



# SPEC HARD

Siliconate Sealer / Densifier

## DESCRIPTION

SPEC HARD is a proprietary, colorless chemical solution that increases the wear surface strength of concrete floors subjected to pedestrian and vehicle traffic. SPEC HARD penetrates concrete surfaces to seal, densify and harden. SPEC HARD floors last longer, cost less to maintain, are safe to use, and are guaranteed to resist dusting for years after application. It is V.O.C. compliant, odorless, environmentally safe and simple to apply. SPEC HARD penetrates the concrete surface and undergoes a chemical reaction that turns the concrete substrate into a hardened, densified mass. Surfaces treated with SPEC HARD are not only more abrasion resistant, but are more resistant to chemicals and water than untreated concrete. The deeply penetrating chemical action leaves no film and will not alter the natural non-slip texture of the concrete floor.

## FEATURES/BENEFITS

- Reduces porosity and increases hardness of the concrete surface.
- V.O.C. compliant
- Resists penetration of oil and many chemicals
- Minimizes tire marks and makes them easier to remove
- Equipment can be cleaned with water
- Can be applied to fresh, new, or existing concrete
- Low sheen enhances the appearance of concrete surface
- Compatible with SpecChem Spec Tilt bond breakers for tilt-up projects

## SPECIFICATIONS/COMPLIANCES

- Recommended for ACI 302. Class 1 through 4 concrete floors, and class 9 super flat floor
- USDA accepted
- Typical Properties
  - Active Ingredients: 100%
  - Type: Proprietary blend
  - Flash Point: None
  - Odor: None
  - Color: Clear
  - Dry Time: 2-4 hours
  - VOC: 0.0

## APPLICATION

### Sealer/Densifier Application:

#### Coverage:

Hard Troweled Finish	200-350 ft <sup>2</sup> /gal
Broom or Float Finish	150-250 ft <sup>2</sup> /gal
Rough Slab Finish	150-200 ft <sup>2</sup> /gal
Old Concrete	150-250 ft <sup>2</sup> /gal

The exact coverage depends upon the porosity and roughness of the slab. If the concrete is extremely porous or rough, more than one coat may be necessary. Application temperature above 40° & rising is recommended.

### Application to Existing Concrete:

*Surface preparation:* Surface must be clean and sound. Remove all dirt, grease, curing compounds or other foreign matter with SpecChem Citrus Cleaner. Completely rinse any residue away and allow to dry. Surface must be completely dry to allow for penetration of SPEC HARD.

*Application:* Spray, squeegee or broom apply based on concrete porosity. For best results, SPEC HARD should be applied and scrubbed using mechanical scrubbers. Immediately follow application by light brooming to assure penetration and to avoid ponding. Keep surface saturated with SPEC HARD for 20-30 minutes.

As the surface absorbs the SPEC HARD, apply a light water spray to enhance penetration and to keep the SPEC HARD in solution from drying on the surface. **Squeegee away excess and allow to dry.**

*Caution:* Should white crystals develop, it is a sign that the slab will not absorb and more SPEC HARD and that the surface has started to dry. Immediately flush with water, brush with a stiff bristle broom and squeegee any surface water away. Allow to dry.

SPEC HARD will develop a low gloss satin finish with use. If desired, a floor buffer can bring out the shine immediately on a well finished, hard troweled floor.

Repeat procedure to porous areas to ensure a uniform finish.

### Application to Fresh Concrete:

*Curing Application:* After the final troweling and bleeding, saturate the concrete surface with a base coat of SPEC HARD at approximately 200 ft<sup>2</sup> per gallon. Optimum penetration can be achieved by applying SPEC HARD 1-2 hours after final finishing (usually immediately after control joints have been cut). Broom or mop the SPEC HARD into the slab, reapplying SPEC HARD to areas that absorb the sealer.

Keep the slab saturated with SPEC HARD for 30-45 minutes, working it into the concrete by brooming. Apply a light water spray to the treated area to finalize penetration and dissolve any remaining SPEC HARD. After the saturation period, thoroughly rinse and then squeegee or brush off excess SPEC HARD until dry.

Although not compliant with ASTM C-309-91 as a membrane forming curing compound, SPEC HARD can be used as a curing compound and sealer by following the aforementioned procedures.

When curing conditions are severe (wind, sun, etc.), the use of SPEC HARD and an ASTM C-309-91 curing compound in conjunction with the SPEC HARD will provide concrete flatwork with greater durability and abrasion resistance. Contact SpecChem for specific application procedures.

## PACKAGING

55 gallon drums (208.2 L)  
5 gallon pails (18.9 L)

**SPEC CHEM**  
Solution to Service

444 Richmond Ave, Kansas City, KS 66101  
www.specchemllc.com 866-791-8700

## LIMITATIONS/PRECAUTIONS

Pozzolanic (fly ash, blast furnace slag) usage in concrete mix designs that are to accept SPEC HARD should be kept to a minimum (i.e. 5-10% by weight of Portland Cement) to optimize the sealing and hardening effects of SPEC HARD.

Protect metal, glass, brick and painted surfaces from SPEC HARD. If accidentally mis-applied, wash with clean water at once.

Do not use over colored or pigmented concrete or as a cure on slabs intended for use as a tilt up casting bed without consulting SpecChem technical services. If freezing occurs, contact SpecChem.

Keep out of the reach of children. Do not take internally. Avoid prolonged contact with skin. If swallowed, call a physician. If splashed in eyes, wash repeatedly with clean water and call a physician. Wear rubber gloves, goggles, and protective clothing. Avoid hazards by following all precautions found in the Material Safety Data Sheet (MSDS), product labels, and technical literature. Please read this information prior to using the product.

Application temperature above 40° & rising is recommended.

## STORAGE/SHELF LIFE

SPEC HARD containers are to be stored in a clean, dry area between 40°F and 100°F (5°C - 40°C). Shelf life of SPEC HARD in unopened containers is 2 years if properly stored. Do Not Freeze.

## TECHNICAL SERVICES

For assistance, contact technical services at:

866-791-8700

913-371-870

[www.specchemllc.com](http://www.specchemllc.com)

## WARRANTY

### NOTICE-READ CAREFULLY

#### CONDITIONS OF SALE

SpecChem offers this product for sale subject to and limited by the warranty which may only be varied by written agreement of a duly authorized corporate officer of SpecChem.

No other representative of or for SpecChem is authorized to grant any warranty or to waive limitation of liability set forth below.

#### WARRANTY LIMITATION

SpecChem warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, SpecChem will replace the defective product with new product without charge to the purchaser. SpecChem makes no other warranty, either expressed or implied, concerning this product. There is no warranty of merchantability. NO CLAIM OF ANY KIND SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT IN RESPECT OF WHICH DAMAGES ARE CLAIMED.

#### INHERENT RISK

Purchaser assumes all risk associated with the use or application of the product.

**SPECHEM**  
Solution to Service 

444 Richmond Ave, Kansas City, KS 66101  
[www.specchemllc.com](http://www.specchemllc.com) 866-791-8700

# MATERIAL SAFETY DATA SHEET

## SPEC HARD

### 1. COMPANY IDENTIFICATION

Manufacturer: SpecChem  
 444-B Richmond Ave.  
 Kansas City, KS 66101  
 Phone (866) 791-8700  
 24 Hour Emergency Contact: CHEMTREC (800) 424-9300

### 2. COMPOSITION INFORMATION

Component	CAS #	% by weight
Silicic Acid, Sodium Salt	1344-09-8	< 25%
Blended Potassium Methyl Siliconates	NA	< 5%

### 3. HAZARDS IDENTIFICATION

Component	Exposure Limit	Form
None		

NFPA CLASSIFICATION (0=Least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Health 1, Fire 0, Reactivity 0

HMIS CODES (0=Least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Health 1, Flammability 0, Reactivity 0

#### POTENTIAL HEALTH EFFECTS

**INHALATION:** No information found, but compound should be handled as a potential health hazard. May cause irritation to the respiratory tract. Symptoms may include coughing, sore throat, labored breathing, and chest pain.

**INGESTION:** No information found, but compound should be handled as a potential health hazard. May cause irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting, and diarrhea.

**SKIN CONTACT:** No information found, but compound should be handled as a potential health hazard. May cause irritation with redness and pain.

**EYE CONTACT:** No information found, but compound should be handled as a potential health hazard. May cause irritation, redness, and pain.

**CHRONIC EXPOSURE:** No information found.

**AGGRAVATION OF PRE-EXISTING CONDITIONS:** No information found.

### 4. FIRST AID PROCEDURES

**EYE CONTACT:** Immediately flush eyes with plenty of water for 15 minutes, lifting lower or upper eyelids occasionally. Obtain medical attention immediately.

**SKIN CONTACT:** Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Obtain medical attention. Wash clothing before reuse.

Thoroughly clean shoes before reuse.

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## SPEC HARD

**INHALATION:** Remove to fresh air. Give artificial respiration if not breathing. Give oxygen if breathing is difficult. Obtain medical attention.

**INGESTION:** Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Obtain medical attention.

### 5. FIRE FIGHTING MEASURES

**Flash Point:** Non-combustible.

**Autoignition Temperature:** N/A

**Flammability Limits in air:** N/A

**EXTINGUISHING MEDIA:** Alcohol foam, water spray, dry chemical, carbon dioxide.

**EXTINGUISHING MEDIA TO AVOID:** None.

**SPECIAL FIREFIGHTING PROCEDURES:** In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

**“EMPTY” CONTAINER WARNING:** “Empty” containers retain residue (liquid and/or vapor) and can be dangerous. Do not attempt to clean since residue can be difficult to remove.

“Empty” drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. For work on tanks refer to OSHA, ANSI Z 49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

### 6. ACCIDENTAL RELEASE MEASURES

**LARGE SPILLS:** Evacuate the hazard area of unprotected personnel. Dike and contain with suitable absorbent. Shut off source of leak only if it is safe to do so. Do not allow to enter sewers or open waterways. Advise authorities if product has entered sewers, waterways, or extensive land areas.

**SMALL SPILLS:** Take up with absorbent materials such as sand or sawdust and place in non-leaking containers. Dispose of in accordance with all Federal, state, and local regulations.

### 7. HANDLING AND STORAGE

**HANDLING:** For industrial use only. Avoid skin and eye contact. Minimize breathing vapor or mist. Respiratory protection is required when ventilation is inadequate. Cleanse skin thoroughly after contact, before breaks and meals, and at the end of a work period. Product is readily removed from skin by waterless hand cleaners following by washing thoroughly with soap and water.

**STORAGE:** Store in a cool, dry location and in accordance with good industrial practices. Keep containers closed when not in use.

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## SPEC HARD

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**VENTILATION:** Use local exhaust to capture vapor or mists if necessary. Local exhaust is preferred over general exhaust because it can control the emissions of the contaminant at its source, preventing dispersions into the general work area. Provide ventilation sufficient to prevent exceeding OSHA PELs.

**RESPIRATORY PROTECTION:** For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.

**SKIN PROTECTION:** Wear impervious protective clothing, including gloves, boots, lab coat, apron, or coveralls, as appropriate to prevent skin contact.

**EYE PROTECTION:** Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Clear to hazy liquid

**ODOR:** Negligible

**BOILING POINT:** 100°C

**VAPOR PRESSURE:** No information available.

**VAPOR DENSITY:** No information available.

**SOLUBILITY IN WATER:** 100%

**SPECIFIC GRAVITY:** 1.2

**pH:** 11.0-13.0

**POUR POINT:** 0°C

**VOC CONTENT =** 0 grams/liter

### 10. STABILITY AND REACTIVITY

**STABILITY:** Stable.

**CONDITIONS TO AVOID:** None when used according to specification.

**HAZARDOUS DECOMPOSITION PRODUCTS:** no dangerous decomposition products known.

**HAZARDOUS POLYMERIZATION:** Will not occur.

### 11. TOXICOLOGICAL INFORMATION

No LD50/LC50 information is available relating to normal routes of occupational exposure.

**EYE EFFECTS:** May cause irritation, redness, and pain.

**SKIN EFFECTS:** May cause irritation with redness and pain.

**ORAL EFFECTS:** May cause irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting, and diarrhea.

**INHALATION EFFECTS:** May cause irritation to the respiratory tract. Symptoms may include coughing, sore throat, labored breathing, and chest pain.

### 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL FATE:** No information available.

**ECOTOXICITY:** No information available.

**FURTHER INFORMATION:** None.

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## SPEC HARD

### 13. DISPOSAL CONSIDERATIONS

When disposed of properly, this product does not meet RCRA classification or listing for hazardous waste. Dispose in accordance with all applicable Federal, state, provincial, and local environmental regulations. Empty containers should be recycled or disposed of through an approved waste management facility.

Disposal methods identified are for the product as sold. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permissible under applicable rules, regulations and/or laws governing your location.

### 14. TRANSPORT INFORMATION

DOT SHIPPING LABEL: Not regulated by the U.S. DOT

HAZARD CLASS: Not applicable

### 15. REGULATORY INFORMATION

#### FEDERAL/NATIONAL

This product is not hazardous as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III (Emergency Planning and Community Right to Know Act) SECTION 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: NONE

#### TOXIC SUBSTANCES CONTROL ACT (TSCA)

All components of this product are on the TSCA Inventory or are exempt from the TSCA Inventory requirements.

### 16. OTHER INFORMATION

Prepared by: Michael Volkov

The information and recommendations contained herein were obtained from sources we believe to be accurate and reliable as of the date revised. However, SpecChem does not warrant or guarantee their accuracy or reliability, and shall not be liable for any loss or damage arising out of the use thereof. The information and recommendations are offered for the user's consideration and examination and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use.