

Nynas K1-70



SAFETY DATA SHEET

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name	Nynas K1-70
Product description	Bitumen emulsion for road application.
Product type	Liquid.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	
Distribution of substance - Industrial	
Formulation and (re)packing of substances and mixtures - Industrial	
Use in road and construction products - Professional	
Use in coatings - Consumer	
Use in coatings - Industrial	
Use in coatings - Professional	
Uses advised against	Reason
This product must not be used in applications other than those recommended in Section 1, without first seeking the advice of the supplier.	-

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer	Head office: Nynas AB P.O. Box 10700 SE-121 29 Stockholm SWEDEN +46 8 602 12 00 (Office hours 8 am - 4.30 pm (CET)) www.nynas.com
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e-mail address of person responsible for this SDS ProductHSE@nynas.com

<u>National contact</u>	Nynas UK AB North Road Ellesmere Port CH65 1AJ UNITED KINGDOM +44-151 327 31 71	Nynas UK AB East Camperdown Street Dundee DD1 3LG UNITED KINGDOM +44-1-382 462 211
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1.4 Emergency telephone number

Telephone number	+44 (0) 1235 239 670
Hours of operation	24 hour service

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms

Signal word No signal word.

Hazard statements No known significant effects or critical hazards.

Precautionary statements

Prevention Not applicable.

Response Not applicable.

Storage Not applicable.

Disposal Not applicable.

Supplemental label elements Safety data sheet available on request.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not applicable.

2.3 Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII Not applicable.

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Mixture

Product/ingredient name	Identifiers	%	Classification	
			Regulation (EC) No. 1272/2008 [CLP]	Type
Asphalt *	REACH #: 01-2119480172-44 EC: 232-490-9 CAS: 8052-42-4	50 - 70	Not classified.	[2]
water	REACH #: Annex IV EC: 231-791-2 CAS: 7732-18-5	30 - 50	Not classified.	[6]
calcium chloride	EC: 233-140-8 CAS: 10043-52-4 Index: 017-013-00-2	<3	Acute Tox. 4, H302 Eye Irrit. 2, H319	[1]
Hydrogen chloride	REACH #: 01-2119484862-27 EC: 231-595-7 CAS: 7647-01-0	<0.28	Met. Corr. 1, H290 Skin Corr. 1B, H314 STOT SE 3, H335	[1] [2]

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SECTION 3: Composition/information on ingredients

(Z)-N-9-octadecenylpropane-1,3-diamine	Index: 017-002-01-X REACH #: 01-2119487002-46 EC: 230-528-9 CAS: 7173-62-8	<0.25	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT RE 1, H372 (kidneys) (oral) Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1) See Section 16 for the full text of the H statements declared above.	[1]
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* SAFETY DATA SHEET SECTION 16: Other information

Not applicable.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	<p>WARM PRODUCT: Immediately flush eyes with running water for at least 5 minutes, keeping eyelids open. Immediately obtain specialist medical assessment and treatment for the casualty.</p> <p>COLD PRODUCT: In the event of eye contact with cold product, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist.</p>
Inhalation	<p>In case of symptoms arising from inhalation of product fumes, mists or vapour : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Remove casualty to a quiet and well ventilated place if safe to do so. If irritation persists, get medical attention.</p>
Skin contact	<p>WARM PRODUCT: Do not put ice on the burn. Remove non-sticking garments carefully. Seek medical attention in all cases of serious burns. Never use gasoline, kerosene or other solvents for washing of contaminated skin.</p> <p>COLD PRODUCT: Wash contaminated skin with soap and water. Wash with soap and water. Remove contaminated clothing and shoes. Handle with care and dispose of in a safe manner.</p>
Ingestion	<p>Do NOT induce vomiting. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. Get medical advice/attention if you feel unwell. Never give anything by mouth to an unconscious person. Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p>
Protection of first-aiders	<p>No action shall be taken involving any personal risk or without suitable training.</p>

4.2 Most important symptoms and effects, both acute and delayed

SECTION 4: First aid measures

Potential acute health effects

Eye contact	WARM PRODUCT: Causes severe burns. COLD PRODUCT: Eye contact may cause redness and transient pain.
Inhalation	Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.
Skin contact	Contact with hot/molten product will cause severe burns. Few or no symptoms expected.
Ingestion	Few or no symptoms expected. If any, slight nausea might occur.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects. If for any reason the product must be removed, this can be done using a slightly warmed medicinal liquid paraffin.
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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	Do not use direct water jets on the burning product; they could cause splattering and spread the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H ₂ S, SO _x (sulfur oxides) or sulfuric acid and unidentified organic and inorganic compounds. halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas. Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.
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SECTION 6: Accidental release measures

Note : recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

For emergency responders

Small spillages: normal antistatic working clothes are usually adequate.

Large spillages: full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated. Safety helmet with integrated full face visor and neck protection. antistatic non-skid safety shoes or boots. Respiratory protection : A half or full-face respirator with filter(s) for organic vapours (and when applicable for H₂S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

Note : solidified product may clog drains and sewers.

See Ecological information (Section 12)

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Absorb spilled product with suitable non-combustible materials. Collect solidified product with suitable means (e.g. shovels).

Large spill

When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal. If necessary, cautiously use water fog to help the cooling. Do not play direct jets of foam or water on the spilled molten product, as this may cause splattering.

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

General information

The product should always be handled and stored at temperatures below 90 °C. Higher temperatures will cause boil-over or splashing of the 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 90 °C.

In contact with soil material the emulsion will break and the bitumen phase will remain on the soil surface. In contact with water, the emulsion will dissipate across the surface and will be diluted, the bitumen phase will be dispersed.

Contamination from other products may destroy the product.

7.1 Precautions for safe handling

SECTION 7: Handling and storage

Protective measures	<p>Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin and clothing.</p> <p>Prevent the risk of slipping. Take precautionary measures against static discharge. Avoid splash filling of bulk volumes when handling hot liquid product.</p> <p>Nota : See Section 8 for information on appropriate personal protective equipment. See section 13 for waste disposal information.</p>
Advice on general occupational hygiene	<p>Ensure that proper housekeeping measures are in place. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash hands thoroughly after handling. Change contaminated clothes at the end of working shift. Do not use solvents or other products with a defatting effect on the skin. See also Section 8 for additional information on hygiene measures.</p>
7.2 Conditions for safe storage, including any incompatibilities	<p>Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.</p> <p>Recommended materials for containers, or container linings use mild steel, stainless steel. Recommended materials: iron / steel , Solvent resistant material. Not suitable : Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Aluminium. Compatibility should be checked with the manufacturer. Self-heating leading to auto ignition at the surfaces of porous or fibrous materials impregnated with oils or bitumen, can occur at temperatures as low as 100°C. Oil and bitumen contamination of thermal insulation materials and the accumulation of oily rags or similar material near hot surfaces, should therefore be avoided, and lagging should be replaced where necessary by a non-absorbent type of insulation.</p> <p>Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Product tanks may be heated by hot oil, electricity or flame tubes. Under circumstances where bitumen is being pumped from a tank containing heater tubes precautions should be taken to prevent the level dropping 150 mm above the tubes unless the heat has been switched off for a period of sufficient cooling. Where the product is being pumped from a storage tank or road tank care should be taken to avoid the risk of fire or explosion as a result of exposing hot heater tubes. ; Protect from sunlight.</p>
7.3 Specific end use(s)	
Recommendations	Not available.
Industrial sector specific solutions	Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Asphalt *	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 10 mg/m ³ 15 minutes. TWA: 5 mg/m ³ 8 hours.
Asphalt	[Air contaminant] EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 10 mg/m ³ 15 minutes. TWA: 5 mg/m ³ 8 hours.
Hydrogen chloride	[Air contaminant] EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 8 mg/m ³ 15 minutes. Form: Gas and aerosol mists STEL: 5 ppm 15 minutes. Form: Gas and aerosol mists TWA: 2 mg/m ³ 8 hours. Form: Gas and aerosol mists TWA: 1 ppm 8 hours. Form: Gas and aerosol mists

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Asphalt	DNEL	Long term Inhalation	2,9 mg/m ³	Workers	Local

PNECs

No PNECs available

PNEC Summary

No PECs available.

8.2 Exposure controls

Appropriate engineering controls

When inside buildings or confined spaces, ensure adequate ventilation. Minimise exposure to fumes. Do not enter empty storage tanks until measurements of available oxygen have been carried out.

Individual protection measures

Hygiene measures

Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.

Eye/face protection

If splashing is likely, full head and face protection (protective shield and/or safety goggles) should be used. For loading/unloading operations: wear safety helmet with integrated full face visor and neck protection.

Skin protection

SECTION 8: Exposure controls/personal protection

Hand protection	4 - 8 hours (breakthrough time): nitrile rubber Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Gloves must be periodically inspected and changed in case of wear, perforations or contaminations. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated.
Body protection	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. Coveralls should be changed at the end of the work shift and cleaned as necessary to avoid transfer of product to clothes or underwear. For loading/unloading operations: wear safety helmet with integrated full face visor and neck protection.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If exposure levels cannot be determined or estimated with adequate confidence, or an oxygen deficiency is possible, only SCBA's should be used. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
Colour	Dark. Brown. Black.
Odour	Bitumen
Odour threshold	Not applicable.
pH	>2
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Open cup: Not applicable.
Evaporation rate	>1 (butyl acetate = 1)
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure (Calculated)	Not available.
Density	0,99 to 1,1 g/cm ³ [15°C]
Solubility(ies)	Insoluble in water.
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	>300°C
Decomposition temperature	>350°C
Viscosity	Kinematic (40°C): Not applicable.
Viscosity	20 - 60 s [Viscosity Redwood II @ 85 °C]
Explosive properties	Not applicable.
Oxidising properties	Not available.

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SECTION 9: Physical and chemical properties

SECTION 10: Stability and reactivity

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	The product should always be handled and stored at temperatures below 90 °C. Higher temperatures will cause boil-over or splashing of the hot material. Change bitumen or oil contaminated insulation. If necessary a non-absorbent type of insulation should be used. Keep away from acids or bases. The product shall always be stored above the freezing temperature.
10.5 Incompatible materials	Oil and bitumen contamination of thermal insulation materials and the accumulation of oily rags or similar material near hot surfaces, should therefore be avoided, and lagging should be replaced where necessary by a non-absorbent type of insulation.
10.6 Hazardous decomposition products	None under normal conditions at ambient temperatures. Combustion (incomplete) will likely generate oxides of carbon, sulphur and nitrogen, as well as additional undetermined organic compounds of the same elements.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	Remarks
Asphalt *	LC50 Inhalation Vapour	Rat	>94,4 mg/m ³	4 hours	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-	-
	LD50 Oral	Rat	>5000 mg/kg	-	-
calcium chloride	LD50 Oral	Rabbit	1384 mg/kg	-	-
	LD50 Oral	Rat	1 g/kg	-	-
	LD50 Subcutaneous	Mouse	823 mg/kg	-	-

Conclusion/Summary No known significant effects or critical hazards.

Acute toxicity estimates

Route	ATE value
Oral	35097,3 mg/kg

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Observation	Remarks
Asphalt *	Skin - Non-irritant to skin.	Rabbit	8	-	-
	Eyes - Non-irritating to the eyes.	Rabbit	8	-	-

Skin No known significant effects or critical hazards.

Eyes No known significant effects or critical hazards.

Respiratory No known significant effects or critical hazards.

Sensitisation

Product/ingredient name	Route of exposure	Species	Result	Remarks
Asphalt *	skin	Guinea pig	Not sensitizing	-

Skin No known significant effects or critical hazards.

Respiratory No known significant effects or critical hazards.

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SECTION 11: Toxicological information

Mutagenicity

Conclusion/Summary No known significant effects or critical hazards.

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure	Remarks
Asphalt *	Negative - Dermal - TDLo	Mouse	7,14 Repeated dose	104 weeks; 7 days per week	-
	Negative - Inhalation - NOAEC	Rat	104 g/m ³	104 weeks; 6 hours per day Repeated dose	-

Conclusion/Summary No known significant effects or critical hazards.

Reproductive toxicity

Conclusion/Summary Not available.

Teratogenicity

Conclusion/Summary No known significant effects or critical hazards.

Aspiration hazard

Not available.

Potential acute health effects

Eye contact WARM PRODUCT: Causes severe burns.

COLD PRODUCT: Eye contact may cause redness and transient pain.

Inhalation Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.

Skin contact Contact with hot/molten product will cause severe burns. Few or no symptoms expected.

Ingestion Few or no symptoms expected. If any, slight nausea might occur.

Potential chronic health effects

General No known significant effects or critical hazards.

Carcinogenicity No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

Teratogenicity No known significant effects or critical hazards.

Product/ingredient name No known significant effects or critical hazards.

Fertility effects No known significant effects or critical hazards.

Other information

Not available.

Specific hazard

PAC's 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.

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SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Asphalt *	Acute NOEC ≥1000 mg/l Fresh water	Fish	21 days
calcium chloride	Acute EC50 3130000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute LC50 270 mg/l Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 590 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 2110 mg/l Fresh water	Fish - Pimephales promelas	96 hours

Conclusion/Summary No known significant effects or critical hazards.

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Asphalt *	-	-	Not readily
calcium chloride	-	-	Readily

Conclusion/Summary Not applicable.

12.3 Bioaccumulative potential

Conclusion/Summary 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. Bio-accumulation is unlikely.

12.4 Mobility in soil

Mobility In contact with soil material the emulsion will break and the bitumen phase will remain on the soil surface. Low mobility in soil, based on experimental data.

12.5 Results of PBT and vPvB assessment

Not applicable.
Not applicable.

12.6 Other adverse effects

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

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organization, and/or prescribe composition limits and methods for recovery or disposal.

Hazardous waste Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

European waste catalogue (EWC)

Waste code	Waste designation
17 03 02	bituminous mixtures other than those mentioned in 17 03 01

Packaging

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SECTION 13: Disposal considerations

Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

International transport regulations

	ADR/RID	ADN	IMO/IMDG Classification	ICAO/IATA Classification
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

14.6 Special precautions for user **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex I of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not applicable.

Other EU regulations

Seveso Directive

This product is not controlled under the Seveso Directive.

International lists

SECTION 15: Regulatory information

National inventory

Australia	All components are listed or exempted.
Canada	All components are listed or exempted.
China	All components are listed or exempted.
Japan	Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
Malaysia	Not determined.
New Zealand	All components are listed or exempted.
Philippines	All components are listed or exempted.
Republic of Korea	All components are listed or exempted.
Taiwan	All components are listed or exempted.
United States	All components are listed or exempted.
Thailand	Not determined.
Turkey	Not determined.
Viet Nam	Not determined.

15.2 Chemical safety assessment

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Revision comments Not available.

✔ Indicates information that has changed from previously issued version.

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CMR = Carcinogen, Mutagen or Reproductive toxicant

CSA = Chemical Safety Assessment

CO₂ = carbon dioxide

DNEL = Derived No Effect Level

EC50 = Half maximal effective concentration

EUH statement = CLP-specific Hazard statement

IATA = International Air Transport Association

IC50 = Half maximal inhibitory concentration

IMDG = International Maritime Dangerous Goods

LC50 = Median lethal concentration

LD50 = Median lethal dose

PNEC = Predicted No Effect Concentration

PBT = Persistent, Bioaccumulative and Toxic

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]

SCBA = Self-Contained Breathing Apparatus

SVHC = Substances of Very High Concern

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

United Kingdom (UK)

Full text of abbreviated H statements	H302	Harmful if swallowed.
	H319	Causes serious eye irritation.

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SECTION 16: Other information

Full text of classifications [CLP/ Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4
GHS] Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

* This product could be a pure substance or a blend of the below given CAS numbers:

Substances	CAS number	REACH Registration number
Bitumen	8052-42-4	01-2119480172-44-0007 01-2119480172-44-0008 01-2119480172-44-0082
Bitumen, oxidized (PI<2)	64742-93-4	01-2119498270-36-0027 01-2119498270-36-0028
Residues (petroleum), vacuum	64741-56-6	01-2119498291-32-0035 01-2119498291-32-0034 01-2119498291-32-0065
Residues (petroleum), thermal cracked vacuum	92062-05-0	01-2119498290-34-0010

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