



RUST X

Product Data Sheet

Description: Scientists interested in the properties of the bark of a mimosa tree discovered that the secret of metal protection lay in the acid content, tannic acid. Various combinations of chemicals were added and after years of exhausted research, the eventual result was Rust-X, a tannic acid, water-base, non-toxic, non-flammable product. Rust-X is the universal pre-treatment for rust ferrous metals which converts rust to a stable black surface of iron tannate and magnetite, creating a chemical reaction of chelation forming a strong matrix adhering to the parent metal.

Because Rust-X is water-based, it penetrates the porous rust surface and by-process of amalgamation converts rust so it can be over-coated with conventional painting systems.

History of Rust X: The problem of rust is all around us; in cars, boats, trailers, tools and metals about the house. Until now traditional rust treatments and primers have only been temporary cover-ups for rust.

Since matter will attempt to reach the lowest potential, it is not surprising that iron attempts to return to its natural form, of oxides and hydroxides commonly referred to as rust. Rust is a growth reaction requiring various elements in order to develop.

Cover-up coating systems seek to exclude the surface from outside elements such as moisture, salts and airborne pollutants. However, its clear that any protection system is only as good as the surface to which it is applied. It is widely accepted that poor surface preparation is a major reason for subsequent coating failure. Any rust left beneath a coating system insidiously continues to multiply into the metal and eventually also expands out through the coating. All too often major damage to the surface occurs before it is detected.

For many years, the bark of the mimosa tree was recognized as a metal preservative. Although it did not return the metal to its original white base, it did produce an all over black dark surface, almost as if the metal had been painted. Recently an old sword was discovered which had been buried in the bark. Only traces of the bark were found but the blade of the sword was in remarkable state of preservation.

Uses: The many uses of Rust-X are as follows:

Easy application makes it suitable for large surfaces or small inaccessible areas wherever rust is present.

Rust-X is used as a primer on rusty metal for Poly Pro Polyurea: Poly Pro's adhesion to reacted Rust-X is incredible. Rust X has been used on roofs, stadiums and ships as a primer for Polyurea.

Rust-X is widely used in the transportation industry, oil and roofing. The high capital cost of commercial transport vehicles necessitates regular maintenance attention to ensure corrosion is prevented on trailers, panels, parts and oil rigs.

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Rust-X is also used in manufacturing construction. It is an ideal preparation of rusted metal prior to oxy-acetylene cutting and treated Rust-X surfaces can be also welded, galvanized or chromed. The application versatility of Rust-X allows items to be dipped, brushed, rolled or sprayed either in construction yards or on site.

Plates, pipes, flanges, joints or structural members can be protected prior to installation to reduce surface preparation costs on the job. Rust-X has also proven to be of great value in treating reinforced steel.

Rust-X can successfully treat rust affected areas prior to normal over-coating with automotive coatings.

Rust-X is also used in the shipping industry. It has a multitude of uses in the shipping industry where corrosion caused by the aggressive salt water conditions is an ever-present problem.

Bilges can be steam cleaned and treated with Rust-X, and 24 hours later, conventional over-coats can be applied. Hulls, deck areas, equipment and containers can all be successfully treated with Rust-X, with big savings for owners and operators.

The mining industries have utilized this product for a long time. Mining and quarrying operations are usually subject to intensely corrosive environments due to salts, water and chemicals.

Rust-X can prevent further corrosion attack on plant machinery, pipe fittings, threaded pipe ends and surfaces machined to close tolerances. High costs earth-moving equipment can also be protected so that maintenance down-times are reduced.

The agricultural industry has used Rust-X and has been approved for use in grain silos.

Farm machinery and equipment can also be easily treated with Rust-X as can storage tanks and sheds.

Other uses for this product consist of cars, bikes, cycles, boats, trailers, gates, fences, gutters, railings, freezers, appliances, tools, sheds, greenhouses, corrugated roofs, metal garden furniture, metal window frames and storage tanks.

Advantages: Rust-X eliminates expensive and messy sand-blasting or use of toxic acid penetrants because Rust-X neutralizes rust and acts as a primer on both rusted metal and previously painted surfaces.

Surface Preparation & Application: Preparation of Rust-X is as follows: Rust-X can be applied over bare metal, rusted areas or any other tightly adhered primer or paint that is on the surface, however, it is recommended that loose or flaky rust is removed along with all chemicals, oils or salt contaminants either by wire brushing or high pressure water treatment.

Rust X is easy to use as follows: Rust-X can be applied by conventional or airless spray machines, brush, roller or dipping. Rust-X can be applied to wet steel surfaces and in damp conditions. If sprayed, Rust-X may be diluted with water as needed for the particular spray pattern with the desired equipment being used. A minimum application temperature of 45°F is recommended and a maximum temperature recommended is

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100°F. After Rust-X has dried, it will work effectively to temperatures as low as -50 to -70 degrees. The maximum recommended used temperatures after drying is 250°F continuous or 350°F on a short-term exposure.

The treated surface may be left for several weeks but is recommended to over-coat with any conventional paints or automotive finishes.

Application makes it suitable for large surfaces or small inaccessible areas wherever rust is present.

Drying time depends on the drying conditions. Rust-X should be dried a minimum of 12 hours at low humidity and drying temperatures below 75°F.

Coverage: The coverage and clean-up consists of the following: The coverage will depend on the amount of rust left on the metal surface being treated. Generally, one medium coat covers approximately 400-500 sq. ft./gallon (on lightly rusted surfaces). If two coats are required, coverage will be in the range of 200-300 sq. ft./gallon.

Clean Up: When Rust-X dries, it is extremely difficult to remove. It is recommended that brushes, rollers, trays, paint-spray equipment, spills, etc., be cleaned with cold tap water and mild detergent as soon as possible. Use cold tap water for final rinse. If needed, a mixture of bleach and water, 50/50 is recommended for the removal of dried Rust-X.

Packaging: Rust-X is packaged for industrial use, in 5 gallon pails or 55 gallon drums.

Shelf Life: Rust-X can be safely stored for an indefinite period, so it pays to have Rust-X handy to treat any rust, once it appears. When stored longer than three months, agitate until uniform and use.

Physical Properties of Rust-X:

Base of product:	Tannin
Color:	White
Cure:	By reaction with rust
Coats:	Dependent upon corrosion, but normally one.
Coverage:	One medium coat, 450-500 sq. ft. per gallon Two thin coats, 250-300 sq. ft. per gallon
Reaction time:	24 to 48 hours
Specific gravity:	1.16
Solids:	40% ± 2%
pH:	Slightly acidic
Dilution & cleaning:	Fresh water
Shelf life:	Minimum of one year

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Safety: Non-toxic, non-flammable, not harmful to the environment. In case of contact with skin, Rust-X should be washed off with running water for 15 minutes. Use OSHA approved gloves and safety glasses when handling product.

Storage: Protect from freezing. Store at 50 degrees to 100 degrees

Dry Times: Dry to touch 30 mins. Re-coat 30 mins. after initial coat. Topcoat 24 to 72 hrs.

MATERIAL SAFETY DATA SHEET FOR: RUSTALIZER

NAME: RUST X

DATE: 1/20/94

MANUFACTURER'S NAME AND ADDRESS:

EMERGENCY TELEPHONE #:

**PRO SET
124 Gregory Drive
Monroe, LA 71202**

1-(318)-324-1929

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: RUST X

COLOR: WHITE LIQUID

CHEMICAL DESCRIPTION:

OTHER:

HAZARD RATING (NFPA DESIGNATION):

4 EXTREME 3 HIGH 2 MODERATE 1 SLIGHT 0 INSIGNIFICANT

**TOXICITY 1 FIRE 1 REACTIVITY 0
SPECIAL -**

SECTION II - INGREDIENTS INFORMATION

ACGIH	CAS #	AMT.	TWA-OSHA
1. Vinyl Acrylic Resin	Not Hazardous	28	None
2. Diethylene Glycol-ethylene	111-77-3	2	LD, 50 20 MI/kg
3. Proprietary Mixed Acid	N/A	3	Non-hazardous
4. Processing Aids. Various	N/A	2	pe: 5mg/m ³

SECTION III - PHYSICAL DATA

Specific Gravity 1.5
Boiling Point 212 F
Percent Volatile 40

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT, F, COC	Over 212 F
FLAMMABLE LIMITS	Not Applicable
AUTO IGNITION TEMP.	Not Applicable

SECTION V - REACTIVITY DATA

INSTABILITY This material is considered stable. However, avoid temperatures above 350 F, the on set of polymer decomposition. Thermal decomposition is dependent on the time and temperature.

INCOMPATIBILITY No known materials are incompatible with this item.

DECOMPOSITION PRODUCTS Thermal decomposition may yield acrylic monomers.

HAZARDOUS POLYMERIZATION Will not undergo polymerization

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

Threshold Limit Value: 660 ppm

Primary Routes of Exposure: Inhalation
Skin Contact

Inhalation: Inhalation of vapor or mist can cause the following: Headache - Nausea - Irritation of nose, throat, lungs.

Eye Contact: Direct contact can cause slight irritation.

Skin Contact: Prolonged or repeated contacted can cause slight irritation.

EMERGENCY FIRST AID PROCEDURES

INHALATION: Move subject to fresh air.

EYE CONTACT: Flush eyes with large amounts of water for at least 15 minutes. Consult physician if irritation persists.

SKIN CONTACT: Wash affected skin areas thoroughly with soap and water. Consult physician if irritation persists.

INGESTION: If swallowed, give 2 glasses of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.

SECTION VI - SPILL, LEAK, WASTE DISPOSAL PROCEDURES

PERSONAL PROTECTION Appropriate protective equipment must be worn when handling a spill of this material. See the **PERSONAL PROTECTION MEASURES** section for recommendations. If exposed to material during cleanup operation, see the **FIRST AID PROCEDURES** in section V for actions to follow.

PROCEDURES Keep spectators away. Floor may be slippery; use care to avoid falling. Contain spills with inert materials (sand-earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal. **CAUTION:** Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

SECTION VII - SPECIAL PROTECTION INFORMATION

RESPIRATOR PROTECTION: Not required if for normal operation

EYE PROTECTION: Chemical splash goggles (ANSI Z87.1 or equal)

HAND PROTECTION: Neoprene gloves may provide permeation protection.

COMMENTS:

FIRE FIGHTING INFORMATION

PERSONAL PROTECTIVE EQUIPMENT Wear MESA/NIOSH approved self-contained breathing apparatus and full protective gear.

EXTINGUISHING AGENTS Use agents appropriate for surrounding fire.

UNUSUAL HAZARDS Material can splatter above 212F. Polymer film can burn.

SECTION VIII - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORAGE CONDITIONS

Keep from freezing; material may coagulate. Store between 34 and 120F.

HANDLING PROCEDURES

Monomer vapors can be involved when heated during processing operations. Use local exhaust ventilation with a min. of 100 ft/min capture velocity at point of vapor evolution

WASTE DISPOSAL PROCEDURE

Coagulate the emulsion by the stepwise addition of ferric chloride and lime. Remove the clear supernatant and flush to a chemical sewer. Incinerate liquid and contaminated solids in accordance with local, state and federal regulation.

OTHER PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.

SECTION IX - REGULATORY CLASSIFICATIONS

WORKPLACE

This product is considered non-hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200)

TRANSPORTATION

US DOT Non-Regulated

STATE RIGHT-TO-KNOW

California proposition 65 - This product does not contain materials which the state of California has founded to cause, birth defects, or other reproductive harm.

MANUFACTURE'S STATEMENT:

NON-WARRANTY - THE FACTS STATED AND THE RECOMMENDATIONS MADE HEREIN ARE BASED ON OUR RESEARCH AND/OR THE RESEARCH OF OTHERS, AND ARE BELIEVED TO BE ACCURATE. NO GUARANTY OF THEIR ACCURACY IS MADE, HOWEVER, AND UNLESS OTHERWISE EXPRESSLY PROVIDED IN WRITTEN CONTRACT, THE PRODUCTS DISCUSSED ARE SOLD WITHOUT CONDITIONS OR WARRANTIES, EXPRESSED OR IMPLIED. PURCHASERS SHOULD MAKE THEIR OWN TEST TO DETERMINE THE SUITABILITY OF SUCH PRODUCTS FOR THEIR PARTICULAR PURPOSE.

END

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WARNING: Contains organic acids. Avoid eye contact. Wash thoroughly after handling.

FIRST AID:

If swallowed call a physician or Poison Control Center immediately. Do not induce vomiting unless instructed by a medical authority. Never give anything by mouth to an unconscious person.

If in eyes, flush with plenty of water for at least 15 minutes. Call a physician.

DIRECTIONS:

Mix thoroughly before use. Remove loose and flaky rust and paint with a wire brush. Rinse with water. Surface must be free from grease, wax, or other contaminants. Pour RUST-X directly from container or into glass, plastic, or stainless steel container. Apply RUST-X with brush, roller, or airless spray. In a short time rust will be converted to a stable, black coating. For best results apply two coats. Allow each coating to react and cure before recoating. When spraying, only 10 minutes is required between coats. Clean application tools with soap and water. Do not return unused portion of RUST-X to original container. This will contaminate the balance of the product. For best results apply a top coat of enamel, epoxy or vinyl. Allow a minimum of 24 hours before applying topcoat.

Material Safety Data Sheet Available on Request.

PRO SET INC.

P.O. Box 2393

Monroe, LA 71207

Telephone (318) 324-1929

TOLL FREE (877) 809-6016

RUST X RUST CONVERTER RUST INHIBITOR AND PRIMER

- Transforms Rust Into A Non-Active Surface
- Forms A Protective Weatherproof Coating
- Minimal Surface Preparation Needed
- Easy to Apply
- Application Tools Clean Easily with Soap and Water
- Nonflammable

**WARNING: HARMFUL IF SWALLOWED.
CAUSES EYE IRRITATION.**

KEEP OUT OF REACH OF CHILDREN.

(SEE LEFT PANEL FOR ADDITIONAL CAUTIONS)