



GST[®] OIL

ISOCLEAN[®] Certified Lubricant

32, 46, 68, 100

PRODUCT DESCRIPTION

GST[®] ISOCLEAN[®] Certified Lubricants are formulated with premium base oil technology designed to meet the critical demands of:



- non-geared gas, steam, and hydroelectric turbine bearing lubrication
- reduction gear lubrication in marine operations

They are an excellent recommendation for many other industrial applications including air compression where R&O type oils are recommended. Chevron ISOCLEAN Certified Lubricants have been certified to meet specified ISO Cleanliness standards at point of delivery using industry leading filtration and testing technology. ISOCLEAN Certified products are the first step for contamination control and maximizing component life.

CUSTOMER BENEFITS

GST Oil ISOCLEAN Certified Lubricants deliver value through:

- **Ready to use** — Enables users to meet stringent original equipment manufacturers' cleanliness standards for fill lubricants.
- **Flexibility** — ISO Cleanliness targets can be customized to fit your business application needs.
- **Peace of mind** — Each delivery of Chevron ISOCLEAN Certified Lubricant includes an ISOCLEAN Certificate of Analysis.
- **OE fluid cleanliness requirements** — Customized to meet specific equipment manufacturers' fluid cleanliness requirements.
- **Exceptional oxidation stability** for long service life at elevated temperatures. Formulated with

premium base oil technology and an ashless, zinc-free formulation.

- **Rust and corrosion protection**
- **High viscosity index** helps ensure minimum viscosity change when variations in temperature occur.
- **Minimum foam** helps prevent sump overflow or erratic governor operation.
- **Fast air release** minimizes possibility of pump cavitation in systems with high circulation rates and small reservoirs.
- **Exceptional thermal stability** minimizes deposit formation.
- **Rapid water separation** keeps water in oil to a minimum.
- **Hydraulic fluid service** — GST Oils 32, 46 and 68 are excellent hydraulic fluids in low pressure systems up to 1000 psi.
- **Air compressor** lubricant when OEM recommends R&O type oil.

FEATURES

GST ISOCLEAN Certified Lubricants are formulated with premium base oil technology and an ashless, zinc-free formulation that provides exceptional oxidation stability, water separability, and protection against rust and corrosion.



Higher temperatures in advanced gas and steam turbines require circulating system oil with exceptional high temperature stability. GST ISOCLEAN Certified Lubricants have outstanding **thermal and oxidation stability**.

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

1 April 2019
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Nonvolatile **oxidation inhibition** minimizes the evaporative loss of the inhibitors, a common problem with turbine oils where bearing temperatures are high and system capacities are limited. With retained oxidation resistance for long periods under high temperature conditions, GST® ISOCLEAN® Certified Lubricants will promote long oil service life and help minimize turbine down time.

Corrosion inhibition protects costly turbine shafts and gears from corrosion and rusting.

GST ISOCLEAN Certified Lubricants have excellent demulsibility characteristics which allow these oils to maintain a high film strength coating on critical wear points of bearings and gear reducers and assure fast removal of water contamination.

Foam inhibition helps prevent sump overflow and erratic governor operation.

APPLICATIONS

GST ISOCLEAN Certified Lubricants are formulated to meet the critical demands of non-geared gas, steam, and hydroelectric turbine bearing lubrication, and reduction gear lubrication in marine operations. They are an excellent recommendation for many other industrial applications including air compression where R&O type oils are recommended.

The following viscosity grades are formulated to meet the specified OEM requirements:

GST ISOCLEAN Certified Lubricant 32

- meets and exceeds
 - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
 - **General Electric** GEK-32568J, GEK-32568K, GEK-28143A, GEK-46506D, GEK-27070
 - **Solar** ES 9-224, Class II
- meets
 - **MAG Cincinnati, Cincinnati Machine** P-38
- is approved by
 - **Alstom Power** HTGD 90117 (for non-geared turbines)
 - **Siemens** TLV 901305
 - **Siemens Westinghouse** M spec 55125Z3

GST ISOCLEAN Certified Lubricant 46

- meets
 - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
 - **MAG Cincinnati, Cincinnati Machine** P-55
 - **Solar** ES 9 224 requirements for gas turbine oils
- is approved by
 - **Alstom Power** HTGD 90117 (for non-geared turbines)
 - **Ansaldo Energia** TG02-0171-E00000/B
 - **Siemens** TLV 901305
- successfully used in some reactor coolant pump motor bearings.

GST ISOCLEAN Certified Lubricant 68

- meets
 - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
 - **MAG Cincinnati, Cincinnati Machine** P-54
- suitable for use in hydroelectric turbines, land and marine steam turbines, and associated reduction gears when OEM recommends R&O type oil.

GST ISOCLEAN Certified Lubricant 100

- meets
 - **ASTM D4304 Type I, British Standard 489**, and **DIN 51515** standard organization requirements for new lubricants used in gas and steam turbines and auxiliary equipment
- suitable for use in hydroelectric turbines, land and marine steam turbines, and associated reduction gears when OEM recommends R&O type oil.

GST ISOCLEAN Certified 32, 46, 68, 100 are registered by **NSF** and are acceptable as lubricants where there is no possibility of food contact (H2) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.

Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

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.

Do not use in breathing air apparatus or medical equipment.

Consult with your Chevron Lubricant Representative or Chevron ISOCLEAN® Certified Lubricants Marketer to set specific ISO Cleanliness targets for your business application.

TYPICAL TEST DATA

ISO Grade	32	46	68	100
<i>Product Number</i>	254606	254607	254608	278069
<i>SDS Number</i>	6710	6710	6710	6710
AGMA Grade	—	1	2	3
API Gravity	32.7	32.0	31.7	31.4
Viscosity, Kinematic cSt at 40°C cSt at 100°C	32.0 5.4	43.7 6.6	68.0 8.8	100.0 11.4
Viscosity, Saybolt SUS at 100°F SUS at 210°F	165 44.4	225 48.2	352 55.9	520 65.4
Viscosity Index	102	101	102	100
Flash Point, °C(°F)	222(432)	224(435)	245(473)	262(504)
Pour Point, °C(°F)	-36(-33)	-36(-33)	-33(-27)	-30(-22)
Oxidation Stability ASTM D943 ^a ASTM D2272 ^b	17,000 1700	12,000 1400	11,000 1400	11,000 1400

a Hours to 2.0 mg KOH/g acid number modified D943, allowed to run beyond 10,000 h.

b Minutes to 25 psi pressure drop.

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.