NIPOSIT™ 428 NICKEL STRIPPER

For Industrial Finishing Applications

DESCRIPTION
Niposit 428 Nickel Stripper is a stable, non-cyanide product designed to remove electroless and most electroplated nickel deposits from ferrous and copper alloys, without substrate attack.

ADVANTAGES
- High yield up to 3 mil feet per gallon or 14 gm of nickel metal per liter of bath
- High stability even when kept at operating temperature for extended periods of time
- Lower temperature operation; can be operated at 170–175°F (77–79°C)
- Bath does not contain cyanide
- No substrate attack

BATH MAKE-UP

<table>
<thead>
<tr>
<th></th>
<th>for 1 liter</th>
<th>for 10 gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>700 milliliters</td>
<td>7 gallons</td>
</tr>
<tr>
<td>Niposit 428 D</td>
<td>60 grams</td>
<td>5 pounds</td>
</tr>
<tr>
<td>Niposit 428 L</td>
<td>200 milliliters</td>
<td>2 gallons</td>
</tr>
</tbody>
</table>

Add in order shown; dissolve after each addition and bring to final volume with water.

STRIPPING RATE
Niposit 428 Nickel Stripper removes nickel deposits from ferrous alloys at a faster rate than from cupric alloys. Typically, a fresh bath will strip at a rate of 1 mil (25 microns) per hour on steel and 0.3–0.6 mil (7.5–15 microns) per hour on copper alloys at 175°F (79°C). As the bath becomes more contaminated with use, the rates are reduced slightly.

BATH OPERATION
Parts to be stripped should be cleaned in a hot caustic soak cleaner prior to the Niposit 428 Nickel Stripper bath.

Immerse the parts in the bath until the nickel is stripped from the substrate. During the stripping operation, the parts will exhibit a dark surface until the nickel has been removed. The surface will be clean and pit-free. Maintain the bath operating temperature between 170–175°F (77–79°C). The bath can be operated at 195°F (91°C), however, the higher temperature will result in shorter bath life. Stir the solution continuously to avoid localized overheating. Maintain the solution volume with water. Also, agitate the parts for best results.

After stripping, a smut will remain on the copper alloys that can be removed by immersing parts in a room temperature solution of 200 g/l sodium dichromate and 50 ml/l of concentrated sulfuric acid. Removal of this smut is easiest if the part is not allowed to dry.

CAUTION! The above smut removal solution may attack brass. Test substrate material for compatibility before use.

Note: Do not use Niposit 428 Nickel Stripper to remove nickel from substrates other than ferrous or cupric alloys.
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BATH REPLENISHMENT
Replenish the bath as follows for each 1 mil foot per gallon or 4.7 gm of nickel metal stripped per liter of bath.

<table>
<thead>
<tr>
<th>Material</th>
<th>per 1 liter</th>
<th>per 10 gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niposit 428 D</td>
<td>30 gm</td>
<td>2.5 lbs.</td>
</tr>
<tr>
<td>Ammonium Hydroxide (29% by weight)</td>
<td>20 ml</td>
<td>25.6 fl. oz.</td>
</tr>
</tbody>
</table>

Maintain pH above 12 with sodium hydroxide to prevent attack on steel.

HANDLING PRECAUTIONS
Before using this product, consult the Material Safety Data Sheet for details on product hazards, recommended handling precautions, and product storage.

CAUTION! When using immersion heaters, failure to maintain proper volume level can expose tank and solution to excessive heat resulting in a possible combustion hazard, particularly when plastic tanks are used.

STORAGE

PRODUCT DATA
Niposit 428 D Nickel Stripper
Appearance: homogeneous blend of pale-yellow powder/crystals

Niposit 428 L Nickel Stripper
Appearance: Alkaline aqueous solution, water-white to pale-yellow
Specific Gravity: ~1.05

EQUIPMENT
Use equipment constructed of polypropylene, stainless steel, Pyrex, ceramic or steel.

WASTE TREATMENT
It is the user’s responsibility to verify that treatment procedures comply with federal, state and local regulations. Contact your Rohm and Haas Electronic Materials Technical Representative for more information.

Due to the nature of Niposit 428 Nickel Stripper disposal of it, or residues therefrom, should be made in compliance with federal, state and local environmental laws.

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