

RP-5001

A Safe Water Soluble Rust Preventative, Rapid Dryer, Solvent and Detergent

RP-5001 is an extremely versatile material for use in many industries and possesses many useful properties in countless applications. Wherever water is used in contact with steel, RP-5001 can be used. Where water is considered harmful, it can be made safe, rust proof and useful. RP-5001 is a protective material recommended for use on iron, steel, and electroplated coatings such as cadmium, zinc, tin, nickel or chrome.

RP-5001 is a concentrated colorless solution that you add to water in recommended proportions. The resulting solution will passivate steel surfaces due to the presence of selected oxidizing ions and non-ionic surfactants. Parts dipped in a RP-5001 solution will, after drying, be protected or inhibited against corrosion. A few examples where such a dip is required is in the final rinse after plating, cleaning, pickling, phosphating, black oxidizing, tumbling, vapor blasting, wet grinding, heat treating or general machine shop use between operations.

Water evaporates almost immediately from a metal surface after withdrawing from a dip in warm RP-5001. This extremely fast drying occurs because of the non-ionics present which reduce surface tension to a remarkable degree and accelerate the shedding of water from all surfaces. The remaining invisible, dry, non-oily film that is nonmeasurable will inhibit against rust or corrosion. The properties of the metal or plated surface are unchanged and retain their original luster or brightness.

RP-5001 is a good solvent, combining wetting and detergent properties. Where washing of heat-treated parts quenched from a salt bath into oil is a problem, a soak in warm RP-5001 completely removes all oil and salts and protects the parts from rust. The detergent properties are an advantage in removing light oil films from metals and preventing fingerprint stains. RP-5001 in these instances will replace costly solvent cleaners or harsh alkali cleaners. Wash off if used anywhere before plating. RP-5001 will penetrate into the deepest crevices of any odd shaped piece and give complete protection. Even parts that are partly oily and partly unprotected can be dipped all over to insure overall protection.

In practically all cases, painting or lacquering can be done without removing the **RP-5001** film. However, in any case the film comes off instantly by rinsing in water if it interferes.

RP-5001 is a completely safe material under all operating conditions. Tests conducted against other materials proved that **RP-5001** is faster, better and more economical.

RP-5001 is an odorless, neutral, non-toxic and stable material. It is non-inflammable, non-oily, non-tacky and invisible when dry. **RP-5001** works equally well in hard or soft water and works hot or cold.

Plain steel tanks are all that is needed for containers. **RP-5001** will prevent the tank from rusting and water stays cleaner as long as it is used. A wide operating range makes it unnecessary for strict control as **RP-5001** is effective at all temperatures from 70°F and upwards to 180°F. A little bit goes a long way as practically all operations require only 2 to 4% and, as a rinse, only 0.1%.

Try to keep your **RP-5001** solution free from contamination as possible. It cannot be mixed with any acids and will tolerate only very slight amounts of caustic or alkalis.

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RP-5001 is not intended for use as a high temperature rust preventive but will stand up well under high humidity provided there is no run-off to carry away the film. It is suitable for dipping or spraying or can be used as a swab in cleaning difficult to dip pieces or parts covered with hard to remove oils, grease or soils. **RP-5001** protects against rust on indoor applications and is not intended for use on items exposed to severe weather conditions.

Use **RP-5001** wherever you use water. Water becomes more valuable and useful and where water is considered harmful, **RP-5001** is safe.

SUGGESTED USES AND MIXING PROPORTIONS

As a Rust Inhibitor:

4 to 6% **RP-5001**. Temperature 70° - 120°F. Surface of material may be wet or dry before dipping.

As a Final Rinse:

In all phases of plating, phosphating, anodizing or black oxidizing. 0.1% **RP-5001**. Temperature 160°-200°F. Speeds drying, prevents water stains and preserves bright finishes.

For Tumbling Barrel, Ball Burnishing, Abrasive Tumbling:

Use 4% in the barrel or dip immediately after to prevent rust and preserve the finish. **RP-5001** will replace caustic and cyanide in tumbling. Use it in ball burnishing instead of soap. Add **RP-5001** in abrasive tumbling as it reduces surface tension, thereby sharpening the cutting action.

As A Rinse After Vapor Blasting, Liquid Honing and Sand Blasting:

4 to 6% **RP-5001**. Will clean and protect against rust.

Quenching Steel:

2 to 4%. It will assure uniform heat absorption and convection, which reduces chances of cracking or distortion. It will also protect tank against rusting, and work won't rust after drying.

To Remove Heat Treating Salts:

4%. Temperature 180°F. Very effective in removing all types of heat-treating salts from oil quenched work. The oil will float to the top and may be skimmed or run off easily. Barium base salts, either neutral or carburizing will not wash off easily in alkali cleaners but **RP-5001** does help immensely.

As a Flux Remover:

6 to 7% **RP-5001**. Temperature 180°F. Will remove proprietary fluxing compounds after furnace, torch or induction brazing and welding. Protects steel before brazing as well.

General Machine Shop Use:

4% **RP-5001**. Use warm or at room temperature. Dip parts after machining for protection and to prevent finger print stains. Will protect any valuable part in process or between operations in different parts of the plant. Will also protect finished parts in storage. Excellent for nuts, bolts or any screw machine part that can't be stored or shipped to customer oily.

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As A Solvent:

4 to 6% **RP-5001**. Temperature 70°F-120°F. Good for removing very light, thin oil and grease films, as well as dirt, lint and to prevent finger prints. **RP-5001** will not harm the hands so that parts not easily dipped may be swabbed with a sponge or cloth. **RP-5001** is more comfortable to use in such cases instead of toxic, dangerous or inflammable solvents, which usually require ventilation to carry away objectionable odors or fumes.

As A General Cleaner and Detergent:

2 to 6% **RP-5001**. Temperature 70° – 120 °F. For cleaning machinery, glass, tile floors or walls and plastics.

Added To Soluble Oils:

1 quart **RP-5001** to 50 gallons of oil and water mixture. Using **RP-5001** in operations requiring soluble oils offers additional advantages and improves the properties of the oil emulsion. The improved wetting action helps dissipate heat and work under the tool is cooler. **RP-5001** also imparts additional rust protection to the oil as well as fortifying the emulsion against going rancid. **RP-5001** extends the useful life of soluble oils.

Handling:

Protect eyes and skin from contact. If splashed into eyes, drench with water and consult a physician immediately.

Test Kit Method Analysis

Place a 30 ml sample of the solution to be analyzed in the small glass bottle.
Add 3 to 4 drops Methyl Orange – Xylene Cyanole Indicator
Add 1.0 N HCl drop-wise until color changes from green to gold.

<u>RP 5001</u>	<u># of drops 1.0 N HCl</u>
1%	6
2%	12
3%	13
4%	14
5%	15
6%	17

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