of Storage and use, these products can range in temperature from ambient to 90 deg C, it is therefore essential that they be handled accordingly. At any temperature in the stated range, these products are liquids and due to the presence of components stated above may cause irritation if allowed to contact naked skin. Emulsions are not flammable bitumens.

BASIC PRINCIPALS FOR SAFETY.

- Avoid skin contact with hot product
- Wear protective clothing, including suitable eye protection equipment and gloves, when handling these products.
- Employ good standards of personal hygiene and work practices
- Do not over heat the product and never mix with materials above 100 deg C

SAFETY HAZARDS.

Storage and Handling.

These products are mainly stored and handled in bulk, however each grade may at times be supplied in 205 litre drums as requested. Normal bulk storage temperatures range from ambient for the lower bitumen content binders, up to 90 deg C for the K1-70 grades. As the upper range storage temperatures are near the boiling point of water, care must be taken to ensure that the emulsion is never overheated. Boiling of bitumen emulsions can lead to very serious frothing resulting in tank overflow/rupture and escape of hot product under pressure from vents. Drummed material is always stored at ambient temperatures but must be protected from frost damage.

Fire and Explosion Data.

Emulsion is not flammable, although as stated above, it can boil violently when overheated in an enclosed space. The residual bitumen from the applied emulsion is of penetration grade and should be treated as such.

Spillage's/Clean up.

There may be a risk of environmental pollution if the product is spilled therefore the following actions are required :

Land spills

- Shut of source, taking normal precautions to avoid contact with the hot product.
- Contain the spilled liquid with booms/sand or other suitable absorbents and remove mechanically into containers. Prevent product from running into drains where possible (remember that although emulsions are liquids, when reverted to bitumen they must be considered a solid).
- Advise relevant authorities if material has entered a water course, or sewer, or has contaminated soil or vegetation.
- Specialist advice or equipment may be required for product recovery.

Water spills

- Emulsions are totally miscible with water until they revert to bitumen. The bitumen particles are so small as to stay within the water column for long periods.
- Notify relevant authorities
- Seek specialist advice
- Where applicable, filtration can recover bitumen from water, skimming or booming is not appropriate.

DISPOSAL.

Bitumens and their emulsions must be disposed of in accordance with Control of Pollution act 1974 and the Environmental pollution act 1990.

These products are not classified as special wastes under the 1980 Control of Pollution act (Special Waste) Regulations, (S.I 1709). They must never be allowed into drains, water courses or dumped except at Licensed sites.

HEALTH AND SAFETY INFORMATION.

Under normal conditions of storage and use, Bitumen emulsion is unlikely to be a health hazard providing skin contact is avoided.

The bitumen component is not considered to be carcinogenic.

Recommended Precautions.

- Avoid frequent or prolonged skin contact.
- Keep product away from food and drink.
- Avoid wearing contaminated clothing.
- Use protective clothing, eye and respiratory protection in any tank cleaning operation.
- After skin contact, wash skin thoroughly, preferably with hand cleaner or otherwise with soap and water.
- In the event of accidental exposure, follow the first aid procedure given below.

FIRST AID PROCEDURES.

Skin contact.

- In the case of contact with hot product, cool immediately, by running under cold water, this will remove the emulsion which is still liquid.
- Remove contaminated clothing.
- Clean any bitumen from the skin using a suitable hand cleaner.
- Due to the temperature of some emulsions, there may be a risk of scalding. If this occurs do not try to remove the bitumen but seek medical attention.

Eye contact.

Rinse immediately with plenty of water until irritation subsides, get medical attention.

Ingestion.

Not expected to be a problem.

For more detailed information, contact

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