

Product group: 651 Product number: 575696

UnitorTM Carbonclean LTM is a non-corrosive, powerful micro emulsion based cleaner for removal of carbonaceous deposits.

#### **Product information**

Unitor TM Carbonclean LTTM contains no chlorinated solvents or phenolic compounds and has low toxicity to the environment and to persons handling it.

It is developed and ideal for removing carbon type deposits from heat exchange, burner tips, fuel injectors, and other engine parts being contaminated by carbon residues.

# Gountail II

#### Features

- Reformulated with improved cleaning properties
- Can be used for cleaning engine parts including but not limited to: Pistons, Piston rings, Valves, Valve cages
- Does not contain nonylphenol ethoxylates or other estrogenic compounds
- · Simple and economical to use by soaking or circulation method
- Cleans oil side of fuel and lube-oil heaters, oil coolers, etc.
- Removes carbon based deposits from fuel and lube oil filters

#### Benefits

- Non-corrosive, safe on all light metals, including aluminium
- Quickly dissolves deposits containing carbon, resins or varnishes
- · Eliminates need for hard scraping
- · Effectivly removes carbon type deposits from burner tips, fuel injectors and all components fouled by carbon, resin or varnishes
- Low toxicity and low evaporation rate
- Contains no phenolic or chlorinated compounds.

### **Specification**

#### General

Invent Hazard Material (IMO/EU) classification	C-49

#### Physical properties

Appearance	Colorless
Density [g/ml]	0.95-0.96
Flash Point [°C]	Above 61
Form	Liquid

# Technical data

Not Compatible	May swell rubber and synthetic rubber materials.

# Documents

SDoC and MD for IHM

# **Directions for use**

# Soaked method

This method is an effective way of cleaning deposits from machine parts. The items to be cleaned are dipped into the cleaning solution. A wire basket can be used for small components. For removal of light deposits or oil, a dilution of up to 1:2 in fresh water can be used. Light deposits will be removed in 1 hour, whereas heavily oxidised deposits may need overnight soaking. After the components have been removed from the soaking bath, remaining cleaning solution is easily flushed off with water.

Due to a very low evaporation rate, no precautions are necessary to prevent loss of liquid, but adequate ventilation is recommended.

Cleaning the Oil Side of Heat Exchangers Where in-site cleaning is required, Unitor<sup>TM</sup> Carbonclean LT<sup>TM</sup> can be used neat and circulated through the unit in question. Time required for this process will again depend on extent of fouling and may take up to 24 hours.

The Unitor<sup>TM</sup> Chemical Cleaning Unit - Product no. 737189 - is recommended to be used.

- $1. \ \ Disconnect \ the \ heat \ exchanger's \ oil \ inlet \ and \ outlet, \ drain \ off \ any \ remaining \ oil.$
- 2. Connect the discharge side of the Chemical Cleaning Unit (CCU) to the lower heat exchanger connection and fit the return to the CCU.
- 3. Add Unitor<sup>TM</sup> Carbonclean LT<sup>TM</sup> to the drum, Unitor<sup>TM</sup> Carbolcean LT<sup>TM</sup> can be diluted to 25% with firesh water, and heat, maintaining the temperature (max 60°C), throughout the cleaning operation. If heat is not available the cleaning time will need to be extended and a higher product concentration is beneficial.
- 4. Circulate for 12 hours. When the cleaning is complete, disconnect the lower heat exchange connection and drain out the cleaning solution.
- 5. Connect a fresh water supply to the upper heat exchanger connection. Rinse until water runs clear.
- 6. Disconnect the water supply, drain and dry the heat exchanger.

The Unitor  $^{TM}$  Chemical Cleaning Unit can also be used for cleaning by soaking or circulation. Results can be achieved with maximum efficiency and with the minimum use of Unitor  $^{TM}$  Carbonclean  $LT^{TM}$ .

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