

## APEX ECO SOLVE

- Eco-friendly heavy-duty cleaner
- High flash point
- High cleaning concentrate
- Biodegradable and low-toxicity to marine life
- Effective and economical
- More effective than solvent cleaner
- Suitable for cleaning of most MARPOL Annex II cargo
- Approved by:
  - IMO
  - Coating Manufacturers

|                 |                |
|-----------------|----------------|
| Epoxy           | Compatible     |
| Zinc            | Not Compatible |
| Stainless Steel | Compatible     |

### PRODUCT DESCRIPTION:

APEX ECO SOLVE is suitable for removing most Annex II Cargoes.

APEX ECO SOLVE is also suitable for cleaning after majority of Annex I cargoes. Suitable for DPP to CPP conversion

APEX ECO SOLVE can be used to clean the cargo tank of vegetable, fish, animal and mineral oils, petroleum-based chemicals, and for the cleaning and degreasing of double bottoms, deep tanks, bilges etc

### APPLICATION:

#### TANK CLEANING

Before cleaning with APEX ECO SOLVE it is recommended to prewash the tanks with hot water.

For drying or semi-drying oils, a prewash with cold water should be carried out immediately after discharge of cargo to prevent hardening of oil residues. After 1 cycle slowly start to increase water temperature to increase effectiveness of the prewash.

#### Recirculation Method

Recirculation is highly effective and widely used. In this method a chemical solution is pumped under pressure, using a closed recirculation circuit, to a mechanical tank washing machine. The chemical solution is normally prepared in the tank to be cleaned or in the slop tank. Heat is achieved by the use of a heat exchanger, steam coils or live steam injection. The advantages of this method are the recovery of the heat and chemicals to clean additional tanks.

Depending on the degree and nature of contamination APEX ECO SOLVE is circulated as a 0.5 – 0.8 % solution for a minimum period of 2 - 4 hours at a temperature of 10 - 60 °C. After circulation rinse thoroughly with (fresh) water. In case the next cargo is of high purity standard make sure to rinse with D.I. water, to meet the necessary cleanliness standard.

#### Direct Injection

Inject 0.2 – 0.5 % of APEX ECO SOLVE into the washing system. Maintain cleaning temperatures between 10 - 60 °C. Cleaning time is 2 - 6 hours, followed by thorough rinsing with fresh hot water.



## Spray Method

Spray the tank surfaces with a solution of APEX ECO SOLVE and let the product act for at least 30 min. Then rinse all tank surfaces with hot water for 1 or 2 cycles (approx. 30 - 45 min.) or as long as needed to remove the cleaning detergent.

APREX ECO SOLVE can be sprayed in a 0,1 - 0,2 % solution to remove the last traces of hydrocarbons or in a solution up to 10 % for carbonized and/or hardened residues.

## DIRECTIONS FOR USE (SEE APPLICATIONS)

### DOSAGE:

|                   |   |  |
|-------------------|---|--|
| Recirculation     | : | 0.5 – 0.8 %  |
| Direct injection: |   | 0.2 – 0.5 %  |
| Spraying          | : | 0.1 – 0.2 % for HC traces<br>0.5 - 10 % for cargo residues |

### Tank Material

Safe to use on stainless steel and resistant coatings. This product should not be used on zinc coating

### Warning

Prior to use, one should be sure that equipment like hoses, pumps and gaskets are resistant to APEX ECO SOLVE. Suitable material is PE, PP, PTFE and for short term material use butyl rubber.

Also, paint and lacquers can be damaged due to the high solvency power.

**Approval:** The composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V and may be discharged into the sea when used to clean cargo holds and external surfaces on ships.

## PHYSICAL PROPERTIES

|                  |   |                    |
|------------------|---|--------------------|
| Appearance       | : | Coloured odourless |
| Relative Density | : | 0.9 – 1.0          |
| Form             | : | Liquid             |
| Flash Point      | : | N.A                |

**Packaging** : Supplied in 200 litres non-returnable drums.

### Important information:

Apex chemicals Safety Data Sheets are available. Safety Data Sheets contain health and safety information for proper products handling procedures to protect your employees. Our Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using.

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