## INDUSTRIAL SOLUTIONS



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Savita Oil Technologies Ltd. India's leading Petroleum Specialities manufacturing group, is known for its strong R&D base and its adherence to international quality standards ISO 9001 and ISO 14001. Its Silvassa Kharadpada plant is also certified under IATF 16949: 2016

Since its inception in 1961, Savita has always set standards. It has strategically located refineries at Navi Mumbai, Mahad and Silvassa. With a sharp customer focus and an innovative attitude, the Savita Group is today India's largest exporter of Petroleum Specialities Transformer Oils, Liquid Paraffins, White Oils Industrial & Automotive Lubricants and Specialities - are some of the categories in which Savita has made a mark.

Savita is known globally to offer smart solutions to industry's most stubborn problems. Right from formulation to manufacturing and marketing, Savita leads the way. The group's endeavour is to fulfil its promise of total customer satisfaction by using the latest cutting edge technology to satisfy their needs.



## **HYDRAULIC OILS**

## SAVSOL HY FLUID HAFE

#### **Description:**

SAVSOL HY FLUID HAFE Series Oils are high performance High Viscosity Index, Ashless and Fuel Efficient Hydraulic Oils for modern Hydraulic systems. Savsol Hy Fluid HAFE oils are blended from highly refined hydro treated high viscosity index base oils along with Premium Ashless Hydraulic Technology with the environment in mind. It provides excellent protection to hydraulic systems against wear, corrosion, rust, oxidation and foaming.

#### **Application:**

SAVSOL HY FLUID HAFE Series Hydraulic Oils can be used in all new technology hydraulic equipment's to reduce the fuel consumption and hence increase the productivity. Recommended for use in hydraulic systems where in the power and controls systems are subjected to extreme ambient temperatures. Also best suitable for high precision hydraulic operations where longer drain intervals & wet filter ability is desired in more water prone areas.

#### Specifications:

SAVSOL HY FLUID HAFE Series Hydraulic Oils meet the following performance specification requirements:

- DIN 51524 Part III, II & I
- Parker (formerly Denison) HF-0, HF-1, HF-2 (HV/HM)
- SAE MS 1004 Type H Hydraulic Oil Specifications (HV Anti-wear & Viscosity Improver)
- AGMA 9005-E02 Anti-wear

- ISO 11158 (HV & HM)
- Cincinnati MAG P-68 (VG 32), P-69 (VG 68) & P-70 (VG 46)
- GM LS-2
- Bosch Rexroth RE 90220
- Eaton Vickers 35VQ25

## SAVSOL HLP Series



#### **Description:**

SAVSOL HLP Series Oils are high performance Hydraulic Oils for modern Hydraulic High Pressure Pumps and Hydraulic systems. Savsol HLP Oils are blended from highly refined hydro treated high viscosity index base oils fortified with latest additive technology to provide complete protection on wear, corrosion, rust, oxidation and foaming.

#### **Application:**

SAVSOL HLP Series Hydraulic Oils can be used in to meet or exceed the performance requirements of all hydraulic equipment manufacturers and Industry Organization Specifications. These oils are recommended for sophisticated high performance hydraulic systems where high temperature and pressure are encountered.

#### **Specifications:**

SAVSOL HLP Series Hydraulic Oils meet the following performance specification requirements:

- DIN 51524 Part II & Part III
- Parker (formerly Denison) HF-0, HF-1, HF-2 (HM/HL)
- Eaton Vickers M-2950-S & I-286-S3

- ISO 11158 (HM & HL)
- Cincinnati MAG P-68 (VG 32), P-69

**Viscosity Grades:** VG 32, 46, 68, 100 & 150

## SAVSOL HY FLUID AW

#### **Description:**

SAVSOL HY FLUID AW Series Hydraulic Oils are high performance Anti-Wear hydraulic oil blended from highly refined hydro treated high viscosity index base oils fortified with Anti-Wear, Anti-Rust, Anti-Oxidant, Anti-corrosion and anti-foam additives to provide excellent protection against wear, rust & corrosion and oxidation.

#### **Application:**

SAVSOL HY FLUID AW Series Hydraulic Oils can be used in hydraulic systems operating under moderate to severe conditions. Recommended for use in hydraulic systems where high temperature, pressure and pump speed are encountered. Suitable for hydraulic systems, enclosed gear boxes, chain drives, vacuum pumps, machine tools etc.

#### Specifications:

SAVSOL HY FLUID AW Series Hydraulic Oils meet the following performance specification requirements:

- DIN 51524 Part II HLP
- IS 10522-1983 (Reaffirmed 1993) (VG 32 to 150)

**Viscosity Grades:** AW 32,46,68,100,150, 220,320 & 460

## SAVSOL HYDRAULIC OIL VG Series



#### **Description:**

SAVSOL HYDRAULIC OIL VG Series is high performance Hydraulic & Circulating Oil blended from highly refined base oils fortified with Anti-Wear, Anti-Rust, Anti-Oxidant additives to provide excellent protection against wear, rust & corrosion and oxidation.

#### **Application:**

SAVSOL HYDRAULIC OIL VG Series can be used in hydraulic systems operating under moderate to severe conditions. Recommended for use in hydraulic systems where high temperature, pressure and pump speed are encountered. Also suitable for Systems requiring Anti-Wear properties.

#### **Specifications:**

SAVSOL HYDRAULIC OIL VG Series meet the following performance specification requirements:

- DIN 51524 Part I
- ISO HM

Viscosity Grades: VG 46 & 68.



## SAVSOL SUPER TURBINE FLUID

#### **Description:**

SAVSOL SUPER TURBINE FLUID are high quality super long life Turbine oils. They are formulated with high quality hydro-treated base oils and fortified with Anti-Wear & Rust Inhibitor additives which give excellent protection to all components of steam and gas turbines.

#### **Application:**

SAVSOL SUPER TURBINE FLUID recommended for use in large open and combined cycle, gas and steam turbines, high speed turbo compressors, turbo compressors for gas and atomic power generation turbines. These fluids offer long life nearly twice that of conventional turbine oils.

#### Specifications:

SAVSOL SUPERTURBINE FLUID Turbine Oils meet the specification requirements of leading OEMs like BHEL, Siemens, GE, ABB, Triveni Turbines, DLF and SKODA.

IS 1012-2002 Specification.

**Viscosity Grades:** VG 32, 46, 57 & 68

## SAVSOL SUPER TURBINE FLUID AW

#### **Description:**

SAVSOL SUPER TURBINE FLUID AW Series are high quality superior long life Turbine oils. They are formulated with high quality hydro-treated base oils (which have extremely low 'S') and fortified with EP & Anti-Wear additives which give excellent protection to geared steam and gas turbines. This technology is designed to give outstanding Demulsification performance and turbine oil life.

#### **Application:**

SAVSOL SUPER TURBINE FLUID AW Oils are recommended for use in large geared, open and combined cycle, gas and steam turbines, high speed turbo compressors, turbo compressors for gas and atomic power generation and turbines that operate under severe operating conditions. These fluids offer long life nearly twice that of conventional turbine oils.

#### Specifications:

SAVSOL SUPER TURBINE FLUID AW Turbine Oils meet the following performance specification requirements:

- Siemens TLV 9013 04 (EP)
- Siemens TLV 9013 05 (EP)
- Alstom HTGD 90117 W0001 (EP)
- China's Turbine Specification GB 11120-2011
- SKODA Tp 0010P/97
- DIN 51524 Part I & Part II

#### Approved by

- SAVSOL SUPER TURBINE FLUID AW 32 & 46 are approved by SIEMENS for both TLV 9013 04 & TLV 9013 05 for Turbines with and without Gear applications.
- Approved by DOOSAN SKODA as per Tp 0010P/97.

- GEK 32568G
- GEK 27070
- GEK 46505 E
- CM P-38, P-55, P-5
- Czech Standard CSN65 6620





## **INDUSTRIAL GEAR OILS**

## SAVSOL GEAR OIL EP Series

#### **Description:**

SAVSOL GEAR OIL EP Series is premium quality extreme pressure industrial gear lubricants meeting the stringent requirements of new generation gears of heavy industrial machinery. These oils are blended with high viscosity index base stocks and EP additives based on sulphur & phosphorus chemistry to provide the protection to machine gears against wear and corrosion.

#### **Application:**

SAVSOL GEAR OIL EP Series can be used in enclosed gear drives of industrial machinery working under heavy to shock load conditions. It can be used for lubrication of roller bearings, chain drives, highly loaded drives under extreme pressure conditions. Also suitable for Systems requiring Anti-Wear properties.

#### Specifications:

SAVSOL GEAR OIL EP Series meet the following performance specification requirements:

- DIN 51527 Part III
- AGMA 9004-E02

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## **QUENCHING OILS**



### SAVSOL Q001

#### **Description:**

SAVSOL Q001 is fully formulated High Performance Accelerated Cold Quenching Oil. The performance of SAVSOL Q001 has been developed using the major internationally recognized tests to assess the performance of quenching oils. This ensures that SAVSOL Q001 is a high performance Quenching Oil that needs minimal technical service support for trouble-free performance.

The use of additive has the added advantage of producing quenching oils with minimal steel component cracking and distortion behaviour. This can be translated into substantial savings to the customer.

### SAVSOL QUENCH SL

#### **Description:**

SAVSOL QUENCH SL is fully formulated High Performance Cold Quenching Oil.

This ensures that SAVSOL QUENCH SL is a high performance Quenching Oil that needs minimal technical service support for trouble-free performance.

#### **Recommendation:**

SAVSOL QUENCH SL is recommended for batch type controlled atmospheric furnace, bolt, chain. It is also used in Pusher typer continuous furnace carburizing parts, steel forgings.

### SAVSOL QUENCH BI

#### **Description:**

SAVSOL QUENCH BI is cold quenching oil for accelerated quenching of steel without sacrificing any of the benefits of conventional quenching oil.

#### **Recommendation:**

SAVSOL QUENCH BI is recommended for batch type controlled atmospheric furnace, bolt, chain. It is also used in Pusher type continuous furnace carburizing parts, steel forgings.

## SAVSOL QUENCH 32

#### **Description:**

SAVSOL QUENCH 32 is low viscosity quenching oil with special additives with marked oxidation stability and low sludge formation. SAVSOL QUENCH 32 is based on selective base oils and fortified with modern additive which offer excellent stability in services.

#### **Recommendation:**

SAVSOL QUENCH 32 is specially developed for quenching of bearings, bolts, sprints etc.

Note: In general, oil temperature should be controlled below 90°C and care should be taken with water contamination as water should not exceed 0.05%





#### **Description:**

SAVSOL BRIGHT QUENCH 32 is a quenching oil specially developed for Bearing, Small fuel injection pump, bolt, nail, sheet spring needed plating. Drive shaft and differential pinion gear for automobile.

#### **Recommendation:**

SAVSOL BRIGHT QUENCH 32 is specially developed for quenching in atmosphere furnace, press quenching.



#### **Description:**

SAVSOL QUENCH MP 8 is specially formulated Mar-tempering Oil blended from selective hydro treated base oils fortified with modern and effective anti-oxidation, wetting and anti-foam additives. It helps to produce hardened parts with minimum distortion.

#### **Recommendation:**

SAVSOL QUENCH MP 8 is recommended for uniform hardening of component/parts which are prone to distortion. It is suitable for components viz., ferrous and non-ferrous metals in Gears, Bearings & other automotive components.

Note: The recommended operating temperatures:

For open Quenching =  $100^{\circ}$ C max Under controlled atmosphere =  $120^{\circ}$ C max.



#### **Description:**

SAVSOL QUENCH HT-12 is specially formulated Hot Quenching Oil blended from selective hydro treated base oils and modern and effective anti-oxidation, wetting and anti-foam additives.

#### **Recommendation:**

SAVSOL QUENCH HT-12 is recommended for accelerated quenching at temperatures from 80°C to 140°C to produce uniformly well hardened parts with minimum distortion.



#### **Description:**

SAVSOL QUENCH HT-18 is specially formulated Hot Quenching Oil blended from selective hydro treated base oils and modern & effective anti-oxidation, wetting and anti-foam additives. Hot Quenching oil is also known as mar-quenching, mar-tempering and interrupted quenching.

#### **Recommendation:**

SAVSOL QUENCH HT-18 is recommended for high temperature quenching. Hot Quenching involves heating steel components above their transformation range and then quenching into a bath held at high temperature.

Note: The oil can be used for oil bath temperature between 100°C and 160°C.



# SAVSOL GREASE XHD 2 & SAVSOL GREASE XHD 0

#### **Description:**

SAVSOL GREASE XHD 2 & SAVSOL GREASE XHD 0 is multipurpose premium quality lithium grease specially designed with high quality mineral oil and advance performance additives for industrial applications where extreme pressure and water washout property required.

#### **Recommendation:**

SAVSOL GREASE XHD 2 & SAVSOL GREASE XHD 0 is Suitable for a wide range of industrial uses such as plain and anti-friction bearings in steel mills, paper mills, press machine and generator, pumps, conveyors, compressors, machine tools, gears and various types of couplings.

#### **Available Grades:**

- NLGI # 2
- NLGI#0



#### **Description:**

SAVSOL GREASE XHD 00 is high performance Lithium based grease formulated with highly refined petroleum oil and fortified with performance additives to give additional Extreme Pressure (EP) properties.

#### **Recommendation:**

SAVSOL GREASE XHD 00 is recommended for variety of applications encountering heavy load or sock loads in plain/antifriction bearing, gears. Also recommended for heavy duty plain & roller bearings under humid conditions. It is also used in steel plants, cement plants and other industrial applications.

#### **Available Grades:**

NLGI # 00

## **TRANSMISSION OILS**

## SAVSOL ULTRA KES 3 Series

#### **Description:**

SAVSOL ULTRA KES 3 Series oils are high performance Power Train Oil designed for automatic, power-shift and manual transmissions for heavy duty applications such as construction equipments, generators, tractors, trucks etc. fortified with Anti-Wear, Anti-Rust, Anti-Oxidant additives to provide excellent protection against wear, rust & corrosion and oxidation.

#### **Application:**

SAVSOL ULTRA KES 3 Series grades can be used in heavy duty construction equipments, generators and tractors. Also suitable for use in hydraulic systems, final drive cases and swing machinery where SAE 10 or SAE 30 grade oil is specified.

#### Specifications:

SAVSOL ULTRA KES 3 Series Oils meet the following performance.

#### **Specification Requirements:**

- API CF
- Komatsu Engineering Standard (KES) requirements KHT Pass

Viscosity Grades: SAE 10 & SAE 30

### SAVSOL TRANSMISSION C4 FLUIDS

#### **Description:**

SAVSOL TRANSMISSION C4 FLUIDS are formulated to meet the specification requirements of Hydraulic Transmission Fluid Type C4 of Detroit Diesel Allison, Division of GM, USA. This extreme pressure oil incorporated with friction modifying agents for encased gears and all machinery fitted with friction disc.

#### Application:

SAVSOL TRANSMISSION C4 FLUIDS are recommended for use in all power shift Transmissions, Industrial Torque convertors and Automatic transmissions. It also can be used in power shift gear boxes for which manufacturer recommends a fluid satisfying the Allison C4 Specification.

#### Specifications:

SAVSOL TRANSMISSION C4 FLUIDS meets the performance specification requirements of Allison C4

> Viscosity Grades: SAE 10W & SAE 30



### SAVSOL THERMIC OIL 32

#### **Description:**

SAVSOL THERMIC OIL 32 is excellent heat transfer oil based on specially refined and hydro treated base oils and fortified with modern and effective oxidation inhibitors. The low volatility of the oil prevents build-up of excessive pressures in closed system. Its viscosity is suitable for a high ratio of circulation under a wide range of operating temperatures.

#### **Application:**

SAVSOL THERMIC OIL 32 is ideally suitable for long term application in both open and closed heating systems. **Closed Systems :** It can be used up to a bulk temperature of 300°C in closed systems and film temperature of 340°C. **Open Systems :** It can be used up to 200°C in open systems.

#### **Recommendation:**

SAVSOL THERMIC OIL 32 is recommended for heat transfer fluid applications in textiles, pharmaceuticals, chemical & processing industries.



#### **Description:**

SAVSOL SYNTHERM SPECIAL is an excellent heat transfer fluid using synthetic base stocks. This oil is formulated with high quality synthetic base fluid and selective anti-oxidants to provide maximum efficiency for longer service life. This oil gives excellent rapid heating because of its high specific heat and very good thermal conductivity.

#### **Recommendation:**

SAVSOL SYNTHERM SPECIAL recommended in closed heat transfer systems where bulk operating temperatures goes upto 315°C and film temperature of 355°C. It is suitable for indirect heating systems of non-pressurized heating systems.

It is used in chemical, plastic, steam & hot water units, autoclaves, reaction vessels, textile industries, Air-conditioning Units, paper industry etc.

The operational temperature is between -10°C to +300°C

## **MWO/ROLLING OILS**

## SAVSOL CUT HL-35 (EDM Oil)

#### **Description:**

SAVSOL CUT HL-35 is specially developed thin water white fluid with high flash point. It is ideally suited for the use in electrical discharge machines as long life working fluid. It has the right viscosity, excellent oxidation resistance, low evaporation loss. It is non-toxic and odourless in nature. In addition to high dielectric strength, it offers uniform insulation and permits controlled electrical discharge at the Break Down Voltage.

#### **Recommendation:**

SAVSOL CUT HL-35 is used as a high performance Dielectric Fluid for Electrical Discharge Machine (EDM).



#### **Description:**

SAVSOL FLUID 7WW is a high performance metal working fluid blended from highly refined base oil for rolling of copper alloys, brass and other ferrous metals. It contains anti-oxidants, metal deactivators and defoaming additives to offer superlative performance.

#### **Recommendation:**

SAVSOL FLUID 7WW used in the rolling operation for machining copper alloys, brass and non-ferrous metals.

## SAVSOL FLUID 12WW (Mould Release Oil)

#### **Description:**

SAVSOL FLUID 12WW is a mould releasing oil blending with highly refined base oil with premium additives to offer excellent oxidation stability and de-foaming properties.

#### **Recommendation:**

SAVSOL FLUID 12WW is used as mould releasing agent during the manufacture of glass products.

## **SPECIALITY OILS & COOLANT**



### SAVSOL CLEANER NH

#### **Description:**

SAVSOL CLEANER NH is a petroleum product consisting complex mixture of hydrocarbons which obtained by treating petroleum fraction with severe processes. It is odorless, colorless & Non-toxic in nature.

#### **Recommendation:**

SAVSOL CLEANER NH can be used in lubricants, greases adhesives and sealants, polishes and waxes, paints & coatings, consumer products, printing inks and agricultural chemical applications.

### SAVSOL REF FLUID R-717

#### **Description:**

Savsol Ref Oil R-717 is custom blended with highly refined base stock and contain additives for oxidation inhibition, corrosion protection, pour point depression and defoaming. This fluid is widely used for applications where the lubricant is subjected to harsh chemical environments, such as the demanding conditions found in ammonia refrigeration applications

#### **Application:**

Lubricant/coolant for Ammonia Refrigeration applications. Especially effective in combating corrosion and promoting long life in ammonia compressors.

Lubricant/coolant for process gas rotary screw and reciprocating compressors.



#### **Description:**

SAVSOL ROCK DRILL OIL is formulated with high quality paraffinic base oils and premium additive system to provide superior performance in air-powered equipment. It is designed to give maximum protection from component wear in severe service conditions.

It provides a tenacious film of lubrication on cylinder walls and other lubricated components. It has good metal-wetting characteristics, ensuring that the lubricant reaches critical parts rapidly.

#### **Application:**

SAVSOL ROCK DRILL OIL is designed to enhance the operation of percussion type rock drills and associated equipments such as jack hammers, paving breakers, quarry drills, spike drivers, clink breakers and concrete vibrators. Additionally it is recommended for pneumatic tools such as impact wrenches, rivet hammers, drills and reamers, wood borers, safety saws, diggers, tampers, concrete surfacers, sanders and air hoists as well as cleaning, scaling, caulking and chipping tools.

## SAVSOL R2U COOLANT

#### **Description:**

SAVSOL R2U COOLANT is pre diluted READY-TO-USE coolant for wide range of radiators in various applications. The special inhibitor formula provides excellent heat transfer from engine components and excellent corrosion protection of all engine and cooling components. It is free from nitrile, amines, silicates, borates and phosphates.

#### **Application:**

SAVSOL R2U COOLANT is recommended for use in radiators of all advanced engines of trucks, buses, LCVs, cars, SUVs, tractors, earth moving and construction equipment's and highly loaded engines used in tropical regions where freezing protection is not required.







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