

**MATERIAL SAFETY DATA SHEET**

Issue Date: May 4, 2002

Identity: (As used on label and list)

**RUSTECO R-200-3**

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**SECTION I: Material & Manufacturer Identification**

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<b>Product Name</b>	<b>RUSTECO R-200-3</b>
<b>Material Type</b>	<b>LIQUID</b>
<b>Product Use</b>	<b>ALL METALS RUST REMOVAL/PROTECTION DEGREASER/METAL POLISH/PRIMER</b>
<b>Manufacturer Address</b>	<b>TMT Services Corp P.O. Box 11398 Torrance, CA 90510-1398</b>
<b>Emergency Phone</b>	<b>562-432-4868</b>
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<b>E-mail</b>	<b><a href="mailto:rusteco@aol.com">rusteco@aol.com</a></b>

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**SECTION II: Hazardous Ingredients & Identity Information**

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**Hazard Data OSHA PEL**

**ACGIH TLV**

N/A

N/A

**Ingredients**                      **Liquid Extract from organically grown plants**

**Made from ingredients generally regarded as safe or permissible under CFR 21/178.1010 and CFR 21/182 respectively**

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**SECTION III: Physical/Chemical Characteristics**

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<b>Boiling Point</b>	<b>220 F</b>
<b>Solubility in Water</b>	<b>Infinite</b>
<b>Appearance</b>	<b>Blue Opaque Liquid</b>
<b>pH of 1% solution</b>	<b>5-6</b>
<b>Density</b>	<b>1.04</b>

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**SECTION IV: Fire and Explosion Data**

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<b>Flash Point (Methods Used)</b>	<b>Flammable Limits</b>	<b>LEL</b>	<b>UEL</b>
N/A Aqueous	N/A	N/A	N/A

**Special Fire Fighting Procedures**

None

**Hazardous Combustion Products**

Carbon Dioxide, Carbon Monoxide

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**SECTION V: Reactivity Data**

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**Stability**

Stable under normal conditions

**Conditions to avoid**

Excessive heat

**Incompatibility (Materials to avoid)**

None known

**Hazardous Decomposition or By-products**

None known

**Hazardous Polymerization**

Will not occur

**Conditions to avoid**

Excessive heat

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**Exposure from routine use**

This product is not hazardous under normal conditions of use

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### Effects of overexposure

Prolonged exposure to vapor or mist may cause irritation in eyes, nose, mouth and/or throat.

### Emergency and First Aid procedures

**Eye Contact:** Rinse immediately with water. Remove contact lenses, then flush eyes immediately with water for at least 15 minutes, including under the eyelids. Consult a physician if necessary.

**Skin Contact:** Wash skin with soap and water. Seek medical attention if irritation persists. Launder contaminated clothing before reuse.

**Inhalation:** Remove to fresh air. Rest in half upright position. Seek medical attention if necessary.

### **Ingestion:**

Rinse mouth. Immediately dilute by drinking large amounts of water. After dilution induce vomiting. Seek immediate medical attention. Never give anything by mouth to an unconscious person.

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## SECTION VII: Toxicity Data

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**Oral:** This material may be slightly toxic if ingested

**Dermal:** This material may be mildly irritating to the skin

**Inhalation:** This material is not known to be toxic by inhalation

**Carcinogenicity:** Not listed as a Carcinogen by IARC, NTP, ACGIH, OSHA

**Other pertinent data:** This material is a moderate eye irritant, and could cause possible corneal damage

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## SECTION VIII: Special Protection Information

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### **Personal protective equipment**

**Protective gloves:** Rubber

**Eye protection:** Safety glasses



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**SECTION XI: Special Precautions and Comments**

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**Avoid eye contact**

**Avoid contamination with Alkaline Material**

**Other Precautions: Not applicable**

**Registration or Certifications: Not applicable**

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**IMPORTANT NOTICE**

**Please read carefully prior to use**

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**TMT Services Corp, P.O. Box 11398, Torrance, CA 90510-1398**

**Effective Date: 05-04-02 Issue four**

**RUSTECO Liquid**

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**RUSTECO Product Fact Sheet**  
**Corrosion Treatment & Prevention**

**RUSTECO R-200-3 Corrosion Treatment is a fluid designed to remove oxidation corrosion from any type of metal, including iron, carbon and alloy steels, aluminum, bronze and tin. This product has many attributes that make it superior to conventional corrosion removal methods in most applications. The R-200-3 Corrosion Treatment:**

- i) Is highly effective in neutralizing and removing oxidized metal. Analysis of treated parts using a Scanning Electron Microscope reveals negligible corrosion remaining, even in the oxidation sites of pitted metal.**
- ii) Is extremely environmentally friendly. According to EPA Tests RUSTECO has negligible or undetectable amounts of the EPA's 121 priority pollutants. Further the R-200-3 consists of 80% recycled and reclaimed waste material and is completely biodegradable. Finally, after removal of any sediment, the used liquid is safe enough for the environment that it can be used as a liquid plant fertilizer or can be disposed into any water treatment system.**
- iii) Is completely benign to any material other than oxidized metal. The R-200-3 can come into long term contact with non-oxidized finished metal surfaces, plastics, rubber, paint or human skin without any undesirable effects.**
- iv) Has a simple and inexpensive application method and can be applied in many situations where conventional methods are not possible. Because it is a fluid it can reach inaccessible areas in complex shaped parts such as water jackets, passage ways, screw threads and hidden surfaces not accessible to grit blasting or machining. The liquid nature of the R-200-3 allows it to completely surround the material irregularities where oxidation originates. Also because it selectively attacks only oxidized metal, use of the R-200-3 does not result in any metal loss. This is critical in situations where close tolerances are being maintained. Its benign nature allows it to be applied in cases where other materials (such as rubber, gaskets, chrome, etc) are attached to the oxidized part.**
- v) Has no OSHA or DOT shipping, storage, handling restrictions and is easily disposed of. This translates directly into cost and time savings in term of paperwork, specialized labor and auxiliary services.**
- vi) Acts as a corrosion inhibitor. Unlike machining, grit blasting and highly acidic or alkaline solutions, where corrosion begins immediately after treatment, parts treated with the R-200-3 can be stored temporarily without ill effects.**

- vii) **The formulation of the RUSTECO R-200-3 is proprietary and cannot be described beyond saying that it contains a food grade acid, as found in cola drinks.**
  - viii) **It has a specific gravity and viscosity similar to water and can be used in any sprayer or conduit at ambient or high temperatures.**
  - ix) **The application requires only that the area to be treated be brought into contact with the fluid. For light surface oxidation, spray and wiping is often adequate. More serious conditions (thick scaling and exfoliation) require submersion for up to 48 hours. While not necessary, heat and agitation can be applied to shorten the treatment times considerably.**
  - x) **Treated parts should not be rinsed in water subsequent to application, since this negates the protection against future corrosion. If a treated part is pressure washed (to speed up the cleaning process), then that part just needs to be re-dipped briefly and then wiped or blow-dried. The protection against new oxidation is then in place again.**
  - xi) **RUSTECO is not known to have any undesirable effects on the strength, ductility, or surface hardness of high strength steels or alloys. Epoxy coatings applied to parts treated with the R-200-3 have shown excellent adhesion after having been exposed to a fresh water bath for one year in temperature of 110-120F (more corrosive than salt water).**
  - xii) **RUSTECO migrates through the rust, it eliminates the oxygen at the substrate interface and causes the rust to lose adhesion. It provides a surface over which a hard coating can be applied.**
  - xiii) **In the soaking application it is designed for a long-term repeat use, thus making it highly cost effective. It does not require any other activity, apart from blow-drying or wiping the cleaned part dry.**
  - xiv) **If pressure washer equipment is available, the corroded parts will be cleaned much faster, since the R-200-3 soaking process will loosen up the existing rust and facilitate a quicker cleaning process.**
  - xv) **The pH of the virgin product ranges from 4.3-4.5 (similar to lemon juice). When the pH reaches 6.8-7.0 the solution is then ready to be disposed off.**
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