CEMENTITIOUS PRODUCTS

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product Identifier:

Product Name:
Krystol Internal Membrane (KIM)
Krystol Mortar Admixture (KMA)
Krystol T1
Krystol T2
Krystol Broadcast
Krystol Waterstop Treatment
Krystol Waterstop Grout
Krystol Repair Grout
Krystol Bari-Cote
Krystol Plug

Product Form: Mixture, Powder

Other Means of Identification: Not Applicable.
Recommended use: Concrete Waterproofing and Protection
Restrictions on use: For professional use only

Manufacturer's Name: Kryton International Inc.
Address: 1645 E. Kent Avenue, Vancouver, BC, Canada, V5P 2S8
Telephone Number: 1-604-324-8280
FAX Number: 1-604-324-8899
Web Site: www.kryton.com

Supplier's Name: Krystol Group trading as Kryfix
Address: 2/35 Mangrove Lane Taren Point NSW 2229
Phone Number: 02 9524 6688/ 1800 425 349
Web Site: https://kryfix.com.au

Emergency Telephone Number: Kryton International Inc. 1.800.267.8280 (Business Hours, 8:00am- 4:30pm Pacific Time).

Call a poison center or doctor/physician in your country. Australia: Poisons Information Centre 13 11 26. BC, Canada: BC Drug and Poison Information Centre 604.682.5050 US: American Association of Poison Control Centers 1.800.222.1222

SECTION 2: HAZARD IDENTIFICATION

Hazard Classification

Skin Corrosion	Category 1
Serious Eye Damage	Category 1
Skin Sensitization	Category 1
Specific Organ Toxicity – Single Exposure (Respiratory tract irritation)	Category 3
Specific Organ Toxicity – Repeated Exposure (Respiratory tract)	Category 1
Carcinogenicity	Category 1A

Label Elements

GHS05

GHS07

GHS08

DANGER

Hazard Statements

H314	Causes severe skin burns and eye damage
H317	May cause allergic skin reaction
H335	May cause respiratory irritation
H372	Causes damage to respiratory organs through prolonged or repeated exposure
H350i	May Cause Cancer by Inhalation

Precautionary Statements

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P403 - Store in a well-ventilated place.
P233 - Keep container tightly closed.
P308+313 - IF exposed or concerned: Get medical advice/attention.
P405 - Store locked up.
P501 - Dispose of container/contents to special or hazardous waste collection point in accordance with local regulations.
P280 - Wear protective gloves, eye protection and respiratory protection.
P260 - Do not breathe dust.
P264 - Wash hands, forearms and exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P314 - Get medical advice/attention if you feel unwell.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353+P363+P333+P313 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF SKIN irritation or rash occurs: Get medical advice/attention.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P304+P340+ P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a doctor.
P321 – First Aid - See section 4 of this SDS.

Other Hazards

Grey, odorless and fine powder. It is not combustible or explosive. Short-term exposure to the dry powder presents little immediate hazard. May irritate eyes, skin and respiratory tract. Exposure of sufficient duration to wet product or to dry product on moist areas of body can cause caustic burn.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	Content (%, w/w)	CAS #	EINECS#	Common Names
Portland Cement	28-40	65997-15-1	266-043-4	Cement
Silica, Quartz	30-40	14808-60-7	238-878-4	Sand
Calcium Hydroxide	5-20	1305-62-0	215-137-3	Lime

SECTION 4: FIRST-AID MEASURES

When contacting a physician, take this SDS with you.

Inhalation:

- Remove to fresh air and at rest and in a position of comfortable breathing.
- If breathing has stopped, institute artificial respiration.
- Get medical attention if discomfort remains.

Skin contact:

- For dry product, remove and rinse abundantly with water.
- For wet product, wash skin with water.
- Remove contaminated clothing, footwear, watches, etc. and clean thoroughly before re-using them.
- Seek medical treatment in all cases of irritation or burns.

Eyes contact:

- Do not rub eye(s) as additional cornea damage is possible by mechanical stress.
- Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a doctor.

Ingestion:

- Do not induce vomiting.
- If person is conscious, wash out mouth with water and give plenty of water to drink.
- Get immediate medical attention or contact anti poison center.

Most Important Symptoms and Effects both Acute and Delayed:
Acute: Corrosive to skin, eyes and respiratory tract. Exposure may produce allergic reaction.
Delayed: Long term exposure to dust may result in lung damage.
Immediate medical attention and special treatment: Move person to fresh air and away from exposure. Wash all exposed areas water and rinse thoroughly.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media: Water, Fog, Alcohol-Resistant Foam, Dry Chemical or Carbon Dioxide (CO2)
Unsuitable Extinguishing Media: Do not use water jet which may spread the surrounding fire.

Specific hazards:
Fire Hazard: Not combustible
Explosion Hazard: Not explosive
Hazardous Combustion Products: Not Applicable
Fire Fighting Instructions: Firefighters should wear self-contained breathing apparatus and full protective gear. Product reacts with water and creates heat.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Do not breathe dust. Avoid contact with skin, eyes and clothing. Wear protective equipment as described under section 8 and follow the advice for safe handling and use given under section 7. Emergency procedures are not required.

Environment precautions: Do not wash product down sewage and drainage systems or into bodies of water.

Methods for cleaning up:

- Use dry cleanup methods that do not cause airborne dispersion, e.g.: Vacuum cleaner (Industrial portable units, equipped with high efficiency particulate filters (HEPA filter) or equivalent technique).
- Wipe-up the dust by mopping, wet brushing or water spraying and remove wet product.
- When vacuum cleaning or wet cleaning are not possible and only dry cleaning with brushes can be done, ensure that the workers wear appropriate personal protective equipment and prevent dust from spreading.
- Place spilled materials into a container. Allow material to dry and solidify before disposal.

SECTION 7: HANDLING AND STORAGE

Handling Procedures and Equipment:

- Avoid contact with skin and eyes by wearing protective equipment: safety goggles, protective clothing, nitrile gloves and waterproof shoes.
- Use in well-ventilated area or wear NIOSH-approved respirator with particulate cartridges or filter.
- Do not handle or store near food and beverages or smoking materials.
- Carrying bags/buckets may cause sprains and strains to the back, arms, shoulders and legs.
- Handle with care and use appropriate control measures.
- Wash hands thoroughly with soap and water after handling.
- Keep container closed when not in use.

Storage Requirements:

- Bulk product should be stored in containers that are waterproof, dry(internal condensation minimized), clean and protected from contamination.
- Product can build-up or adhere to the walls of a confined space. It can release, collapse or fall unexpectedly.
- Keep containers tightly closed.
- Protect from moisture.
- Store in a cool, dry place.
- Store product locked up.
- Store in a well ventilated place.
- Keep out of reach of children.
- Reacts with water to release heat and forming alkaline solutions. Cement is alkaline and is incompatible with acids, ammonium salts and aluminum. Cement dissolves in hydrofluoric acid to produce corrosive tetrafluoride gas. Cement will react with strong oxidizers including fluorine, boron or chlorine trifluoride and oxygen difluoride.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Control Parameters Occupational Exposure Limits:
Portland Cement, CAS# 65997-15-1
ACGIH TLV: TWA: 0.025 mg/m3 8hours. A2. Form: Respirable fraction
NIOSH REL: TWA: 0.05 mg/m3 10 hours. Form: Respirable fraction
OSHA PEL: TWA: 50 µg/m3 8 hours.
Cal/OSHA PEL: TWA: 50 µg/m3 8 hours.
WELs EH40/2005 (UK) TWA: 8 hours. 0.1 mg/m3 respirable dust. Chromium VI (hexavalent): 0.05mg/m^3 - sensitizer

Silica, Quartz, CAS#14808-60-7
ACGIH TLV: TWA: 0.025 mg/m3 8 hours. Form: Respirable fraction
NIOSH REL: TWA: 0.05 mg/m3 10 hours. Form: Respirable dust
OSHA PEL: TWA: 50 µg/m3 8 hours.
Cal/OSHA PEL: TWA: 50 µg/m3 8 hours.
WELs EH40/2005 (UK) TWA: 8 hours. 0.1 mg/m3 respirable dust

Calcium Hydroxide, CAS#1305-62-0
ACGIH TLV: TWA: 5 mg/m3 8hours. A2. Form: Total dust
NIOSH REL: TWA: 5 mg/m3 10 hours. Form: Respirable fraction
TWA: 10 mg/m3 10 hours. Form: Total dust
OSHA PEL: TWA: 5mg/m3 8 hours. Form: Respirable fraction
TWA: 15 mg/m3. 8 hours. Form: Total dust
Cal/OSHA PEL: TWA: 5 mg/m3. 8 hours. Form: Total dust
WELs EH40/2005 (UK) TWA: 8 hours. 5 mg/m3 Total dust

Specific Engineering Controls: Use general or local exhaust ventilation to keep dust levels below exposure limits. If exceed the limits, use a properly fitted and NIOSH approved respirator.

Personal Protective Equipment:

- Gloves: Chemical resistant rubber or nitrile gloves
- Respirator: NIOSH approved with particulates filter or cartridge
- Eye: Safety goggles or safety glasses with side shields
- Footwear: Waterproof
- Clothing: Long sleeve and long pants to avoid skin contact
- Other: Wash thoroughly with soap and water after handling. Do not eat, drink or smoke while handling the product to avoid contact with skin or mouth.

Physical State: Powder (Solid)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Odor and Appearance: Odorless, Grey or off-white, mixture of finely divided and granules particulate.
Odor Threshold: Not Applicable
Specific Gravity: 2.6 – 3.0
Vapor Density: Not Applicable
Vapor Pressure: Not Applicable
Evaporation Rate: Not Applicable
Boiling Point: Not Applicable
Melting Point: Not Applicable
Freezing Point: Not Applicable
pH (in water): 12-14 (Alkaline)
Solubility in Water: Slightly soluble (10-15%)
Relative bulk density: 1.3 – 1.6
Viscosity: Not Applicable
VOC content: 0 g/L, EU (w/w) 0%
Flammability: Noncombustible
Flashpoint: Not Applicable
Upper/Lower Flammability or Explosive Limits: Not Applicable
Auto-ignition Temperature: Not Applicable
Decomposition Temperature: Not Applicable
Viscosity: Not Applicable
Partition Coefficient (n-octanol/water): Not Applicable

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable
Conditions to Avoid (Stability): Unintended contact with water or moisture, which produces caustic solutions, pH 12-14.
Incompatibility with Other Substances: React with acids, ammonium salts, fluorine, lithium and aluminum, which may liberate Carbon Monoxide, Carbon Dioxide or Hydrogen.
Hazardous Polymerization: Cannot occur
Possibility of Hazardous Reactions: No additional remark
Hazardous Decomposition Products: Will not spontaneously occur. Adding water produces caustic calcium hydroxide.
Other Precautions: When mix with water, the mixture is caustic with pH12-14 and it can get hot

Reactivity: Reacts with water to release heat and forming alkaline solutions. Cement is alkaline and is incompatible with acids, ammonium salts and aluminum. Cement dissolves in hydrofluoric acid to produce corrosive tetrafluoride gas. Cement will react with strong oxidizers including fluorine, boron or chlorine trifluoride and oxygen difluoride.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Skin Contact, Eye Contact, Inhalation and Ingestion
Effects of Acute Exposure to Product:
Skin Exposure:

- May cause skin thickening, cracking or fissuring if contacted to wet product or dry product with wet skin. Prolonged contact with wet skin may cause severe burns. Can cause caustic burns and dermatitis when wet (pH 12-14 when wet). Multiple skin exposure over weeks or months leading to eczema or dermatitis. Content of sensitizing Cr (VI) is below 0.002% according to regulation.

Eye Contact:

- May cause eye irritation, eye damage by mechanical stress or severe eye burns. Eye exposure requires immediate first aid to prevent serious or permanent eye damage.

Respiratory Exposure/Ingestion:

- May cause respiratory irritation or burns to mouth, throat and stomach if inhaled or ingested. Inhaling smaller amounts of dust may cause coughing, sneezing and shortness of breath.

Effects of Chronic Exposure to Product:

Skin Exposure: Sensitivity reactions and contact dermatitis may occur from prolonged and repeated exposure to the wet or dry product.

Inhalation: Exposure to crystalline silica may cause silicosis if inhaled, an incurable and serious lung disease. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Silicosis may develop from long term exposure (5-20 years) to low amounts of crystalline silica, and results in chronic inflammation and scarring of lung tissue. Acute silicosis may develop a few months to 2 years after short term exposure to large amounts of crystalline silica, and may result in lung inflammation and shortness of breath.

Carcinogenicity: May cause cancer through inhalation.

Numerical Measures of Toxicity:

- Quartz - Oral LD50 Rat 500 mg/kg
- Calcium Hydroxide – Oral LD50 Rat = 7340 mg/kg;
- Portland Cement – LD50: Not Available
- Acute Toxicity Estimate (ATE) for the Mixture: Not Determined.

Silica, Quartz (CAS# 14808-60-7)
IARC Group 1 (Carcinogenic to humans)
ACGIH Group A2 (Suspected human carcinogen)
NTP Known carcinogen

Reproductive Toxicity:	Not Available	**Teratogenicity:**	Not Available
Mutagenicity:	Not Available	**Embryotoxicity:**	Not Available

Name of Synergistic Products/ Effects: Not Available

SECTION 12: ECOLOGICAL INFORMATION

The product is not expected to be hazardous to the environment.
The addition of large amounts to water may, however, cause a rise in pH and may therefore be toxic to aquatic life under certain circumstances.

Mobility: Dry product is not volatile but might become airborne during handling operations.

Persistence and degradability/Bio accumulative potential/Results of PBT Assessment/Other adverse effects: Not Available

SECTION 13: DISPOSAL CONSIDERATIONS

Always dispose of in accordance with local, provincial (state), and federal regulations.
Unused Residue or Dry Spillage: Pick up dry material. Possibly reuse depending upon shelf life considerations and the requirement to avoid dust exposure. In case of disposal, harden with water and dispose according to local legislation.

Slurries: Allow to harden, avoid entry in sewage and drainage systems or into bodies of water and dispose according to 13.3.

After Addition of Water and Hardened:
Dispose of according to local legislation. Avoid entry into the sewage water system.
Dispose of the hardened product as concrete waste. Due to cement hydration reaction, concrete waste is not a dangerous waste.
EWC entries: 10 13 14 (waste concrete or concrete sludge) or 17 01 01 (concrete).

Packaging:
Completely empty the packaging and recycle / dispose in accordance with local legislation.
EWC entry: 15 01 02 (plastic packaging).

SECTION 14: TRANSPORT INFORMATION

Special Shipping Information: This product is not listed as a Hazardous Material under TDG, DOT, IMDG, IATA and ADR/RID. No special precautions are needed apart from those mentioned under Section 8.

PIN: Not Applicable
TDG (Canada): Not regulated **IMDG:** Not regulated
DOT (U.S.): Not regulated **IATA:** Not regulated
ADR/RID: Not regulated **UN Number:** Not listed

SECTION 15: REGULATORY INFORMATION

This product is classified as non-Dangerous Goods
Globally Harmonized System (GHS) Classification:
Skin Corrosion Category 1 (when moistened), Serious Eye Dam. Category 1, Sensitization, Skin Category 1, Specific Organ Toxicity – Single Exposure (Respiratory tract irritation) – Category 3, Specific Organ Toxicity – Repeated Exposure (Respiratory tract) – Category 1, Carcinogenicity Category 1A.
European Hazard Symbol: C, Corrosive (when moistened); T, Toxic; Xi, Irritant
HMIS: Health *2; Flammability 0; Physical Hazard 1.
OSHA: This product is considered a hazardous chemical. It is recommended to follow “Safety and Health Program Management Guidelines” by OSHA.
TSCA: This product is exempted from TSCA because it is defined as a mixture.
SARA: This product is considered a hazardous chemical and has a delayed health hazard under section 311 and 312 of the Emergency Planning and Community Right to Know Act (EPCRA) of 1986. This product does not contain any ingredients regulated under Section 313 of the EPCRA, 1986 or 40 CFR 372.
Hazardous Substances and New Organisms Act (HSNO – EPA New Zealand) Approval Code: HSR 002542: Construction Products (Corrosive [8.2C]) Group Standard. Subclasses 6.5, 6.9, 6.9B, 8.2C, 8.3A, 9.1D

U.S. State Regulations:
New Jersey - Workplace Hazard Pennsylvania - Workplace Hazard California - Proposition 65 Massachusetts - Hazardous Substance

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR.

SECTION 16: OTHER INFORMATION

Abbreviations:

ACGIH	American Conference of Governmental Industrial Hygienists
ADR/RID	Agreement on the Transport of Dangerous Goods by Road/ Regulations on the International Transport of Dangerous Goods by Rail
CAS#	Chemical Abstract Service number
CPR	Controlled Products Regulations
DOT	U.S. Department of Transportation
EINECS	European Inventory of Existing Commercial Chemical Substances
EPCRA	Emergency Planning and Community Right to Know Act
EWC	European Waste Catalogue
GHS	Globally Harmonized System
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
ATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal Concentration
LD50	Lethal Dose
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
SARA	Superfund Amendments and Reauthorization Act
TDG	Transportation of Dangerous Goods
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA	Time Weighted Average (8 hour)
WELs	Workplace Exposure Limits
WHMIS	Workplace Hazardous Materials Information System

Manufacture's notes

- The information on this data sheet 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 in the technical guidance literature. Any other use of the product, including the use of the product in combination with any other product or any other process, 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 own activities.

Date SDS Prepared: May 29, 1995
SDS Prepared by: Dept. Group #7, Contect Testing

Date SDS Updated: February 28, 2024
SDS Updated by: Research Center, Kryton International Inc.