

Cleaning & Maintenance

EAZY AQUACLEAN HD

Product Code: 2005 Packaging: 25L & 200L

Product Group: Cleaning: Water Based Issue/Date: 1.90 - 30/11/2016

eazy Aquaclean HD is a heavy duty water based alkaline cleaner and degreaser designed for use in conditions requiring effective removal of oily deposits.

It is environmentally sensitive, does not contain petroleum solvents and is suitable for hydrocarbon-free cleaning.

Product can be used for cleaning vegetable, animal and mineral oils/petroleum products after cargo discharge and is ideal for removing ligh to moderate inert gas soot deposits (IGS) from cargo tanks.

Product has been tested by Marinfloc and approval status is granted as "Can Be Separated". Contact technical@eazychem.co.uk or Marinfloc directly for specific details.

In accordance with MARPOL Annex II Regulation 13.5.2 and MEPC.1/Circ.590, Tank Cleaning Additives Guidance Note and Reporting Form, eazy Aquaclean HD is approved as a cargo tank cleaning additive.

Application and use

- Does not contain nonyl phenol ethoxylates
- Low order of toxicity
- Water based / Non flammable
- · Suitable for use on epoxy/polyurethane coatings and stainless steel (not suitable on Aluminium, Magnesium or Zinc Silicate)
- Effective traffic film remover
- May be used in ultrasonic cleaning applications

Product must not be used with non-ferrous metals such as Zinc, Aluminium, Tin etc.

Directions for use

General Cleaning:

Product should be applied as a 5 to 10% solution in water to soiled surfaces by brushing or spraying, allowing at least 15 to 30 minutes for it to penetrate the soiled parts. The cleaning effect is maximized when used with hot water. After cleaning items should be rinsed well with water.

Ultrasonic Cleaning:

Product can also be used in a 10 to 15% solution of fresh water for use in all ultrasonic cleaning tanks. The cleaning time will vary and will depend on the degree of soiled deposition. Heating the solution to 50 to 60°C will enhance the cleaning effect.

Cargo Hold Cleaning:

After discharge of cargo, and depending on severity of deposition, a 2 to 10% solution with water should be applied onto dry surfaces by low pressure spray. Allow product to penetrate for about 15 minutes (but do not allow to dry) before rinsing off with water using highest pressure available. If a light powder dusting is still evident after drying we recommend a light rinse be applied using 0.5% solution with water.

Tank Cleaning:

- Flush tanks with seawater to remove remaining cargo to slop. (MARPOL 78/73)
- Prewash tanks with clean water increasing temperature to 50-60°C for 2-10 hours depending on tank size to aid removal of oily-mud and residues on the tank surface/coating. For drying or semi-drying oils prewash with cold water.
- · For "Direct Injection" recommend use of product at a 2-5% solution in fresh water. (1.5x if must use seawater)
- For "Recirculation" recommend use product at a 3-5% solution in fresh water. (1.5x if must use seawater)
- Clean for 2-8 hours increasing temperature (see following) for maximum cleaning effect.
- Maximum permitted cleaning temperatures varies (check & verify with cargo owner) and burning must be avoided. For example, Palm Oil residues are normally cleaned at temperature 55-65°C. For hydrogenated oils containing stearic acid with a melting point of around 70°C, a temperature between 72-77°C is normally required. Higher temperatures can "bake-on" residues rather than removing them making subsequent removal extremely difficult.



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- Drain and flush tanks with large amount of warm seawater for at least 2 hours to remove any remaining chemical residues.
- · Drain and flush tanks with clean fresh water to remove salts.
- Mop and dry.

Tank Spot Cleaning:

This method is used to remove stubborn CPP and hydrocarbons residues after main tank cleaning operation has been conducted.

- If possible heat either a neat or a 20-50% solution of product and apply by spray to affected areas.
- Allow product to soak for 30 minutes but DO NOT allow to dry.
- Rinse well using available high pressure equipment or by performing a re-circulation using clean fresh water.
- For persistent deposits both mechanical action (scrubbing) and heat will be required.

Boiler Degreasing/Pre-Commission Cleaning:

Product should be used at 5-10% concentration in water (ideally with condensate or if not available fresh) depending on the anticipated degree of contamination.

Heat solution up to 60°C and circulate. Each chemical cleaning cycle lasts for approximately 6 to 24 hours.

When cleaning is complete, the unit is slowly cooled and the alkaline solution is drained to the waste tank.

If no other cleaning is required, this step should be followed by water flushing and steam blowing, in accordance to the equipment manufacturers guidelines, to remove loose debris remaining in the system. Flushing with intermediate blowdown should be continued until flush water conductivity is ideally below 50 mhos.

This step should be repeated if organic or residual oil-based contaminants are still found upon inspection.

IMPORTANT

Alkaline cleaning must follow the procedures that system's manufacturer specifies for their specific equipment. However, for illustrative purposes a boiler may be fired at a low rate of around 60°C, but not necessarily enough to establish positive circulation. Boil-out pressure is usually half the operating pressure. Several times during the boilout, half of the boiler water would be blown down as shown on the gauge glass through the bottom blowdown valves. Alternate valves are used where there is more than one blowdown connection. The boiler is refilled with same concentration of product close to the top of the glass after each blow.

Whilst separate cleaning may be considered for superheaters and reheaters they may be protected by backfilling with a properly treated condensate.

Health and Safety

 ${\bf Please} \ {\bf refer} \ {\bf to} \ {\bf the} \ {\bf Material} \ {\bf Safety} \ {\bf Data} \ {\bf Sheet} \ {\bf and} \ {\bf Product} \ {\bf Label} \ {\bf for} \ {\bf specific} \ {\bf information}.$

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