SAFETY DATA SHEET
prepared by ALECTIA A/S

Revision date: 28th November 2013
Replaces:19th February 2009
Version: 10
Date of issue: 9th January 2001

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

1.1. Product identifier: **READY MIXED CONCRETE**

1.2. Relevant identified uses of the substance or mixture and uses advised against: Building material for concrete constructions.

1.3. Details of the supplier of the safety data sheet: Unicon A/S, PO Box 1978, Islands Brygge 43, 2300 København S, Denmark,
Tel.: 70 10 05 90, E-mail: info@unicon.dk

1.4. Emergency telephone number: Call the Poison Control Hotline (Giftlinjen (Bispebjerg Hospital), Tel. 82 12 12 12 in case of poisoning emergencies.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture: C; R34 (DPD-classification (1999/45/EF)).
Skin Corr. 1B; H314 (CLP-classification (CLP 1272/2008)).

2.2. Label elements:

Hazard pictograms
Signal word

DANGER

Contains: Portland cement.

Hazard statements: Causes severe skin burns and eye damage. (H314)

Precautionary statement:
If medical advice is needed, have product container or label at hand. (P101)
Keep out of reach of children. (P102)
Wear protective gloves/protective clothing/eye protection/face protection. (P280)
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. (P303+P361+P353)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. (P305+P351+P338+P310)
Dispose of contents/container in accordance with local regulation. (P501)

Supplemental information: The cement in the product contains less than 2 mg water soluble chromate / kg dry cement.

1993-Code no. (MAL-code): 00-4 (1993).

2.3. Other hazards: Working with fibre reinforced concrete can create cuts or wounds due to the fibres. Can cause severe irritation of the eyes and skin. Pay special attention to the fact that gloves and workwear that have become wet due to contact with fresh concrete, may cause serious chemical burns. Therefore, always change soaked gloves and workwear immediately. When concreting machines and other equipment are often used that may cause occupational injuries or accidents.
This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures:

Contains: Concrete is composed of stones, sand, cement, mineral powders with puzzolanic properties such as fly ash and microsilica, additives and water. Special products may also contain plastic or steel fibres. The powder materials in concrete may contain small quantities of heavy metals.

CAS no. EC no.	REACH reg.no.	%	Chemical name	DSD-classification CLP- classification	Note:
65997-15-1 266-043-4	-	3-30	Portland cement	Xi;R37/38-41 Eye Dam. 1;H318 Skin Irrit. 2;H315 STOT SE 3;H335	-
68131-74-8 268-627-4	-	1-< 10	Ashes (Fly ash)	Xn;R48/20 Xi;R36/37/38 STOT RE 2; H373 Eye Irrit. 2; H319 Skin Irrit. 2;H315 STOT SE 3;H335	-

For full text of R-phrases and Hazard- and EU Hazard-statements: see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Seek fresh air.

Skin: Immediately remove contaminated clothing and rinse skin thoroughly with water and apply skin cream. Seek medical advice in case of eczema or other skin discomforts.

Eyes: Rinse immediately with water. Do not rub eye. Open eyes wide. Remove any contact lenses. Immediately seek medical advice. Continue rinsing until medical attention is obtained.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under surveillance. Do not induce vomiting. If vomiting occurs, keep head low. Immediately seek medical advice.

Burns: Not relevant.

Other information: When obtaining medical advice, show the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed: Contact with eyes and skin cause severe irritation. Prolonged contact causes skin corrosion and serious eye damage.

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: Use extinguishing media appropriate to surrounding fire conditions.

5.2. Special hazards arising from the substance or mixture: The product can neither burn in a fresh nor hardened state. However, in the hardened state, failing strength, peeling or an explosion-like behaviour may occur.
Fire extinguishing water that has been in contact with the product may be corrosive (alkaline).

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.
At risk of contact with ready mixed concrete or fire extinguishing water wear chemical resistant protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Avoid contact with skin and eyes.
Use personal protective equipment.

6.2 Environmental precautions: Do not allow to enter into drains and surface water.

6.3 Methods and material for containment and cleaning up: Spills can be collected using a shovel and broom or similar and emptied into a waste container. Collected spills may be reused.

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.
Good personal hygiene is required when working with fresh concrete.

7.2 Conditions for safe storage, including any incompatibilities: Cannot be stored unlimitedly in a fresh state. Until concreting, store and protect the concrete against water and other materials. Particular attention must be paid to avoiding contact with acid as acid degrades concrete. Store safely, out of reach of children and not with or near food, animal feed, medicine, etc.

7.3 Specific end use(s): See use - section 1.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Occupational exposure limit value

Chemical name	CAS-no.	Workplace exposure limit (WEL)	Note
-	-	-	-
Legal basis:	The Danish Working Environment's Executive Order no. 507, May 2011, Executive Order on Limit Values for Substances and Materials and subsequent amendments. WEA guideline no. C.0.1., August 2007, on Limit Values for Substances and Materials.		
Note:	None.		
Monitoring procedures:	Compliance with the stated occupational exposure limits may be checked by occupational hygiene measurements.		

8.2 Exposure controls

Appropriate engineering controls:	If machines/equipment is used for concreting, the relevant safety instructions must be observed. Running water and eye wash equipment must be available. Wash hands before breaks, eating, toilet visits and after work. Remove Contaminated clothing and wash skin thoroughly. Use mild soap and water and apply skin cream after washing. Wash contaminated clothing before reuse.
Personal protective equipment	
Respiratory protection:	Not required.
Hand protection:	Wear protective/work gloves of e.g. nitrile rubber capable of resisting wear and alkalis. Particularly thick protective gloves must be worn when working with fibre reinforced concrete.
Eye/face protection:	Wear safety goggles or face protection.
Skin protection:	Wear special workwear. Always change your workwear when it has become contaminated as you may otherwise risk getting chemical burns. Use knee pads when kneeling while working with fresh concrete. Wear waterproof rubber boots when casting floors.
Environmental exposure controls:	No special requirements.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Moist, sticky and lumpy mass	**Vapour pressure:**	Not applicable
Odour:	Odour free	**Vapour density:**	Not applicable
Odour threshold:	Not applicable	**Relative density:**	Approx. 2,0-2,4 g/cm^3
pH:	11-12,5	**Solubility(ies):**	Insoluble in water, but miscible
Melting point/freezing point:	Not applicable	**Partition coefficient n-octanol/water:**	Not applicable
Initial boiling point and boiling range:	Not applicable	**Auto-ignition temperature:**	Not selfigniting
Flash point:	Not applicable	**Decomposition temperature:**	Not applicable
Evaporation rate:	Not applicable	**Viscosity:**	Not applicable
Flammability (solid, gas):	Not applicable	**Explosive properties:**	Non-explosive
Upper/lower flammability or explosive limits:	Not applicable	**Oxidising properties:**	Non-oxidizing

9.2. Other information: None

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:	Not reactive.
10.2. Chemical stability:	Fresh concrete is not stable. The product hardens into a solid mass within approx. a couple of hours.
10.3. Possibility of hazardous reactions:	No risk of hazardous reactions.
10.4. Conditions to avoid:	Prevent from freezing and drying out.
10.5. Incompatible materials:	Keep the product away from strong acids to avoid reactions that generate heat. Contact with water must be avoided as this will reduce the surface strength of the concrete. Acid on concrete causes degradation. Other additives may change the properties of the concrete.
10.6. Hazardous decomposition products:	None when used in accordance with the supplier's directions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation:	Not applicable.
Skin:	Contact with skin can cause severe irritation. Prolonged contact can cause severe burns and possibly allergies. Working with fibre reinforced concrete can create cuts or wounds due to the fibres.
Eyes:	Splashes in the eyes can cause severe irritation and burns with risk of serious eye damage.
Ingestion:	Ingestion causes severe irritation in mouth, oesophagus and gastrointestinal tract. May cause burns in mouth, oesophagus and stomach.
Chronic effects:	None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:	The product does not have to be classified. Test data are not available.
12.2. Persistence and degradability:	Fresh concrete is not biodegradable
12.3. Bioaccumulative potential:	Not bioaccumulative.
12.4. Mobility in soil:	Fresh concrete hardens into a solid mass and does not spread in the environment.
12.5. Results of PBT and vPvB assessment:	This product does not contain any PBT or vPvB substances.
12.6. Other adverse effects:	The product may locally increase the pH-value in the aquatic environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

Spillage and residue must be delivered to an approved recipient.

EWC-code: 17 01 01 (Concrete)

When the product has hardened, it can be handled as ordinary construction waste.
EWC-code: 17 09 04 (Mixed construction and demolition wastes).

SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous for transport.

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
-	-	-	-	-	-

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
-	-	-	-	-	-

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
-	-	-	-	-	-

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
-	-	-	-	-	-

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 18 may not work with or be exposed to this product. However, young people over 15 are exempted from this rule if the product is a necessary part of a training course.

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

SECTION 16: OTHER INFORMATION

Changes:	Issue 10: Changes to all sections.
Abbreviations and acronyms:	PBT: Persistent, Bioaccumulative and Toxic. vPvB: very Persistent and very Bioaccumulative. DSD: Dangerous Substance Directive. DPD: Dangerous Preparation Directive. CLP: CLP-Regulation (EC) No 1272/2008 (Classification, Labelling and Packaging). C: Corrosive. Xn: Harmful. Xi: Irritant. Skin Corr.: Skin corrosion Eye Dam.: Serious eye damage. Eye Irrit.: Eye irritation. Skin Irrit.: Skin irritation. STOT SE: Specific target organ toxicity — single exposure. STOT RE: Specific target organ toxicity — repeated exposure.
Classification method:	Calculation based on the hazards of the known components. Fresh concrete is classified as corrosive due to its high pH value.
R-phrases:	R34 Causes burns. R36/37/38 Irritating to eyes, respiratory system and skin. R37/38 Irritating to respiratory system and skin. R41 Risk of serious damage to eyes. R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
H-statements:	H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H373 May cause damage to lungs through prolonged or repeated inhalation.
Training advice:	The user must be instructed in the proper work procedure and be familiar with the contents of this safety data sheet.
Further information:	This safety data sheet has been prepared on the basis of the information which the supplier was able to deliver about the product at the time of the preparation (e.g. data sheets and similar).
Person responsible for the Safety Data Sheet (e-mail):	Susanne Brandt Hansen (sbha@alectia.com)

Disclaimer:	The information in this safety data sheet is based on information in our possession on the date of the preparation and is given on the assumption that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in relevant technical literature. Any other use of the product, which possibly involves using the product in combination with any other product or any other process, is the responsibility of the user.