



## ISOPREP 172

### Heavy Duty Descaler/Deruster

Product Code: 112843

#### DESCRIPTION

When rust and heat scale stand between you and a good finish, don't settle for anything less than **Isoprep 172**. It's an outstanding one-tank, multi-action product that economically conditions heat treat and weld scale, and strips rust as well as oily soils from ferrous metal parts quickly and completely. That makes it a smart substitute for competitive systems that take two or more stages and a lot of time to do the same job.

You get a lot of performance out of Isoprep 172 because there's a lot in it. Penetrants, detergents and emulsifiers leach out tough, oily soils that saturate the rust and heat scale deposits. That action paves the way for other special ingredients in Isoprep 172 to effectively remove the rust and scale deposits. What's more, Isoprep 172 can be used with current (anodic cleaning) for an even more aggressive action against heavy weld or heat treat scale.

Isoprep 172 attacks oily soil, scale and rust (and many paints, too) but not the basis ferrous metal. So you can use it on precision parts that won't tolerate dimensional changes. Moreover, Isoprep 172 is safe to use on steel parts susceptible to hydrogen embrittlement because its cleaning action doesn't generate hydrogen.

Isoprep 172 offers trouble-free operation. It's a highly concentrated liquid that is ready to use, is instantly soluble and doesn't spatter when added to a hot bath. The bath emits no corrosive or hazardous fumes or unpleasant odors. The product rinses freely, avoiding carry over into the succeeding stages. And since Isoprep 172 contains no phosphate or cyanide, it minimizes waste treatment requirements.

Boeing approved under BAC 5749.

**Note: Some precipitate may appear in the bottom of the container. This is normal for this product and will not diminish its performance.**

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT





**FEATURES & BENEFITS**

Features	Benefits
Outstanding descaler/deruster and cleaner for one tank operation	Reduces inventory requirements
Easy to mix liquid	Lowers operating costs
Can be used with current	Instantly soluble, no boil up when added to hot bath
No attack on basis ferrous metal*	Increases cleaning efficiency
Unlike acid pickling, cleaning action does not generate hydrogen	Safe to use on precision parts
Free rinsing	Avoids hydrogen embrittlement, eliminates blistering of subsequently plated work
No corrosive or hazardous fumes	Virtually no carry over to subsequent stages
No unpleasant odor	No special ventilation equipment requirement
Phosphate and cyanide free	Improves work efficiency Simplifies waste disposal

\*Will darken cast iron if exposed for extended time





**OPERATING PARAMETERS**

Isoprep 172 Conc	6 – 40%
Temperature	160 – 200°F (70 – 95°C)
Immersion time	10 min – 2 hrs (depending on soil and scale condition)
Power supply for electrocleaning	Capable of delivering up to 50 ASF (5.4 A/dm <sup>2</sup> ) to the work.

**MAKE UP PROCEDURE**

1. Fill tank 59% full with water.
2. Add required amount of Isoprep 172 concentrate to the tank with mixing.
3. Add water to fill tank to working level and heat to operating temperature.

**EQUIPMENT**

Use mild steel for tank. Mild steel steam heated plate coils may be used. However, they will last longer if constructed of stainless steel or stress reduced heavy gauge mild steel. For gas fired heating systems, mild steel can be used for burner tubes.

**SOLUTION MAINTENANCE**

Check the Isoprep 172 working solution concentration with a Drop Test Kit (available from your MacDermid representative). For more accurate results, determine Isoprep 172 concentration by titration analysis as indicated in the Analytical control section. Maintain the solution at proper concentration with required additions of Isoprep 172.

Spent solutions should be neutralized with acid and diluted to comply with all federal, state, and local regulations prior to disposal.





## ANALYTICAL PROCEDURES

### Isoprep 172 titration analysis

#### Reagents:

- 1.0N sulfuric acid ( $\text{H}_2\text{SO}_4$ )
- Phenolphthalein indicator

#### Procedure:

1. Pipette 10 mL cooled sample of working solution into a clean flask.
2. Add 2 to 4 drops of phenolphthalein indicator.
3. Titrate with 1.0 N sulfuric acid from a pink to colorless endpoint.

#### Calculation:

% by vol. Isoprep 172 = mls of 1.0N sulfuric acid x 1.64





**SAFETY & WARNING**

MacDermid Enthone recommends that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use.

**Safety Data Sheets are available from MacDermid Enthone.**

**WASTE TREATMENT**

Prior to using any recommendations or suggestions by MacDermid Enthone for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedent.

**ORDER INFORMATION**

Product	Code
Isoprep 172	112843

**CONTACT INFORMATION**

**To confirm this is the most recent issue, please contact MacDermid Enthone**  
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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency directory assistance Chemtrec 1 - 800 - 424 - 9300.

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