Turbine Kleen 81 RX

Descripton:

Turbine Kleen 81 RX is liquid concentrate Gas Turbine Compressor Cleaner, which is made from surfactant and biodegradable natural enzyme based solvent chemicals. Its consists of corrosion inhibitors and developed to give the maximum possible cleaning efficiency With ultra effectiveness from a natural-solvent chemical. Due to advanced formula based on latest bio - technology make it a very safe & user friendly product for both online & offline compressor cleaning. Usually compressor cleaners are formulated either from anionic, cationic or nonionic surfactants. **Turbine Kleen 81 Rx** however contains a very complex triple-active formula of cationic, nonionic and amphoteric surfactants, of which the latter is a state-of-the-art surfactant custom made for Turbine Kleen 81 Rx.

Application:

It can be used with any on-line/off-line injection system. It is designed to remove the accumulation of atmospheric impurities, oil and oil oxidation products that occurs in the compressor of such engines and so restore the power loss caused by these deposits.

Usage & Dose:

Recommendation dose is 1 part **Turbine Kleen 81 Rx** with water in the proportion of 1 part 4 parts water. The product has a low trace analysis of inorganic impurities and, in order that the working solution applied to the compressor is equally low in such impurities. Use demineralised water as specified by the engine manufacturer, typically $<11\mu$ S/cm. The volume of chemical solution needed per wash and the optimum cleaning frequency will depend upon engine size, operating environment and fouling tendency. It is recommended that a post rinse is performed to ensure that the nozzle system is cleaned and ready for next operation.

Turbine Kleen 81 Rx solution is sprayed into the cranked or fired engine, according to the engine manufacturers' approved method, using the equipment and technique appropriate to the engine being cleaned. Allowed to soak for 20 to 30 minutes then thoroughly rinsed off at cranking speed with good quality water acceptable to the engine manufacturer The volume of solution required and the flow rate will depend on engine type. **Turbine Kleen 81 Rx** can be used with dilution ration 1:2 for offline cleaning, providing a

Physical Properties:

Appearance	Fluid
Colour	Light yellow
Odour	Characteristic
Odour threshold	Not determined
pH-value at 20°C	7-8
Melting point/Melting range	<0°C
Boiling point/Boiling range	110°C
Flash point	NA
Flammability (solid, gaseous)	Not applicable
Ignition temperature	225°C
Decomposition temperature	Not determined
Self-igniting	Product is not self-igniting



Advantage:

- **1 Easy and safe to use: Turbine Kleen 81 Rx** is non-aggressive against the eyes and skin. When using the product no special precautionary measures other than standard safety procedures for the application of cleaning products need be observed.
- 2 **Easy disposal: Turbine Kleen 81 Rx** is biodegradable in any biological sewer system. Disposal of the off-line wash effluent therefore is determined by the engine found in the solution.
- 3 **Easy to handle and supply : Turbine Kleen 81 Rx** is normally supplied as an industry standard 1:4 concentrate. For those that prefer the convenience of a ready to use product Turbine Kleen 81 Rx can be supplied pre-diluted. All variants are available in 1,000 ltrs IBCs, 210 litres drums, 25 and 20 litres containers.

FUTURE & BENEFIT:

- Safely and effectively cleans compressors on-line when running at any speed and load.
- Extremely effective non-solvent cleaner.
- Meets the most stringent requirements of gas turbine manufacturers.
- ldeal for light and frequent on-line washing of any type of industrial, marine or aviation gas turbine to maintain in-service output and fuel efficiency.
- On-line cleaning reduces damaging shutdown/start-up thermal cycles and starter wear and tear.
- Ideal for off-line cleaning due to high biodegradability.
- Non-flammable.
- Mixes readily with most antifreeze agents to allow low ambient temperature on-line/off-line cleaning.
- Supplied in concentrated form to reduce transport and handling costs and minimize storage requirements.

Note:

Before operating the process described it is important that this complete document, together with any relevant Safety Data sheets, be read and understood.







