

## 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

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## Rust Inhibitor

## Rust Inhibitor DX320

DX320 is formed by the combination of various polycarboxylic acids and isomeric organic amine. It has significant characteristics such as low addition, low residue, resistance to hard water, resistance to strong alkali and long anti-rust prevention cycle. With excellent rust prevention performance, It is widely used in industries such as metal corrosion prevention, machining, surface treatment, and coating for its excellent rust prevention performance.

### Specifications

Product name	DX320
Ionic type	Nonionic
Appearance (25°C)	Light yellow to colorless transparent liquid
Density (20°C, g/cm <sup>3</sup> )	1.21
pH Value (1% aqueous solution)	8.0-10.0
Stability	1 year
2h cast iron scrap test (0.20% aqueous solution) Reference: IP287	Level 0

### Performance characteristics

- Resistant to hard water, with a water hardness greater than 2000ppm.
- Resistant to strong alkali and can withstand 20% alkali flakes.
- No foam, organic silicon, polyether and defoamer.
- Excellent water solubility, colorless and transparent aqueous solution.
- Excellent antirust performance for Ferrous materials at low concentration.

### Application area

- For metal working fluids, it is recommended to add 1%-2% DX320 of the original solution.
- For surface treatment agents, it is recommended to add 0.5%-1% of the original solution.

## Rust Inhibitor DX307

DX307 is a multi-carboxylic acid amine salt that does not contain elements such as boron, phosphorus, sulfur, or chlorine. It features resistance to hard water, strong alkali endurance, foam-free, low residue, and can be mixed with water in any ratio. It is widely used in industries such as metal anti-corrosion, surface treatment, and metal processing, offering excellent rust prevention.

### Specifications

Product name	DX307
Ionic type	Nonionic
Appearance (25°C)	Light yellow transparent liquid
Density (20°C, g/cm <sup>3</sup> )	1.11
pH Value (1% aqueous solution)	9.0-11.0
Shelf life	1 year
2h test of cast iron chips (0.20% aqueous solution) Reference standard: IP287	Level 0

### Performance characteristics

- Excellent rust prevention performance for ferrous metals like carbon steel, cast iron, and cold-rolled plates.
- Resistant to hard water, remains clear and no precipitation at the water hardness of 2000ppm hardness.
- Endures strong alkali, stays clear without precipitation in a 20% NaOH concentrated solution.
- No foam, organic silicon, polyether and defoamer.
- Excellent water solubility, colorless and transparent aqueous solution.

### Application area

- Used in metalworking fluids, It is recommended to add 1%-4% DX307 of the original liquid.
- Applied in surface treatment agents, It is recommended to add 1%-2% DX307 of the original liquid.
- Can be diluted as rust preventive water for cast iron, tinplate, cold-rolled plates, bearing steel, etc., recommended concentration is 0.2%-1% DX307.

## Triethanolamine Borate DX621

DX621 is a nitrogen-containing borate derivative, which is viscous, has excellent antirust and lubricity, and is an ideal antirust additive for cutting fluid, antirust water and other systems. It is widely used in machinery, metallurgy, petrochemical, building rust resistance and other industries, and is a good substitute for traditional sodium nitrite.

### Specifications

Product name	DX621
Ionic type	Nonionic
Appearance (25°C)	Light yellow to colorless transparent liquid
Density (20°C, g/cm <sup>3</sup> )	1.25
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 rust resistance for Ferrous materials such as carbon steel, cast iron, cold rolled sheet, etc.
- Good extreme pressure wear resistance and corrosion resistance.
- Resistant to hard water, with a water hardness greater than 1000ppm.
- Excellent water solubility, with colorless, transparent, and bubble free aqueous solution.
- Extremely high alkali storage capacity, making it a good pH stabilizer.
- Combined with DX309, DX319, etc., it can effectively improve the rust resistance of the system.

### Application area

- Applied to metal working fluids, glass grinding fluids, and surface treatment agents, and it is recommended to add 2.5%-5% DX621 of the original liquid.
- Dilute 50-100 times as Ferrous antirust water.