TECHNICAL DATA SHEET

CATEGORY: **AQUEOUS CLEANER**

NAME: **AIMTERGE 520A**

FEATURES

- WORKS HOT OR COLD
- CORROSION INHIBITED
- FOR CLEANING SOLDER PASTE, FLUX & CORED WIRE RESIDUES
- RECOMMENDED FOR ALL CHEMISTRIES

DESCRIPTION

AIMTERGE 520A cleaner is a saponifier formulated to readily remove resin, rosin, no clean, and water soluble flux residues from printed circuit boards while preventing the attack of aluminum components and hardware common with many saponifers. AIMTERGE 520A cleaner works with a co-solvency action of alkaline saponification and solvent solubilization. Though effective hot or cold, the performance of AIMTERGE 520A is increased when used hot (140°F). AIMTERGE 520A is recommended especially for the removal of rosin residues.

HANDLING

- AIMTERGE 520A has a sealed shelf life of two (2) years. Do not freeze this product.
- Do not store near fire or flame. Keep away from sunlight as it may degrade product.
- AIMTERGE 520A is shipped ready-to-use, no mixing is necessary.
- Do not mix used and unused chemical in the same container. Reseal any opened containers.

APPLICATION

AIMTERGE 520A is suitable for in-line spray cleaning systems, batch soak tanks and modified dishwashers.

TYPICAL WORKING SOLUTIONS BY VOLUME

RESIDUE	MACHINE	% AIMTERGE	TEMPERATURE °F
ROSIN	CONVEYORIZED	4-6	120-160
ROSIN	DISHWASHER	3-5	140-160
ORGANIC ACID (OA)	CONVEYORIZED	1-2	120-160
ROSIN/OA	SOAK TWIN	2-7	AMBIENT-120

- A thorough final rinse is vital (deionized water is recommended) for removing flux residues liquefied by the AIMTERGE 520A wash. Levels of cleanliness are affected by the condition of the rinse water flow rate.
- Prior to drying assemblies, the use of an air knife to remove excess water will facilitate force drying and enhance the final ionic cleanliness.

CONTROL

- In automated systems, the concentration of AIMTERGE 520A cleaner in the wash tank will be diminished by ongoing flux removal and diluted by automatic water additions replacing drag-out.
- Bath strength should be replenished with periodic additions or continuous metering of AIMTERGE 520A cleaner into the wash tank. Monitoring of bath concentration can be done using a standard alkaline titration procedure.
- After 8-16 hours of continuous use in non-closed loop cleaning systems, the wash solution will become saturated with rosin soap and should be changed.
- AIMTERGE 520A is not for use in closed-loop cleaning systems containing resin beds for filtration.

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TITRATION

- This is a simple method to control the concentration of saponifier in cleaning equipment. The procedure utilizes the Hach Digital Titrator. This device uses pre-packaged cartridges of test solutions, making test results safe and accurate.

Procedure

1. Attach a clean, straight-stem delivery tube to a 7.95 normal Hydrochloric Acid (HCl) cartridge. Twist cartridge onto Digital Titrator body.
2. Flush the delivery tube by turning the coarse delivery knob to eject a few drops of titrant (7.95 normal Hydrochloric Acid). Turn left hand knob clockwise until zero reading is present and wipe the tip.
3. Bath make-up control:
   Take a sample from a freshly made-up bath of AIMTERGE and water.
   Transfer 3.7 ml into a test tube or flask (be sure that this solution is below 100°F).
4. Add 1 drop of phenolphethalein indicator to the AIMTERGE sample and swirl to mix.
5. Place the stir-bar into the flask and set flask on the Titra-Stir. Turn on the stirrer and mix the solution until the AIMTERGE sample changes from a violet color to a uniform water-white, colorless condition (End Point).
   If the Titra-Stir is not available, the flask should be swirled by hand for 10-15 seconds.
6. Note the number in the Digital Titrator window. This number, divided by 10, is the **control titration number** and indicates the strength of a fresh solution.
7. Press the plunger release button and manually retract the plunger into the body of the titrator.
   Remove the cartridge
   Remove the delivery tube and reseal the cartridge with the cap.
8. Bath Maintenance:
   Bath maintenance can be monitored using the above procedure. Specific titration numbers are only of value when determined and correlated for the individual process and application. This control process is very effective since the titration number and the percentage of AIMTERGE in water is proportional to the solution strength.
9. Dumping Point:
   The bath will eventually become saturated and ineffective. The dumping point is related to a quantity of piece parts or batches processed. Consistent processing will require selecting a dumping point within the window of effective performance.

Example

If your starting point of a 10% solution of AIMTERGE has a titration number of 20 and falls to a titration number of 10, the amount of AIMTERGE needed to get back to your starting point would be 50% of AIMTERGE originally added to make the 10% solution.

PHYSICAL PROPERTIES

FLASH POINT	>**230°F**	TM-06010
AUTO IGNITION	N/A	
SPECIFIC GRAVITY 25°C	**.97**	TM-01025
pH 5%	**11.2**	TM-07001
NEUTRALIZATION	**218 mg HCL/g**	TM-00200
POUNDS PER GALLON	**8.1**	CALCULATED

EQUIPMENT MAINTENANCE

Aqueous deaning equipment will accumulate mineral deposits, commonly known as “scale”, from the use of untreated tap water. Periodic de-scaling will assist in maintaining the washing systems effectiveness and efficiency. AIM Descaler is recommended for this application.

SAFETY

- Use with adequate ventilation and proper personal protective equipment.
- Refer to the accompanying **M**aterial **S**afety **D**ata **S**heet for any specific emergency information.
- Do not dispose of any hazardous materials in non-approved containers.

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