

SAFETY DATA SHEET

prepared by ALECTIA A/S

Revision: 14th December 2016
Supersedes: -
Version: 1



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



- 1.1. Product identifier:** **KERABIT KBL 20/100 SPRAY**
Article no. -
- 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: Aerosol 1; H222 Aerosol 1; H229 Acute Tox. 4; H312+H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT SE 3; H336 STOT RE 2; H373 Aquatic Chronic 2; H411 (CLP 1272/2008).

For full text of Hazard-statements: see section 16.

2.2. Label elements:		Hazard pictograms Signal word
Contains:	Xylene, Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), Butane.	 
Hazard statements:	Extremely flammable aerosol. (H222) Pressurised container: May burst if heated. (H229) Harmful in contact with skin or if inhaled. (H312+H332) Causes skin irritation. (H315) Causes serious eye irritation. (H319) May cause respiratory irritation. (H335) May cause drowsiness or dizziness. (H336) May cause damage to organs through prolonged or repeated exposure. (H373) Toxic to aquatic life with long lasting effects. (H411)	

2.2. Label elements:	Hazard pictograms Signal word
Precautionary statements:	  DANGER
	<p>If medical advice is needed, have product container or label at hand. (P101) Keep out of reach of children. (P102) Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210) Do not spray on an open flame or other ignition source. (P211) Do not pierce or burn, even after use. (P251) Wear protective gloves/protective clothing/eye protection/face protection. (P280) IF ON SKIN: Wash with plenty of water. (P302+P352) IF INHALED: Remove person to fresh air and keep comfortable for breathing. (P304+P340) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338) Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. (P410+P412) Dispose of contents/container to appropriate waste site in accordance with national and local regulations. (P501)</p>
Supplemental information:	Repeated exposure may cause skin dryness or cracking. (EUH066)

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. 600 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:
- 919-446-0	01- 211945804 9-33-xxxx	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	20-< 35	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H336 Aquatic Chronic 2; H411	1, 2
1330-20-7 215-535-7	-	Xylene (mixture of isomers)*	20-< 30	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312+H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT RE 2; H373	1, 2
8052-42-4 232-490-9	-	Bitumen	10-< 20	Not classified	-
106-97-8 203-448-7	-	Butane	10-< 20	Flam. Gas 1; H220; Press. Gas; H280	2
74-98-6 200-827-9	-	Propane	10-< 20	Flam. Gas 1; H220; Press. Gas; H280	2
61791-55-7 263-189-0	-	Amines, N-tallow alkyltrimethylenedi-	< 1	Skin. Corr. 1B; H314 Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	-
100-41-4 202-849-4	-	*contains Ethylbenzene	-	Flam. Liq. 2; H225 Asp Tox. 1; H304 Acute Tox. 4; H332 STOT RE 2; H373	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:	Harmful in contact with skin or if inhaled. Inhalation of vapours or skin contact may cause drowsiness, dizziness, headache, intoxication and delayed response ability and, at high concentrations, unconsciousness. May cause respiratory irritation. Irritating to skin. Repeated exposure may cause skin dryness or cracking. Causes serious eye irritation.
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4.3. Indication of any immediate medical attention and special treatment needed:	No special immediate treatment required.
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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:	Aerosol cans may explode in a fire. 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 and spray.
Provide for effective ventilation if used indoor.
Smoking and naked flames prohibited.

7.2. Conditions for safe storage, including any incompatibilities:

Pressurised container. Protect from sunlight. Do not expose to temperatures exceeding 50 °C. Keep away from sources of ignition.
Store in a cool and ventilated place in accordance with local regulations.
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)	
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	-	350 mg/m ³	-	-
Xylene (mixture of isomers)	1330-20-9	50 ppm 220 mg/m ³	100 ppm 441 mg/m ³	Sk, BMGV
Butane	106-97-8	600 ppm 1450 mg/m ³	750 ppm 1810 mg/m ³	-
Ethylbenzene	100-41-4	100 ppm 441 mg/m ³	125 ppm 552 mg/m ³	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 ³ /8h (aerosol - inhalation) General Population: 0.6 mg/m ³ /24h (aerosol - inhalation)
Xylen	Workers: Inhalation (long term exposure - systemic effects) 77 mg/m ³ Dermal (long term exposure - systemic effects) 180 mg/kg bw/day General Population: Inhalation (long term exposure - systemic effects) 14.8 mg/m ³ 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 (half or full face mask). During short-term jobs (max. 1 hour/day), a half or full face mask with AXP2 filter may be used.

Hand protection: Wear protective gloves made of nitrile rubber (thickness: ≥ 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 appropriate clothing to prevent any possibility of skin contact.

Eye/face protection: Wear tight-fitting safety goggles
Not applicable 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**

Appearance:	Aerosol with black liquid	Vapour pressure:	< 300 kPa (50 °C)
Odour:	Petrol-naphtha	Vapour density:	No available data
Odour threshold:	No available data	Relative density:	No available data
pH:	Not applicable	Solubility(ies):	Soluble in organic solvents
Melting point/freezing point:	No available data	Partition coefficient n-octanol/water:	No available data
Initial boiling point and boiling range:	-42 °C (Propellant)	Auto-ignition temperature:	410 °C (Propellant)
Flash point:	-104 °C (Propellant)	Decomposition temperature:	No available data
Evaporation rate:	No available data	Viscosity:	No available data
Flammability (solid, gas):	No available data	Explosive properties:	No available data
Upper/lower flammability or explosive limits:	No available data	Oxidising properties:	Not applicable

9.2. Other information

Miscible with water: Not miscible

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:	Non-reactive.
10.2. Chemical stability:	The product is stable when used in accordance with the supplier's directions.
10.3. Possibility of hazardous reactions:	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.
10.4. Conditions to avoid:	Avoid heat, flames and ignition sources.
10.5. Incompatible materials:	Avoid contact with strong oxidising agents.
10.6. Hazardous decomposition products:	Hazardous decomposition products (carbon oxides and organic compounds) may be released at high temperatures.

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

Inhalation:	Harmful if inhaled. Inhalation of vapours may cause irritation of airways, drowsiness, dizziness, headache, intoxication and delayed response ability and, at high concentrations, unconsciousness. 1330-20-7: LC50 (inhalation, rat): 11 mg/L (4 h) 106-97-8: LC50 (inhalation, rat): 658 mg/L (4 h) 919-446-0: LC50 (inhalation, rat): 5000 mg/L (4 h)
Skin:	Harmful in contact with skin. Irritating to skin. Repeated exposure may cause skin dryness or cracking. Xylene and ethylbenzene can be absorbed through the skin. 1330-20-7: LD50 (dermal, rat): 1100 mg/kg 919-446-0: LD50 (dermal, rabbit): 3400 mg/kg
Eyes:	Causes serious eye irritation.
Ingestion:	May cause irritation. May cause discomfort. 1330-20-7: LD50 (oral, rat): 2100 mg/kg 919-446-0: LD50 (oral, rat): 15000 mg/kg
Chronic effects:	May cause damage to organs through prolonged or repeated exposure if inhaled. 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).

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:	Toxic to aquatic life with long lasting effects. 919-446-0: LC50, fish, 96 h: 1-10 mg/L. EC50, crustacean: 1-10 mg/L. EC50, algae: 1-10 mg/L. 1330-20-7: LC50, fish (Oncorhynchus mykiss), 96 h: 13.5 mg/L. EC50, crustacean (Gammarus lacustris), 96 h: 0.6 mg/L. EC50, algae (Skeletonema costatum), 72 h: 10 mg/L. 61791-55-7: LC50, fish, 96 h: 0.1-1 mg/L. EC50, crustacean: 0.1-1 mg/L. EC50, algae: 0.1-1 mg/L.
12.2. Persistence and degradability:	Test data are not available.
12.3. Bioaccumulative potential:	Data on bioaccumulation are not available. 1330-20-7: BCF: 9. Log Pow: 2.77. Potential: Low. 106-97-8: BCF: 33. Log Pow: 2.89. Potential: Moderate. 74-98-6: BCF: 13. Log Pow: 2.86. Potential: Low.
12.4. Mobility in soil:	Test data are not available. 106-97-8: Absorption/desorption - Koc: 900. Surface tension: 11870 N/m (25 °C). Conclusion: Low. Volatility – Henry: 9,626E+4 Pa·m ³ /mol. Dry + moist soil: Yes. 74-98-6: Absorption/desorption - Koc: 460. Surface tension: 7020 N/m (25 °C). Conclusion: Moderate. Volatility – Henry: 7,164E+4 Pa·m ³ /mol. Dry + moist soil: Yes.
12.5. Results of PBT and vPvB assessment:	This product does not contain any PBT or vPvB substances.
12.6. Other adverse effects:	Test data are not available.

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

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

EWC-code: 16 05 04

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
1950	AEROSOLS, flammable	2	-	Yes	Label: 2.1 Tunnel restriction code: D

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
1950	AEROSOLS, flammable	2	-	Yes	Label: 2.1 EmS: F-D, S-U

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
1950	AEROSOLS, flammable	2	-	Yes	Label: 2.1

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
1950	AEROSOLS, flammable	2	-	Yes	Label: 2.1

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.

15.2. Chemical safety assessment:

No chemical safety assessment has been carried out for this mixture.

SECTION 16: OTHER INFORMATION

Changes:	Issue 1: No changes.
Abbreviations and acronyms:	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 %. BCF: Bio Concentration Factor. Log Pow: Partition coefficient (octanol/water). Koc: Partition coefficient organic carbon to water. Aerosol: Aerosol. Flam. Gas: Flammable gas. Flam. Liq.: Flammable liquid. Press. Gas: Gases under pressure. Acute Tox.: Acute toxicity. Asp. Tox.: Aspiration hazard. Eye Irrit.: Serious eye irritation. Skin Corr.: Skin corrosion. Skin Irrit.: Skin irritation. STOT SE: Specific target organ toxicity — single exposure. STOT RE: Specific target organ toxicity — repeated exposure. Aquatic Acute, Aquatic Chronic: Hazardous to the aquatic environment.
Method of classification:	Calculation based on the hazards of the known components.
H-statements:	H220 Extremely flammable gas. H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H229 Pressurised container: May burst if heated. H280 Contains gas under pressure; may explode if heated. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H312+H332 Harmful in contact with skin or if inhaled. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. EUH066 Repeated exposure may cause skin dryness or cracking.
Training advice:	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.
Further information:	This product must be stored, handled and used in accordance with good industrial work hygiene and safety practice.
Person responsible for the Safety Data Sheet (e-mail):	Susanne Brandt Hansen (sbha@alectia.com).

Disclaimer:	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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