

MATERIAL SAFETY DATA SHEET (MSDS)

Manufacturer Information

Manufacturer name: KRIA Co., Ltd.

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Product name:	Inorganic Ion Cleaning Liquid "KRIA ION"
Characteristics of Material	Single or Mixture: mixture Chemical name: Inorganic ion cleaning liquid Chemical compositions: Water Sodium Metasilicate acid Chemical formula: H ₂ O (95%) Na ₂ · SiO ₃ 9 H ₂ O H ₃ O ₂ · H ₃ O
Classification of Hazard	Hazard and toxicity: not available Hazard: non inflammable liquid. No hazard of fire and explosion Health hazard: alkali liquid and possible to cause irritation to eyes.
Emergency measures	In case of contact: wash with running clean water and seek medical attention, if necessary. Swallowing: spit out residuals in the mouth and seek medical attention, if necessary.
Measures to Fire	Not specified because of non inflammable liquid
Measures to Leakage	Thoroughly wash the leaked liquid to remove slippery condition on the floor.
Cautions on handling and storage	Keep and store not to freeze to avoid deterioration of rinsing power. Avoid breakage of vessels by heavy loads and pressure.
Measures for exposure avoidance	Control concentration: not specified Permissible concentration: not specified

Physical and Chemical properties	Appearance: clear liquid Odor: none Boiling point: 100 °C Volatility: none
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Hazard information	<p>Flammability: none Inflammability: none Ignitability(self ignition, reaction with water):none Explosion limit : none Oxidizing property: not applicable Self-reaction and explodability: not applicable</p>
Harm information including examples of mankind and epidemiological information	<p>Skin corrosive: no data available Irritation(skin): none (eye): intermediate (respiratory organ): none Mutagenic test with bacteria: negative</p>
Ecological information	<p>Degradability: no data available Accumulation: no data available Cautions on disposal: after neutralizing alkali, ordinary wastewater treatment will be applicable.</p>
Transport consideration	<p>Leakage and breakage of vessels should be prevented. Falling down and dropping of vessels should be prevented.</p>
Applied laws and regulations	<p>-Occupational Health and Safety Law: not applicable -Ordinance on the Prevention of the Hazards due to Specified Chemical Substance: not applicable -Ship Safety Law: not applicable - Fire Defense Law(Harm material): not applicable -Environmental Pollution Laws: not applicable -Food Sanitation Law: not applicable</p>
Others	<p>KRIA ION is considered safe by evaluation of harm and hazard, but it should be paid attention to handling and transportation manner. KRIA ION itself is safe for disposal after neutralizing, however rinsed dirty should be disposed in accordance with the relating laws and regulations.</p>