

# Tyfo® CIS

## Volatile Corrosion Inhibitor System - Layer 1

### DESCRIPTION

Tyfo® CIS Layer 1 is a single-component, colorless liquid. It is the corrosion inhibitor vapor phase of the Tyfo® Concrete Repair System. This layer will sublime and permeate the concrete as a gas, and distribute itself uniformly to form a passive film on the corroded reinforcing steel. This layer is delivered in a liquid form and spray-applied over the concrete area. Layer 1 is applied to the exposed surfaces as required. The Tyfo® CIS Layer 1 application is followed by the Tyfo® CIS Layer 2 application. After receiving both Layers 1 & 2, the exposed surfaces are cleaned by washing with fresh water or by abrasive blasting. All exposed steel is then treated with the Tyfo® CB material and the concrete section is restored using Tyfo® P or Tyfo® PF as required.

### USE

Tyfo® CIS Layer 1 is used with the Tyfo® Concrete Repair System to control the corrosion of reinforcement or other embedded steel elements. Tyfo® CIS Layer 1 may be applied directly to exposed rebar prior to application of concrete.

### ADVANTAGES

- Ease of application
- Can be applied to horizontal, vertical, and overhead surfaces
- Migrates throughout concrete element in vapor phase
- Forms passive film on surface of white steel
- For new and old structures

### COVERAGE

Approximately 100 to 300 sq. ft per gallon, depending on the porosity of the substrate and severity of the corrosion.

### PACKAGING

Order in 5-gallon (19L) pails.

### SHELF LIFE

One year in the original, unopened package when kept in proper storage conditions.

### STORAGE CONDITIONS

Store at 40° to 95° F (4° to 35°C). Do not expose to flames or a direct heat source.

### CERTIFICATE OF COMPLIANCE

- Will be supplied upon request, complete with state and federal packaging laws with copy of labels used.
- Material safety data sheets will be supplied upon request.

### HOW TO USE THE TYFO® CIS - LAYER 1

#### SURFACE PREPARATION

Remove all grease, curing compounds, coatings, residue, etc. by proper means. Ensure that the surfaces are dry and cool. Hot surfaces and direct sunlight will cause the material to evaporate quickly and escape.

#### APPLICATION

Apply Tyfo® CIS Layer 1 by spray, brush or roller. Allow to penetrate into surface. Higher application rates are recommended for cracks and open areas. Do not apply to hot concrete as the solvent will evaporate before penetration. If applied indoors, ensure that the area is well ventilated and there are no open flames.

It is recommended that Tyfo® CIS Layer 2 be applied to the concrete surface after the application of Tyfo® CIS Layer 1 to maximize the migration of the Tyfo® CIS Layer 1 in the direction of the rebar.

Tyfo® CIS Layer 1 may also be spray-applied to exposed rebar during rehabilitation or new construction. Apply at the rate of 200 sq. ft. per gallon and allow to dry just prior to repairing the concrete section.

### LIMITATIONS

Do not apply to hot concrete as the solvent will evaporate before penetration.

### CAUTION!

### FLAMMABLE

Formulation contains isopropyl alcohol. Use in a well ventilated area and avoid exposure to ignition sources.

### SAFETY PRECAUTIONS

Avoid breathing vapors. Avoid contact with eyes and skin. Use of an approved respirator with an organic absorption cartridge is recommended for possible vapors. Rubber gloves are recommended for handling and application of this material. Safety glasses or a face shield are recommended to prevent eye contact.

### FIRST AID

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water; contact physician immediately. For respiratory problems, remove to fresh air. Wash clothing before reuse.

### CLEANUP

Dispose of in accordance with local disposal regulations.

### MATERIAL PROPERTIES

| PROPERTY         | TYPICAL TEST VALUE*   |
|------------------|-----------------------|
| pH               | 8.0                   |
| Stability        | Alcohol, hydrocarbons |
| Specific Gravity | 0.8                   |
| Volatility       | 100%                  |

\* Specification values can be provided upon request.

**SHIPPING LABELS CONTAIN**

- State specification number with modifications, if applicable
- Component designation
- Type, if applicable
- Manufacturer's name
- Date of manufacture
- Batch name
- State lot number, if applicable
- Directions for use
- Warnings or precautions required by law

**NOT FOR INTERNAL CONSUMPTION.  
CONSULT MATERIAL SAFETY DATA SHEET  
(MSDS) FOR MORE INFORMATION.  
KEEP OUT OF REACH OF CHILDREN.  
FOR INDUSTRIAL USE ONLY.**

## **Fyfe Co. LLC**

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