1. DESCRIPTION

- Strong alkaline liquid degreasing agent for removal of vegetable, fish and animal oils and fats from epoxy / polyurethane coated or stainless steel tanks by injection or circulation method.
- Thorough saponification and emulsification provides economic removal of vegetable and animal oils.
- Can be used on most common metals except aluminum, tin, zinc and galvanized metals.
- Safe to use on epoxy and polyurethane coatings but it is not suitable for use on zinc silicate coatings, most paints and lacquers.
- Deodorizes certain residues.

2. APPLICATIONS

**Steam Boilers**
Prior to acid cleaning of steam boilers, which are also contaminated with oil and grease or when silicates / calcium sulfates are present it is advantageous to first perform a boil out operation with **ALKACLEAN**.

**Tanks**
Suitable for removal of fatty acids, fish oils and other drying or semidrying oil deposits present as residues in storage and cargo tanks. It is very effective on dried oil films. When cleaning from “black oils” to “white oils” and from “black oils” to “grain cargo” it is a useful final treatment.

3. DIRECTIONS FOR USE

**Cleaning of Steam Boilers**
Fill the boiler with a 5-10% solutions of **ALKACLEAN** in water. Depending on the degree of contamination allow this solution to circulate for 12 to 24 hours at a temperature of 100ºC. After this boil out operation completely drain away the warm cleaning liquid and rinse the boiler thoroughly with cold water.

**Tank Recirculation Method**
**ALKACLEAN** is added to a mixing tank containing a water quantity of 1% of the capacity of the tanks to be cleaned. The solution is heated by using the heating coils in the tanks. The tanks are washed by using a cargo pump after which the solution is recycled to the mixing tank. Usually one solution can be used to washing 2-3 tanks. **ALKACLEAN** is circulated as a 5-10% solution at 80-90ºC for a period of 2-6 hours. After circulation rinse thoroughly with water.

**Direct Injection Method**
Inject 1-2 liters of **ALKACLEAN** per 100 liters of wash water directly into the tank washing system. The recommended cleaning temperature is 80ºC. When completed rinse thoroughly with water.

**Closing Remarks Regarding Cleaning**
In many cases and after treatment with UNI AMERICAS’ RUST REMOVER solution is recommended for the removal of white lime.
ALKACLEAN deposits originating from seawater and/or residues from the cargo. Inject 0.5 liter UNI AMERICAS RUST REMOVER per 100 liters of wash water directly into the tank washing system for approximately 20 minutes. The recommended temperature is 75-85°C. Finally rinse the tanks thoroughly with cold fresh water.

Boiler Firesides Cleaning
Use a 10% to 20% solution of ALKACLEAN with fresh water. For deposits, which are very hard to remove a concentrated solution of up to, 50% can be used.

BOILERS / HEAT EXCHANGERS WATER SIDE CLEANING
Generally the amount required is 4% of the unit capacity depending on conditions, the above dosage may be increased to 5-10%.

For cleaning oil contamination from boilers, condensers and other heat exchangers (water side).
1. Blank off unit to be certain it is isolated.
2. Drain unit of all water.
3. Connect stem hose, preferably to bottom of unit.
4. Connect small recirculating pump, if available. If not, use steam for agitation, vent unit at highest possible point to prevent pressure build-up and allow escape of fumes.
5. Pour into the unit 4% of ALKACLEAN of the total capacity and certain that all drains are closed so that chemical is not lost.
6. Add fresh water to the top of tube bundle level or minimum water level in boilers.
7. Heat to at least 60ºC (140ºF) and recirculate for a minimum of 12-24 hours after temperature is attained.
8. After heating and recirculation or agitation, dump the solution from the unit.
9. On boilers, flush each tube with fresh water in order to remove oil residues.