

Product Data Sheet

Date: 02/25/02
Supersedes: 02/17/99
PRODUCT #: N8049

SELECT CLEANER/CONDITIONER

Acid Cleaner for Copper and Solder

DESCRIPTION: An acidic, organic, non-etching cleaner designed to clean copper and solder surfaces in selective solder stripping processes. ***SELECT CLEANER/CONDITIONER*** cleans both inorganic and organic soils, removing oxidation from copper without tarnishing solder. It can be used in either spray or soak applications.

BENEFITS:

- **Cleans organic and inorganic soils**
- **Low VOC content**
- **No tarnish on solder**
- **No chelating ingredients**
- **No chlorides**

SPECIFICATIONS:

Density:	1.06 gm/ml, 8.8 lbs./gal.
pH at 20% :	2.0
Flash Point:	> 200°F
VOC Content (EPA Method 24):	10%, 0.9 lbs./gal.

INSTRUCTIONS:

Concentration:	10 - 20% by volume with water
Temperature:	80° - 90°F
Dwell Time	45 - 60 seconds
Loading	Up to 2000 square feet per gallon of concentrate

SELECT CLEANER/CONDITIONER is diluted 10-20% with water to make up the working solution. Rinse thoroughly and dry to prevent staining and oxidation.

Analyze the working solution according to the analysis on reverse side. Maintain concentration by additions of ***SELECT CLEANER/CONDITIONER*** concentrate.

CAUTIONS: ***SELECT CLEANER/CONDITIONER*** is acidic; use protective handling equipment such as glasses or goggles, gloves and protective clothing when handling this product. In case of skin contact, flush with water. For eye contact, flush immediately with water and obtain medical assistance. Refer to Material Safety Data Sheet for further information.

DISPOSAL: Neutralize with caustic to pH 7 - 8. Analyze spent solutions for metal content. Dispose of in accordance with all local, state and federal regulations.

ANALYSIS:

Equipment required: 20 ml pipette
50 ml graduated cylinder
250 ml Erlenmeyer flask or beaker
25 ml burette
Dropper
pH meter (optional)

Reagents required: 1.0N Sodium Hydroxide (NaOH) solution
Phenolphthalein indicator

Procedure:

1. Pipette a 20 ml sample into a 250 ml beaker or flask.
2. Add 50 ml of distilled water and 5 drops of indicator.
3. Titrate with 1.0N NaOH to a permanent pale pink color and record mls used. Record milliliters used.

OR

Titrate to a pH end point of 8 using a pH meter and record mls used.

Calculation: $\text{mls of NaOH} \times \text{N of NaOH} \times 1.46 = \text{Percent } \textit{SELECT CLEANER/}$
 $\textit{CONDITIONER}$

This product should be used only for its intended purpose. The information stated above is based on our laboratory tests and experience, and is accurate to the best of our knowledge. Since actual use is beyond our control, the recommendations or suggestions are made without warranty, expressed or implied.