

▶ THANK YOU FOR CHOOSING ◀



**HELIX**  
COLOR SYSTEMS

Before beginning any project, please review the enclosed training and materials packets in full, including:

TECH  
DATA SHEET

SAFETY  
DATA SHEET

**Concrete Sealer** **PENETRATING****REPEL****TECH DATA SHEET**

Helix Color Systems is a premier line of specialty decorative concrete systems manufactured for the professional installer. Specializing in custom colors, specialty products, and superior service, Helix Color Systems offers an innovative alternative in the decorative concrete industry.

**► DESCRIPTION**

Helix Repel sealer is a solvent-based penetrating sealer made of a proprietary combination of reactive compounds designed to protect concrete surfaces from staining, freeze–thaw and salt damage. Helix Repel sealer water proofs the concrete without darkening or enhancing the color of the substrate. Siloxane guards the surface concrete while Silane penetrates deeply to protect steel wire and rebar.

**► PRODUCT BENEFITS**

- Protects against oil, gasoline and hydrocarbon based fluids
- Will penetrate through existing solvent based acrylic sealers and cure and seal coatings
- Penetrates through acrylic sealed concrete
- Meets NCHRP 244 for penetrating sealer
- Siloxane to penetrate and protect concrete surfaces
- Silane for deep penetration of concrete
- Salt protection
- Freeze–Thaw protection
- Re–seals previously Cure & Sealed Concrete application
- Cured Concrete: surface should be clean and dry. Use a 3000 psi power washer to clean the surface. Remove oil and grease spots with concrete cleaner degreaser. Allow 24 hours to dry before sealing.
- Surface temperature should be between 50° and 90° F.
- Can be applied with a solvent–resistant pump sprayer, brush, or roller of the appropriate nap length. Cross rolling should be performed for all application methods.
- When applying over a cure & seal membrane, use a roller to even out the resin film after applying Helix Repel sealer. Do not allow the material to puddle.
- After 3–5 minutes, move material that isn't absorbed to more porous areas and apply additional material to areas that are light in color.
- Due to the low viscosity, care should be taken during roller application to avoid puddling. The substrate must be completely dry prior to application.
- Do not apply this material over waterborne resin coatings.
- Care should be taken to ensure even coverage rate.

### ► COVERAGE RATES

**Coverage Rates** – Actual coverage may vary depending on the texture, age and condition of the concrete, the application method and other local conditions.

- **Smooth Finish, Per Coat** – Material usage, per coat, is approximately 300 square feet per gallon.
- **Broom Finish, Per Coat** – Material usage, per coat, is approximately 200 square feet per gallon.
- **Exposed Aggregate Finish, Per Coat** – Material usage, per coat, is approximately 100 square feet per gallon.

*\*NOTE: very porous surfaces may require two applications.*

### ► PACKAGE SIZES

Helix Repel is available in 1 gallon and 5 gallon pails.

### ► TECHNICAL DATA

Please refer to the corresponding MSDS for hazard-related information.

VOC:	<100 g/l VOC Standard
Flashpoint:	40°
DOT:	UN1263/PAINT/3/PGII
Solvent:	Aromatic Petroleum Naphtha & Tert-Butyl Acetate.
Solids:	10% (Higher solids available upon request)

### ► PRODUCT HANDLING

For complete instructions on handling and use, consult the corresponding Material Safety Data Sheet before using product.

### ► WARRANTY

Helix Repel is a proprietary product, is warranted to be of uniform quality within manufacturing tolerances. Since control is not exercised over its use, no warranty, expressed or implied, is made as to the effects of such use. Seller's and manufacturer's obligation under this warranty shall be limited to refunding the purchase price of that portion of the material proven to be defective. The user assumes all other risks and liabilities resulting from use of this product.

**Concrete Sealer** **PENETRATING****REPEL****SAFETY DATA SHEET****▶ SECTION 1 PRODUCT DESCRIPTION****Product Name:**

Repel

**Recommended Use:**

Penetrating Reactive Water Repellent for Concrete

**Supplier:**

ChemSystems, Inc. 10101 Genard Road Houston, TX 77041  
P: 800.545.9827 | support@helixcolorsystems.com  
www.helixcolorsystems.com

**Emergency Phone:**

CHEMTRAC 1-800-424-9300

**▶ SECTION 2 HAZARD IDENTIFICATION**

Category 2 Flammable Liquid

Category 5 Acute Oral Toxicity

Category 4 Acute Inhalation Toxicity

Category 5 Acute Dermal Toxicity

Category 2A Eye Irritation

Category 2 Carcinogen

Category 3 Specific Target Organ Acute Toxicity  
(central nervous system)

Category 2 Reproductive Toxicity

Category 1 Skin Sensitizer

Category 3 Acute Aquatic Toxicity

**Signal Word:** Danger**Hazard Statements:**

- H225 Highly flammable liquid and vapor
- H303 May be harmful if swallowed
- H313 May be harmful in contact with skin
- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H332 Harmful if inhaled
- H336 May cause drowsiness or dizziness
- H351 Suspected of causing cancer
- H361 Suspected of damaging fertility or the unborn child
- H402 Harmful to aquatic life

**Precautionary statements:****Prevention:**

- P210 Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking
- P233 Keep container tightly closed
- P260 Do not breathe mist/vapors/spray
- P264 Wash skin thoroughly after handling
- P271 Use only outdoors or in a well-ventilated area
- P281 Use personal protective equipment as required

**Response:**

- P301+P312+P331 IF SWALLOWED: Do NOT induce vomiting. Immediately call a poison center or doctor/physician if you feel unwell.
- P303+P361+P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower
- P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician 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.
- P333+P313 If skin irritation or rash occurs, get medical advice/attention
- P370+P378 In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction

**Storage:**

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

**Disposal:**

- P501 Dispose of contents/container in accordance with local/federal regulations.

► **SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS**

	CAS #	OSHA PEL(TWA)	ACGIH(TLV-TWA)	Conc.(wt. %)
t-Butyl Acetate	540-88-5	200 ppm	200 ppm	80.0 – 95.0
Light Solvent Naptha	64742-95-6	None established	None established	1.0 – 2.3
Trimethylbenzene	25551-13-7	25 ppm	25 ppm	1.0 – 1.4
1,2,4-Trimethylbenzene	95-63-6	25 ppm(1989 std.)	25 ppm	0.7 – 0.9
Cumene	98-82-8	50 ppm	50 ppm	0.1 – 0.2
Mixed Xylene Isomers	1330-20-7	100 ppm	100 ppm	0.0 – 0.1
Alkylsilane	Proprietary	None established	None established	5.0 – 10.0
Alkylsiloxane	Proprietary	None established	None established	5.0 – 10.0

► **SECTION 4 FIRST AID MEASURES**

**Emergency First Aid Procedures**

- **Skin:** Clean material from skin with acetone, then wash with soap and water followed by moisturizer. If irritation persists, contact a physician.
- **Eyes:** Flush with a gentle but large stream of clean water for 15 minutes, lifting the lower and upper eyelids occasionally. Remove contact lenses if able. Call a physician if irritation persists.
- **Inhalation:** Move to fresh air and provide oxygen if breathing is difficult. Seek medical attention.
- **Ingestion:** DO NOT INDUCE VOMITING. Give large quantities of water. Do not give milk or alcoholic beverages. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention immediately.

- **Flammable Limits (% volume in air for solvents):**

LEL=1.0 UEL=6.8

- **Special Fire Fighting Procedures:** Evacuate area and fight fire from a distance. Firefighters wear NIOSH approved self-contained breathing apparatus. Cool containers exposed to fire with water. Vapors are heavier than air and may travel along the ground to distant ignition sources. Do not allow runoff from firefighting to enter drains or water courses.

► **SECTION 6 SPILL OR LEAK PROCEDURES**

- **Steps to Take if Material is Released or Spilled:** No health affects expected from the clean-up of the material if contact can be avoided. Follow the protection information found in Section 8 of this SDS. Ventilate the contaminated area. Prevent the spread of spilled material by using a suitable absorbent material or sand dam.

► **SECTION 5 FIREFIGHTING PROCEDURES**

- **Suitable Extinguishing Media:** Dry chemical, CO<sub>2</sub>, alcohol-resistant foam
- **Unsuitable Extinguishing Media:** High-volume water jet
- **Flash Point (TCC):** 40° F

► **SECTION 7 HANDLING AND STORAGE**

- **Normal Handling:** Always use good industrial hygiene practices and safety guidelines.
- **Storage:** Store material in its original container. Keep containers tightly closed when not in use. Keep material away from open flame, sparks, or other sources of heat and ignition.

- **Waste Disposal Method:** Liquid material is an ignitable waste (D001). Dispose of material in accordance with federal, state, and local guidelines.
- **Special Precautions:** Use proper bonding/grounding techniques to avoid static buildup/discharge, which can ignite vapors. Empty containers may contain explosive levels of vapor. Do not cut, drill, or weld on or near the containers.

## ▶ SECTION 8 PROTECTION INFORMATION

- **Respiratory Protection:** Use NIOSH-approved organic vapor respirator when exposure levels can't be kept below limits.
- **Ventilation:** Provide adequate mechanical ventilation to keep exposure levels below TLV's.
- **Protective Gloves:** Wear impervious chemical gloves.
- **Eye Protection:** Wear chemical safety glasses.
- **Other Protective Clothing or Equipment:** As needed to prevent repeated/prolonged contact.
- **Work/Hygienic Practices:** Use only in adequately-ventilated area unless recommended respiratory protection is used. Wash thoroughly with soap and water after handling and before eating, smoking, or using washroom. If clothes become contaminated, change to clean clothing and wash contaminated clothes before re-use.

## ▶ SECTION 9 PHYSICAL DATA

- **Appearance:** Clear liquid
- **Odor:** Camphor-like
- **Odor Threshold:** 71 ppb
- **pH:** None
- **Freezing/Melting Point:** <-70° F
- **Boiling Point:** 208° F
- **Flash Point:** 40° F
- **Evaporation Rate:** 3.2 (butyl acetate = 1)
- **Flammability (solid, gas):** Not applicable
- **Lower/Upper Flammability:** 1.0-6.8
- **Vapor Pressure:** 31 mm Hg at 20° C
- **Vapor Density:** No data available

- **Density:** 0.88 g/cc
- **Solubility:** 0.7% by weight in water
- **Partition Coefficient:** No data available
- **Auto-ignition Temperature:** 850° F
- **Decomposition temperature:** No data available
- **Viscosity:** <1.2 centistokes

## ▶ SECTION 10 REACTIVITY DATA

- **Reactivity:** Stable
- **Conditions to avoid:** Prevent vapor accumulation. Avoid heat and flames.
- **Incompatibility (Materials to Avoid):** Strong oxidizers, acids, alkalis, nitrates.
- **Hazardous Decomposition (Byproducts):** Carbon monoxide, carbon dioxide, isobutylene, and acetic acid.
- **Hazardous Polymerization:** Should not occur.

## ▶ SECTION 11 TOXICITY DATA

- **Routes of Exposure:** Inhalation, Ingestion, eyes, and skin.
- **Acute Toxicity Lethal Doses (ATE):**
  - LC50 (inhl) 12.9 mg/l
  - LD50 (oral) 4545 mg/kg
  - LD50 (skin) 2155 mg/kg
- **Health Hazards:**
  - **Acute:** May cause eye, skin, gastrointestinal, and lung irritation. May cause central nervous system depression.
  - **Chronic:** Prolonged and repeated exposures to high concentrations may cause liver and kidney damage.
- **Skin Contact:** May cause irritation and redness. Prolonged or repeated exposure can cause defatting and drying of the skin which may result in a burning sensation and a dried, cracked appearance.
- **Eye Contact:** Causes redness, tearing, irritation of the eyes. Direct contact may will cause moderate eye irritation.
- **Inhalation:** May cause headache, nausea, dizziness, and loss of coordination. Continued inhalation may result in unconsciousness.

- **Ingestion:** May be harmful if swallowed. Aspiration of the material into the lungs can cause chemical pneumonitis, which can be fatal.
- **Carcinogen:** Contains Light Solvent Naptha (1.0 – 2.3% w/w), which is IARC category 2B possible carcinogen.
- **Aggravation of Pre-existing Conditions:** Persons with pre-existing skin, eye, or lung disorders may be more susceptible to the effects of the substance.

## ▶ SECTION 12 ECOLOGICAL DATA

- **Acute Toxicity to Fish:** LL50 (96 hr) 37.7 mg/L (Calculated)
- **Acute Toxicity to Aquatic Invertebrates:** EL50 (48 hr) 20.4 mg/L (Calculated)
- **Toxicity to Aquatic Plants:** EL50 algae 14.8 mg/L (Calculated)
- **Toxicity to Microorganisms:** High concentrations may be harmful to sewage treatment plant microbes.
- **Chronic Toxicity to Fish:** No data available
- **Chronic Toxicity to Aquatic Invertebrates:** No data available
- **Persistence and Degradability:** Expected to degrade readily and rapidly in the presence of oxygen
- **Bioaccumulation Potential:** This material is not expected to bioaccumulate.
- **Mobility in the Soil:** Expected to move slowly in soil and water.
- **Other Adverse Effects:** No data available.

## ▶ SECTION 13 DISPOSAL INFORMATION

- **Waste Disposal Method:** Liquid material is an ignitable waste (D001). Dispose of material in accordance with all Federal, State, and Local regulations.

## ▶ SECTION 14 TRANSPORT INFORMATION

### For all modes:

- **Proper Shipping Name:** PAINT
- **Hazard Class:** 3
- **UN:** UN1263
- **Packing Group:** PGII
- **Marine Pollutant:** No

## ▶ SECTION 15 REGULATORY INFORMATION

- **SARA 311/312:** Yes. (Fire, Acute, Chronic).
- **OSHA:** This material is hazardous by definition of Hazardous Communications Standard (29 CFR 1910.1200).
- **TSCA:** Components of this material are either listed or are exempt from the EPA TSCA Inventory of Chemical Substances.

### California Proposition 65:

WARNING! This product contains a chemical known to the State of California to cause cancer.

- 98-82-8 Cumene
- 71-43-2 Benzene

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm:

- 71-43-2 Benzene

### Massachusetts Right To Know:

- |              |                        |           |
|--------------|------------------------|-----------|
| • 25551-13-7 | Benzene, trimethyl     | 1.0 – 1.4 |
| • 95-63-6    | 1,2,4-Trimethylbenzene | 0.7 – 0.9 |
| • 1330-20-7  | Mixed xylenes          | 0.0 – 0.1 |

### Pennsylvania Right To Know:

- |              |                        |           |
|--------------|------------------------|-----------|
| • 64742-95-6 | Light Solvent Naptha   | 1.0 – 2.3 |
| • 25551-13-7 | Benzene, trimethyl     | 1.0 – 1.4 |
| • 95-63-6    | 1,2,4-Trimethylbenzene | 0.7 – 0.9 |
| • 1330-20-7  | Mixed xylenes          | 0.0 – 0.1 |

### New Jersey Right To Know:

- |              |                        |           |
|--------------|------------------------|-----------|
| • 64742-95-6 | Light Solvent Naptha   | 1.0 – 2.3 |
| • 25551-13-7 | Benzene, trimethyl     | 1.0 – 1.4 |
| • 95-63-6    | 1,2,4-Trimethylbenzene | 0.7 – 0.9 |
| • 1330-20-7  | Mixed xylenes          | 0.0 – 0.1 |

## ▶ SECTION 16 ADDITIONAL INFORMATION

- **The regulatory information provided is not intended to be comprehensive. Other Federal, State and Local regulations may apply to this material.**
- **DISCLAIMER:** Although the information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof, manufacturer makes no representations as to the completeness or accuracy thereof.