#### **CHLOR\*RID**

#### **Product Information**



#### **CHLOR\*RID International, Inc.**

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# The easiest and most economical way to remove soluble salt



## The protective coating industry and corrosion engineers are now more aware of the damage soluble salt contaminants cause than ever before.

**CHLOR\*RID®** 

will not interfere

with the

adhesion of

protective

coatings.

Testing for chlorides and sulfates, both qualitative and quantitative methods, is common — and the threshold for acceptable levels is dropping.

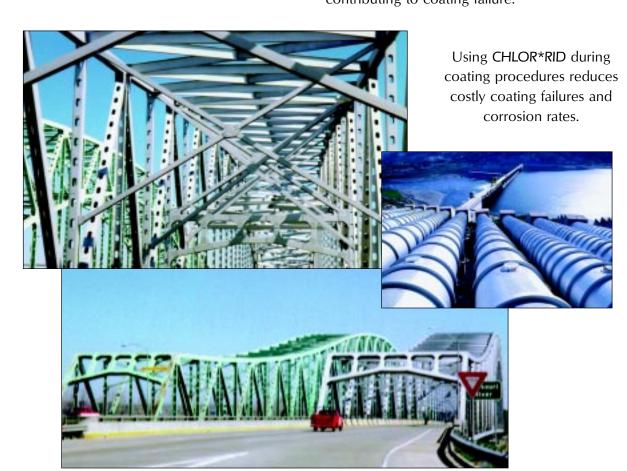
CHLOR\*RID can satisfy your most aggressive requirements — simply, safely and economically. It is effective on most surfaces, including steel, foam, concrete and plastics.
CHLOR\*RID has been used by private industry, for federal and state highway coating and cleaning projects, to wash dams, tanks, bridges and machinery, even in a microbiological lab.

When your specification requirements require consistent, safe and reliable removal of soluble salt contamination, use CHLOR\*RID.

Soluble salts, like chlorides and sulfates, are found on surfaces everywhere. These soluble salts pull moisture from the air, causing protective coatings to fail. They can also be the cause of degradation

of the substrate. Left unchecked, the surface contamination can corrode into deep pockets, making decontamination even more important and challenging. Lost productivity from protective coating failures are costly and can be hazardous.

Alternative methods are not as cost effective. Abrasive blasting often requires repeated blasting. Some abrasives contain salts and actually deposit trace amounts of soluble salts on surfaces. Other methods require heat or use of hazardous chemicals. Some methods may leave residues that interfere with the adhesion of the protective coating, thus contributing to coating failure.



CHLOR\*RID removes chlorides and sulfates from contaminated surfaces in a simple dilution with any potable water source. CHLOR\*RID is biodegradable, non-flammable and contains no volatile organic compounds. Laboratory and field tests confirm that CHLOR\*RID is effective for removing chlorides and sulfates from industrial surfaces.

Wasser High-Tech Coatings, Tnemec Company, and Advanced Polymer Sciences, and Wisconsin Protective Coatings have tested CHLOR\*RID with their coatings and found that it does not interfere with the adhesion of their coatings. Scanning Electron Microscopy (SEM) inspection by KTA Tator Laboratories established that CHLOR\*RID leaves no film or residue after use.

Contamination free results are what truly counts. CHLOR\*RID is the easiest and most economical way

to remove soluble salt contaminants with any method — high-pressure washing, wet abrasive blasting or even hand-cleaning.





Adding CHLOR\*RID to the regular maintenance pressure wash of aircraft will increase the effectiveness of chloride and sulfate removal.

CHLOR\*RID® is a unique organic bonding chemistry which aids in the removal of chlorides, sulfates and most other soluble salts.





If salts are soluble, why doesn't water remove them? Because they are electrochemically driven to the substrate and are attached with greater strength than the forces applied to remove them.

It is internationally recognized that CHLOR\*RID is a product that has no equal in the removal of soluble salts. CHLOR\*RID's innovative technology and proven performance provided, not only the U.S. Government but also foreign governments, a reason to issue Letters of Patent for this unique product.

The Permite Corporation tested CHLOR\*RID with several of their coating systems, including Grip-Tite Epoxy Primer, Permox Epoxy, Permox Type II Epoxy and PCS-865 Epoxy Novalac. They performed six different tests: salt spray on scribed panels, ASTM B 117; weatherometer, ASTM G 5377; and adhesion tests ASTM D 2794, ASTM D 3359, ASTM D 522, and ASTM D 4541.

CHLOR\*RID®
contains no
volatile organic
compounds,
and is
biodegradable.

"Wasser would support and recommend use of the CHLOR\*RID solution, including its use within a specified system in geographical zones prone to salt and chloride contamination for both atmospheric and immersion service."

- Wasser High-Tech Coatings

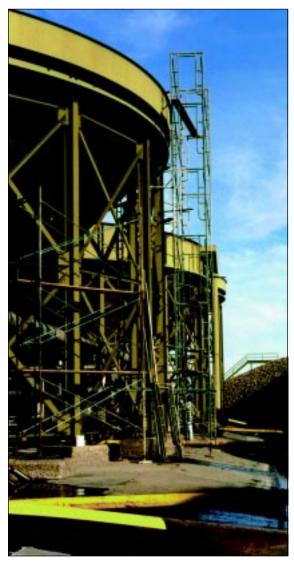
"We have concluded that the use of CHLOR\*RID demonstrated no adverse effect to either adhesion or performance with these respective products."

"We would recommend the use of CHLOR\*RID with these products when soluble salts contamination is encountered during the surface preparation phase of high performance coatings application."

- The Permite Corporation

No other product on the market offers to solubilize and remove salts as effectively, while being environmentally and worker friendly. CHLOR\*RID contains no volatile organic compounds and is biodegradable. It poses no health concerns and does not require certification for use.





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Tnemec Company is conducting long-term tests using CHLOR\*RID in conjunction with two high-performance coating systems in their laboratory. The coating systems being tested are:

- A polyamidoamine epoxy primer topcoated with an acrylic polyurethane, and
- A moisture-cured urethane zinc-rich primer, also top-coated with an acrylic polyurethane.

"Our testing has shown that the use of CHLOR\*RID has no effect on ASTM D 3359 adhesion to SSPC SP 10 prepared steel after ten freeze-thaw cycles."

- Tnemec Company Incorporated

After a one year testing program in an Atlas Cell, the following remark was made:

"The following coating system was applied to our recommended film thickness for immersion service on Atlas Cell Plates that were contaminated with a brine solution for one week and then decontaminated by hand scrubbing with a CHLOR\*RID solution.

- 7159 Control (1) Uncontaminated Steel
- 7159 with Decontaminated Steel (2)

The test showed CHLOR\*RID Solution was effective in reducing chloride contaminates and did not effect adhesion of the coating."

- Wisconsin Protective Coating Corp.

"When used according to specifications CHLOR\*RID™ does not effect the adhesion of any of the Siloxirane products, regardless of whether immersion service, spill and splash or vapor."

"Advanced Polymer Sciences also affirms the recommendation of the use of CHLOR\*RID $^{TM}$  as an acceptable method of surface decontamination."

- Advanced Polymer Sciences, Inc.

Corrosion inducing salts can be removed from concrete structures.



CHLOR\*RID® does

not pose a health

concern and

certification is

not required

for use.

#### Recommended for use on

- Bridge Structures
- Ships
- Mining Facilities
- · Storage Tanks
- Public Utilities
- Electronics
- Offshore Drilling Rigs
- Marine Structures
- Process Equipment
- Pulp and Paper Mills
- Power Generation Plants
- Natural Gas Facilities
- Saw Mills
- · Petrochemical Installations
- Piping
- Cooling Towers
- · and More



#### **Specifications**

· Color: Blue-Green

 Typical coverage: 300 - 1000 square feet per U.S. gallon

No VOCs

• pH 3.3 (+/- .2)

• Packaging: 1/5/55 U.S. Gal. - 4/20/220 Ltr.

Single Component

· Shelf Life: 36 months

• Application Temperature: 33°F - 250°F

• Keep from freezing – If frozen, thaw before use.

#### **Directions**

**DESCRIPTION:** CHLOR\*RID is a unique organic bonding chemistry which aids in the removal of

chlorides, sulfates and surface reacted

salts. Patented product.

#### HIGH PRESSURE WASHING:

CHLOR\*RID is added to the water of the pressure washer, usually in a dilution ratio of 1:100. The dilution ratio is dependent on the contamination level and the water quality. Add CHLOR\*RID by means of a metering pump or add

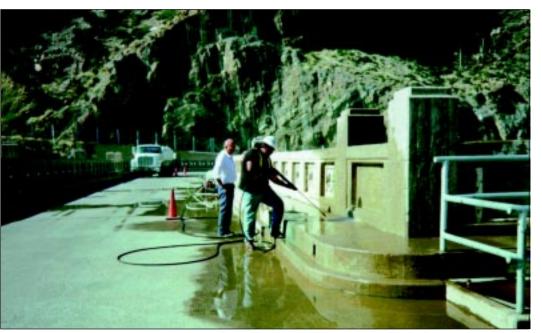
to a reservoir supply. A siphon device may be used, but most such devices lack dilution control and positive input. Use potable water or other approved source. A minimum 3000 p.s.i. pressure washer is recommended. A zero degree rotating nozzle is also

recommended. Flush washer and lines prior to application. Hold pressure nozzle perpendicular to the surface and no more than 12 inches away, to ensure all surfaces are washed with direct high pressure. In areas of deep pitting, slow the wash speed to enable CHLOR\*RID to penetrate. Do not rinse. Typical application rate is 300 to 1000 Sq. Ft. per gallon of CHLOR\*RID.

CHLOR\*RID is easy to use.

#### CHLOR\*RID® is

- Economical
- Biodegradable
- Non-flammable
- No volatile organic compounds



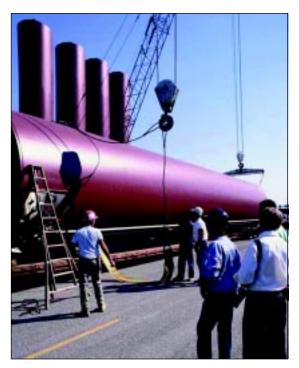


HAND WASHING: Use CHLOR\*RID DTS™ (Direct To Surface) according to directions. CHLOR\*RID DTS is ready to use direct from the container – no dilution necessary.

**WET ABRASIVE BLASTING:** Add CHLOR\*RID to the system at 1 U.S. gallon per 300 - 1000 square feet of surface to be blasted using potable water or other approved source. (Dilution ratio of 1:500 typical.) Add CHLOR\*RID to rinse water at 1:500 ratio. Always use appropriate safety equipment.

**TESTING:** After cleaning or blasting a small sample area, test the surface with a CHLOR\*TEST™ kit to verify cleanliness. Adjust speed of travel, pressure, or dilution as necessary and retest to verify desired cleanliness level is attained. Abrasives and water used should be tested with CHLOR\*TEST kits "A" and "W".

Due to a wide variety of surface conditions, work environments, weather conditions, etc., these



directions are general and may require alterations to better suit individual conditions. Call CHLOR\*RID International Inc. for recommendations for a specific project. CHLOR\*RID International Inc. assumes no liability for use or misuse of the product inconsistent with its labeling.

**FIELD TESTING:** When field testing for chlorides, always use an ion specific testing device such as CHLOR\*TEST™ for surfaces, CHLOR\*TEST "A" for abrasives and CHLOR\*TEST "W" for water and other liquids. Conductivity measurement will give no indication of chloride levels.

CHLOR\*RID DTS™ and CHLOR\*TEST™ are registered trademarks of CHLOR\*RID International Inc. Patents are pending.





#### Warranty

CHLOR\*RID International Inc. warrants this product to be identical in chemical and physical properties from batch to batch within the specification limits of the raw materials used in its manufacture.

#### **Safety Precautions**

KEEP OUT OF REACH OF CHILDREN. Do not mix with other chemicals. See M.S.D.S. for full precautions prior to use. This product is intended for professional use only.

### CHLOR\*RID® LIQUID SOLUBLE SALT REMOVER DATA SHEET

**DESCRIPTION:** CHLOR\*RID is an organic bonding chemical blend which aids in the removal of chlorides, sulfates and surface reacted salts. Contains no volatile organic compounds (VOC's), and is biodegradable.

CHLOR\*RID is recommended for use in a maintenance wash solution to reduce corrosion and as part of surface preparation prior to application of primers or coatings on a variety of surfaces, including ferrous and non-ferrous metals, concrete, wood, plastics and others.

**SURFACE PREPARATION:** Best surface preparation yields the best results. If hydrocarbons are present, they should be removed prior to salt removal. Barrier materials, such as rust or scale or delaminated coatings, should be removed prior to salt removal. Sufficient mechanical force, such as high pressure water or wet abrasive blast, may be utilized so barrier materials are removed as part of salt removal procedures.

**APPLICATION:** CHLOR\*RID can be introduced and applied by a variety of means. See Directions for hand cleaning, pressure washing, UHP waterjetting and wet abrasive blasting methods. Contact CHLOR\*RID International, Inc. or an Authorized Distributor for other methods or technical support.

Before and after cleaning a small sample area (usually 25 Sq. Ft.), test the surface for contamination. Adjust travel speed, pressure or dilution as necessary and retest to assure desired cleanliness level is achieved. It is not necessary to use the entire contents. Partially filled containers should be closed tightly.

\* Color: Blue \* Packaging: 1/5/55 U.S. Gallon

\* Typical coverage: 300-1000 Sq. Ft./ Gal. 

\* Single Component

\* No VOC's 

\* Shelf Life: 36 months

\* pH 3.3 (+/-.2) \* Application Temperature:  $+32^{\circ}$  F

\* Keep from freezing – if frozen, thaw before use. \* Non-Flammable

**WARRANTY:** CHLOR\*RID International Inc. warrants this product to be identical in chemical and physical properties from batch to batch within the specification limits of the raw materials used in their manufacture.

**SAFETY PRECAUTIONS:** KEEP OUT OF REACH OF CHILDREN. Do not mix with other chemicals. See M.S.D.S. for full precautions prior to use. This product is intended for professional use only.

#### CHLOR\*RID® LIQUID SOLUBLE SALT REMOVER

#### **DIRECTIONS**

**DESCRIPTION:** CHLOR\*RID is a unique organic bonding chemistry which aids in the removal of chlorides, sulfates and surface reacted salts.

HIGH PRESSURE WASHING: CHLOR\*RID is added to the water of the pressure washer, usually in a dilution ratio of 1:100. The dilution ratio is dependent on the contamination level and the water quality. (See Testing below) Add CHLOR\*RID by means of a metering pump or add to a reservoir water supply. A siphon device may be used, but most such devices lack dilution control and positive input. Use potable water or other approved source. A minimum 3000 p.s.i. pressure washer is recommended. A zero degree-rotating nozzle is also recommended. Flush washer and lines prior to application. Hold pressure nozzle perpendicular to the surface and no more than 12 inches away to ensure all surfaces are washed with direct high pressure. In areas of deep pitting, slow the wash speed to enable CHLOR\*RID to penetrate. Do not rinse. Typical application rate is 300 to 1000 Sq. Ft. per gallon of CHLOR\*RID.

**HAND WASHING**: Use CHLOR\*RID DTS<sup>TM</sup> (Direct To Surface) according to directions. CHLOR\*RID DTS is ready to use direct from the container- no dilution necessary.

**WET ABRASIVE BLASTING:** Add CHLOR\*RID to the system at 1 U.S. gallon per 300-1000 square feet of surface to be blasted using potable water or other approved source. (Dilution ratio of 1:500 typical.) Add CHLOR\*RID to rinse water at 1:100 ratio. Always use appropriate safety equipment.

**TESTING:** After cleaning or blasting a small sample area, test the surface with a CHLOR\*TEST<sup>TM</sup> kit to verify cleanliness. Adjust speed of travel, pressure or dilution as necessary and retest to verify desired cleanliness level is attained. Abrasives and water used should be tested with CHLOR\*TEST kits "A" and "W".

Due to a wide variety of surface conditions, work environments, weather conditions, etc., these directions are general and may require alterations to better suit individual conditions. Call CHLOR\*RID International Inc. for recommendations for a specific project. CHLOR\*RID International Inc. assumes no liability for use or misuse of the product inconsistent with its labeling.

**WARRANTY:** CHLOR\*RID International Inc. warrants this product to be identical in chemical and physical properties from batch to batch within the specification limits of the raw materials used in its manufacture.

**SAFETY PRECAUTIONS:** KEEP OUT OF REACH OF CHILDREN. Do not mix with other chemicals. See M.S.D.S. for full precautions before use. This product is intended for professional use only.

## CHLOR\*RID® LIQUID SOLUBLE SALT REMOVER Specifications Guide for CHLOR\*RID®

CHLOR\*RID can be used in several different ways, dependent upon which method of surface preparation is used. Typically, water is used as the delivery vehicle. Though a minimum of 3000 psi is recommended, there is no prescribed maximum. There also is no upper limit established for water temperature. Temperatures usual to waterjetting and steam cleaning applications are satisfactory.

It is essential that all barrier deposits be removed to allow application of CHLOR\*RID to any areas in which soluble salt contamination is present. CHLOR\*RID MUST come into contact with the salts to remove them. Barrier deposits left on the surface will form a mask over the salts and will prevent their removal.

The following is meant as a guideline for inclusion of CHLOR\*RID in several of these different methods.

- 1) Material Specification
  - **A.** Dry Abrasive Blast Pressure Wash
  - **B.** Dry Abrasive Blast Pressure Wash Dry Abrasive Blast
  - **C.** Wet Abrasive Blast
  - **D.** High Pressure Wash Dry Abrasive Blast
  - E. High Pressure Water Jet or Ultra-High Pressure Water Jet
  - **F.** Hand Washing
  - **G.** Pressure Wash Concrete, w/wo Dry Abrasive Blast

IMPORTANT NOTE: Because of the granular nature of steel, when the surface is abrasive blasted, in many instances contaminates are trapped in minuscule crevices of the steel which have been peened over by the abrasive, making it virtually impossible to remove all the contaminates there. This will sometimes result in a very light flash rust over the surface after washing.

There are additional methods to remove soluble salts with CHLOR\*RID. An example of this is methodology wherein the wash solution has to be 100% contained within a confined area. If you have a specialty project that requires a particular specification, our firm will be glad to work with you in developing it.

## CHLOR\*RID® LIQUID SOLUBLE SALT REMOVER Material Specification

Soluble salt remover: Soluble salt remover is to be CHLOR\*RID® or approved equal. The soluble salt remover shall meet the following specification:

- pH shall be 3.3 (+/- .2)
- Color shall be blue-green
- Dilution ratio shall be 1:100 for pressure washing; 1:500 for wet abrasive blasting
- VOC's shall be 0
- VOHAP's shall be 0
- Recommended coverage is to be 300 to 1000 square feet per US gallon
- Shelf life is to be 36 months
- Material shall be all organic and non-hazardous
- Material shall be non-flammable
- Material shall be suitable to be used at any pressure
- Material shall pass Bioassey tests for both fresh and salt water

CHLOR\*RID is available from CHLOR\*RID International, Inc. 1-800-422-3217 / 1-480-821-0039, or any of their Authorized Distributors

### CHLOR\*RID® SPECIFICATION "A" \*DRY ABRASIVE BLAST-PRESSURE WASH\*

A). Abrasive blast the entire surface to be coated to a (insert blast standard) finish. Pressure wash the entire surface with a minimum of 3000 psi. The wash water is to be of potable quality and CHLOR\*RID is to be added by means of a pressure pump or injector capable of overcoming the inlet line pressure, or from a pre-mixed holding tank. This is necessary to assure the introduction of the CHLOR\*RID chemistry. A backflow prevention device shall be installed in the supply line prior to the chemical introduction location (check local code). CHLOR\*RID is to be introduced at the approximate dilution of 1 US gallon per 100 US gallon of wash water. The operator shall apply the wash solution at the rate of approximately 300 square feet of surface area per 100 US gallons of wash solution. The high pressure washer is to be equipped with a 0 degree rotating nozzle (0 to 15 degree flat fan nozzle may be acceptable) and the nozzle is to be held a minimum of 4" to a maximum of 10" from the surface being washed.

After an area of approximately 25 square feet has been washed, the surface is to be tested for soluble salt contamination by means of CHLOR\*TEST<sup>TM</sup> (insert other acceptable test method). If the contamination level is above or below the required level, the square foot application rate may be decreased or increased as necessary, with another test performed to ensure cleanliness at the adjusted application rate. This may be done several times to determine the most economical application rate needed to remove the soluble salts to the required level. Both travel speed and/or dilution rate may be adjusted to achieve the desired results. After washing, excess water is to be blown off with clean dry compressed air (insert air quality standard) or fan.

Any test area that is in excess of the acceptable level of soluble salts is to be re-washed at a higher application rate to achieve a clean surface. As work progresses soluble salt tests are to be performed in the prescribed manner every (stipulate frequency wanted) square feet (or square meters) to ascertain cleanliness to meet the required specification.

### CHLOR\*RID® SPECIFICATION "B" \*DRY BLAST-PRESSURE WASH-DRY BLAST\*

B). Abrasive blast the entire area to be coated with a sweep blast (insert blast standard) to remove all delaminated coating, corrosion byproducts or other barrier materials. Barrier deposits left behind will form a mask over the salts and will prevent their removal.

After sweep blasting procedures are completed, pressure wash the entire surface with a minimum of 3000 psi. The water wash is to be of potable quality and CHLOR\*RID is to be added by means of a pressure pump or injector capable of overcoming the inlet line pressure, or from a pre-mixed holding tank. This is necessary to assure the introduction of the CHLOR\*RID chemistry. A backflow prevention device shall be installed in the supply line prior to the chemical introduction location (check local code). CHLOR\*RID is to be introduced at the approximate dilution of 1 US gallon per 100 US gallon of wash water. The operator shall apply the wash solution at the rate of approximately 300 square feet of surface area per 100 US gallons of wash solution. The high pressure washer is to be equipped with a 0 degree rotating nozzle (0 to 15 degree flat fan nozzle may be acceptable) and the nozzle is to be held a minimum of 4" to a maximum of 10" from the surface being washed.

After an area of approximately 25 square feet has been washed, the surface is to be tested for soluble salt contamination by means of CHLOR\*TEST<sup>TM</sup> (insert other acceptable test method). If the contamination level is above or below the required level, the square foot application rate may be decreased or increased as necessary, with another test performed to ensure cleanliness at the adjusted application rate. This may be done several times to determine the most economical application rate needed to remove the soluble salts to the required level. Both travel speed and/or dilution rate may be adjusted to achieve the desired results. Any test area that is confirmed to be in excess of the acceptable level of soluble salts is to be rewashed at a higher application rate to achieve a clean surface.

After soluble salt contaminates are removed to the required level, proceed with the final abrasive blast to (insert blast standard) standards for final surface preparation.

#### CHLOR\*RID® SPECIFICATION "C" WET ABRASIVE BLAST\*

C). To the standard abrasive nozzle, add a water ring intended for wet abrasive blasting or use a nozzle specifically designed for that purpose. Water is to be supplied to the water ring or comparable equipment as per the manufacturers recommendation. The blast water is to be of potable quality and CHLOR\*RID is to be added by means of a pressure pump or injector capable of overcoming the inlet line pressure, or from a pre-mixed holding tank. This is necessary to assure the introduction of the CHLOR\*RID chemistry. A backflow prevention device shall be installed in the supply line prior to the chemical introduction location (check local code). CHLOR\*RID is to be introduced at the approximate dilution of 1 US gallon per 500 US gallon of wash water. The operator shall apply the wash solution at the rate of approximately 300 to 1000 square feet of surface area per 500 US gallons of blast solution.

When an area of approximately 25 square feet has been blasted, the surface is to be tested for soluble salt contamination by means of CHLOR\*TEST<sup>TM</sup> test kit (insert other acceptable test method). If the contamination level is below the required level, the square foot application rate may be decreased or increased with another test performed to ensure cleanliness at the adjusted application rate. This may be done several times to determine the necessary application rate needed to remove the soluble salts to the required level. Any test area that is confirmed to be in excess of the acceptable level of soluble salts is to be reblasted at a higher application rate to achieve a clean surface. The entire surface is to be abrasive blasted to (insert blast standard) standards for final surface preparation. It may be necessary to rinse the surface upon completion of wet abrasive blasting to remove excess abrasive left upon the surface. The rinse water is to have CHLOR\*RID added at a dilution of 1:500. After rinsing, excess water is to be blown off with clean compressed air (insert air quality specification) or fan.

### CHLOR\*RID® SPECIFICATION "D" \*HIGH-PRESSURE WASH-DRY ABRASIVE BLAST\*

D). Pressure wash with a minimum of (specify psi standard if different) 10,00 psi. The wash water is to be of potable quality and CHLOR\*RID is to be added by means of a pressure pump or injector capable of overcoming the inlet line pressure, or from a premixed holding tank. This is necessary to assure the introduction of the CHLOR\*RID chemistry. A backflow prevention device shall be installed in the supply line prior to the chemical introduction location (check local code). CHLOR\*RID is to be introduced at the approximate dilution of 1 US gallon per 100 US gallon of wash water. The operator shall apply the wash solution at the rate of approximately 300 square feet of surface area per 100 US gallons of wash solution. The high pressure washer is to be equipped with a 0 degree rotating nozzle (0 to 15 degree flat fan nozzle may be acceptable) and the nozzle is to be held a minimum of 4" to a maximum of 10" from the surface being washed.

After an area of approximately 25 square feet has been washed, the surface is to be tested for soluble salt contamination by means of CHLOR\*TEST<sup>TM</sup> (insert other acceptable test method). If the contamination level is above or below the required level, the square foot application rate may be decreased or increased as necessary, with another test performed to ensure cleanliness at the adjusted application rate. This may be done several times to determine the most economical application rate needed to remove the soluble salts to the required level. Both travel speed and/or dilution rate may be adjusted to achieve the desired results. After washing, excess water is to be blown off with clean dry compressed air (insert air quality standard) or fan.

After determining that soluble salts are not in excess of (insert acceptable level) by the prescribed test method, proceed to abrasive blast the surface to (insert blast standard) standard for final surface preparation.

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#### CHLOR\*RID® SPECIFICATION "E"

#### \*HIGH-PRESSURE OR ULTRA HIGH PRESSURE WATER JET\*

E). High pressure water jet or ultra high pressure water jet with a high pressure washer at a minimum of (specify psi). The wash water is to be of potable quality and CHLOR\*RID is to be added by means of a pressure pump or injector capable of overcoming the inlet line pressure, or from a pre-mixed holding tank. This is necessary to assure the introduction of the CHLOR\*RID chemistry. A backflow prevention device shall be installed in the supply line prior to the chemical introduction location (check local code). CHLOR\*RID is to be introduced at the approximate dilution of 1 US gallon per 100 US gallon of wash water. The operator shall apply the wash solution at the rate of approximately 300 square feet of surface area per 100 US gallons of wash solution.

After an area of approximately 25 square feet has been washed, the surface is to be tested for soluble salt contamination by means of CHLOR\*TEST<sup>TM</sup> (insert other acceptable test method). If the contamination level is above or below the required level, the square foot application rate may be decreased or increased as necessary, with another test performed to ensure cleanliness at the adjusted application rate. This may be done several times to determine the most economical application rate needed to remove the soluble salts to the required level. Both travel speed and/or dilution rate may be adjusted to achieve the desired results. After washing, excess water is to be blown off with clean dry compressed air (insert air quality standard) or fan.

After determining that soluble salts are not in excess of (insert acceptable level) by the prescribed test method, proceed to water blast the surface to (insert blast standard) standard for final surface preparation. After blasting, the surface is to be blown dry with clean compressed air (insert air quality specification) or fan.

Insert any balance of the water jetting specification as necessary, such as: The water jet system is to equipped with a (specify) nozzle and the nozzle is to be held a minimum of (specify distance) from the surface being washed.

### CHLOR\*RID® SPECIFICATION "F" \*HAND WASHING\*

F). Hand washing is to be done for contaminate removal in areas of spot repair or areas very small in size. Any loosely adhered paint, rust scale, corrosion deposits or other barrier material is to be removed first. This is to be done by means of abrasive blast to (insert specification) or by hand or power tools as per (insert specification). Apply CHLOR\*RID DTS (Direct To surface) material sufficient to wet out the entire surface. The DTS solution is to be scrubbed over the surface vigorously with a nylon bristle brush or similar tool. After scrubbing is completed, the surface is to be rinsed and flushed with a quantity of the same wash solution. After rinsing, the surface is to be blown dry with clean compressed air (insert air quality specification) or fan. The surface is to then be tested by CHLOR\*TEST test kit (or other acceptable test method) to ascertain the contaminant level is below (insert specified acceptable level). Any test area that is confirmed to be in excess of the acceptable level of soluble salts is to be rewashed in the above manner until a clean surface is achieved.

After an area of approximately 25 square feet has been washed, the surface is to be tested for soluble salt contamination by means of CHLOR\*TEST<sup>TM</sup> (insert other acceptable test method). If the contamination level is above or below the required level, the square foot application rate may be decreased or increased as necessary, with another test performed to ensure cleanliness at the adjusted application rate. This may be done several times to determine the most economical application rate needed to remove the soluble salts to the required level. Both travel speed and/or dilution rate may be adjusted to achieve the desired results. After washing, excess water is to be blown off with clean dry compressed air (insert air quality standard) or fan.

#### CHLOR\*RID® SPECIFICATION "G"

#### \*PRESSURE WASH - CONCRETE, W/WO DRY ABRASIVE BLAST\*

G). Abrasive blast the entire surface to be coated to a (insert blast standard) finish. (If abrasive blast is not desired, delete the first sentence.). Pressure wash with a minimum of 3000 psi. The wash water is to be of potable quality and CHLOR\*RID is to be added by means of a pressure pump or injector capable of overcoming the inlet line pressure, or from a pre-mixed holding tank. This is necessary to assure the introduction of the CHLOR\*RID chemistry. A backflow prevention device shall be installed in the supply line prior to the chemical introduction location (check local code). CHLOR\*RID is to be introduced at the approximate dilution of 1 US gallon per 100 US gallon of wash water. The operator shall apply the wash solution at the rate of approximately 300 square feet of surface area per 100 US gallons of wash solution. The high pressure washer is to be equipped with a 0 degree rotating nozzle (0 to 15 degree flat fan nozzle may be acceptable) and the nozzle is to be held a minimum of 4" to a maximum of 10" from the surface being washed.

After an area of approximately 25 square feet has been washed, the surface is to be tested for soluble salt contamination by means of CHLOR\*TEST<sup>TM</sup> (insert other acceptable test method). If the contamination level is above or below the required level, the square foot application rate may be decreased or increased as necessary, with another test performed to ensure cleanliness at the adjusted application rate. This may be done several times to determine the most economical application rate needed to remove the soluble salts to the required level. Both travel speed and/or dilution rate may be adjusted to achieve the desired results. After washing, excess water is to be blown off with clean dry compressed air (insert air quality standard).

Any test area that is confirmed to be in excess of the acceptable level of soluble salts is to be rewashed to achieve a clean surface. As work progresses soluble salt tests are to be performed in the prescribed manner every (stipulate frequency wanted) square feet (or square meters) to ascertain cleanliness to meet the required level.

# CHLOR\*RID STRUCTURAL

**CHLOR\*RID STRUCTURAL** 

aids in the removal of chlorides, sulfates, nitrates and other problematic soluble salts.

**CHLOR\*RID STRUCTURAL** 

is biodegradable, all organic, non- hazardous and contains no VOCs.

**CHLOR\*RID STRUCTURAL** 

is easy to use, economical, effective, and requires no special equipment.

The easiest and most economical way to remove soluble salt contaminants-chemically engineered to provide excellent performance for atmospheric service.



#### CHLOR\*RID STRUCTURAL™

#### **Liquid Salt Remover**

**Provides** 

**Enhanced Adhesion** 

**Excellent Salt Removal** 

**Economical Proven Performance** 

**Environmentally and User Friendly** 

#### **CHLOR\*RID STRUCTURAL**

is specially formulated for atmospheric service and is more economical than multiple water washes.

~ All Organic ~ Non-hazardous ~ Biodegradable ~

**CHLOR RID International Inc** 

800.422.3217 480.821.0039

www.chlor-rid.com info@chlor-rid.com



#### CHLOR\*RID STRUCTURAL<sup>TM</sup> LIQUID SOLUBLE SALT REMOVER

#### **DATA SHEET**

**DESCRIPTION:** CHLOR\*RID STRUCTURAL is a chemically engineered to aid in the removal of chlorides, sulfates, nitrates and surface reacted salts. Contains no volatile organic compounds (VOC's), and is biodegradable.

CHLOR\*RID STRUCTURAL is recommended for use as part of surface preparation prior to application of primers or coatings on a variety of surfaces, including ferrous and non-ferrous metals, concrete, wood, plastics and others.

**SURFACE PREPARATION:** Best surface preparation yields the best results. If hydrocarbons are present, they should be removed prior to salt removal. Barrier materials, such as rust or scale or delaminated coatings, should be removed prior to salt removal. Sufficient mechanical force, such as high pressure water or wet abrasive blast, may be utilized so barrier materials are removed as part of salt removal procedures.

**APPLICATION:** CHLOR\*RID STRUCTURAL is usually applied by pressure washer but other methods can be used. See Direction Sheet for best methods. Contact CHLOR RID International, Inc. or an Authorized Distributor for other methods or technical support.

Prior to cleaning or blasting, test surfaces for contaminants with the CHLOR\*TEST<sup>TM</sup> kit. After cleaning or blasting a small sample area, retest to verify cleanliness. Adjust speed of travel, pressure or dilution as necessary and retest to verify desired cleanliness level is attained. It is not necessary to use the entire contents. Partially filled containers should be closed tightly.

#### **EQUIPMENT CLEANUP**: Flush with clean fresh water.

\* Typical coverage: 200-500 Sq. Ft./ Gal. 
\* Single Component

\* No VOC's 

\* Shelf Life: 36 months

\* pH 3.3 (+/-.2) \* Application Temperature:  $+32^{\circ}$  F

\* Keep from freezing – if frozen, thaw before use. 
\* Non-Flammable

**WARRANTY:** CHLOR RID International Inc. warrants this product to be identical in chemical and physical properties from batch to batch within the specification limits of the raw materials used in their manufacture.

SAFETY PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. Do not mix with other chemicals. See M.S.D.S. for full precautions prior to use. This product is intended for professional use only.



## CHLOR\*RID STRUCTURAL<sup>TM</sup> LIQUID SOLUBLE SALT REMOVER DIRECTIONS

**DESCRIPTION:** CHLOR\*RID STRUCTURAL is chemically engineered to aid in the removal of salts from surfaces intended for atmospheric service. It is commonly used as part of surface preparation prior to applying protective coatings, but it is also used for surface decontamination of uncoated surfaces. For marine, immersion service and non-ferrous metals use original CHLOR\*RID concentrate.

HIGH PRESSURE WASHING: CHLOR\*RID STRUCTURAL is added to the water of a pressure washer, usually in a dilution ratio of 1:50. The application rate is dependent on the contamination level and water quality. Add by means of a metering pump or add to a reservoir water supply. A siphon device may be used, but most such devices lack dilution control and positive input. Use potable water or other approved source. A minimum 3000 p.s.i. pressure washer is recommended. Begin work at the top and work down. Hold pressure nozzle perpendicular to the surface and at 6 to 12 inches away to ensure all surfaces are washed with direct high pressure. In areas of deep pitting, slow the wash speed to enable CHLOR\*RID STRUCTURAL to penetrate. Do not rinse. Typical application rate is 200 to 500 Sq. Ft. per gallon.

**HAND WASHING**: Use CHLOR\*RID DTS<sup>TM</sup> (Direct To Surface) according to directions. CHLOR\*RID DTS is ready to use direct from the container- no dilution necessary.

**WET ABRASIVE BLASTING:** Use original CHLOR\*RID concentrate. See CHLOR\*RID Directions for Wet Abrasive Blasting instructions.

Prior to cleaning or blasting, test surfaces for contaminants with the CHLOR\*TEST<sup>TM</sup> kit. After cleaning or blasting a small sample area, retest to verify cleanliness. Adjust speed of travel, pressure or dilution as necessary and retest to verify desired cleanliness level is attained.

Due to a wide variety of surface conditions, work environments, weather conditions, etc., these directions are general and may require alterations to better suit individual conditions. Call CHLOR RID International Inc. for recommendations for a specific project. Always use appropriate safety equipment.

Limited Warranty: There are no warranties, express or implied or representations made by the Company in connection with this product. Under no circumstances and in no event shall the Company be or become liable or responsible for losses, claims, lost profits or consequential damages of any kind. The sole and only remedy that may be asserted against the Company is limited to the replacement value of the product. CHLOR RID International Inc. assumes no liability for use or misuse of the product inconsistent with its labeling.

**SAFETY PRECAUTIONS:** KEEP OUT OF REACH OF CHILDREN. Do not mix with other chemicals. See M.S.D.S. for full precautions before use.

## The unseen enemy of coatings and linings lurks beneath the surface

The greatest nemesis facing the coating and lining industry is the corrosive power of saluble salts. According to exhaustive research, nearly 80 percent of all premature coating failures are caused by chlorides and sulfates lurking beneath the coating surface.

## Out of sight, out of mind?

The electrochemical bonding of soluble salts to substrates defies all but the most forceful removal attempts. While a number of methods are used, surface attached soluble salts are nearly impossible to remove. When non-visible soluble salts remain, your surface preparation will not prevent early coating failure. Is this risk worth taking?



#### Introducing

## New CHLOR\*RID DTS™ (Direct-To-Surface) Liquid Soluble Salt Remover

Same reliable CHLOR\*RID®. New pre-mix formula.

With its patented organic bonding chemistry, CHLOR\*RID® stands in a class of its own as the surest, safest, most cost-effective way to remove soluble salt contamination. CHLOR\*RID® strips chlorides and sulfates from industrial surfaces by ionization energy. Your surfaces are prepared... and so are you!

#### New CHLOR\*RID DTS™! Ready to use. Better than ever!

- No field mixing or dilluting
- No special application equipment needed
- No high cost
- No harsh chemicals, no health hazards, no certifications
- No residue left behind
- Apply by brush, roller, or spray application, then rinse off
- Unparalleled, proven results around the world

#### Recommended for use on:

- Bridge structures
- Ships and marine structures, in atmospheric service
- Aircraft and aerospace equipment
- Mining facilities
- Storage tanks and cooling towers
- Public utilities
- Power generation plants
- Natural gas plants
- Offshore drilling rigs
- Petrochemical installations
- Pulp and paper mills, saw mills
- · Steel fabrication, piping
- · Electronics and process equipment

Proven effective on virtually any surface where the protective coating is threatened by corrosion from soluble salts.

Call us today, or visit our Website for more information on breakthrough products from CHLOR\*RID® International.

CHLOR\*RID International Inc.

P.O. Box 908

Chandler, AZ 85244

Tel: 480-821-0039

Fax: 480-821-0364

Toll Free: 1-800-422-3217

Website: www.chlor-rid.com

We make it easier for you.



## CHLOR\*RID DTS™ Data Sheet (Direct To Surface)

DESCRIPTION: CHLOR\*RID DTS is a ready to use organic bonding chemical blend which aids in the removal of chlorides, sulfates and most other soluble salts; contains no volatile organic compounds (VOC's), and is biodegradable.

USES: CHLOR\*RID DTS is recommended as a wash solution prior to application of primers or coatings on a variety of surfaces, including ferrous and nonferrous metals, concrete, wood, plastics and others. For a full list contact Mfg.

SURFACE PREPARATION: Best surface preparation yields best results.

APPLICATION: Application methods vary. (See Directions).

EQUIPMENT CLEANUP: Flush with clean fresh water.

It is not necessary to use entire contents. Partially filled containers should be closed tightly. Keep from freezing.

Color: Light green Single component

Typical coverage: 300 square feet per gallon

No VOC's
Shelf life: 24 months

PH 3.4 (+-.2)

Application temperature: 35 to 211F. Packaging: 5/55 gallon

WARRANTEE: CHLOR\*RID International Inc. warrants this product to be identical in chemical and physical properties from batch to batch within the specification limits of the raw materials used in their manufacture.

SAFETY PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. Do not mix with other chemicals.

See Material Safety Data Sheet for full precautions prior to use.

Made in U.S.A. - Patented Product

## CHLOR\*RID DTS™ (Direct To Surface) Directions

The use of this product is extremely easy and it is quite effective at removing soluble salts, but the directions must be followed closely. This product is not intended to be a degreaser. Any grease or oil film should be removed first. This product is intended for use in surface preparation for atmospheric service coatings. There are just three easy steps.

#### **Step 1. Remove Barrier**

Soluble salts adhere themselves to the substrate. For the effective use of this product, the product must be able to come in contact with the salts. These salts are beneath any rust scale or blistered or damaged coating, therefore, these barriers must be removed prior to application of this product. This may be accomplished by wet or dry abrasive blasting, water jetting, power tool cleaning or hand tool cleaning. As in all surface preparation, the best work yields the best result.

#### Step 2. Apply CHLOR\*RID DTS

Apply CHLOR\*RID DTS directly onto the substrate. Sufficient product must be applied uniformly across the substrate to thoroughly wet out the surface, with no areas missed. This may be accomplished by whatever method you choose, such as an airless sprayer, roller, brush, pump up sprayer or conventional spray gun. The method does not matter, as long as the entire area to be cleaned is wetted. For most application, an application rate of approximately 300 Sq. Ft. per gallon is satisfactory. After the substrate has been thoroughly wetted, the salts will have been solubilized and now it is only necessary to rinse them off.

#### Step 3. Rinse

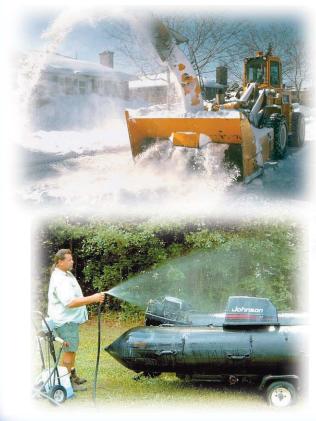
It is highly recommended that a pressure washer be used for the rinse off step, but a hose may be used if a pressure washer is not available. The water to be used for the rinse is recommended to be of potable quality, though a lesser quality of water may be used if a small amount of CHLOR\*RID DTS is added. Check with CHLOR\*RID International, Inc. for recommendations on lesser quality rinse water. If flash rust is encountered or undesirable, a small amount of CHLOR\*RID DTS may be added to the rinse water to avoid or reduce flash rust. A dilution ratio of 50:1 is recommended for potable water, dependent upon water quality.

SAFETY PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. Do not mix with other chemicals. See Material Safety Data Sheet for full precautions prior to use.

Made in U.S.A. - Patented Product

## REMOVE SALTS AS YOU CLEAN!





#### **Reduce Corrosion**



**Remove Dirt & Salts** 

#### 

- Specially formulated to wash all surfaces of salt and dirt.
- Maximum performance yet is safe to the environment.
- For use in pressure washers and hand washing applications.
- Performance chemical blend designed to remove road film, dirt, de-icing salts, marine salts & acid rain residue.



## Introducing CFIFOR\*WASIC Multi-Purpose Gleaner & Salt Remover

- Easy to use
- Low cost
- Biodegradable
- Concentrated
- Non-hazardous
- No residue
- No VOC's
- Non-flammable

#### 

is recommended for use as a maintenance wash solution to reduce build-up of dirt and salt which causes corrosion.

#### Recommended for use

Anywhere that dirt and salts need to be removed as a maintenance wash

• Bridges

- Boats
- Trucks & Trailers
- Piping
- Salt Spreaders
- RV's
- Buildings
- Snow Removal Equipment
- Concrete & Masonry



#### CHLOR•RID International Inc.

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#### **DIRECTIONS**

#### CHLOR\*WASH

#### MULTI-PURPOSE CLEANER & SALT REMOVER

**DESCRIPTION:** CHLOR\*WASH is an organic bonding chemical blend which aids in the removal of road films, dirt, and chloride, sulfate and nitrate salts. It contains no volatile organic compounds (VOC) and is non-flammable. CHLOR\*WASH is biodegradable and therefore is an integral part of a sustainable environment.

**PRESSURE WASHING:** CHLOR\*WASH may be added to the water of the pressure washer, usually in a dilution ratio of 1:12. Add CHLOR\*WASH by means of a metering pump, a reservoir water supply or a siphon device. Use potable water or other approved source. Flush washer and lines prior to application. In areas of heavy contamination, slow the wash speed to enable CHLOR\*WASH to penetrate.

**HAND WASHING**: May be sprayed onto a surface full strength using a garden type sprayer, then rinse off. Scrubbing with a nylon bristle brush may be implemented to assist in removal of heavy buildup.

Due to a wide variety of surface conditions, work environments, weather conditions, etc., these directions are general and may require alterations to better suit individual conditions. Call CHLOR\*RID International Inc. for recommendations for a specific project. CHLOR\*RID International Inc. assumes no liability for use or misuse of the product inconsistent with its labeling.

**WARRANTY:** CHLOR\*RID International Inc. warrants this product to be identical in chemical and physical properties from batch to batch within the specification limits of the raw materials used in its manufacture.

**SAFETY PRECAUTIONS:** KEEP OUT OF REACH OF CHILDREN. Do not mix with other chemicals. See M.S.D.S. for full precautions before use. This product is intended for professional use only.



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#### DATA SHEET CHLOR\*WASH

#### MULTI-PURPOSE CLEANER & SALT REMOVER

**DESCRIPTION:** CHLOR\*WASH is an organic bonding chemical blend which aids in the removal of road films, dirt, and chloride, sulfate and nitrate salts. It contains no volatile organic compounds (VOC) and is non-flammable. CHLOR\*WASH is biodegradable and therefore is an integral part of a sustainable environment.

CHLOR\*WASH is recommended for use in a maintenance wash solution to reduce daily build-up of dirt and salt which causes corrosion.

**APPLICATION:** CHLOR\*WASH can be applied by a variety of methods. See Directions. Mechanical or hydraulic force, such as hand brushing or pressurized water may be utilized so barrier materials are removed as part of salt removal procedures.

It is not necessary to use the entire contents. Partially filled containers should be closed tightly.

**EQUIPMENT CLEANUP:** Flush with clean fresh water.

\* Color: Yellow \* Packaging: 1/5/55 U.S. Gallon

\* Non-Flammable

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## HOLD\*BLAST

**Surface Passivator** 



An easy to use and economical product that stops flash rust— in an environmentally friendly and non-hazardous manner

## **HOLD THAT BLAST!**

HOLD\*BLAST prevents flash rust for days and days...



**HOLD\*BLAST** is an active surface passivator.

### HOLD\*BLAST™

#### Wet abrasive blasting?—Just add it to the water

Use a 1:50 to 1:250 dilution, depending on water quality, contamination and environmental considerations.

#### Dry blasting?—Do a quick pressure wash afterwards

With most potable water use a 1:50 dilution—dilute it even further when using quality water.

#### Cost considerations?—HOLD\*BLAST is affordable!

'Hold the blast" it costs only pennies per square foot.

#### Adhesion concerns?—Not a problem!

This product does not leave a residue that interferes with coating adhesion.

## Use HOLD\*BLAST on your next project to prevent flash rust! CHLOR\*RID International, Inc.

1-800-422-3217 • ph: 480-821-0039 • fax: 480-821-0364 P.O. Box 908 • Chandler, Arizona 85244 **www.chlor-rid.com** 





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#### HOLD\*BLAST<sup>IM</sup> Surface Passivator

#### **DIRECTIONS**

The use of this product is to prevent flash rust through surface passivation.

Apply HOLD\*BLAST\*M in a dilution of 1:50 with potable water directly onto the substrate (1 part HOLD\*BLAST to 50 parts water). Sufficient product must be applied uniformly across the substrate to thoroughly wash the surface, with no areas missed. This may be accomplished by various methods, such as pressure washer, airless sprayer, conventional sprayer, roller, brush, pump up sprayer, after UHP Waterjetting or during wet abrasive blasting. Wet abrasive blasting or slurry blasting typically allow much higher dilution rates, often up to 1:250. It is recommended to start work at the highest point and progress downwards. After the substrate has been thoroughly washed it should be allowed to dry, or be dried, prior to coating application. Usually, dilution may be increased with good quality water and/or low salt contamination levels. Poorer quality water can often be used, but will require a higher concentration of HOLD\*BLAST. Water quality, salt contamination levels, humidity and temperature are all variables that can affect dilution rates and results. Test on a small area and adjust the dilution rate until the desired results are obtained.

It is highly recommended that a minimum of a 1500 psi. pressure washer be used. This is to ensure "driving" the solution into the profile of the surface.

Typical time for "holding the blast" is 72 hours or longer with no rain, dew or condensation on the surface. In highly humid environments, with surfaces contaminated with low salt levels, the 1:50 dilution should be sufficient. In low humidity and low salt levels the dilution ratio may be extended.

Excess or puddled water should be swept, wiped or blown from flat surfaces.

#### Contact CHLOR\*RID International, Inc. for additional recommendations.

After application of HOLD\*BLAST, surfaces should always be tested to assure remaining soluble salts are at an acceptable level. High levels of soluble salts will cause premature coating failure and degradation of the substrate. Test for levels of chlorides and nitrates with the standard CHLOR\*TEST kit. Test for levels of chlorides, sulfates and nitrates with the CHLOR\*TEST "CSN Salts" kit. Both kits offer the highest degree of accuracy and are the easiest to use of any complete field test kit available.

This product leaves no chemical residue, is biodegradable, non-hazardous and is a safe and effective alternative to hazardous chemical rust inhibitors.

SAFETY PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. Do not mix with other chemicals. See Material Safety Data Sheet for full precautions prior to use.



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### **HOLD\*BLAST™**Surface Passivator

#### **Data Sheet**

**BENEFIT:** As a surface passivator, HOLD\*BLAST chemically changes the active surface of metal to a much less reactive state. Surface corrosion can occur when water wet surfaces react with atmospheric oxygen. This often results in the formation of flash rust, which can be eliminated with the use of HOLD\*BLAST. This product passivates the surface to stop the formation of surface rust for long periods of time, often several days.

**DESCRIPTION:** HOLD\*BLAST is a concentrated organic chemistry which is added to water. This biodegradable product does not leave a film or residue to interfere with coating adhesion.

**USES:** HOLD\*BLAST is a cost effective, environmentally safe, coating friendly additive to prevent flash rusting.

Use in a solution with water:

after:

- \* dry abrasive blasting
- \* power tool cleaning
- \* UHP WaterJetting

or during:

- \* water washing
- \* wet abrasive blasting
- \* slurry blasting

**SURFACE PREPARATION:** Many specifications require no flash rust. This product will help meet that specification.

**APPLICATION:** Application methods vary. (See Directions).

**EQUIPMENT CLEANUP:** Flush with clean fresh water.

It is not necessary to use entire contents. Partially filled containers should be closed tightly.

Shelf life: 36 months Application temperature: 35 to 211F

Solubility: Complete

Non-flammable

Color: Colorless

Storage: Out of direct sunlight, avoid freezing

Odor: Slight pleasant odor

Single component pH 10.8 (+/- 0.2) Packaging: 5/55 gallon Phosphates: NONE

Biodegradable Non-hazardous No VOC's

**WARRANTY:** CHLOR\*RID International Inc. warrants this product to be identical in chemical and physical properties from batch to batch within the specification limits of the raw materials used in their manufacture.

**SAFETY PRECAUTIONS:** KEEP OUT OF REACH OF CHILDREN. Do not mix with other chemicals. See Material Safety Data Sheet for full precautions prior to use.

## CHLOR\*TEST



An easier to use, more accurate field test for chloride contamination

#### Revolutionizing the Industry!

Field Testing for chlorides by both qualitative and quantitative methods, is common and the threshold for acceptable levels is dropping, but the cumbersome methods for testing have remained the same – *until now!* 

#### CHLOR\*TEST™ – the new way to perform field testing — revolutionizing the industry!

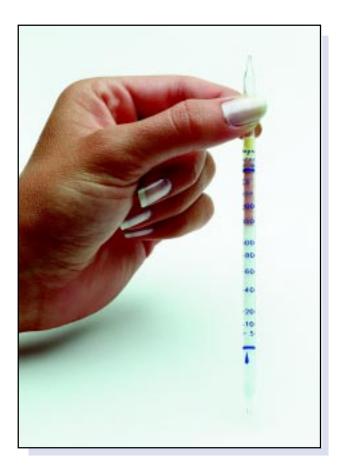
CHLOR\*TEST™ is so complete and easy to use that even the least experienced inspector can get accurate results. Imagine, a field test that is easy to use, yet more reliable than any other method of testing.

CHLOR\*TEST was developed for ease of use and to prevent outside and cross contamination. The components are premeasured to ensure accurate results in parts per million and micrograms per centimeter square. In addition, no temperature correction is needed for 41°F to 176°F. Field test inspectors around the world will use this innovative product with confidence on virtually any surface at any angle.

The CHLOR\*TEST uses a unique patented extract solution, CHLOR\*EXTRACT™, to retrieve surface chloride contamination. In the field, this special extract enhances retrieval rates, thereby increasing accuracy. The greater the retrieval rate, the more accurate the test results.

When specifications require consistent, safe and reliable testing results for chloride contamination, use CHLOR\*TEST. Each CHLOR\*TEST kit contains five (5) individual tests. CHLOR\*TEST is designed to be used on vertical, horizontal or overhead surfaces.





CHLOR\*TEST is another dependable product developed and manufactured by CHLOR\*RID International, Inc. Since 1994, CHLOR\*RID International, Inc. has earned the reputation of a world leader in soluble salt removal while satisfying the most aggressive requirements in the protective coatings industry.

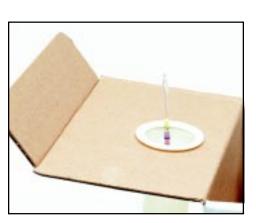
#### CHLOR\*TEST is so revolutionary, an inspector will never need:

- · Hypodermic needle and syringes
- Deionized water
- Cotton Balls
- Tweezers
- · Latex gloves
- A Calculator
- Adhesive tape
- Measuring devices
- Working containers
- Conversion charts
- · Reagent chemicals

#### A Testing Process As Easy As 1 - 2 - 3!



I Empty the entire contents of the CHLOR\*EXTRACT™ container into the CHLOR\*SLEEVE™. Peel off the protective backing, pinch the sleeve to expel some of the air and adhere the sleeve to the surface to be tested.



Massage the extract against the surface; then peel the sleeve off the surface and place it in the perforated hole in the box lid.



Snap the sealed ends off the glass tube, insert it into the sleeve and down into the extract. In about two minutes read the color change to identify the chloride level in both parts per million and micro grams per centimeter squared, the ratio is 1:1.

#### **Recommend** CHLOR\*TEST for use on:

- Bridges
- Aircraft
- Mining facilities
- Ships
- Marine structures
- · Storage tanks
- Cooling towers

- Pipe lines
- Power plants
- Offshore rigs
- · Petrochemical plants
- Pulp and Paper mills
- · Steel fabrication
- Electronics

CHLOR\*TEST™
the revolutionary
new method
for testing chloride
contaminants is
the most accurate
field test on the
market today.

Patent Pending

Maximize corrosion protection – Reduce premature coating failure

Test every surface before coating application.

## CHLOR\*TEST™ "CSN Salts"

(Chloride / Sulfate / Nitrate Ion Tests For Surfaces)



The World's most complete "salt" field test kit for surfaces.

#### **CHLOR\*TEST"CSN Salts"**

Most specifications do not address sulfates or nitrates because there has never been a sulfate or nitrate field test kit. **Now** there is a complete field test kit available that tests all three salts.

CHLOR\*TEST "CSN Salts" offers the specifier the availability of trouble-free performance testing, in the field, for chlorides, sulfates, and nitrates with **one** extraction.



Nitrate Testing is easy and measures a wide 0-50 ppm range.



The CHLOR\*TEST "CSN Salts" uses a unique patented extract solution, CHLOR\*EXTRACT™, to retrieve surface salt contamination. This special extract enhances retrieval rates, thereby increasing accuracy. The greater the retrieval rate, the more accurate the test results.

Surface sampling is simplified by use of the patented CHLOR\*SLEEVE™. Sampling can be done overhead, vertically, horizontally or any angle with this device.

Cross contamination is eliminated with one-time use components.

Easy to perform does not require special training.

- All test results are measured directly in parts per million.
   No conversion charts are needed.
- Parts per million readings are a 1 to 1 ratio to micrograms per square centimeter. No mathematical calculations are necessary.



#### A New Generation of Test Kits

EPA compliant • No need to select a low or high range. Meters range is 0 – 100ppm with auto ZEROING.

**Digital direct readings** with a large 3-1/2 digital display incorporating low-battery warning.

European CE Mark of compliance for electromagnetic compatibility and safety.

Quantitative results are achieved in minutes. Each kit contains (5) individual tests with new refill kits available.



All components are pre-measured and pre-dosed for accuracy.

#### **Colorimeter Specifications**

- Water resistant design
- Auto zero
- Hinged light cover
- Digital direct readings
- European CL-Mark compliant
- EPA Compliant
- 9-volt power source (included)
- Single wavelength
- Photometric ±0.001 absorbancy
- Accuracy +/- 1ppm
- Low battery warning (BAT)
- Overrange (Er2)
- Burnt out bulb (Er3)

#### **Optional Accessories**

- AC adapter 110 60Hz/220 50 Hz
- RS-232 Interface Cable

#### CHLOR\*TEST™ "CSN" SALTS kit is recommended for surface testing on:

- Bridges
- Aircraft
- Mining facilities
- Ships
- Marine structures
- Storage tanks
- Cooling towers

- Pipe lines
- Power plants
- Offshore rigs
- Petrochemical plants
- Pulp and paper mills
- Steel fabrication
- Electronics

#### CHLOR\*TESTTM "CSN Salts"

The revolutionary new method for testing salt contamination is the most accurate field test on the market today.

Maximize corrosion protection — Reduce premature coating failure

Test every surface before coating application.

Another dependable product developed and manufactured by CHLOR\*RID International, Inc.

When specifications require testing for chlorides, sulfates and nitrates, call your local distributor for

#### CHLOR\*TEST™ "CSN Salts."

The World's most complete "salt" field test kit for surfaces.



#### CHLOR\*RID®

800-422-3217 ■ 480-821-0039 Fax 480-821-0364 P.O. Box 908 Chandler, Arizona 85244

www.chlor-rid.com

email: info@chlor-rid.com





(Chloride Ion Test for Abrasives)



An easy to use, accurate field test for chloride contamination of abrasives

#### Prevent coating failure before you cause it!

Many coatings have failed from chlorides deposited on a surface by contaminated abrasive. Finally, there is a test that you can do in the field in minutes! No more sending samples to a laboratory; no waiting days for results; no high cost.

CHLOR\*TEST™ "A" is the only complete and easy to use abrasive test kit – even the least experienced tester can get accurate results.

When specifications require consistent, safe, reliable testing of abrasives, use CHLOR\*TEST "A". Each kit contains four (4) individual tests.

Don't cause your coating to fail because of contaminated abrasive.

A self contained, accurate, and reliable test kit. CHLOR\*TEST "A" provides results in minutes.



CHLOR\*TEST "A" uses ASTM D4940 principles, but offers the additional value of chloride ion specific measurement.



Cross contamination, from test to test, is eliminated through one time use of individual components. The components are premeasured to ensure accurate results in parts per million. In addition, no temperature correction is needed from 41°F to 176°F. Use this innovative product confidently with any abrasive.

CHLOR\*RID International, Inc., a world leader in soluble salt removal and testing since 1994.



#### CHLOR\*RID International Inc.

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Another dependable product developed and manufactured by CHLOR\*RID International, Inc.



(Chloride Ion Test for Water/Liquids)



## An easy to use, accurate field test for chloride contamination

#### Is your wash water contaminated with chlorides?

Many coatings have failed from chlorides deposited on a surface by contaminated water. Finally, there is a test that you can do in the field in minutes! No more sending samples to a laboratory; no waiting days for results; no high cost.

CHLOR\*TEST™ "W" is a complete, ready to use test kit. Even an inexperienced person can accurately measure chloride levels.



When specifications require consistent, safe and reliable testing for chloride contamination, use CHLOR\*TEST "W". Each kit contains everything needed to perform five (5) individual tests.

Test water for:

Pressure Washing

 UHP Water Jetting

 Wet Abrasive Blasting

## Most potable water is chlorinated.

CHLOR\*TEST "W" was developed for field and laboratory use. Cross contamination from test to test is eliminated through one time use individual components. Accurate results in parts per million

are obtained. No temperature correction is needed from 41°F to 176°F. Testers around the world will use this innovative product with confidence.

Whether in the laboratory or out at the job-site, obtain accurate ion specific measurement of chlorides from 0 - 2,000 ppm. Use CHLOR\*TEST "W" for water and many other liquids.

CHLOR\*RID International, Inc., a world leader in soluble salt removal and testing since 1994.



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## CHLOR\*TEST" "C"

(Chloride Ion Test for Concrete)

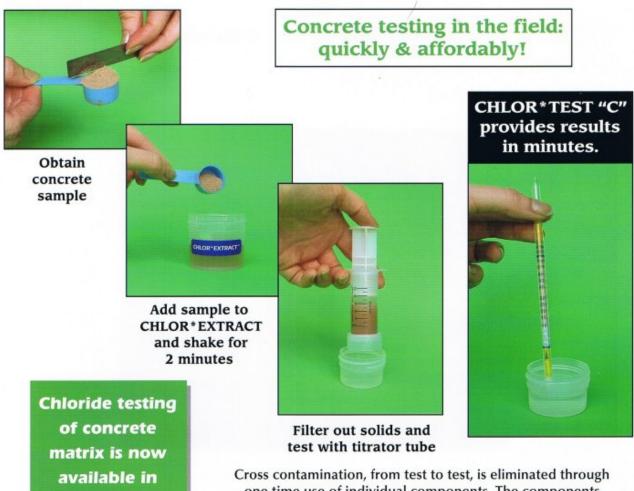


An easy to use, accurate field test for chloride contamination in concrete

#### Detect & measure chlorides in concrete

Chloride penetration into concrete frequently causes corrosion of rebar and other steel.

CHLOR\*TEST "C" is the only complete and easy to use concrete test kit - even an inexperienced person can get accurate results.



one time use of individual components. The components are pre-measured to ensure accurate results in parts per million. In addition, no temperature correction is needed from 41 F to 176 F.

Use this innovative product confidently on your project.



an economical,

easy to use

field test kit.

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