

**SAFETY DATA SHEET**

prepared by ALECTIA A/S

Revision: 7<sup>th</sup> July 2015

Supersedes: -



Version: 1

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

- 1.1. Product identifier:** **KERABIT KBL 20/100**  
Article no. 346
- 1.2. Relevant identified uses of the substance or mixture and uses advised against:** Primer for modified bitumen products.
- 1.3. Details of the supplier of the safety data sheet:** Nordic Waterproofing Oy, Puistokatu 25-27, 08150 Lohja, Finland, Tel. 00358 10 851 1000, E-mail: info@kerabit.fi
- 1.4. Emergency telephone number:** In case of a medical emergency following exposure to a chemical call NHS 111 - only available in certain areas of England (outside of these areas call NHS Direct on 0845 4647). The National Poisons Information Service emergency number is 0844 892 0111 (only available to health professionals).

**SECTION 2: HAZARDS IDENTIFICATION**

- 2.1. Classification of the substance or mixture:**  
CLP- classification: Flam. Liq. 3; H226 Acute Tox. 4; H312 Acute Tox. 4; H332 Skin Irrit. 2; H315 (CLP 1272/2008).

2.2. Label elements:		Hazard pictograms Signal word
<b>Contains:</b>	Xylene.	   <b>WARNING</b>
<b>Hazard statements:</b>	Flammable liquid and vapour. (H226) Harmful in contact with skin. (H312) Causes skin irritation. (H315) Harmful if inhaled. (H332)	
<b>Precautionary statements:</b>	Keep away from heat/sparks/open flames/hot surfaces. — No smoking. (P210) Avoid breathing vapours. (P261) Wear protective gloves/protective clothing/eye protection/face protection. (P280) Call a POISON CENTER or doctor/physician if you feel unwell. (P312) Dispose of contents/container to appropriate waste site in accordance with national and local regulations. (P501)	
<b>Supplemental information:</b>	None.	

- VOC-labelling:** EU limit value for the VOC content of this product (cat. A/h): 750 g/l.  
The VOC content of this product is max. 643 g/l.

- 2.3. Other hazards:** This product does not contain any PBT or vPvB substances.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures:**

Contains:

CAS no. EC no.	REACH reg.no.	Chemical name	%	CLP- classification	Note:
1330-20-7 215-535-7	01- 2119488216- 32	Xylene*	55-75	Flam. Liq. 3; H226 Acute Tox. 4; H312 Acute Tox. 4; H332 Skin Irrit. 2; H315	1, 2
8052-42-4 232-490-9	01- 2119480172- 44	Bitumen	20-30	Not classified	-
40027-38-1 254-754-2	-	Oleic acid, compound with (Z)-Noctadec-9-enylpropane- 1,3-diamine	< 0.5	Skin. Corr. 1B; H314 Acute Tox. 4; H302 Aquatic Acute 1; H400 (M-factor = 10)	-
100-41-4 202-849-4	-	*contains Ethylbenzene	-	Flam. Liq. 2; H225 Acute Tox. 4; H332	1, 2, 4

For full text of Hazard statements: see section 16.

- 1) The substance is an organic solvent.
- 2) The substance is volatile.
- 4) The substance is possibly carcinogenic.

**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures**

- Inhalation:** Fresh air and rest under surveillance. Seek medical advice if symptoms persist. If the person is unconscious, call an ambulance and apply artificial respiration. If breathing, place the person in recovery position and keep warm.
- Skin:** Immediately remove contaminated clothing. If necessary use a skin cleansing agent. Wash skin thoroughly with soap and water and apply skin cream. Seek medical advice in case of eczema or other skin discomforts.
- Eyes:** Rinse immediately with plenty of water for at least 15 minutes. Open eyes wide. Remove any contact lenses. Seek medical advice if irritation persists.
- Ingestion:** Rinse mouth thoroughly and drink water. Do not induce vomiting. Seek medical advice.
- Burns:** Rinse with water until the pain stops. Do not attempt to remove adhering bitumen unless absolutely necessary. Remove clothes which do not adhere to the body – seek medical advice; if possible continue rinsing until a doctor takes over the treatment.
- Other information:** When obtaining medical advice, show the safety data sheet or label.
- 4.2. Most important symptoms and effects, both acute and delayed:** Inhalation of vapours or skin contact may cause drowsiness, dizziness, headache, intoxication and delayed response ability and, at high concentrations, unconsciousness. Irritating to skin. Splashes in the eyes may cause irritation. Vapours may irritate the airways.
- 4.3. Indication of any immediate medical attention and special treatment needed:** No special immediate treatment required.

**SECTION 5: FIREFIGHTING MEASURES**

- 5.1. Extinguishing media:** Extinguish with powder, foam, carbon dioxide or water mist. Do not use water jet, as it may spread the fire.
- 5.2. Special hazards arising from the substance or mixture:** In fire conditions, the product may release oxides of carbon and soot.
- 5.3. Advice for firefighters:** Coordinate with fire in surroundings. In case of larger fires, wear a full-face positive-pressure self-contained breathing apparatus and protective suit. If possible without risk, containers close to fire should be removed or cooled with water/water mist.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

- 6.1. Personal precautions, protective equipment and emergency procedures:** Provide adequate ventilation.  
Use personal protection.  
Be aware of the explosion hazard. Keep away from sources of ignition.
- 6.2. Environmental precautions:** Do not discharge into drains, water courses or onto the ground.
- 6.3. Methods and material for containment and cleaning up:** Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth, and place in container for disposal according to local regulations.
- 6.4. Reference to other sections:** See section 8 for type of protective equipment.  
See section 13 for instructions on disposal.

**SECTION 7: HANDLING AND STORAGE**

- 7.1. Precautions for safe handling:** Avoid contact with skin and eyes.  
Do not breathe vapour. Provide for effective ventilation if used indoor.  
Smoking and naked flames prohibited.
- 7.2. Conditions for safe storage, including any incompatibilities:** Keep in tightly closed packaging. Store in a cool and ventilated place in accordance with local regulations for flammable liquids. Store safely, out of the reach of children and away from tobacco, food, beverages, animal feeding stuff, medicine, etc.
- 7.3. Specific end use(s):** See section 1.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters:****Occupational exposure limit value**

Chemical name	CAS no.	Workplace exposure limits (WELs)		Note
		Long-term exposure limit (8-hour TWA reference period)	Short-term exposure limit (15-minute reference period)	
Xylene	1330-20-9	50 ppm 220 mg/m <sup>3</sup>	100 ppm 441 mg/m <sup>3</sup>	Sk, BMGV
Ethylbenzene	100-41-4	100 ppm 441 mg/m <sup>3</sup>	125 ppm 552 mg/m <sup>3</sup>	Sk
Legal basis:	EH40/2005 Workplace exposure limits (second edition, published 2011).			
Note:	Sk: Absorbed through skin. BMGV: Biological Monitoring Guidance Value.			
Monitoring procedures:	Compliance with the stated occupational exposure limits may be checked by occupational hygiene measurements.			

**DNEL values**

Chemical name	DNEL value
Bitumen	Workers: 2.9 mg/m <sup>3</sup> /8h (aerosol - inhalation) General Population: 0.6 mg/m <sup>3</sup> /24h (aerosol - inhalation)
Xylen	Workers: Inhalation (long term exposure - systemic effects) 77 mg/m <sup>3</sup> Dermal (long term exposure - systemic effects) 180 mg/kg bw/day  General Population: Inhalation (long term exposure - systemic effects) 14.8 mg/m <sup>3</sup> Oral (long term exposure - systemic effects) 1.6 mg/kg bw/day Dermal (long term exposure - systemic effects) 108 mg/kg bw/day

**8.2. Exposure controls****Appropriate engineering controls:**

Provide adequate ventilation.  
 Running water and eye wash equipment must be available.  
 Smoking, eating and drinking, as well as storage of tobacco, food and beverages, are not allowed in the working area. Personal protective equipment must be kept separate from other clothes. Protective equipment must not be worn during lunch breaks.  
 Wash hands before breaks, eating, toilet visits and after work. Use mild soap and water and apply skin cream after washing.  
 Water and means of cleaning should be brought along if the work is not carried out near mobile site huts or permanent common rooms.

**Personal protective equipment****Respiratory protection:**

Use air-fed breathing apparatus (full face).  
 During short-term jobs (max. 1 hour/day), a full-face mask with A2 filter may be used.  
 Always wear air-fed breathing apparatus (full face) when spraying the product.

**Hand protection:**

Wear protective gloves made of nitrile rubber (thickness:  $\geq 0.36$  mm, breakthrough time: approximately 40 minutes) possibly with a cotton glove underneath.  
 Protective gloves 4H, Barrier or similar, possibly with a cotton glove underneath and a thin glove over, are recommended (breakthrough time:  $> 480$  minutes).

**Skin protection:**

Wear coveralls with a hood if there is a risk of splashing.

**Eye/face protection:**

Wear face shield where splashing is possible.  
 Not relevant when using a full-face mask.

**Environmental exposure controls:**

No special requirements.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

<b>Appearance:</b>	Black, liquid	<b>Vapour pressure:</b>	Not determined
<b>Odour:</b>	Aromatic	<b>Vapour density:</b>	No available data
<b>Odour threshold:</b>	No available data	<b>Relative density:</b>	0.910 g/cm <sup>3</sup>
<b>pH:</b>	Not applicable	<b>Solubility(ies):</b>	Soluble in organic solvents
<b>Melting point/freezing point:</b>	No available data	<b>Partition coefficient n-octanol/water:</b>	No available data
<b>Initial boiling point and boiling range:</b>	$> 130$ °C	<b>Auto-ignition temperature:</b>	$> 430$ °C
<b>Flash point:</b>	27 °C	<b>Decomposition temperature:</b>	No available data
<b>Evaporation rate:</b>	No available data	<b>Viscosity:</b>	No available data
<b>Flammability (solid, gas):</b>	No available data	<b>Explosive properties:</b>	No available data
<b>Upper/lower flammability or explosive limits:</b>	1-7 vol. %	<b>Oxidising properties:</b>	Not applicable

**9.2. Other information**

**Miscible with water:** Not miscible

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**SECTION 10: STABILITY AND REACTIVITY**

<b>10.1. Reactivity:</b>	Non-reactive.
<b>10.2. Chemical stability:</b>	The product is stable when used in accordance with the supplier's directions.
<b>10.3. Possibility of hazardous reactions:</b>	Vapours may ignite at temperatures above flash point and may form explosive mixtures with air. Vapours from the product are heavier than air and may spread along floor or the ground.
<b>10.4. Conditions to avoid:</b>	Avoid heat, flames and ignition sources.
<b>10.5. Incompatible materials:</b>	Avoid contact with strong oxidising agents.
<b>10.6. Hazardous decomposition products:</b>	Hazardous decomposition products may be released at high temperatures.

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**SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects**

<b>Inhalation:</b>	Harmful by inhalation. Inhalation of vapours can cause irritation of airways, drowsiness, dizziness, headache, intoxication and delayed response ability and, at high concentrations, unconsciousness.  1330-20-7: LC50 (inhalation, rat): 5000 ppm/4 h 100-41-4: LC50 (inhalation, rat): 4000 ppm/4 h
<b>Skin:</b>	Harmful in contact with skin. Irritating to skin. Xylene and Ethylbenzene can be absorbed through the skin.  1330-20-7: LD50 (dermal, rabbit): > 1700 mg/kg 100-41-4: LD50 (dermal, rabbit): 17800 µL/kg
<b>Eyes:</b>	Splashes in the eyes and vapours can cause irritation.
<b>Ingestion:</b>	May cause irritation. May cause discomfort.  1330-20-7: LD50 (oral, rat): 4300 mg/kg 100-41-4: LD50 (oral, rat): 3500 mg/kg
<b>Chronic effects:</b>	Prolonged/repeated inhalation of vapours or skin contact may cause damage to the liver, kidneys and central nervous system with symptoms such as drowsiness, headache, concentration and memory problems. The product contains Xylene, which is suspected to impair fertility. Prolonged and repeated skin contact with the product may possibly cause skin cancer. IARC (International Agency for Research on Cancer) evaluates that some animal tests of painting bitumen solution on skin have resulted in skin cancer. IARC assesses that Ethylbenzene is possibly carcinogenic to humans (group 2B).

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**SECTION 12: ECOLOGICAL INFORMATION**

<b>12.1. Toxicity:</b>	The product does not have to be classified. Based on available data, the classification criteria are not met. Bitumen is not regarded as harmful to the environment.  1330-20-7: LC50, fish, 24 h: 1.080.000 µg/l EC50, algae, 24 h: 100.000 µg/l
<b>12.2. Persistence and degradability:</b>	Test data are not available. Bitumen is very slowly degradable.
<b>12.3. Bioaccumulative potential:</b>	Data on bioaccumulation are not available.
<b>12.4. Mobility in soil:</b>	Test data are not available.
<b>12.5. Results of PBT and vPvB assessment:</b>	This product does not contain any PBT or vPvB substances.
<b>12.6. Other adverse effects:</b>	The product floats on water. May spread in the aquatic environment.

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**SECTION 13: DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods:**

Waste, residue etc. should be disposed of in accordance with national and local regulations.

<b>EWC-code:</b> 08 01 11
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Absorbents (sand, earth, vermiculite etc.) contaminated by the product, used protective equipment etc. EWC-code: 15 02 02.

**SECTION 14: TRANSPORT INFORMATION**

Transport has to take place in accordance with national and/or international rules for transport of dangerous goods.

**ADR/RID**

14.1. UN number	14.2. UN proper shipping name	14.3. Transport hazard class(es)	14.4. Packing group	14.5. Environmental hazards	Other information
1139	COATING SOLUTION	3	III	None	Hazard identification No. 30

**IMDG**

14.1. UN number	14.2. UN proper shipping name	14.3. Transport hazard class(es)	14.4. Packing group	14.5. Environmental hazards	Other information
1139	COATING SOLUTION	3	III	None	EmS: F-E, S-E

**ADN**

14.1. UN number	14.2. UN proper shipping name	14.3. Transport hazard class(es)	14.4. Packing group	14.5. Environmental hazards	Other information
1139	COATING SOLUTION	3	III	None	-

**IATA**

14.1. UN number	14.2. UN proper shipping name	14.3. Transport hazard class(es)	14.4. Packing group	14.5. Environmental hazards	Other information
1139	COATING SOLUTION	3	III	None	-

**14.6. Special precautions for user:** None.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not relevant.

**SECTION 15: REGULATORY INFORMATION**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:** Young people under the age of 18 should not be allowed to work with the product unless the product is used as a necessary part of their education. Spraying of the product should be avoided.

**15.2. Chemical safety assessment:** No chemical safety assessment has been carried out for this mixture.

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**SECTION 16: OTHER INFORMATION**

<b>Changes:</b>	Issue 1: No changes.
<b>Abbreviations and acronyms:</b>	PBT: Persistent, Bioaccumulative and Toxic. vPvB: very Persistent and very Bioaccumulative. VOC: Volatile Organic Compound. CLP: CLP-Regulation (EC) No 1272/2008 (Classification, Labelling and Packaging). DNEL: Derived No Effect Level. LD50: Lethal Dose 50 %. LC50: Lethal Concentration 50 %. EC50: Effect Concentration 50 %. Flam. Liq.: Flammable liquid. Acute Tox.: Acute toxicity. Skin Corr.: Skin corrosion. Skin Irrit.: Skin irritation. Aquatic Acute: Hazardous to the aquatic environment.
<b>Method of classification:</b>	Calculation based on the hazards of the known components.
<b>H-statements:</b>	H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H332 Harmful if inhaled. H400 Very toxic to aquatic life.
<b>Training advice:</b>	Follow national rules applying for work with bitumen products. The user must be instructed in the proper work procedure and be familiar with the contents of this safety data sheet.
<b>Further information:</b>	This product must be stored, handled and used in accordance with good industrial work hygiene and safety practice.
<b>Person responsible for the Safety Data Sheet (e-mail):</b>	Susanne Brandt Hansen (sbha@alectia.com).

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<b>Disclaimer:</b>	As we do not know nor can control the specific work conditions of the user, the user are cautioned to take the necessary provisions in order to comply with the rules in force. This safety data sheet is devised on the information presented by the supplier as well as under the existing EU and national laws.
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