

SECTION I PRODUCT IDENTIFICATION

KALMATRON® KF-ASH is an additive to the concrete mix containing up to 50% of IIW (Incinerated Industrial Waste) from the weight of the cement. IIW are fly ash, slag ash, volcanic deposits or crumbled slag, etc. being integrated by KF-ASH provide stable insulating performance of conventional concrete structure up to the lightweight concretes.

Trademark: KALMATRON® patent No. 2,724,832

Manufacturer: KALMATRON Corporation, California, USA.

Consistency: coarse dry powder

Color: Dark Gray

Odor: light specific odor; disappears after application

SECTION II COMPOSITION INFORMATION

Chemical name:	CAS number:	EC number:	%:	Classification:
Portland Cement [chromium (VI) of less than 0.0002%]	65997-15-1	266-043-4	>50%	Xi; irritant; R36/37/38, R43
Silica sand	14808-60-7	238-878-4	<50%	Not classified
Chemical Base	See section XV for full text of R-phrases.			
IIW	Data is variable by availability of insulating material with MSDS of its supplier. See section XV for full text of R- phrases.			

SECTION III 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.

SECTION IV FIRST AID MEASURES

In case of contact with skin, immediately wash skin, hair and eyes with water. If inhaled or swallowed remove subject to fresh air. Call a physician. If subject is not breathing, give artificial respiration and proceed with oxygen until medical support arrives.

SECTION V FIRE FIGHTING MEASURES

Substance is a non-combustible solid, which requires no special fire fighting procedures. No fire or explosion hazards are associated with this product.

SECTION VI HANDLING AND STORAGE

Handling without packaging is not recommended. After loading and unloading, clean the storage facility by sweeping. Store in an area with no more than 96% humidity, and a temperature no lower than -22°C. Storage should have natural or forced ventilation.

SECTION VII EXPOSURE CONTROLS/PERSONAL PROTECTION	
Workplace Exposure:	Limits (WEL): 8 hour Time Weighted Average (TWA):- <u>Portland Cement</u> (CAS 65997-15-1) 10mg/m ³ total inhalable dust and 4 mg/m ³ respirable dust per EH40. <u>Silica crystalline</u> (CAS 14808-60-7) 0.1mg/m ³ respirable dust per EH40.
Occupational exposure controls: Do not eat, drink or smoke when working with product. Avoid contact with eyes and skin and do not breathe dust. Immediately after working wash hands thoroughly with soap and water.	
Respiratory protection: In case of exposure to concentrations above WEL's, use appropriate respiratory protection (type FFP2).	
Eye protection: Wear safety glasses/goggles to EN166.	
Skin protection: Wear impervious, abrasion and alkali resistant gloves, suitable boots and closed long-sleeved protective clothing.	
Environmental exposure controls: Prevent direct discharge in to drains or watercourses.	
SECTION VIII PHYSICAL AND CHEMICAL PROPERTY	
Appearance and Odor: gray heavy powder with light specific odor that disappears after application.	
Flash point: None	
Dry Density: 75 lb/ft ³ ÷ 92 lb/ft ³ or 1300 kg/m ³ ÷ 1500 kg/m ³ .	
Powder Fineness (Specific Surface): 1460 SF/Lb to 2690SF/Lb or 300m ² /Kg to 550 m ² /Kg.	
Solubility: 95%÷99.5% of KALMATRON® KF-ASH is soluble by water during of mixing with concrete batch.	
Point of fusion: None	
Sublimation point: None	
SECTION IX 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 humid when packages opened.
Materials to avoid:	Accidental contact of unpacked product with water.
Hazardous decomposition products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SECTION X 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

SECTION XI 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 be bio accumulated.

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

Other adverse affects: None known.

SECTION XII TRANSPORTATION INFORMATION

Kalmatron KF-ASH is not explosive and is not flammable. Shipping and trucking may be provided in the standard packages or in bulk containers specified for cement and cement-containing products. "NON-HAZARDOUS" labels may be used for Kalmatron® KF-ASH containers

SECTION XIII DISPOSAL INFORMATION

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)

SECTION XIV 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 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)

SECTION XV 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.

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-affiliated sources.