

K¹⁰⁰®**MATERIAL SAFETY DATA SHEET**

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: K¹⁰⁰®

Production use: Concrete admixture

Manufacturer's name and address:

KALMATRON CORPORATION

236 West Portal Ave, PMB 153, San Francisco, CA 94127, USA

Tel: 415-385-3290

Fax: 650-872-2555

2. HAZARDS IDENTIFICATION

Emergency overview

Causes irritation to eyes, respiratory system and skin. May cause sensitization by skin contact. Not classified as dangerous for the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	Regulator number	EC number	%	Classification
Distilled water	CAS # 7789200	N/A	>85%	N/A
Chemical base	NSF Reg.# 143075	N/A	<15%	R2 and RX-2

4. FIRST AID MEASURES

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

Inhalation: Immediately remove to fresh air. Get medical attention if symptoms persist.

Skin contact: Remove contaminated clothing. Immediately wash skin thoroughly with water for 15 minutes. If irritation develops or persists, get medical attention. Launder clothing before re-use.

Eye contact: Immediately flush eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get medical attention if irritation persists.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If conscious, rinse mouth with water and give one glass of water. Never give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

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: Firefighters 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. Use 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 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 work 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid.
Odor: Characteristic (slight).
Color: Light -lime.
pH: 12-13.
Melting point: Not applicable.
Density: 1050-1175 kg/m3.
Flammability: Not flammable.
Solubility: K^{100®} 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.

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 effects: None known.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose according to local, state, and federal regulations. Prevent entry into a sewage water system.

14. TRANSPORT INFORMATION

Not regulated and classified as a dangerous product under transportation regulations.

15. REGULATORY INFORMATION

Directive 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.

UK/EU Legislation and Regulations:

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. Nevertheless, KALMATRON CORPORATION reserves 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 to be disclosed to not affiliating sources.