RUST VETO® 2212 SYNTHETIC AQUEOUS RUST PREVENTIVE

RUST VETO® 2212 is an all synthetic aqueous rust preventive with a non-nitrited chemical rust inhibitor.

Being totally synthetic, the residual film can be easily removed in subsequent operations and does not contribute to tramp oil concerns.

Up to 4 weeks of corrosion protection leaving an imperceptible film.

FORD TOX 187008 and GM approval.

Applications

RUST VETO® 2212 is an excellent choice in process, following cleaning, and in heat treatment where short-term indoor protection is desired. It forms a clear solution and is recommended for use on ferrous and nonferrous metals.

Recommendation For Use

Use at 5% concentration.

Benefits

- No oil eliminates disposal problems common with water base preservation
- No nitrites eliminates health hazard associated with this chemical
- Hard water stable solutions are stable in hard water, up to 500 ppm, while retaining rust protection
- Thin film protects your parts without excess carryoff which reduces usage and cost
- Rapid drying permits handling of parts shortly after application

Health, Safety and Handling

Please consult the Safety Data Sheet (SDS) for information on storage, safe handling and disposal. The conditions or methods of handling, storage, use and disposal of the product are beyond our reasonable control - we assume no liability for any ineffectiveness of the product or any injury or damage, arising out of or in connection with these conditions.

Typical Physical Properties

| PROPERTY | TYPICAL VALUE |
|--------------|--------------------------------|
| Appearance | Clear flourescent green liquid |
| Total Alkali | 9.4 ± 0.5% |
| рН | 9.1 ± 0.2 |
| Phosphates | None |
| Solubillity | Freely Soluble |



COSMOLINE® 1104 HF

FINGERPRINT REMOVAL PRODUCT

COSMOLINE® 1104 HF is a blend of highly refined mineral oiland solvent compounds.

Remove COSMOLINE® 1104 HF before subsequent processes.

Applications

COSMOLINE® 1104 HF suppresses, neutralizes and removes fingerprints; affords protection against rust under high humidity conditions; is non-corrosive when applied to bi-metallic systems.

Recommendation for Use

Application by dip method is recommended.

Benefits

- Thin film protects your parts without excessive carry-off which reduces usage and cost
- Displaces water or process fluids from wet parts to rapidly begin the corrosion inhibition process
- Removes fingerprints from components and parts which prevents corrosion and reduces scrap rates
- Barium-free

Health, Safety and Handling

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This product has a shelf life of 2 years, and it should be stored closed out of direct sunlight in temperatures between 40°F (4°C) and 110°F (43°C).

Properties

| PROPERTY | TYPICAL VALUE | UNIT |
|------------------------------|---------------|-------|
| Flash point | 160 71.1 | °F °C |
| Kinematic Viscosity at 100°F | 8 | cSt |



RUST VETO® 4221-NB BARIUM-FREE WATER-EMULSIFIABLE RUST PREVENTIVE

RUST VETO® 4221-NB is a water-emulsifiable rust preventive. The product is readily emulsifiable in either hard or soft water. RUST VETO® 4221-NB contains no barium.

An emulsion of RUST VETO® 4221-NB will deposit a thin film on treated surfaces. Film removal is accomplished with hot water and detergent.

Up to 9 months indoor corrosion protection leaving a light oily film. FORD TOX 143697 approval.

Applications

Parts can be dipped into an emulsion of RUST VETO® 4221-NB, or because of the product's low foaming tendency, parts can be successfully treated in the final stage of power spray washers.

RUST VETO® 4221-NB has received wide acceptance as a final preservative of blackened or phosphated parts.

Recommendation For Use

For cold weather conditions, it may be necessary to use warm or hot water to achieve proper mixing. Constant mild agitation is recommended with the emulsion heated to $120-140^{\circ}F$ and will remain stable when hot to a maximum of $150^{\circ}F$.

If an emulsion is left standing still for several days, a layer of oil and/or cream may form on the surface. Any separated oil is easily mixed back into the emulsion.

Benefits

- Barium-free formulation reduces waste treatment concerns.
- Excellent humidity protection: Dependable rust preventive for indoor use.
- Emulsifies in water: Mixes easily with water at a temperature of 70°F in hard or soft water.
- No fire hazard: Flammable hazards are eliminated when RUST VETO® 4221-NB is used.
- Safe for use on aluminum

Health, Safety and Handling

Please consult the Safety Data Sheet (SDS) for information on storage, safe handling and disposal. The conditions or methods of handling, storage, use and disposal of the product are beyond our reasonable control - we assume no liability for any ineffectiveness of the product or any injury or damage, arising out of or in connection with these conditions.

Typical Physical Properties

| PROPERTY | TYPICAL VALUE |
|-------------------|-------------------|
| Appearance | Clear amber fluid |
| Specific Gravity | .932 |
| Flash Point | 350°F |
| ASTM D-1748 | 25 days minimum |
| Use concentration | 5 - 10% |



RUST VETO® 4222-S BARIUM-FREE WATER-EMULSIFIABLE RUST PREVENTIVE

RUST VETO® 4222-S is a water emulsifiable, barium free rust preventive which provides excellent humidity protection.

An emulsion of RUST VETO® 4222-S will deposit a thin, protective film on treated surfaces. Film removal is accomplished with hot water and detergent.

Up to 12 months corrosion protection leaving a light oily film. GM approval.

Applications

The thin film will typically provide corrosion protection on plain carbon or low alloy steel.

Recommendation For Use

Constant mild agitation is recommended with the emulsion heated to $120-140^{\circ}F$ and will remain stable when hot to a maximum of $150^{\circ}F$.

If an emulsion is left standing still for several days, a layer of oil and/or cream may form on the surface. Any separated oil is easily mixed back into the emulsion.

Benefits

- Barium-free formulation reduces waste treatment concerns
- Excellent humidity protection
- Thin film protects your parts without excessive carry-off which reduces usage and cost.

Health, Safety and Handling

Please consult the Safety Data Sheet (SDS) for information on storage, safe handling and disposal. The conditions or methods of handling, storage, use and disposal of the product are beyond our reasonable control - we assume no liability for any ineffectiveness of the product or any injury or damage, arising out of or in connection with these conditions.

Typical Physical Properties

| PROPERTY | TYPICAL VALUE |
|-------------------|------------------|
| Appearance | Clear, amber oil |
| Specific Gravity | .927 |
| Viscosity @ 100°F | 180 |
| Flash Point | 280° F |
| Use concentration | 5 - 10% |



RUST VETO® 210 LIGHT OIL RUST PREVENTIVE

RUST VETO® 210 is an oil-based rust preventive.

Up to 12 month indoor corrosion protection leaving an oily film.

Applications

RUST VETO® 210 can be applied by brush, spray, or dip methods and leaves a light oil film on parts or equipment. Excess material drains rapidly from treated surfaces because of the preventive's light viscosity

Recommendation For Use

Product is used neat.

Benefits

- Excellent humidity rust protection
- Easily removed
- Barium free
- Low-odor nature of the products optimizes worker acceptance.
- The high flash point reduces the potential for flammability.

Health, Safety and Handling

Please consult the Safety Data Sheet (SDS) for information on storage, safe handling and disposal. The conditions or methods of handling, storage, use and disposal of the product are beyond our reasonable control - we assume no liability for any ineffectiveness of the product or any injury or damage, arising out of or in connection with these conditions.

Typical Physical Properties

| PROPERTY | TYPICAL VALUE |
|------------------------------------|---------------|
| Flash Point, °F | 350 |
| Kinematic Viscosity @ 100°F (38°C) | 24 cSt |
| Approx. Coverage, sq. ft./gal. | 3000 |
| Film thickness | .45 mil |
| Humidity test | Pass 30+ days |



FERROCOTE® 5856 BF T1

METAL PRESERVATIVE - GLOBAL BEARING APPROVAL

FERROCOTE® 5856 BF T1 is a barium-free, solventdispersed corrosion preventive providing 1-5 years of indoor protection of ferrous and non-ferrous bearing surfaces.

Applications

FERROCOTE® 5856 BF T1 is formulated with a unique balance of polar additives that provides exceptional corrosion protection. It offers excellent water displacing and fingerprint neutralization performance characteristics. Its inherent versatility offers application flexibility using spray, immersion, flood or flow-coat techniques.

Recommendation for Use

FERROCOTE® 5856 BF T1 is a global product extensively used for numerous industrial metalworking corrosion preventive applications.

Customers

- Baldor
- Borg Warner
- Caterpillar
- INA (Schaeffler Group)
- Koyo
- Metaldyne
- NN Ball
- Timken
- Virginia Forge

Health, Safety and Handling

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Benefits

- Up to 5 years of indoor protection from rust and corrosion, even in severe storage environments where salt may be present
- Rapidly displaces moisture and can be used to treat wet parts with no loss of protection
- Fingerprint neutralization attributes which counteract the effect of acid residues from fingerprints
- Protection of many metals, reducing costs and simplifying the overall operation

Properties

| PROPERTY | TYPICAL VALUE | UNIT |
|--------------------------------------|---------------|---------|
| Appearance | Clear Amber | |
| Pounds per gallon at 60°F | 6.91 | lbs/gal |
| Pour Point | -18 / < 0 | °C/°F |
| Flash Point via COC | 80 / 176 | °C/°F |
| Odor | Bubble gum | |
| Copper Corrosion (max) ASTM D 130 | 1B | |
| Film Thickness (typical) | 0.13 | mils |
| Viscosity at 100°F | 36 / 3 | SUS/cSt |
| Moisture | <0.50 | % |
| | | |

Compatibility

To enhance process compatibility, use Quaker Houghton metalworking fluids and cleaners. Consult your Quaker Houghton representative.



FERROCOTE® 5856 BF T1

METAL PRESERVATIVE - GLOBAL BEARING APPROVAL

Fluid Maintenance

Dilution is possible with the appropriate solvent or oil.

Reservoirs of this product should be checked regularly for moisture content, corrosion protection properties, and inorganic build-up to insure optimum product performance.

Recommended fluid application temperature of 68-85°F / 20-30°C.

