



LIQUID CLEANERS

ALKALINE BASED LIQUIDS:

TK-155MSO A moderately alkaline, low-foaming cleaner formulated for use in spray washing equipment for the removal of mill oils. Excellent wetting and rinsing properties.

TK-23 A highly alkaline cleaner based on sodium hydroxide. May be used in soak, electrolytic or ultrasonic applications for the removal of dry drawing lubes where products using chelators are not permitted.

TK-28 A moderately alkaline cleaner containing phosphates and chelators for the removal of oily residual and insoluble soap powders. May be used in soak and ultrasonic applications.

TK-33 A highly alkaline cleaner based on potassium hydroxide. Formulated for the removal of light oils and dry drawing lubricants. May be used in soak, electrolytic or ultrasonic applications.

TK-41 A moderately alkaline, non-chelated cleaner that exhibits excellent wetting and low foaming tendencies. Contains a biodegradable emulsification system and is phosphate-free. Recommended for use in removing fatty and mineral oil residuals from all metals in soak, ultrasonic, or spray applications.

TK-44 A highly alkaline, sodium hydroxide-based cleaner formulated for removing insoluble dry drawing and oily compounds from ferrous and alloy steels. May be used in soak, electrolytic or ultrasonic applications.

TK-45 Similar in composition and application to **TK-44**; however, a potassium hydroxide base is used to reduce the risk of foam developing and extend the useful life of the cleaning solution.

TK-48 A highly alkaline, potassium hydroxide-based cleaner formulated for removing heavy residual oils, including chlorinated oils, from ferrous and alloy rod, wire and tube. Recommended for use in soak, electrolytic and ultrasonic cleaning processes.

PRODUCT DATA



www.RichardsApex.com
Phone: 215-487-1100

ACID BASED LIQUIDS:

DEOX-9RM An inhibited, phosphoric acid-based cleaner, containing an emulsifier package to facilitate the removal of residual drawing oils. Also effective for removing insoluble dry drawing soaps permitting the use of this product in fully integrated alloy wire drawing facilities. Contains additives to inhibit foaming.

DEOX-12 An inhibited, phosphoric acid-based cleaner, containing specially selected metal wetters for removing calcium and sodium sterates from ferrous and alloy wires. Also available as **DEOX-12A**. This modified version contains additional inhibitors to extend ultrasonic transducer life.

TKA-46 A cream-colored, viscous liquid formulated from organic acids and wetting agents. Very effective in removing process drawing soils and metallic dust from nonferrous wire. Will brighten oxidized surfaces.

HIGH DETERGENT LIQUIDS (HDL):

EMULS-2 A mild, detergent concentrate containing special metal wetters. Recommended for removing oily soils from all metals in soak cleaning applications.

147 A mild, high detergent cleaner formulated for removing oily process soils from aluminum tubing in soak cleaning processes.

RECOMMENDED USES:

| <u>PHYSICAL FORM</u> | <u>OPERATING TEMPERATURE</u> | <u>CONCENTRATION</u> |
|-----------------------------|-------------------------------------|-----------------------------|
| Alkaline Liquid Cleaner | 140 - 180° F. | 10 – 15% by Vol. |
| Acid Liquid Cleaner | 120 - 180° F | 10 – 15% by Vol. |
| TKA | 140 - 180° F | 15 – 20% by Vol. |
| HDL | 140 - 180° F | 5 – 10% by Vol. |

The cleaners listed on this data bulletin are representative of a broad product line available. Since cleaning requirements are often soil specific to a single application, the RichardsApex laboratory can custom formulate to meet specific requirements. Contact your RichardsApex Representative for additional details.