Diacid 1550—stabilizing emulsions and preventing corrosion for over 30 years.

A multifaceted product.

Diacid 1550 is made from a sustainable materials and renewable resources. It is resistant to bioactivity, yet still biodegradable. It is known globally in the metalworking fluid industry as an excellent co-emulsifier with sulfonates in soluble oil and in semi-synthetic metalworking formulations. Diacid 1550 also offers corrosion inhibition, which truly makes it a multifaceted product.

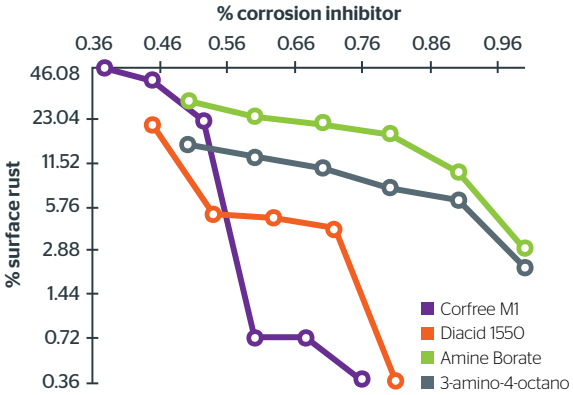
Adding Diacid 1550 to your formulation provides:

- corrosion inhibition
- co-emulsification

Corrosion inhibition

Diacid 1550 has dual acid functionality that gives the molecules a higher affinity to metal surfaces. This creates a chemical protective barrier, inhibiting corrosion.

% Surface rust as function of % corrosion inhibitor present
1:1 TEA:MEA salts



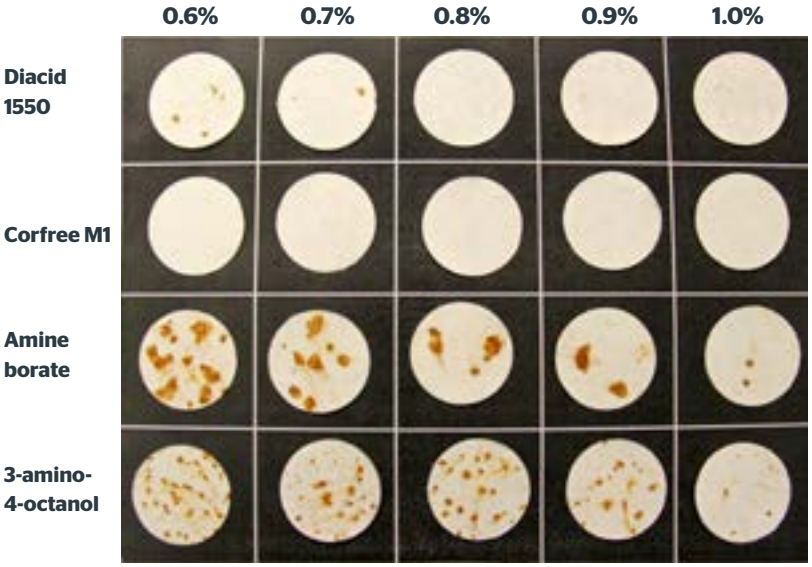
.81%

The total amount of Diacid 1550 in the corrosion inhibitor package to get to breakpoint on the cast iron chip test.

.76%

The total amount of Corfree M1 in the corrosion inhibitor package to get to breakpoint on the cast iron chip test.

This means that the TEA/MEA salt of Diacid 1550 is a very good corrosion inhibitor, better than amine borate or 3-amino-4-octanol, and has comparable corrosion inhibition performance to Corfree M1 in a cast iron chip test (not tested in formulation).



These results were not tested in metalworking fluid formulations and may respond differently in formulation. It is also important to note that different amounts of product were used to achieve desirable corrosion inhibition meaning one product can't be directly substituted, in the same amount, for another in a metalworking fluid formulation.

The best product for tightening up unstable emulsions

Diacid 1550 is a unique product that can supplement additives in your formulation. It allows you to reduce the amount of emulsifier additives and corrosion inhibitors used in your formulation which saves you money.

Click here

See how quickly Diacid 1550 stabilizes an emulsion.

Tips for reducing foam

One of the biggest concerns about Diacid 1550 is foaming. While you may encounter some foam with Diacid 1550, we have some formulation tips to assist you in reducing foam below:

- non-ionic emulsifiers with mid-level HLB (around 12 HLB) will lead to higher foam or "more stabilized" foam
- HLB values in the 11-13 range should be avoided when using Diacid 1550
- reduce the non-ionic emulsifier and increase the Diacid 1550 dose to control foam

Click here

For additional recommendations check out our guide to reducing foam.

To request a sample and more information, please contact us at chemicals@ingevity.com or 800-458-4034. Let us help you optimize your metalworking formulation.

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