

# TK-1023 CONCRETE ICE RINK SEALER



**PRODUCTS**

**Technical Data**

Division of Sierra Corporation

## 1. PRODUCT NAME

TK-1023 CONCRETE ICE RINK SEALER

## 2. MANUFACTURER

TK PRODUCTS, DIVISION OF SIERRA CORPORATION  
11400 West 47th Street  
Minnetonka, MN 55343  
612-938-7223

## 3. PRODUCT DESCRIPTION

TK-1023 is a high solids Clear, White or TV Blue pigmented acrylic, sealing and hardening compound for existing concrete. It helps seal the concrete, filling the pores and hairline crazing. By sealing the surface you can help prevent water infiltration, a leading cause of refrigeration pipe breakdown. When using the White or TV Blue pigmented TK-1023 you alleviate the need for coloring your ice.

### Composition and Materials:

A blend of 100% methacrylate polymers and color pigments in a fast drying solvent. No fillers are used and no oils, waxes or saponifiable resins are contained in the mixture.

### Limitations:

Apply in temperatures above 40 degrees F. Material will not freeze; can be stored outdoors in cold weather, however, must be allowed to warm to approx. 50 degrees F before using.

## 4. APPLICATION PROCEDURE AND INSTRUCTIONS

### Preparation:

Floor must be thoroughly clean and dry. All soap residue must be

removed. Do not use sweeping compound that could leave an oily residue behind. Do not use over a silicone based sealer. Place a test section (see below) if previous applications are unknown. For optimum performance and appearance, a new coat should be applied between 3-5 days before refrigeration, with no further activity allowed in treated area.

### Test Application:

Before applying this product a determination should be made regarding the compatibility of it with other curing/sealing compounds that may have been used in the past. Also, the density or the porosity of the concrete will affect the adhesion of it. To determine the compatibility and adhesion of this product, a pint of material is provided to you at no charge. Apply the sample with a brush to a clean dry area approx. one square foot. Allow the material to dry for 3 days. If there is a compatibility problem the material will separate almost immediately. After 72 hours make a tic tac toe design (#) in the coating with a sharp knife. Apply a piece of masking tape and immediately pull it off. If the coat stays intact on the floor, the rink has the porosity to accept the coating. If it pulls loose with the tape, your floor is most likely too hard (dense) to properly accept the material. If this is the case, a simple method of etching the concrete with a very mild solution of Muriatic Acid (8 parts water - 1 part Muriatic Acid) and a thorough fresh water rinse will open the pores of the concrete to accept the coating. IF YOU HAVE

ANY QUESTIONS ON APPLICATION DO NOT CONTINUE. Call TK Products, Division of Sierra Corporation at (612) 938-7223.

### Application Methods:

Roll or spray. Spray equipment should be equipped with neoprene hoses and gaskets, (sprayers are available through TK Products). Wide paint rollers may be used for rolling on material. First coat must be dry before applying second coat (8 - 12 hours depending on ventilation). If rolling second coat, spread material evenly and roll immediately. Do not puddle.

This product is not intended for high traffic or abusive use, ie roller skating, floor hockey, etc. IF ANY TYPE OF MAT IS TO BE USED OVER THIS PRODUCT, CONSULT YOUR TK/SIERRA DISTRIBUTOR FOR DETAILS.

### Coverage:

The purpose of this product is to satisfy the porosity of the surface, therefore coverage rates may vary depending on the porosity of the concrete surface.

1ST. COAT: 100-200 SFPG  
2ND. COAT: 200-300 SFPG

### Dry Time:

30 Minutes tack free, one hour open to traffic. For optimum performance and appearance, the second coat should be applied 3 to 5 days before refrigeration, with no further activity allowed in the treated area.



PRODUCTS

3

TK-1023 CONCRETE RINK SEALER  
Sealing-Dustproofing

# SAFETY DATA SHEET

Page: 1 of 6  
Process Time: 11:09 am

Date Revised: 1/2/07

Date Printed: 4/1/15

## SECTION 1 - IDENTIFICATION

MANUFACTURER: SIERRA CORP/TK PRODUCTS EMERGENCY PHONE: 1-800-424-9300  
ADDRESS : 11400 WEST 47TH STREET INFORMATION PHONE: (952)938-7223  
MINNETONKA, MN 55343 NAME OF PREPARER : Safety Director  
PRODUCT NAME: CONCRETE ICE RINK SEALER,WHITE  
PRODUCT CODE: TK-1023-1

## SECTION 2 - HAZARDS IDENTIFICATION

### HAZARD RISK CLASSIFICATION

SIGNAL WORD: DANGER

### PICTOGRAM:

GHS02 - FLAME GHS07 - EXCLAMATION MARK GHS08 - HEALTH HAZARD GHS09 - ENVIRONMENT

### HAZARD CLASS

### HAZARD CATEGORY

|   |                             |
|---|-----------------------------|
| FLAMMABLE LIQUIDS   | CATEGORY 3                  |
| ACUTE TOXICITY  | CATEGORY 4 DERMAL           |
| ACUTE TOXICITY  | CATEGORY 4 INHALATION       |
| ACUTE TOXICITY  | CATEGORY 5 ORAL             |
| SKIN CORROSION / IRRITATION                                 | CATEGORY 2                  |
| SERIOUS EYE DAMAGE / EYE IRRITATION                         | CATEGORY 2 AND 2A           |
| RESPIRATORY SENSITIZER                                      | CATEGORY 1                  |
| GERM CELL MUTAGENICITY                                      | CATEGORY 1 (BOTH 1A AND 1B) |
| CARCINOGENICITY   | CATEGORY 1 (BOTH 1A AND 1B) |
| TOXIC TO SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE   | CATEGORY 3                  |
| TOXIC TO SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE | CATEGORY 2                  |
| ASPIRATION HAZARD   | CATEGORY 1                  |
| HAZARDOUS TO THE AQUATIC ENVIRONMENT SHORT-TERM (ACUTE)     | ACUTE 3                     |
| HAZARDOUS TO THE AQUATIC ENVIRONMENT LONG-TERM (CHRONIC)    | CHRONIC 2                   |

### HAZARD STATEMENTS:

|      |   |
|------|---|
| H226 | Flammable liquid and vapor  |
| H304 | May be fatal if swallowed or enters airways                               |
| H315 | Causes skin irritation  |
| H319 | Causes serious eye irritation.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| H335 | May cause respiratory irritation  |
| H340 | May cause genetic defects   |
| H350 | May cause cancer.   |
| H373 | May cause damage to organs through prolonged or repeated exposure.        |
| H411 | Toxic to aquatic life with long lasting effects                           |

### PRECAUTIONARY STATEMENTS:

#### PREVENTION:

|      |   |
|------|---|
| P201 | Obtain special instructions before use.                       |
| P202 | Do not handle until all safety precautions have been read and |

**SAFETY DATA SHEET**

Date Revised: 1/2/07

Date Printed: 4/1/15

understood.

- P210 Keep away from heat/hot surfaces/sparks/open flames and other sources of ignition. No smoking.
- P233 Keep container tightly closed.
- P240 Ground and bond container and receiving equipment.
- P241 Use explosion-proof electrical / ventilation/lighting/handling equipment.
- P242 Use non-sparking tools.
- P243 Take action to prevent static discharge.
- P260 Do not breath dusts/fume/gas/mist/vapors or spray.
- P264 Wash hands and any exposed area thoroughly after handling.
- P270 Do not eat, drink or smoke while using this product.
- P271 Use only outdoors or in well-ventilated area.
- P281 Use appropriate personal protective impervious gloves/protective clothing/ OSHA approved eye protection/ face protection.
- P285 In case of inadequate ventilation wear appropriate organic vapor respiratory protection.

**RESPONSE:**

- P301+P310 If swallowed: Immediately call a Poison Center / doctor.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower).
- P304+P340 If inhaled: Remove person to fresh air and keep 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.
- P308+P313 If exposed or concerned: Get medical advice / attention.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P314 Get medical advice/attention if you feel unwell.
- P321 Specific treatment (see on this label)
- P330 Rinse mouth.
- P331 Do NOT induce vomiting.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P342+P311 If experiencing respiratory symptoms: Call a Poison Center/doctor.
- P363 Wash contaminated clothing before reuse.
- P370+P378 In case of fire: Use carbon dioxide (CO2), powder, alcohol-resistant foam to extinguish.

**STORAGE:**

- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.

**DISPOSAL:**

- P501 Store separately. Dispose of contents/ container in accordance with local/ regional/national /international regulations.

===== SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS =====

| COMPONENT                        | CAS NUMBER | WEIGHT PERCENT | EXPOSURE LIMITS |           |       |
|----------------------------------|------------|----------------|-----------------|-----------|-------|
|                                  |            |                | OSHA PEL        | ACGIH TLV | OTHER |
| * Aromatic Petroleum Distillates | 64742-95-6 | 25-50          | 100 PPM         | NA        |       |
| + Trimethylbenzene               | 95-63-6    | 27.8           | 25 PPM          | 25 PPM    |       |
| Titanium Dioxide                 | 13463-67-7 | 10-25          |                 |           |       |

# SAFETY DATA SHEET

Page: 3 of 6  
Process Time: 11:09 am

Date Revised: 1/2/07

Date Printed: 4/1/15

|                           |            |      |          |                          |
|---------------------------|------------|------|----------|--------------------------|
|                           |            |      | 10 mg/m3 | 10 mg/m3                 |
| +^ Cumene                 | 98-82-8    | 1.90 | 50 PPM   | 50 PPM                   |
| +^^ Xylene, mixed isomers | 1330-20-7  | 1.90 | 100 PPM  | 100 PPM     STEL 150 PPM |
| Organophilic Clay         | 68953-58-2 | 1-10 | 15 MG/M3 |                          |

\* Chemical(s) that are chronic health hazards. Refer to section 3 for further information.  
 + Toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.  
 ^ Hazardous Air Pollutant established by the EPA as directed by the Clean Air Act of 1990.

**PRIMARY ROUTES OF EXPOSURE:**

Skin contact, eye contact, and inhalation.

**EFFECTS OF ACUTE EXPOSURE:**

**EYES:** Contact with eyes may cause irritation including burning, watering, and redness.  
**SKIN:** Contact may cause mild skin irritation including redness, burning, and drying and cracking of skin. Continued exposure may develop into dermatitis. Solvents can penetrate the skin and cause systematic effects similar to those under inhalation symptoms.  
**INHALATION:** High vapor concentrations are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, asthma, drowsiness, unconsciousness, and other central nervous system effects, and possibly death.  
**INGESTION:** Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Small amounts aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury.

**CHRONIC HEALTH EFFECTS:**

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (Sometimes referred to as Solvent or Painter's Syndrome). Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal. Chronic exposure may also cause damage to the respiratory system, lungs, eyes, skin, gastrointestinal tract, liver, spleen and kidneys. Repeated skin contact may cause persistent irritation or dermatitis.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:**

Conditions aggravated by exposure may include skin disorders, respiratory (asthma-like) disorders, and pre-existing liver or kidney conditions.

**SECTION 4 - FIRST AID MEASURES**

**IF ON SKIN:** Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use. If irritation develops and persists, seek medical attention.  
**IF IN EYES:** Flush with large amounts of water for 15 minutes, lifting upper and lower lids occasionally. If symptoms persist, seek medical attention.  
**IF SWALLOWED:** Do not induce vomiting. Immediately administer 1-2 glasses of water and contact a physician, hospital emergency room, or poison control center for further advice. Keep person warm, quiet and seek immediate medical attention. Aspiration of material into lungs can cause severe lung damage. **VOMITING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.**  
**INHALATION:** Move affected individual to fresh air. If breathing is difficult, qualified personnel should administer oxygen. If breathing has stopped give artificial respiration. If respiratory symptoms develop or persist, seek medical attention.

**SECTION 5 - FIRE AND EXPLOSION HAZARD DATA**

**FLASH POINT:** 110 F **METHOD USED:** TCC  
**FLAMMABLE LIMITS IN AIR BY VOLUME-** LOWER: 0.05 **UPPER:** 7  
**EXTINGUISHING MEDIA:**  
 Foam, CO2, or dry chemical is recommended. Water spray is recommended to cool or protect exposed materials or structures.

**SPECIAL FIREFIGHTING PROCEDURES:**

Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment. Isolate danger area, keep unauthorized personnel out. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters. Carbon dioxide can displace oxygen, exercise caution when using CO2

# SAFETY DATA SHEET

Page: 4 of 6  
Process Time: 11:09 am

Date Revised: 1/2/07

Date Printed: 4/1/15

in confined areas.

## UNUSUAL FIRE AND EXPLOSION HAZARDS:

Vapors may be ignited by heat, sparks, flames, or other sources of ignition. Vapors are heavier than air and may travel considerable distances to a source of ignition where they may cause a flashback or explosion. If container is not properly cooled, it can rupture in the presence of excessive heat.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Keep all sources of ignition and hot metal surfaces away from spill/release. Use explosion-proof non-sparking equipment. Stay upwind from area. Isolate danger and keep unauthorized personnel out. Stop source of release if possible with minimal risk. Wear appropriate protective equipment including respiratory protection. Prevent spill from entering sewers, storm drains, or any other unauthorized treatment drainage systems and natural waterways by diking ahead of the spill. Spilled material may be absorbed with an appropriate spill kit. Notify fire authorities and appropriate federal, state, and local agencies if required.

## SECTION 7 - HANDLING AND STORAGE

### HANDLING INFORMATION:

Employees who come in contact with this material must be trained in accordance to 1910.1200 of the Hazard Communication Standard.

Open container slowly to relieve any pressure. Bond and ground all equipment when transferring from one vessel to another. Static charge can accumulate by flow or agitation. Ignition can occur by static discharge. The use of explosion proof equipment is recommended and may be required. The use of respiratory protection is advised when concentrations exceed any established exposure limits and in confined spaces. Use good industrial and personal hygiene practice, wash thoroughly after handling, and do not wear contaminated clothing.

### STORAGE INFORMATION:

Keep containers tightly closed. Use and store material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post "No smoking or open flame" sign. Store only in approved containers. Keep away from incompatible materials (see section 10). Protect containers against physical damage. Indoor storage should meet OSHA standards and appropriate fire codes.

### OTHER PRECAUTIONS:

"Empty" containers retain residue, liquid and vapor, and may be dangerous. Do not cut, weld, pressurize, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause severe personal injury or death. All containers should be disposed of in an environmentally safe manner in accordance with all government regulations.

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### RESPIRATORY PROTECTION:

Engineering or administrative controls should be implemented to reduce exposure. A NIOSH/MSHA approved respirator with an organic vapor cartridge should be used under conditions where airborne concentrations are expected to exceed exposure limits (See Section 2). Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

### VENTILATION:

If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional ventilation or exhaust systems may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used.

### PROTECTIVE GLOVES:

Prevent prolonged or repeated contact by wearing gloves impervious to solvents and other appropriate protective clothing. Launder contaminated clothing before reuse.

### EYE PROTECTION:

Wear safety glasses to reduce eye contact potential. Chemical safety goggles (ANSI Z87.1 or approved equivalent) are appropriate if splashing is likely. Eye washes must be available where eye contact can occur.

### OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

A source of clean water should be available for flushing eyes and skin. Showers should be available if larger spills are possible.

### WORK/HYGIENIC PRACTICES:

# SAFETY DATA SHEET

Page: 5 of 6  
Process Time: 11:09 am

Date Revised: 1/2/07

Date Printed: 4/1/15

Efforts should be made to minimize contact and spills. Always wash hands before eating, drinking, or smoking. Clean up spills promptly. Follow OSHA and company guidelines.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid  
**ODOR:** Hydrocarbon odor  
**SPECIFIC GRAVITY (H<sub>2</sub>O=1):** 1.03  
**BOILING RANGE:** 270 - 308 F  
**COATING V.O.C.:** 653 g/l (5.45 lb/gal )

**COLOR:** Various colors  
**SOLUBILITY IN WATER:** Insoluble/Negligible  
**VAPOR DENSITY:** Heavier than air.  
**EVAPORATION RATE:** Slower than nBuAc

## SECTION 10 - STABILITY AND REACTIVITY DATA

### STABILITY:

Stable under normal conditions and handling.

### CONDITIONS TO AVOID:

All possible sources of ignition.

### INCOMPATIBILITY (MATERIALS TO AVOID):

Avoid exposure to strong oxidizing agents and reducing agents.

### HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Combustion may liberate toxic byproducts such as carbon dioxide, carbon monoxide, various oxides of carbon and nitrogen.

### HAZARDOUS POLYMERIZATION:

Will not occur.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### SENSITIZATION:

None known.

### CARCINOGENICITY:

There is no data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.

### REPRODUCTIVE TOXICITY:

There is no data available to indicate any components present at greater than 0.1% may present reproductive toxicity.

### TERATOGENICITY (BIRTH DEFECTS):

There is no data available to indicate any components present at greater than 0.1% may cause birth defects.

### MUTAGENICITY:

There is no data to indicate that any component present at greater than 0.1% will alter DNA.

## SECTION 12 - ECOLOGICAL INFORMATION

### ENVIRONMENTAL DATA:

Although no information is available for this specific product mixture, individual components may by themselves may have ecological affects. Trimethylbenzene is a marine pollutant under 49 CFR 172.101.

## SECTION 13 - DISPOSAL CONSIDERATIONS

This product is considered a RCRA hazardous waste due to the characteristic(s) of D001 (ignitability). Waste is subject to the land disposal restrictions in 40 CFR 268.40 and may require treatment standards. Consult state and local regulations to determine whether they are more stringent than the federal requirements.

Container contents should be completely used and containers empty prior to discarding. Container rinsate could be considered a RCRA hazardous waste and must be discarded in compliance with all applicable regulations. Larger empty containers, such as drums, should be returned to a professional drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

## SECTION 14 - TRANSPORT INFORMATION

### SHIPPING NAME:

Not regulated in containers 119 gallons [450 liters] or less, Combustible Liquid in containers greater than 119 gallons for ground travel. (For containers greater than 119 gallons, vessel, international shipments, or air: UN1263, Paint, 3, III)

## SECTION 15 - REGULATORY INFORMATION

All ingredients of this product are listed, or are excluded from listing, on the US Toxic Substances Control Act (TSCA) chemical substance inventory.

This product does contain a chemical(s) subject to the reporting requirements of SARA Title III, Section 313 (40CFR 372). See section 2.

# SAFETY DATA SHEET

Page: 6 of 6  
Process Time: 11:09 am

Date Revised: 1/2/07

Date Printed: 4/1/15

**STATE SPECIFIC REQUIREMENTS:**

This product does not contain a chemical known to the state of California to cause cancer, birth defects or reproductive harm, subject to the requirements of California Proposition 65.

| STATE LISTED COMPONENTS | CAS NUMBER | STATE CODE                                 |
|-------------------------|------------|--|
| Trimethylbenzene        | 95-63-6    | CA, MA, MN, NJ, PA                         |
| Cumene                  | 98-82-8    | CA, CT, FL, IL, LA, MA, ME, MN, NJ, PA, RI |

=====SECTION 16 - OTHER INFORMATION=====

REVISION DATE: 01/02/07

HMIS CODES: H            F            R            P  
              2 \*        2            0            I