

# PRODUCT DATA SHEET

# TENSET.

#### **PRODUCT DESCRIPTION:**

Tenset is a blend of penetration grade bitumen and petroleum based fluxing oils, used for the production of defer - set macadam's.

#### **PRODUCT USE:**

Tenset is designed for use in bitmac plants, with aggregate drying and grading facilities capable of producing macadam to BS EN 13108. Recommended mixing temperature is 80 deg C maximum. Storage temperature should be high enough to enable pumping of the material but as low as possible to prevent loss of flux oils through evaporation (Nominally 60 - 80 deg C).

#### **TYPICAL PROPERTIES:**

APPEARANCE: Black liquid with a range of viscosity depending on temperature.

DENSITY, kg/l @ 15 deg C: 0.993 - 0.984

LITRES/TONNE @ 15 deg C: 1007 - 1016

The above information is based on experience of trial and full scale mixes, however, factors such as Storage, mixing and laying greatly affect the performance of these macadam's.

# **HEALTH AND SAFETY HIGHLIGHTS:**

Under normal conditions this material is stored hot and must be handled accordingly. In addition, the main risk is due to the material being stored above its flash point. This introduces a possible fire risk. Procedures as laid down in the Institute of petroleum Bitumen safety code part 11 with relation to cutback bitumen should be followed at all times.

## 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

#### SAFETY HAZARDS.

## Storage and Handling.

- These products are mainly stored and handled in bulk. Temperatures exceeding 120 deg C should be avoided.
- Adequate venting for vapours from storage tanks should be provided. Do not terminate vents inside buildings etc.

# Fire and Explosion Data.

Flammability limits, in air, % volume. Lower approx 0.5 Upper approx 5.0

Note; Autoignition temperatures of all bituminous binders can be significantly lowered in the presence of high surface area materials such as coke or fibrous insulation. Good housekeeping is therefore recommended.

#### Fire Hazard.

Bulk liquids present virtually no fire hazard, but the presence of small quantities of light hydrocarbons in the vapour space, dictates that all sources of ignition must be eliminated in critical areas.

#### 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
  TENSET is liquid at pumping temperature, when cooled to ambient, it 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

- Notify relevant authorities
- Seek specialist advice
- Remove from surface with suitable equipment if possible.

#### **DISPOSAL.**

Bitumen's 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.

The main risk associated with TENSET is due to the material being handled above its flash point. This introduces a possible fire hazard.

#### **Recommended Precautions.**

- Avoid 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.
- Avoid inhalation of vapours and fumes.
- Use adequate ventilation.
- 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.
- Do not remove contaminated clothing.
- Do not attempt to remove bitumen.
- Get medical attention.

#### Eve contact.

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

# Ingestion.

DO NOT INDUCE VOMITING, Keep at rest and call a doctor.

For more detailed information, contact TENNANTS BITUMEN, 9, AIRPORT ROAD WEST, BELFAST. BT3 9ED.

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