

COMPANY PROFILE

Dexu New Material (Guangzhou) Co., Ltd. was founded in 2012 in Guangzhou Science City, a leading innovation hub for China's new materials sector. As an innovative enterprise, we specialize in R&D, production and sales of metal corrosion prevention products that are widely used in a variety of industries including automotive, marine, aerospace, semiconductor 3C electronics, new energy, and water-based anticorrosive coating. The products may also be used for industrial lubrication, metal surface treatment, heavy oil stain cleaning, and educational toys. Our major customers include BASF, HP, Henkel, Mattel, MOOSE, China State Shipbuilding Corporation.

The company is spearheaded by a high-caliber R&D team featuring postdoctoral researchers from Tsinghua University and prestigious universities of the U.S. and Europe. Our innovative team currently holds 13 granted patents, has received numerous provincial and municipal innovation funds and awards.

Our 16,000 square meter facility is ISO9001 accredited and includes GMP production workshops and highly automatic and intelligently controlled production lines which enable us to meet global clients' demands for premium quality and customized production.



*Innovating Green Materials,
Safeguarding Human Health.*



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Dexu New Material
**Aluminum Corrosion
Inhibitor**

Phosphate DX512

DX512 is a phosphorus derivative product with good dispersibility and is a high-quality extreme pressure agent. It reduces friction and wear under boundary lubrication conditions caused by high loads, improves lubricity, and effectively reduces tapping torque values. Widely used in the field of metal working fluids. Commonly used in aluminum rolling fluid, steel plate rolling fluid, broaching fluid, stamping oil, grinding fluid, cold rolling fluid and other products.

Specifications

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| Product name | DX512 |
| Ionic type | Nonionic |
| Appearance (25°C) | Light yellow to colorless transparent liquid |
| Density (20°C, g/cm ³) | 1.08 |
| pH Value (1% aqueous solution) | 1.5-3.5 |
| Stability | 1 year |

Performance characteristics

- Low foaming, with excellent extreme pressure, wear resistance, and lubrication performance.
- Acid aluminum corrosion inhibitor which has excellent corrosion inhibition performance on aluminum materials.
- It can improve the surface brightness of the machined parts.
- It can improve the compatibility of the system and prevent stratification or precipitation of the system.
- Resistant to hard water, with a water hardness greater than 1000ppm.
- Resistant to strong alkali and can withstand flake alkali >25%.

Industrial Applications

- It can be applied to metal processing anti friction systems, and it is recommended to add 1% -5% DX512 of the original solution.

Modified Borate DX622

DX622 is a modified nitrogen-containing borate ester derivative product, which not only has the excellent rust prevention and extreme pressure wear resistance of traditional borate esters, but also has excellent corrosion resistance of zinc and aluminum materials. It is widely used for anti-corrosion of Ferrous, galvanized sheet and other metal materials.

Specifications

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| Product name | DX622 |
| Ionic type | Nonionic |
| Appearance (25°C) | Light yellow to colorless transparent liquid |
| Density (20°C, g/cm ³) | 1.30 |
| pH Value (1% aqueous solution) | 8.5-10.5 |
| Stability | 1 year |
| 2h cast iron scrap test (0.9% aqueous solution) Reference: IP287 | level 0 |

Performance characteristics

- Excellent antirust performance for Ferrous materials such as carbon steel and cast iron.
- Zinc alloy corrosion inhibitor, effectively prevent zinc alloy corrosion.
- Aluminum alloy corrosion inhibitor, effectively prevent aluminum from turning black and yellow.
- Resistant to hard water, with a water hardness greater than 1000ppm.
- Excellent water solubility, with colorless, transparent, and bubble free aqueous solution.
- High alkali storage capacity and is a good pH stabilizer.

Industrial Applications

- Applied to metal working fluids and surface treatment agents, and it is recommended to add 2.5% -5% DX622 of the original liquid.

Non-foam multifunctional corrosion inhibitor DX506

DX506 is a non foaming multifunctional metal corrosion inhibitor that combines corrosion inhibition, rust prevention, and lubrication functions. It can dissolve with water in any ratio and is widely used in industries such as machinery, metallurgy, and surface treatment. It can be used as a comprehensive corrosion inhibitor in metal working fluids and industrial cleaning systems, or can be directly diluted as a processing fluid, corrosion inhibitor, or rust prevention water.

Specifications

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|--|---------------------------|
| Product name | DX506 |
| Appearance (25°C) | Orange transparent liquid |
| Density (20°C, g/cm ³) | 1.09 |
| pH Value (1% aqueous solution) | 8.0-10.0 |
| Foam height (0.25%, mm, Ross Miles method, initial/5 minutes) | 0/0 |
| Stability | 1 year |
| 2h cast iron scrap test(0.8% aqueous solution) Reference: IP287 | level 0 |
| Aluminium corrosion inhibition (0.025% aqueous solution) Reference: GB/T6144-2010 | A |
| Copper corrosion inhibition (0.025% aqueous solution) Reference: GB/T6144-2010 | A |

Performance characteristics

- It does not contain boron, organic silicon, polyether, and defoamer.
- Aluminum corrosion inhibitor, with excellent aluminum corrosion resistance, effectively prevents problems such as mold, discoloration, graying, and oxidation blackening of aluminum materials.
- Copper corrosion inhibitor, excellent corrosion inhibition effect on copper materials, which can effectively prevent the working fluid from turning green or blue.
- Extreme pressure lubricant with excellent extreme pressure lubricity.

Industrial Applications

- As a corrosion inhibitor additive for aluminum materials, it is recommended to add the original solution in the fields of aluminum processing, surface treatment, and storage protectionThe dosage is 0.5% -2%.
- Diluted with water for direct soaking use as corrosion inhibitors for aluminum and copper materials, with a recommended concentration of 0.2%-1%.