



1. PRODUCT AND SUPPLIER IDENTIFICATION

Product name: K¹⁰⁰®

Product identifier: "K to the power of one hundred"

Manufacturer's KALMATRON® Corporation, 236 West Portal Ave,

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Email: k100@kalmatron.com

Uses: Admixture for concrete and mortar. For professional use only.

K¹⁰⁰® is a concrete class - upgrading liquid admixture functioning as an inorganic oxidizer of micro-metal elements contained in the cementitious materials to provide extension of cement gel surface by decay-hydration of the cement grain from 100 µm to 10µm. Performs as a gel-crystalline concrete water-proofer, non-shrinking agent, density and strength gainer.

It is important that you, or any persons working for you or to whom you have supplied product(s) listed below, are familiar with the information contained within this Material Safety Datasheet before handling, using or disposing of the product(s).

2. HAZARD IDENTIFICATION

Classification: Xi; irritant; R36/37/38, R43.

Human health hazards: Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.

Environmental hazards: This product is not classed as dangerous for the environment.

Other hazards: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name: Regulatory number: EC number: %: Classification:

Distilled water CAS # 7789 20 0 N/A >85% N/A

Chemical base NSF Reg.# 143075 N/A <15% R2 and RX-2

See section 16 for full text of R- phrases.

4. FIRST-AID MEASURES

General: If after receiving first aid according to the following instructions and symptoms persist, immediately seek medical attention.

Inhalation: Move exposed person to fresh air. Keep person warm and at rest.

Skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation persists seek medical attention.

Eye contact: Check for and remove any contact lenses. Hold eye lids ajar and immediately flush eyes with water. Continue flushing eyes with water for at least 15 minutes.

Ingestion: If swallowed, rinse mouth with water and drink plenty of water. Seek immediate medical advice and show container or label.

5. FIRE FIGHTING MEASURES

This product is not flammable.

Extinguishing media:

Suitable: Use extinguishing media suitable for the surrounding fire.

Unsuitable: Water jet - may spread fire.

Special exposure hazards: No specific fire or explosion hazard.

Hazardous combustion products: Possible formation of harmful combustion products.

Do not inhale gases formed during the fire.

Advice for firefighters:

Fire-fighters should wear appropriate protective equipment resistant to chemical agents and a self-contained breathing apparatus (SCBA) with a full face piece operated in positive pressure mode. Fight fire hazard with cool water spray from safe distance.

Do not allow extinguishing water to enter sewer system.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Observe general safety rules. Put on appropriate personal protective equipment (see section 8).

Keep unnecessary and unprotected personnel from entering.

Provide adequate ventilation.

Avoid contact with eyes and skin.

Environmental precautions: Do not allow dispersal of spilt material and runoff and contact with waterways, drains and sewers.

Inform the relevant authorities if the product has caused environmental pollution (surface water and ground water).

Methods for containment and clean up:

Move containers from the spill area. Mop up material and place in suitable designated and labeled waste container.

Activated material can be removed mechanically.

Dispose of via a licensed waste disposal contractor.

See section 8 for personal protective equipment and section 13 for waste disposal.

7. HANDLING AND STORAGE

Handling:

Keep containers and/or packaging sealed until ready for use. Put on appropriate protective equipment (see section 8). Comply with Health and Safety at Work laws.

Work in a well ventilated area. Avoid contact with eyes and skin. Do not ingest.

Storage:

Store in original packaging or tightly closed containers in a dry and well ventilated area. Do not store in temperatures below -22 °C or 11.8 F.

Keep away from food, beverages and feeds. Avoid moisture - maximum humidity in storage area is 96%.

Specific applications: Admixture for concrete and mortar. Inorganic oxidant micro/macro elements of the group of metals contained in the cement binders, providing electro-chemical dissolution of cement grains by electrolysis. For professional use only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure controls:

- Do not eat, drink or smoke when working with product.
- Avoid contact with eyes and skin.
- Immediately after working wash hands with soap and water.

Respiratory protection: None required.

Eye protection: Wear safety glasses/goggles.

Skin protection: Wear suitable impervious gloves. Use of basic principles of industrial hygiene will enable this material to be used safely.

Environmental exposure controls:

- Prevent direct discharge in to drains or watercourses.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid.

Odor: Characteristic (slight).

Color: Clear.

pH: 12-13.

Melting point: Not applicable.

Density: 1050-1175 kg/m³.

Flammability: Not flammable.

Solubility: K¹⁰⁰® is soluble during the mixing with the concrete batch.

Other information:

Melting point, freezing point, boiling point, flash point, evaporation rate, explosive limits, vapor pressure and density, partition coefficient, autoignition temperature, decomposition temperature, viscosity, explosive properties and oxidizing properties are all not applicable.

10. STABILITY AND REACTIVITY

Stability:

Stable with any solid and finished matter in their accomplished phase, under normal conditions. Unstable with hardening reaction like cementitious product when mixed with water. See handling and storage conditions (see section 7).

Conditions to avoid: Avoid high ambient temperatures.

Materials to avoid: Porous materials.

Hazardous decomposition products:

- Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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11. TOXICOLOGICAL INFORMATION

Eye contact: Irritating, may cause chemical burns.

Skin contact: Irritating, may cause sensitization.

Ingestion: Swallowing large quantities may cause irritation to the gastrointestinal tract.

Inhalation: May irritate the throat and respiratory tract leading to coughing.

12. ECOLOGICAL INFORMATION

Ecotoxicity: This product is not classified as being hazardous to the environment (LC50 aquatic toxicity not determined).

Persistence and degradability:

The dried product may cause mechanical contamination of the soil.

Bioaccumulative potential: Not expected to bio accumulate.

Mobility: This product is expected to be completely soluble in water.

Other adverse affects: None known.

13. DISPOSAL CONSIDERATIONS

Methods of disposal: Dispose of in accordance with local legislation. Prevent entry into the sewage water system. Dispose of the hardened product as concrete waste.

European Waste

Catalogue (EWC): 17 01 01 (construction and demolition wastes - concrete) and 15 01 02 (plastic packaging)

14. TRANSPORT INFORMATION

Product is not covered by the international regulation on the transport of dangerous goods (IMDG, ICAO/IATA, ADR/RID) and therefore no classification is required.

15. REGULATORY INFORMATION

Regulation: According to 1999/45/EC



Classification: Irritant

Risk phrases: R36/37/38 Irritating to eyes, respiratory system and skin.
R43 May cause sensitization by skin contact.

Safety Phrases:

S2 Keep away from children.

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective long sleeved clothing, gloves and eye/face protection.

S46 If swallowed, seek medical advice immediately and show this container or label.

National legislation and

requirements: Health and Safety at Work etc Act 1974
Control of Substances Hazardous to Health Regulations COSHH 2002
Control of Substances Hazardous to Health (Amendment) Regulations COSHH 2004
Environmental Protection Act 1990
Any authorized manual on First Aid by Manual Handling Operations Regulations (as amended).

16. OTHER INFORMATION

The information on this datasheet reflects the currently available knowledge and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or technical guidance literature.

Any other use of the product is the responsibility of the user. It is implicit that the user is responsible for determining appropriate safety measures and for applying the legislation covering his/her own activities.

Safety of K¹⁰⁰® chemical base is approved by International NSF Reg 143075, Category Codes: R2 and RX-2. Registration status may be verified at any time via NSF website at www.nsfwhitebook.org.

The information on this datasheet is accurate at the time of printing but KALMATRON® Corporation reserve the right to amend details as part of product development program.

Undisclosed technical data is a private intellectual property of business or personal entities, which may or may not be disclosed to non-affiliating sources.

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