

# UNITED LABORATORIES

## TECHNICAL DATA SHEET

# UNITED 303 TRIUMPH

## Rust Converter and Primer Coat

### DESCRIPTION

**TRIUMPH** is a cementitious coating that is not based on normal resins, but which bonds like cement. Cement bonds by the crystallization of chloride and hydroxides and **TRIUMPH** bonds by the combination of phosphates with aluminum hydroxides. The advantage of this type of bonding is twofold:

1. It gives the coating an extremely hard surface.
2. The bond can take place in the presence of water which means that **TRIUMPH** may be used on a damp surface.

**UNITED 303 TRIUMPH** is a low VOC (less than 1% by weight) phosphating paint, making it the only successful paint to convert corrosion salts such as iron oxide to phosphates. These phosphates which may take the form of iron phosphate, zinc phosphate, chromium phosphate, etc. are resistant to oxidation and therefore prevent corrosion.

### FEATURES AND BENEFITS

- Water Based, can be applied to a damp surface, does not trap moisture, Can be diluted with water
- Low VOC (less than 1% by weight)
- One Step Rust Converter and Primer Coating
- Bonds with Rust, cures Hard as Cement, no scraping, no sandblasting
- Prevents corrosion
- Expands and contracts with the metal; in lab tests, withstood 300°F (149°C) for 90 days without cracking or peeling
- Hydrogen Sulfide Resistant
- Tools clean up with water
- Contains no lead or heavy metals

### SPECIFICATIONS

Appearance	Red, heavy viscous liquid with mild scent
Flash Point	None
Specific Gravity (Water=1)	1.20
pH	1.0–2.0
Density	10 lbs/gal
VOC	< 1% by weight
Evaporation	Cures by evaporation of water
Solubility in Water	Water dilutable
Cold Stability	Water based, 32°F (0°C). Protect from freezing.
NPE, Butyl, Heavy Metals, Chlorine, Pthalates	None
Carcinogenicity	None
Packaging	1 Gallon (plastic pail with lid); Pint (plastic wide mouth with lid)
Shelf Life	6 months minimum when stored properly. (See MSDS for Handling and Storage) Because <b>TRIUMPH</b> is a high quality 50% solids coating, prolonged storage may result in considerable separation. Thorough mixing will restore <b>TRIUMPH</b> to a smooth even consistency.
NSN#	56433-CX-6850-014638446
Companion Product	A303 Paint Stirrer

### SUGGESTED USES

- Wrought iron fences and railings
- Gangplanks and scaffolding
- Production Equipment
- Forklifts and Carts
- Pole barns and storage sheds
- Truck beds
- Docks
- Staircases and catwalks
- Racking and Shelving
- Storage Tanks
- Lawncare and landscaping and equipment
- Farm equipment
- Heavy Machinery
- Steel Window frames

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## DIRECTIONS

### SURFACE PREPARATION

- Surface must be free from oil, grease, loose or peeling paint.
- Loose rust should be removed by mechanical agitation. A minimum cleanliness of SSPC-SP-3 is required. **TRIUMPH** bonds best to a rusty surface; do not brush down to bare metal.
- Do not apply to a surface hotter than 100°F/37°C.
- Mix **UNITED 303** until uniform before applying.
- Apply to a thickness of 0.5–1.0 mil Dry Film Thickness (0.8–1.6 mil wet film thickness).

**Recommended for:** Iron; Steel; Stainless Steel

### STEPS

1. Stir thoroughly before using.
2. Wirebrush surface to remove all loose flaky rust. Do NOT brush down to bare metal: **TRIUMPH** bonds best to a rusty surface.
3. Wipe away debris with a cloth, paintbrush or air pressure. All grease and oil must be completely removed from the surface. A solution of UNITED 366 is IDEAL for this purpose. Rinse thoroughly.
4. Stir **TRIUMPH** thoroughly until smooth, even consistency is obtained.
5. Apply **TRIUMPH** with brush or spray. (For spray application, may dilute with up to 20% water.) 0.5-1.0 mil Dry Film Thickness.
6. If a top coat is to be applied use only 1 coat of **TRIUMPH**. Apply top coat only after **TRIUMPH** has dried completely. (48 hours)
7. If not applying a top coat; 2nd coat of **TRIUMPH** must be applied before first coat has dried; within (2-4 hours) 2nd coat should be applied at 0.5 mil dry film thickness.
8. For highly acidic, corrosive or abrasive environments such as strong acid or salt brine, a top coat is recommended.

### APPLICATION SPECIFICATIONS

Application Temperature (Minimum & Maximum)	Minimum: 50°F/10°C Maximum: 100°F/37°C
Application Humidity (Maximum)	Up to 75% relative humidity
Coverage Rate (1 mil Dry Film Thickness)	530–1000 sq. ft. per gallon
Recommended Dry Film Thickness	0.5–1.0 mil
Drying Time (To Touch)	30 minutes
Drying Time (To Recoat with <b>UNITED 303</b> )	2nd coat of <b>UNITED 303</b> must be applied before 1st coat has dried; within 2-4 hours. 2nd coat should be applied at 0.5 mil dry film thickness.
Drying Time (To Recoat with other topcoat)	If top coat is to be applied, use only 1 coat of <b>UNITED 303</b> . Apply top coat only after <b>UNITED 303</b> has dried completely, 48 hours.
Dilution	Dilute up to 20% with water if necessary
Brush Method	Natural Bristle or Nylon/Polyester
Roll Method	Short nap mohair with phenolic core
Spray Method	Conventional or Airless Spray. NOTE: Both systems require use of an agitator spray pot. Best when diluted with water - up to 20% water.
Conventional Spray	<b>Gun:</b> Binkes 18 or equal <b>Pressure:</b> Pot. 10-15 psi <b>Material Hose ID:</b> 3/8" <b>Air Hose ID:</b> 1/4" <b>Atomization:</b> 45–50 psi <b>Needle:</b> 63A <b>Max Reduction:</b> 20% with water <b>Fluid Nozzle:</b> Stainless Steel 83 PE or 83 PB <b>Air Supply:</b> Use moisture and oil traps
Airless Spray	<b>Gun:</b> Graco 208-327 or equal <b>Pressure:</b> 2000-2500 psi <b>Material Hose ID:</b> 1/4" <b>Pump Ratio:</b> 30:1 <b>Tip Size:</b> 0.013–0.019 <b>Fan Size:</b> 6"–8" <b>Max Reduction:</b> 20% with water
Clean Up	Water for uncured; Solvent for cured

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## TOP COAT

Accepts a wide range of coatings:

- Urethanes
- Epoxies
- Enamels (oil and water base)
- Alkyd
- Bitumen
- Chlorinated Rubber

## RESISTANCE

Acid	Fair
Alkali	Good to Fair
Water	Excellent
Hydrogen Sulfide	Good
Ferric Chloride	Good
Heat Adhesion Test (ASTM D3359)	In lab test, withstood 300°F/148°C for 90 days without blistering (ASTM D714) or peeling.

## HMIS® III CODE

0=MINIMAL  
1=SLIGHT  
2=MODERATE  
3=SERIOUS  
4=SEVERE

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	E

**PERSONAL PROTECTION INDEX:** Glasses, Gloves and Dust Respirator