BE SURE. BE KRYTON.

KRYSTOL T1 K-210, KRYSTOL T2 K-220
CONCRETE WATERPROOFING TREATMENT

SAFETY DATA SHEET

Oct 2015

1. IDENTIFICATION

Product Identifier:
- Krystol T1 Concrete Waterproofing Treatment
- Krystol T2 Concrete Waterproofing Treatment

Other Means of Identification: Krystol T1 (K-210), Krystol T2 (K-220)
Product Use: A concrete treatment that is applied to the surface of existing concrete structures.

Manufacturer's details:
Kryton International Inc.
1645 E. Kent Avenue, Vancouver, BC, Canada, V5P 2S8
1-604-324-8280

Emergency Contacts & Phone Number:
Kryton International Inc. 1.800.267.8280 (Business Hours)
Call a poison center or doctor/physician in your country

BC, Canada: BC Drug and Poison Information Centre 604.682.5050
Australia: Poisons Information Centre 13 11 26
US: American Association of Poison Control Centers 1.800.222.1222

2. HAZARDS IDENTIFICATION

Classification of the Mixture

Classification

Skin Corrosion – Category 1C	H314
Eye Damage – Category 1	H318
Skin Sensitization – Category 1	H317
Specific Target Organ Toxicity Single Exposure – Category 3	H335
Specific Target Organ Toxicity Repeated Exposure – Category 2	H373

Label Elements

Hazard Pictograms:

Signal Word:
Danger
Hazard Statements:
H314 Causes severe skin burns and eye damage (alkaline when moistened)
H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H335 May cause respiratory irritation
H373 May cause damage to respiratory organs through prolonged or repeated exposure.

Precautionary Statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust.
P264	Wash hands, forearms, and exposed areas thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, face protection, eye protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353+P352	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see Section 4).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container according to local, regional, state, national, territorial, provincial, and international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Ingredient name	Product identifier	% (w/w)	GHS Classification
Portland Cement	65997-15-1	15-40	Skin Irrit. 2: H315 Eye Dam. 1: H318 Skin Sens. 1: H317 STOT SE3: H335
Silica, Quartz	14808-60-7	15-40 (Respirable: <0.003)	STOT RE 2: H373

As per paragraph (i) of §1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

4. FIRST AID MEASURES

Description of Necessary First Aid Measures

When contacting a physician, take this SDS with you.

Eyes:

- Do not rub eye(s) as additional cornea damage is possible by mechanical stress.
- Remove any contact lenses and open the eyelid(s) widely to flush eye(s) immediately by thoroughly rinsing with plenty of clean water for at least 15 minutes to remove all particles. If possible, use isotonic water (0.9% NaCl).
- Contact a specialist of occupational medicine or an eye specialist.

Skin:

- 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.

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 centre.

Inhalation:

- Remove to fresh air.
- If breathing has stopped, institute artificial respiration.
- Get medical attention if discomfort remains.

Most Important Symptoms and Effects, both Acute and Delayed

Eye Contact: Causes serious eye damage
Inhalation: May cause respiratory irritation
Skin Contact: May cause discomfort, irritation, and dermatitis. Exposure to wet product can cause serious burns.
Ingestion: May cause burns to mouth, throat and stomach

Immediate Medical Attention and Special Treatment

Obtain medical advice when large quantities have been inhale or ingested.

Effects of Acute and Chronic Exposure to Product: See Section 11.

5. FIREFIGHTING MEASURES

Extinguishing Media

Use an extinguishing agent suitable for the surrounding fire

Special Hazards Arising From the Substance or Mixture

No specific fire or explosion hazard. Non-combustible. Not flammable.

Special protective equipment for firefighters

Firefighters should wear self-contained breathing apparatus and full protective gear. Product reacts with water and creates heat.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

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 and Material for Containment and 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.

7. HANDLING AND STORAGE

Precautions for Safe Handling

- 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.

Conditions for Safe Storage, Including Any Incompatibilities

- 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.
- Keep out of reach of children.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Limits:

- Portland Cement, CAS# 65997-15-1
  WELs EH40/2005 (UK), 8 hr TWA, 2007 : 10 mg/m^3 inhalable dust, 4 mg/m^3 respirable dust.
  ACGIH TLV-TWA 2000: 10 mg total dust/m^3

OSHA PEL, 8-hr TWA: 15 mg total dust/m^3, 5 mg respirable dust/m^3
Chromium VI (hexavalent): 0.05mg/m^3- sensitizer

- Silica, Quartz, CAS#14808-60-7
  WELs EH40/2005 (UK), 8 hr TWA, 2007: 0.1 mg/m^3 respirable dust
  ACGIH TLV-TWA 2008: 0.025 mg respirable dust/m^3
  OSHA PEL, 8-hr TWA: 10 mg respirable dust/m^3 (percent silica + 2)
  NIOSH REL, 8-hr TWA: 0.05 mg respirable dust/m^3

Appropriate 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.

Individual protection measures:

- 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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Powder (Solid)
Appearance: Grey, mixture of finely divided and granules particulate.
Odour: Odourless
Odour 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
pH (in water): 12-14 (Alkaline)
Coefficient of Water/Oil Distribution: Not Applicable
Solubility in Water: Slightly soluble (10-15%)
Partition coefficient: n-octanol/water: Not Applicable
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

10. STABILITY AND REACTIVITY

Reactivity: Wet product will react to form hydrated compounds, releasing heat and producing an alkaline solution until reaction is substantially complete.
Chemical Stability: Stable
Conditions to Avoid (Stability): Unintended contact with water or moisture, which produces caustic solutions, pH 12-14.
Incompatible Materials: 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.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects – Product

Acute Toxicity: Portland Cement LD50/LC50 = Not Avaliable
Silica Quartz LD50 Oral Rat > 5000 mg/kg

Routes of Entry: Skin Contact, Eye Contact, Inhalation and Ingestion

Effects of Acute Exposure to Product:

- May cause eyes, skin and respiratory irritation, inflammation or severe chemical burns if direct contacted by large amount of product.
- May cause skin thickening, cracking or fissuring if contacted to wet product or dry product with wet skin.
- May cause coughing, sneezing and shortness of breath if exposed in excess of occupational exposure limits.

Effects of Chronic Exposure to Product:

- Multiple skin exposure over weeks or months leading to eczema or dermatitis. Content of sensitizing Cr(VI) is below 0.002% according to regulation.
- Exposure to crystalline silica may cause silicosis and series lung disease.
- Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation
- Sensitivity reactions may occur from prolonged and repeated exposure

Irritancy of Product: Can be irritating to eyes, skin, and respiratory tract.

Skin Sensitization: Can cause caustic burns and dermatitis when wet.

Respiratory Sensitization: Can cause chemical burn when wet. Respirable crystalline silica can cause silicosis and series lung disease.

Numerical Measures of Toxicity: Not Available

Carcinogenicity: No causal association between this product exposure and cancer has been established, but Silica, Quartz (CAS# 14808-60-7), one of the ingredients is listed as carcinogen by IARC and NTP. The respirable dust is lower than 0.003% in this product. It is lower than the GHS classification concentration limit (≥0.1%), so the product is not classified as carcinogen.

- 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

12. ECOLOGICAL INFORMATION

Ecotoxicity:

- 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

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 inertisation, 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).

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
DOT (U.S.): Not regulated
ADR/RID: Not regulated

IMDG: Not regulated
IATA: Not regulated
UN Number: Not listed

15. REGULATORY INFORMATION

This product is classified as non-Dangerous Goods.
WHMIS Classification: D2A, toxic; E, Corrosive (when moistened)
European Hazard Symbol: C, Corrosive (when moistened); T, Toxic; Xi, Irritant
Globally Harmonized System (GHS) Classification:
Acute Toxicity Category 4; Skin Corrosion/Irritation Category 1 (when moistened)
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.
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 Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC_{50}	Lethal Concentration
LD_{50}	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

Date SDS Updated: Oct 9, 2015
SDS Updated by: Research and Development Department, Kryton International Inc.

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.