Chevron Vartech® Industrial System Cleaner

Product Description

Chevron Vartech® Industrial System Cleaner (ISC) is a deposit cleaning product added directly to circulating oil or hydraulic systems during operation in order to clean a system of varnish and sludge deposits before a scheduled oil change. It helps prepare the system for optimum performance prior to a new, fresh oil change.

Customer Benefits

Chevron Vartech ISC® delivers value through:

- **Reduces equipment failure** - removes deposits that can accelerate component wear.
- **Restores system performance** - removes deposits from servos and small passages that can restrict operation response.
- **Restores system efficiency** - removes surface varnish that inhibits heat transfer and can reduce full load operations.
- **Less filter changes** - improves breakdown of deposits that can plug filters during cleaning.
- **Minimal flushing required** - excellent compatibility facilitates reduced flushing requirements.

Features

VARTECH ISC stabilizes varnish and sludge surface deposits in the oil to enable their efficient removal through a scheduled oil change, restoring system operational efficiency.

The advanced cleaning chemistry effectively dissolves and disperses varnish surface deposits to minimize filter loading during cleaning compared to leading competitor cleaners. The solvent-free formula has reduced volatility and excellent compatibility with most elastomer seals.

VARTECH ISC is compatible with most mineral and synthetic hydrocarbon circulating and hydraulic fluids*. The enhanced formula helps retain oxidation control and will not compromise other critical performance attributes. This allows for extended cleaning duration and reduces the requirements for system flushing before fresh oil fill.

Applications

VARTECH ISC is designed to effectively remove varnish and sludge from lubricating systems in steam and combustion turbines, centrifugal and rotary screw compressors, and stationary hydraulic systems. It is recommended for use in ISO 22 to 100 viscosity grade fluids. Vartech ISC is approved by Siemens Energy for use in steam and gas turbines, compressors, and generators to remove varnish and deposits.

VARTECH ISC is recommended to be added directly to the in-service fluid at concentrations between 5% to 10% of the total oil volume in the system. Ten percent (10%) concentration is needed for cleaning severe varnish deposits. Five percent (5%) is suitable for maintenance cleaning.

For most effective cleaning results, Vartech ISC treatment should be added to the in-service fluid and circulated in normal system operation for a period of 7 to 30 days**. Operating temperatures in the range of 120 to 250°F (50 to 120°C) are ideal for best cleaning performance. Lower temperatures may reduce cleaning effectiveness and need longer cleaning times.

*May not be compatible with some non-mineral based synthetic fluids.

**Extended times beyond times listed above are possible.

Product(s) manufactured in the USA.
Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

15 May 2024
IO-30

INSTRUCTIONS FOR USE

Chevron Vartech ISC is added directly to the in-service lubricating oil. If the current oil is severely deteriorated, it is recommended the degraded oil be drained, and the cleaner added to a new fill of recommended oil.

1. Determine the amount of cleaner required and the proper duration: 10% for severe varnish cleaning or 5% for maintenance service.
2. Install a fresh set of filters to maximize varnish and deposit collection. Ensure additional filters are available for the system as filter changes may be required due to release of varnish and deposits.
3. Ensure system does not exceed maximum fill levels when adding the system cleaner; if needed, drain adequate volume of oil to maintain proper operating volume.
4. Add Chevron Vartech ISC to the system, up to the chosen concentration, ideally while oil is circulating.
5. Operate the equipment as normal for the chosen duration. Ensure operating temperatures are maintained within the recommended range. Monitor filters for increased differential pressure; replace as necessary.
6. Drain the oil/cleaner mixture from the system while the oil is still warm (safe handling temperatures) and recently circulated. When possible, drain as many locations in the system where oil may get trapped (i.e. filter housings, coolers, piping, de-gassing tanks, etc.).
7. When possible, manually clean any accessible settled deposits and oil from the reservoir after draining.
8. System rinse* is recommended when any of the following exist:
   - — Complete drain is not possible (more than 10% residual remaining)
   - — Extremely degraded in-service oil
   - — Severe deposits in the system
9. Replace filters.
10. Refill the system with a Chevron lubricant meeting equipment manufacturers' requirements.

*Flush oil used should be compatible with the final fill oil.

Contact your Chevron representative with any additional questions or concerns.

TYPICAL TEST DATA

ISO Grade	Test Method	
Product Number		223000
SDS Number U.S.		51900
API Gravity	ASTM D4052	29.2
Density at 15°C, kg/L	ASTM D4052	0.8803
Viscosity, Kinematic cSt at 40°C cSt at 100°C	ASTM D445	53 7.7
Viscosity Index	ASTM D2270	110
Flash Point, COC, °C(°F)	ASTM D92	146(295)
Fire Point, COC, °C(°F)	ASTM D92	264(507)
Pour Point, COC, °C(°F)	ASTM D5950	-17(-1)

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.