

GARDACID[®] N 4480/1

Neutral Rust Remover; Safer to Use than Acids and Caustics

PRIMARY APPLICATION

GARDACID[®] N 4480/1, formerly SCN-9194, is a liquid, neutral pH corrosion remover based on organic phosphate technology. This product can be used in recirculating spray, immersion, and spray wand applications. Gardacid N 4480/1 is formulated to remove rust but will also help remove weld smut and laser scale from ferrous metals in some processes. Gardacid N 4480/1 can help improve phosphate deposition at welded areas in certain pretreatment applications and will improve the paint adhesion and performance. Gardacid N 4480/1 is also used for corrosion removal and brightening of aluminum, copper, and brass. Gardacid N 4480/1 can be used at ambient temperature, but performance will improve when the solution is heated.

CHEMICAL CHARACTERISTICS

Chemical Composition	Organic phosphorous compound
Appearance	Colorless liquid
Odor	None
Bulk Density	10 pounds/gallon
pH.....	6 - 7

APPLICATION PROCEDURE

Concentration.....	5 – 50% by volume 15 – 20% is typical for most applications
Temperature.....	70°F (21°C) to 160°F (60°C)
Time	Varies depending on extent of rust, bath parameters, application method
pH.....	6.5 – 7.4 (7.1 is ideal pH)

Your Chemetall representative will help establish the optimum operating parameters for your application.

In some applications, it may be necessary to filter the bath to prevent the deposition of precipitated ferric iron floc onto the derusted surfaces which could interfere with subsequent processes such as pretreatment. Filtration will not remove iron in solution.

If the bath pH rises significantly above 7.4, small amounts of Gardobond Additive H 7110 can be added to reduce pH to the 6.5 to 7.4 range. This improves the product's effectiveness and solution life.

After derusting, parts should be rinsed with water and if necessary, coated with a rust preventative.

SOLUTIONS CONTROL

Concentration

Gardacid N 4480/1 should be titrated using Gardotest Procedure 234. Sample size and calculations are listed in the procedure. Test Kit OKT10076-TK is used.

The bath should be filled to the operating level and well mixed before taking a sample.

Bath Life

The concentration of ferrous iron in Gardacid N 4480/1 can be used as a predictive estimate of when to dump the bath. Each application will have a ferrous iron level at which the Gardacid N 4480/1 bath will become ineffective. This level can be determined through experience on the particular line.

The iron content can be checked using Gardotest Procedure 223.

Sample Size: 5 ml

Conversion Factor (ppm): 1000

EQUIPMENT

The Chemetall Chemical Metering Pump can be used to make product additions to the process. Please contact the Chemetall Process Equipment and Engineering Department for specific recommendation.

NOTES ON USE (See Safety Data Sheet)

Gardacid N 4480/1 is not safe on mild steel equipment. Equipment should be stainless steel or polypropylene. Gardacid N 4480/1 is safe on PE, PP, PVC, CPVC, Kynar, Viton, EPDM, and silicone.

SAFETY AND HANDLING

Prior to handling and use of any of the materials referenced in this document, the Safety Data Sheets should be read and understood by all personnel in contact with these materials.

KEEP OUT OF REACH OF CHILDREN

STORAGE

Dry indoor storage at temperatures between 40°F and 100°F (4.4°C and 37.8°C) is recommended, away from any incompatible materials referenced in the Safety Data Sheets. All containers should be tightly closed when not in use.

DISPOSAL

Any disposal of the materials referenced in this document should be in accordance with all applicable federal, state, providential and local regulations. The process solution can contain components other than those present in the materials as supplied. Analysis of process solutions may be required prior to disposal.

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North American Headquarters
675 Central Avenue
New Providence, NJ 07974
Tel: 908-464-6900
Toll-free: 800-526-4473
Fax: 908-464-7914

Chemetall Canada
100 Milverton Drive
5th Floor
Mississauga, Ontario L5R 4H1
Tel: 905-791-1628
Toll-free: 877-311-1471
Fax: 905-791-1459

Chemetall Mexicana, S.A. de C.V.
Avenida El Tepeyac No. 1420-B
Parque Industrial O'Donnell-Aeropuerto
El Marqués, Querétaro
C.P. 76250, México
Querétaro Tel: +52 (442) 227 2000
Monterrey Tel: +52 (81) 8371 2517

Chemetall U.S.
1100 Technology Drive
Jackson, MI 49201
Tel: 517-787-4846
Toll-free: 877-941-3800
Fax: 517-787-5538

Chemetall U.S.
46716 Lakeview Blvd.
Fremont, CA 94538
Tel: 408-387-5340
Fax: 408-809-2883