VIAMULS

SAFETY DATA SHEET

1. Identification of the substance/preparation and company/undertaking

Product name: VIAMULS

Chemical product name: Bitumen emulsion

Product type and main use: Bitumen emulsion for road application.

Supplier: PolyBitumens
Navigator Terminal
Oliver Road
Grays
Essex
RM20 3ED
01708 963823
www.polybitumens.co.uk

e-mail address of person responsible for this SDS: general.enquiries@polybitumens.co.uk

2. Hazards identification

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification: R52/53

Health hazard: The product contains emulsifiers of amine type. Long or repeated contact can cause skin or eye irritation. Especially among sensitive individuals.

Physical/chemical hazards: Storage and handling of the product at high temperatures (50-80 °C) may cause burns.

Environmental hazards: The main effect of spillage of the product in water or onto soil is adsorption to ground material, which causes physical fouling.

3. Composition/information on ingredients

Substance/preparation: Preparation

Chemical name*	CAS no.	EC number	%	Classification
Bitumen	8052-42-4	232-490-9	50 - 70	Not classified.
Water	7732-18-5	231-791-2	30 - 50	Not classified.
Calcium chloride	10043-52-4	233-140-8	<1	Xi; R36
N,N,N',N',N''-Pentamethyl-N-tallowalkyl-1,3-propanediammonium chloride	68607-29-4	271-762-1	<0.75	Xn; R22 Xi; R41, R38 N; R50/53
2-Propanol, 1,1'-[[3-[(3-aminopropyl)amino]propyl]imino]bis-, N-tallow alkyl derivs.	97592-79-5	307-276-4	<0.25	Xn; R22 C; R34 N; R50/53
See Section 16 for the full text of the R Phrases declared above, if applicable				

Occupational exposure limits, if available, are listed in section 8.

4. First-aid measures

Inhalation: If inhalation of mists, fumes or vapour causes irritation to the nose or throat, or coughing, remove to fresh air. If irritation persists, get medical attention.

Eye Contact: COLD PRODUCT: Immediately flush eyes with running water for at least 5 minutes, keeping eyelids open. Get medical attention if irritation occurs.
HOT PRODUCT: Immediately flush eyes with running water for at least 5 minutes, keeping eyelids open. Get medical attention.

Skin contact: If skin contact with hot product, rinse with water for at least 10 minutes. Get medical attention if symptoms appear.
Remove contaminated clothing and shoes. Do not use solvents to remove the product.

Ingestion: Do not induce vomiting. Do not give anything by mouth. Take the injured to hospital if serious coughing or vomiting has occurred, or if the person has swallowed more than a slight quantity.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

5. Fire-fighting measures

Extinguishing Media
Suitable: The product is non-flammable.

Unusual fire/explosion hazards: Container explosion may occur under fire conditions or when heated.

Hazardous thermal decomposition products: No specific data.

Special fire-fighting procedures: Cool closed containers exposed to fire with water.

Protection of fire-fighters: Proper equipment (gloves, shoes, goggles and/or self-contained breathing apparatus). Be sure to use an approved/certified respirator or equivalent.

6. Accidental release measures

Personal precautions: Avoid contact with skin and eyes.

Environmental precautions: Prevent entry into sewers, basements or confined areas. Dyke if necessary.

Clean-up methods: Start immediately to clean up the product and contaminated soil. Small quantities can be absorbed with absorbent material (earth, sand, etc.). If spill is large, call for rescue service.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

Handling: Hot product should be handled so that there is no risk of burns.

Storage: The product shall never be stored at temperatures over 100 °C since this could cause boil-over or splashing of hot material.
The product shall always be stored above the freezing temperature.
When loading, always check that receiving tank has sufficient space to accommodate and that the tank temperature is below 100 °C.

Packaging materials
Recommended use: Use original container.

8. Exposure controls/personal protection

Engineering measures: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures: Wash hands after handling compounds and before eating, smoking and using the lavatory and at the end of the day.

Ingredient name	Occupational exposure limits
Bitumen fumes	**EH40-WEL (United Kingdom (UK), 1/2005).**
	STEL: 10 mg/m^3 15 minute(s). Form: All forms
	TWA: 5 mg/m^3 8 hour(s). Form: All forms

Recommended monitoring procedures: Monitoring procedures for bitumen fumes can be found on the following web-sites: [http://www.acgih.org]
[http://europe.osha.eu.int/good_practice/risks/ds/oel]
[http://concawe.be] - Report 7/02 "Assessment of personal inhalation exposer to bitumen fume - guidance for monitoring benzene-soluble inhalable particulate"

Personal protective equipment Respiratory system: A respirator is not needed under normal and intended conditions of product use.

Skin and body: For hot products, wear protective clothing for normal operations: heat resistant coveralls (with legs over boots and cuffs over gloves), heat resistant gloves and safety footwear covering the ankle. Boots and gloves shall be solvent resistant. (e.g. Nitrile rubber)
For loading/unloading operations: Safety helmet with integrated full-face visor and neck protection

Hands: Heat and chemical resistant gloves with long sleeves (e.g. Nitrile rubber). (e.g. Nitrile rubber)

Eyes: If the potential exists for splashing or when material is handled hot, use goggles, face shield or other full-face protection. During loading/unloading there should be no areas of exposed skin and the face visor must be down!

9. Physical and chemical properties

Physical state: Liquid.

Colour: Black.

Odour: Characteristic.

pH: 2-4

Fire hazards in the presence of various substances: Non-flammable.

Explosive properties: Not applicable

Density: 0,99 to 1,1 g/cm3 [15°C (59°F)]

Solubility: Dispersable in water.

Octanol/water partition coefficient: Not established

Viscosity: 2 - 20 °E (Viscosity Engler @ 20°C - Test method IP212/BS75)

10. Stability and reactivity

Stability: The product is stable.

Conditions to avoid: Contamination from other products may destroy the product.

Materials to avoid: This product should be stored away from oxidising materials and strong bases.

Hazardous decomposition products: No specific data.

11. Toxicological information

Acute toxicity: No specific acute toxicity data is available for the formulation but the product is expected to have low toxicity in connection with skin contact, ingestion and inhalation.

Inhalation: Inhalation of fumes from warm product may lead to a slight irritation of the upper respiratory tract.

Sensitization and irritation: The product is not known to be a skin sensitizer, although condensed bitumen fume is likely to be slightly irritant to the skin. The product contains amines which could cause skin and eye irritation among sensitive individuals.

Chronic toxicity: No tests have been performed on the product. According to properties for components, the product is not expected to present a chronic toxic hazard.

Specific hazard: Bitumen is not classified as dangerous under EC criteria, but they do contain very low concentrations of Polycyclic Aromatic Compounds (PAC's). In undiluted bitumens these PAC's are not considered bio-available. However, if paving grade bitumens are mixed with diluents it is believed that such materials may become bio-available if the product has low viscosity at ambient temperatures. Despite the known presence of PAC's there is no evidence that exposure to undiluted bitumens, or their fumes is harmful.
For safety reasons, it is therefore recommended that skin contact with the product is minimized.

12. Ecological information

Ecotoxicity data: The product contains environmentally hazardous components and is classified as harmful to the environment. There are no specific acute or chronic eco-toxicity data for the product.

Mobility: water: In contact with water, the emulsion will dissipate across the surface and will be diluted, the bitumen phase will be dispersed. The bitumen phase may agglomerate in narrow channels (e.g. water filled ditches) and will normally sink to the sediment, however under circumstances where the bitumen is less dense it may float.

GROUND: In contact with soil material the emulsion will break and the bitumen phase will remain on the soil surface.

Persistence/degradability: Bitumen: There are no known studies of the biodegradation of bitumen in aquatic systems. However, the use of bitumen in roadway and roofing constructions show that bitumen is a persistent material and that it does not biodegrade.

Emulsifying agent: Not expected to be biodegradable.

Bio-accumulation: Bitumen: Although all constituents of bitumen have log Kow in excess of 6 and hence, are potentially bio-accumulative, the low water solubility and high molecular weight make the bio- availability to aquatic organisms limited.

Emulsifying agent: The product has a potential to bioaccumulate.

Other environmental effects: The main effect of spillage of the product in water or onto soil is adsorption to ground material, which causes physical fouling.

13. Disposal considerations

Methods of disposal

Waste residues information: Non-hazardous waste. Recycling is recommended.
Dispose in accordance to local and national regulations.

Contaminated packaging: Through authorized contractor or collector.

European waste catalogue (EWC): 17 03 02 bituminous mixtures other than those mentioned in 17 03 01

Hazardous waste: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

14. Transport information

International transport regulations

Regulatory Information	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADR/RID Class	Not regulated.	-	-	-		-
IMDG / ADNR Class	Not regulated.	-	-	-		-
IATA Class	Not regulated.	-	-	-		-

PG*: Packing group

15. Regulatory information

Classification and labelling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

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

Safety Phrases: S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

Product use: Industrial applications.

EU statistical classification (Tariff Code): 32089091

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK):

R22- Harmful if swallowed.
R36- Irritating to eyes.
R38- Irritating to skin.
R41- Risk of serious damage to eyes.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications referred: Xi - Irritant

to in sections 2 and 3 - United Kingdom (UK): Xn – Harmful
N - Dangerous for the environment

Notice to reader

The advice given in this safety data sheet reflects the current knowledge of the hazards and risks associated with the handling of the product. If the product is mixed with other materials the users shall take these into account in identifying any additional hazards and risks which might arise.

History

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