



360 BILLION Dollars!

It is estimated that corrosion costs American Industry \$360 BILLION dollars per year. This cost is ultimately passed on to consumers. Corrosion is not only unsightly; it can damage the structural integrity of metal parts. For highly machined metal parts, even a small amount of corrosion can render the parts unusable.

Your customers may reject your parts and return them to you for scrap or re-work. This process is not only costly in terms of money, but also in terms of your company's reputation. Traditional corrosion inhibiting oils and greases are not only costly, messy, and harmful to the environment, and your employees' health, but when your customers receive their parts, the oils and greases require removal. Often, the removal of these oils requires the use of solvents, and of course, additional labor. These solvents are also hazardous to the environment, and hazardous to employees' health.

Corrosion is a natural, electrochemical process that causes metal to rust, weaken and eventually break down. Rust and corrosion are unsightly, dangerous, and costly to metal parts manufacturers. Many manufacturers of metal parts use messy Rust Preventative (R.P.) Oils to prevent corrosion and rust on their parts. The oils create a barrier between the metal surface and the elements in the atmosphere (oxygen, moisture, salt, contaminants, etc.) that cause corrosion. R.P. Oils can be effective against corrosion, but they are also costly not only in terms of dollars, but they are also costly in terms of their ill-effects on the environment and your employees' health.

As you will see on the next page, the use of rust preventative oils and greases is hazardous to your profits, the environment, and your employees' health, but oils and greases are not really effective against corrosion. In order for R.P. oils to be effective, 100% coverage of the part is necessary. If there are areas, including holes, recesses, cavities, etc. it is nearly impossible to reach all of those areas by spraying or brushing R.P. oils on them. If there are areas that are missed by the R.P., those areas AND the entire part are then susceptible to corrosion.

SEE OTHER SIDE

Call us today Toll-Free 1-855-4-NO-RUST 1-855-466-7878

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- **1.** Applying rust preventative liquids by spraying, brushing or dipping is extremely labor-intensive.
- **2.** R.P. liquids evaporate and dry up usually within 3-6 months making it necessary to re-apply often.
- **3.** For parts that require further surface treatment such as phosphating, plating, painting, etc., the R.P oil coating must be removed using de-greasing agents, which adds to cost. Poor degreasability of R.P. oils can cause significant part rejections due to poor quality of coating.
- **4.** R.P. oils attract dust and other contaminants from the air to the surface of metal which can cause and accelerate corrosion.
- 5. Disposal of empty oil-containing 55 gallon drums and oil-soaked rags is ver y expensive.
- 6. Storing flammable R.P. oils in your plant can dramatically increase insurance premiums due to their low flash point.
- **7.** R.P. Oils pollute lakes, streams, and groundwater.
- **8.** R.P. Oils contain Volatile Organic Compounds (VOC's) which are harmful to the earth and employee's health.
- 9. Breathing vapors from petroleum solvent-based R.P. oils can cause dizziness and pulmonary irritation.
- **10.** Contact with skin can cause dermatitis.
- **11.** Common spills of R.P oils often lead to employee slip and fall accidents.
- **12.** Many R.P. oils contain known carcinogens.
- **13.** R.P. Oils are not nearly as effective against rust and corrosion as VCI products are.

There is a BETTER Way!

There is a modern, clean, dry, effective way to prevent rust and corrosion, and their many costs. The solution is Green VCI Paper and VCI Poly Bags. VCI paper and VCI poly products are a unique line of environmentally-friendly corrosion inhibitors. Rust inhibiting chemicals are coated or impregnated into paper or polyethylene. When metal parts are packaged in VCI Paper or VCI Poly, the rust inhibitor chemicals migrate off of the paper or poly and deposit on the surface of the metal parts. VCI technology works on a molecular level. The rust inhibitor molecules completely cover and bond with all surfaces of the metal (including hard to reach places) and prevent oxygen and moisture from causing corrosion and rust on the metal. The VCI-rich atmosphere inside the VCI environment also passivates the metal surface stopping the electrochemical process, and stopping the rusting process.

