



# S K PETROCHEM

## **Greases & Lubricants**

Dear Customer,

We S K PETROCHEM The most trusted Lubricants, Greases, Synthetic Lubricants & specialty chemical Additives manufacturing company having more than 100 products for various Automotive & Industrial Lube applications. Our products are specially formulated to meets national & international specifications meeting all performance levels. We assure guaranteed quality Greases & Lubricants meeting all physicochemical & performance parameters as mentioned in our Product Data Sheet. Products manufactured by us for specific/ tailor-made applications will work to entire satisfaction of end users.

To cater the need of all the market segments, our product pack size varies from Minimum 50 Gms /ml to maximum 180 kg / 210 ltrs. to even Tanker load

Our R & D team of scientist is competent to develop tailor-made specialty lubricants for specified applications.

S K PETROCHEM is ever committed for best quality products & services.

**We can develop and supply any specialty lubricants for specified applications.**

We assure our best services all the time.

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Automotive Lubricants occupies a unique position in all petroleum products. In no other field Lubricants are being used in so many different types of equipment operated under such a spectrum of operational conditions.

The satisfactory performance of Gasoline, CNG, LPG and Diesel, automotive vehicles depends upon sound design, good workmanship and materials, Proper operating conditions, good maintenance practices, suitable fuels and correct types and grades of Lubricants.

Steady progress and development done by automobile industries have resulted in production of vehicles of higher output, fuel economy and improved reliability. The Lubricant requirements have presently become increasingly more complex and severe. The correct usage of high quality Lubricants of the right type plays a significant part in ensuring prolonged and trouble free operations.

A full range of Automotive Engine oils, Gear oils, Transmission oils, Greases & specialties available with SK PETROCHEM, offer a complete variety of Lubricants.



# AUTOMOTIVE ENGINE OILS

1. **MULTI S K SUPER 20w 40 LG**

Supreme quality moderate duty Multigrade Engine Oil blended from selected high VI base stocks with a finely balanced additive package. This oil has good thermal & oxidation stability, possess reserve alkalinity to neutralize acidic products. It has lower tendency of oil thickening thereby providing reduced oil consumption. It meets API CC/SC, MIL-L-2104 B, and BIS 13656: 1993 type E-PL 1 / E-DL 1 specifications. It is most suitable for use in light motor vehicles to heavy commercial vehicles based on Petrol, Diesel & Gas.

2. **MULTI S K SUPER 10w**

Supreme quality Multi Functional Oil blended from selected high VI base stocks & advance Additives to meet API CF/SF performance level for lubrication of Engines & Transmission under wide range of engine loads & conditions for all types of vehicles ranging from Light Commercial Vehicles to Heavy commercial vehicles. It is most suitable for use in Hydraulic systems of Excavators, Dozers, and Dumpers etc.

3. **MONOS K SUPER 30, 40, 50**

Supreme quality Heavy duty Monograde Engine Oils blended from selected high VI base stocks with a finely balanced additive package. These oils have exceptional thermal & oxidation stability. They have good built-in alkaline reserve to combat corrosive wear that may result from the use of high sulphur fuel. These oils meet API CD/SF, MIL-L-2104 C, MACK T-7 and E-DL3/E-PL2 of BIS 13656:1993 specifications. Most suitable for use in Turbo charged and naturally aspirated Diesel engines & high powered Petrol engines based on Petrol, Diesel & Gas.

4. **MULTI S K SUPER 20w 40**

Supreme quality heavy duty Multigrade Engine Oil blended from selected high VI base stocks with a finely balanced additive package. This oil has exceptional thermal & oxidation stability, possess high reserve alkalinity to neutralise acidic products. It has lower tendency of oil thickening thereby providing reduced oil consumption. It meets API CF/SF, MIL-L-2104 C, E-DL 3/ E-PL 2 of BIS: 13656: 1993 and MACK T-7 specifications. It is most suitable for use in light motor vehicles to heavy commercial vehicles based on Petrol, Diesel & Gas.

5. **MULTI S K SUPER ESSEM 20w 50**  
**Premium Car Engine Oil**

Supreme performance heavy duty premium Car Engine Oil, helps extend engine life while providing long drain capability and fuel economy for modern Cars. Scientifically engineered oil formulated from selected HVI Oils and unique Additives combination, which enables this product to provide out-standing performance in high speed Cars in extreme high & low temperature, it has exceptional thermal & oxidation stability, in presence of latest dispersant technology it restricts particulate emission, it out performs all existing grades in terms of superior lubricity, friction modification & long life stability even at high temperature and high speed new generation Cars. It meets API SM service classification.

6. **MULTI S K SUPER 15w 40**

Premium quality heavy duty Multigrade Engine Oil formulated to meet international specifications. A superior additive package provides excellent wear protection, reduces bore polish, lessens engine deposits and oil thickening giving longer oil drain period and better engine life. This oil meet API CF-4+/SG, DB 228.1, MIL-L-2104 E / 46152 E, E-DL 4 / E-PL 3 of BIS: 13656: 1993 specifications. Most suitable for use in Turbo charged & naturally aspirated Diesel engines and high powered Petrol engines. Ideal choice for D.G. sets of all OEM.

**7. MULTI S K SUPER SF 15w 40**

Multi S K SUPER SF 15w 40 is a new generation Diesel Engine Oil. It has exceptional thermal & oxidation stability & it out-performs all existing grade in terms of superior lubricity, friction modification and long life stability even at high temperature & high speed of new generation vehicles. It has good built in alkaline reserve to combat corrosive wear that may result from the use of sulphur fuel and gives longer drain period, keeping engine smooth & clean, in presence of latest dispersant technology it restricts particulate emission. It meets API CI 4 / SL, ACEA E3-96#4 / E5-02, Volvo VDS-3, V W501/5 Quality, Allison C4 Quality, Cummins 20072/77, Mack EO-M, EO-M Plus specifications. Most suitable for use in Turbo charged & naturally aspirated Diesel engines and high powered Petrol engines. This oil is most ideal choice for D.G. sets of all OEM.

**8. MULTI S K SUPER SYNTH 15w 40**

**(Supreme Performance Heavy Duty Synthetic Diesel Engine Oil)**

This is a fully Synthetic supreme performance heavy duty Diesel Engine Oil that helps extend engine life while providing long drain capability and fuel economy for modern diesel engines operating in severe applications. scientifically engineered Oil formulated from Synthetic Base Oils with an inherently high Viscosity Index and unique proprietary Additives system which enables this product to provide out-standing performance in extreme service applications at high and low temperatures, well beyond the capabilities of Mineral Oils. Recommended for use in a wide range of heavy-duty applications and operating environments found in the onroad transport and off-road Mining, Construction, and Agricultural industries. also meets the requirements of the API CI 4 / SL, ACEA, JASO and Global industry specification for Gasoline Engines used in mixed fleets. Many modern, low emission Diesel Engines generate more soot and operate at higher temperatures than older Engines. This significantly increases the need for supreme performance lubricants. Current tighter engine designs reduce oil consumption, resulting in less fresh oil makeup to replenish depleted additives. Top piston rings are located higher, bringing the oil film closer to the combustion chamber and exposing the lubricant to severe thermal stresses. It maintains outstanding performance at significantly higher temperatures than other high performance Diesel Engine Oils. It is also fully compatible with conventional oils.

## UNIVERSAL TRACTOR TRANSMISSION OIL

**1. S K SUPER TRAX 30**

Specially formulated Multi Functional Engine Oil for Tractor, This oil has exceptional thermal & oxidation stability, outstanding viscosity related performance to meet round the year requirements. It meets John Deere: J20C, API GL 4 (Low Speed High Torque) specifications. This universal Tractor oil recommended for use in New Generation Tractors as Multi functional for Transmission, Hydraulic, Differential, Wet-clutches & Brakes also recommended for use in Earth Moving & construction equipments as Axle Oil.

## AGRICULTURAL PUMP SET ENGINE OIL

**1. S K SUPER PSO 20w 40 LG**

Superior quality Pump Set Engine Oil specially designed for agricultural pump set diesel engines. Formulated to provide excellent protection and enhanced life to the engine.

This oil meets API CC, E-DL 1

- Cleans engine with lesser deposits
- Good Anti-oxidant properties
- Good Anti-wear & Anti-weld properties.

(Also available in APICD, MIL-L 45199 B & E-DL 2 of BIS: 13565: 1993 specifications).

## 2 - STROKE, 4 STROKE ENGINE OILS

### 1. **S K SUPER SUPER 2 T**

This is superior quality Two Stroke Engine Oil, blended from selected base oils and additives. Provides proper lubrication to engine parts prevents spark plug fouling, port blocking, rusting, scuffing & wear. It contains diluents for easy mixing with Petrol. It meets API -TC service classification. It is recommended for all types of Two Stroke Engines, Mopeds, Scooters, Motor Cycles and Three Wheelers. It is also suitable for small Petrol Engines, Sprayers, Pumps & small Generators.

### 2. **S K SUPER SUPER SYNTH 2 T** **(Semi Synthetic Two Stroke Engine Oil)**

This is a Two Stroke Engine Oil partly Synthetic containing finely balanced additives & carefully selected **MULTI FUNCTIONAL BOOSTER** to provides excellent lubrication to engine parts, prevents pre-ignition, spark plug fouling, rusting, port blockages & scuffing. It reduces smoke level & deposition, providing more power & pickup to engines. It exceeds API-TC service classifications & meets JASO-M345 FC. It is recommended for all types of Two Stroke Engines, Mopeds, Scooters, Motor Cycles and Three Wheelers.

### 3. **S K SUPER SUPER 4 T 10w 30, 20w 40, 20w 50** **(Four Stroke Engine Oil)**

These are high performance Four stroke Multifunctional Engine Oils for lubrication of Engine, Gear boxes & wet clutches in 4 stroke either air or water cooled engines, blended from high quality selected base stocks & additives to meet API SG to API SL, API SM and JASO T 903 : MA & MA 2 specifications. These Oils has exceptional thermal & oxidation stability, Optimised Co-efficient of Friction, Control sludge & Varnish. It ensures low oil consumption and improved mileage.

### 4. **S K SUPER SEM SYN 4 T 10W 30, 20W 40, 20W 50** **(Semi Synthetic Four Stroke Engine Oil)**

These are high performance Four stroke Semi-Synthetic Multifunctional Engine Oil for lubrication of Engine, Gear boxes & wet clutches in 4 stroke either air or water cooled engines, blended from high quality selected base stocks, Synthetic Oil & additives to meets API SM and JASO T 903 : MA 2 specifications. These Oil has exceptional thermal & oxidation stability, Optimised Co-efficient of Friction, Control sludge & Varnish. It ensures low oil consumption and improved mileage & Maximum drain period.

## SPECIALITY BOOSTERS

### 1. **S K SUPER SAVEROL** **(Engine Oil Saver)**

S K SUPER Saverol is a specially formulated from carefully selected base stocks & additives like Anti Oxidant, Rust & Corrosion inhibitor, Anti Wear & selected VI Improvers to provide smoother drives, Avoids knocking problem, protects engine from wear hence improve engine life & gives better mileage, recommended dose is 10% of Engine Oil when oil changed.

## SPECIALITY BOOSTERS

### 2. **S K SUPER POWER X** **(Multi Functional Fuel Additive)**

S K SUPER Power-X is an Ash-less Multifunctional Additive for treatment of fuels like Gasoline, HSD, SKO, LDO,FO etc. specially designed to meet current quality products available with broad spectrum performance like clean burning, maximum Rust & Corrosion protection, excellent detergency, dispersancy with thermal & oxidation stability to restrict gum formation during storage. It also help to burn Fuel completely with excellent lubricity, giving maximum output by way of increased mileage/average.

- It has synergistic effect in the antiknock characteristics.
- Corrosion inhibition for pipeline & storage tanks.
- Imparts reduction of carburettor deposits & exhaust emissions, induction system deposits & engine sludge deposits.
- Injector cleanliness for diesel engines during prolonged performance life. Drastically improves PUC due
- to complete burning of fuel hence improves fuel efficiency by 9 % to 30 % depending on conditions thus
- Reduces Exhaust Emissions.
- Lubricate & protects Upper Cylinder Components,O-Rings, Injectors & Pumps against PrematureWear

The treating levels in ppm specified for different fuels are as follows :

Treat level for Diesel, Gasoline in Car Engine applications suggested is 50-200 ppm, 1 ml per 3 Litre to 1 Litre.

## AUTOMOTIVE GEAR OILS

### 1. **GEAR S K SUPER ST 90, ST 140**

These Gear Oils are Moderate duty Automotive Gear Oil blended from high VI base stocks fortified with carefully selected Anti-Oxidant, Anti-Wear, Anti-Rust and Anti-Foam additives. These oils meet API service classification GL-2, BIS 1277 - 1987 specifications. Recommended for use in Auto Axles, Manual Transmission systems and vehicle drives where EP properties are not required.

### 2. **GEAR S K SUPER EP 90, EP 140, EP 680**

These Gear Oils are heavy duty Extreme Pressure Lubricants containing high VI base stocks & selected additives which provide excellent Anti-Weld and Anti-Wear properties. These oils meet API GL-4, Cincinnati Machine, DIN 51517 (3) and BIS 1118: 1992 specifications. Recommended for use in Hypoid, Spiral, Bevel and Worm Gear, Transmission systems of Cars, Buses and Trucks requiring EP type lubricants.

### 3. **GEAR S K SUPERMG80w 90, 85w 140**

These are special Multigrade heavy duty Hypoid Gear Oil possessing high load carrying capacity for sustained high speed and high torque service. These oils are used for moderate to severe condition in Hypoid, all other types of Gears and Manual Transmissions. These oils meet API GL-5, Cincinnati Machine, DIN 51517 (3), US military MIL-L-2105 D and EP type GL-5 level of BIS 1118: 1992 specifications. They are ideal for vehicles operating in areas where ambient temperatures vary widely. They are not advisable for use in parts made from copper.

## AUTOMOTIVE GEAR OILS

### **GEAR S K SUPER SYNTH 75w 90, 80w 140** **(Fully Synthetic Automotive Gear Lubricant)**

These are fully Synthetic, high performance Gear Lubricant formulated using advanced Synthetic base oil and the latest technology additive system. These lubricant are engineered for heavy duty manual transmissions and rear axles where operations require Gear Lubricants with excellent load-carrying capability over wide operating temperatures and where extreme pressures and shock loading are expected. It has excellent thermal and oxidation stability, high inherent Viscosity Index (VI), extremely low pour point, and outstanding low temperature fluidity.

The state-of-the-art technology behind GEAR S K SUPER SYNTH 75w 90, 80w 140 optimised protection against thermal degradation and oxidation, wear and corrosion, shear stability, extended service capability, and potential fuel economy improvement. It provides significant advantages over conventional Mineral base Gear Oils. These technology also ensures effective lubrication since these products remains fluid without channeling at subzero temperatures.

#### **Applications**

- Onhighway light and heavy duty Trucks, Busses, Vans, and Cars
- Off highway industries including: Construction, Quarrying, and Agriculture
- Not intended for automatic, manual, or semi-automatic Transmissions for which engine oil or automatic transmission fluids are recommended
- Where extended service intervals and warranties are required.

## AUTOMATIC TRANSMISSION FLUIDS

### 1. **S K SUPER R XCEL** **(Rear Axle Oil)**

This is a premium quality Transmission Oil specially formulated with high VI based stock fortified with special additive package to prevent Wet Brake Chatter / Squawk, containing Anti-Rust & Corrosion inhibitor, Anti-Foam, suitable for ESCORTS-JCB machinery, earth moving machinery. This is recommended for use in Tractor Transmission, Rear Axle differential equipped with Wet Brakes and Hydraulic system. This meets MIL L 2105D specs.

### 2. **S K SUPER ATF**

This is an Automatic Transmission Fluid specially formulated to meet the requirements of Dexron II, demanding high static co-efficient of friction to have firm clutch lock-up. It is fortified with additives to give high oxidation stability, high VI & low Pour point, Anti-Wear, Anti-Corrosion and Anti-Foam characteristics. It is recommended for use in Automatic Transmissions, Power Steering units & Synchromesh Gear boxes of Automobiles.

### 3. **S K SUPER TF 20**

This is an Automatic Transmission Fluid specially formulated to meet J 20A of John Deere specifications. Recommended for use in Torque Converters, Transmission & Hydraulic systems fitted in Tractors & other Farm equipments.

### 4. **S K SUPER TRANS C 410, C 430**

These oils are Transmission Oils meeting C-4 service classification of Allison Transmission division. They have an added advantage over conventional C-3 series. These oils meet severe oxidation stability and superior no asbestos clutch friction tests. They have fluoro-elastomer seal compatibility and more demanding Anti-Foam and Anti-Copper Corrosion requirements due to superior performance level. These oils give trouble free longer drain period. These oils are recommended for all commercial Power shift Transmissions, Industrial Torque converters and Automatic Transmissions manufactured by Detroit Diesel Allison.

# AUTOMOTIVE SPECIALITY OILS

## 1. **S K SUPER BRAKE FLUIDHD**

This is a superior quality Brake Fluid specially developed for modern vehicles keeping safety aspect in mind. It has high boiling point and does not give vapor lock problems at high temperature conditions. It has excellent low Temperature characteristics and can be safely used up to -40C. It meets SAE J 1703, FMVSS No.116, DOT 3 and DOT 4, BIS 8654 of 1986 specifications. It is recommended for Hydraulic Brakes of Modern Automotive equipments.

## 2. **S K SUPER KUL**

This is a Radiator Coolant Synthetic base Anti-Freeze Engine Coolant with Corrosion inhibitor and defoamer. It is chemically stable with high boiling point & miscible with water. Meets BIS: 5759 of 1970, SAE J 1034 of 1988 & JISK 2234 of 1987 specifications. It is recommended for Cars, Tempos & Diesel vehicles. It does not boil in summer and dose not freeze in winter. For best result use 30:70 dilutions with distilled water.

## 3. **S K SUPER KULHD** **(Anti Freeze Heavy Duty Coolant)**

S K SUPER KUL HD maintains optimum radiator temperature even under the most extreme conditions. A highly effective, high boiling point not evaporating, heavy duty coolant to provide full protection against Rust, Corrosion and Oxidizing. Under cold temperatures, it prevents freezing of water and in extremely hot environment, it prevents evaporation loss of water thereby maximizing the cooling efficiency. It is non-corrosive and keeps the water channels clean and free from deposits maintaining effective heat transfer. For best result use 30:70 dilutions with distilled water. It may be used neat or diluted with distilled water for Industrial cooling and heat transfer application such as in Radiators, Boilers, Chilling Plants, Cooling Towers etc. It is an excellent coolant for Automobiles, Trucks and Diesel Generators.

## 4. **S K SUPER SHOCUB** **(Automotive Shock Absorber Oil)**

This is a superior Shock Absorber Fluid with excellent viscosity temperature characteristics, superior Oxidation stability and Anti-Foam characteristics. It also has very good seal compatibility, year round use in all weather conditions. This oil is specially designed to have excellent damping effect for piston type Shock Absorbers.

Products available for variant OEM are like Armstrong. K., Gabriel India Ltd., Hydraulics Ltd., and Escorts Ltd.

## 5. **S K SUPER CALIB 2, 5**

S K SUPER CALIB oils are low viscosity products specially developed as Calibration Fluids for Diesel injection equipments. These oils have low aromatic content, narrow boiling range, low cloud and low pour point. Excellent Oxidation stability and Anti-Foam characteristics combined with a high flash point and low Sulphur enables them to provide superior performance. S K SUPER CALIB 2 meets the specification requirements of ISO: 4113 for Diesel injector calibration fluids and S K SUPER CALIB 5 has been specifically developed for Diesel injector equipments used by Indian Railways.

# AUTOMOTIVE GREASES

## 1. **S K SUPER CHASSIS GREASE**

This is Brown colour Calcium Soap base water resistant adhesive Grease designed for general Chassis lubrication of automotive vehicles including commercial heavy duty Tractors and other equipments. They meet BIS 506; 507 -1993 specifications for general purpose grease. They can be used for Water Pumps and Wheel Bearings operating at moderate temperature

## 2. **S K SUPER PALE MULTI GREASE**

This is Pale Yellow colour Calcium Soap base water resistant adhesive Grease designed for general Chassis lubrication of automotive vehicles including commercial heavy duty Tractors and other equipments. They meet BIS 506; 507 - 1993 specifications for general purpose grease. They can be used for Water Pumps and Wheel Bearings operating at moderate temperature.

## 3. **S K SUPER WHEEL BEARING GREASE**

This is a dark brown colour Sodium soap base, high melting, and fibrous Grease having excellent shear stability which is maintained for long time in service. Its adhesive property makes it suitable for Automotive Wheel Bearings, Universal Joints, Clutch Release, Fan Bearings and all types of automotive application not exposed to water. It meets BIS 10647 - 1993 specification.

## 4. **S K SUPER MULTI PURPOSE GREASE**

This is premium quality light colour Lithium soap base Grease having excellent mechanical and thermal stability made with HVI oils. This has a very smooth texture. It protects from rust and corrosion. It is water resistant and recommended for all types of automotive equipment and bearings operating at high temperature. It can be used for water pumps universal joints and general purpose industrial machinery. It meets BIS 7623 1993 specification.

## 5. **S K SUPER LITHOLEX**

This is a premium quality light colour Lithium Complex grease formulated with carefully selected additives like Rust & Corrosion Inhibitor, Anti Oxidant & Anti Wear agents using superior quality HVI Oils, specially designed to provide excellent Mechanical, Structural, Oxidation & Thermal stability to extend Relubrication cycle.

The superiority of S K SUPER Litholex Grease over conventional Multi Purpose Grease can be seen by its high dropping Point (250°C +) It is non ageing and highly resistant to cold and hot water, heat, dust, rust, corrosion and oxidation. Thus, this grease is the most versatile premium grade multi functional grease offering effective lubrication of all Types of Bearings at high temperature & high speed. It provides trouble free, cost effective Long Life Lubrication with minimum wear and very low coefficient of friction, good adhesion property & resistance to oil separation under severe pressure.

S K SUPER Litholex Grease a Long Life Grease exceeds 50000 Km & more of change period, it can also be used in High Speed Bearing upto 25000 RPM because of its superior Mechanical Structural & Thermal stability.

It exceeds the requirements of BIS: 12203: 1993 specification. Recommended for all types of Automotive Vehicles, Construction Equipments, Anti-Friction Ball & Roller Bearings encountering higher temperature, high speed **Bearings**, Centralized Lubrication systems, Kilns, High Speed Electric Motors, Clutch Release Bearings, Water Pumps & Universal Joints

**S K SUPER LITHOLEX 2 is also available with Moly Gel.**

## INDUSTRIAL LUBRICANTS

The fundamental principle of efficient lubrication is the proper selection and application of lubricant, which effectively and economically meets a given operating condition. Much of today's modern machinery operates at high speeds or heavy loads or extremes of temperature, frequently under tight schedules in automatic, precision production lines. These machines must be lubricated with the right oil, at the right place and at the right time. The oil must reduce friction, prevent wear or corrosion and carry the loads needed to keep the machines operating at top efficiency. In effect, the lubricant becomes a key part of the machine, as a bearing or a gear. Further, the lubricant is required to maintain its physical and performance characteristics in monotonous use for long periods in several enclosed system often subjected to heating, oxidation and other conditions which have a deteriorating effect on the quality of the product.

S K SUPER Industrial Lubricating oils described in this section are the highest quality products manufactured specifically to meet the lubrication needs of almost the entire range of industrial equipments.

The outstanding characteristics possessed by these oils are:

- Maximum oil film strength (to prevent metal-to-metal contact.)
- High chemical stability (to resist breakdown in service.)
- Resistance to formation of deposits (to minimise maintenance costs.)
- Uniformity (to assure supply of standard quality.)



## GENERAL PURPOSE MACHINERY OILS

### LUBE S K SUPER 12, 32, 46, 68, 100, 150, 220, 320, 460, 680, 1000 10, 30, 40, 50, 90, 140

These are general purpose Machinery Oils blended from high VI base stocks & suitable additives containing Anti- Rust, Anti-Foam, Anti-Wear and Anti-Oxidant properties used for lubrication of Hydraulic equipments, machines on total loss system where operating conditions are not severe and contamination of water is not there.

## BEARING OILS

### S K SUPER STEEL 257, 460, 680

These are premium quality heavy duty Film Bearing and Circulating Oil. These oils are fortified with high viscosity index base stocks with superior oxidation and thermal stability. Having good demulsibility, low foaming, excellent rust protection and good film strength property to minimise wear in roll-neck bearings of Steel mills. The quality of the oil is further enhanced by the presence of selected grades of Anti-Oxidants, Anti-Rust, Demulsifier and Defoamer. They meet the performance requirements of BIS: 6552-1987 and IPSS: 1-09-001-81. They are most suitable for use in the Morgan Bearings of Steel Mills. Morgan Bearings are used in the Plate Mill, Wire Rod Mill, Merchant Mill, Blooming and Billet Mill and Rail & Structural Mill. It is also recommended where the bearings are under heavy load and in the presence of water.

### S K SUPER STEEL EP 100

This is a specially formulated Premium Bearing and Hydraulic Oil to meet the specific requirements in Steel plants. This oil is suitable for uses in conditions where very good load bearing ability along with excellent demulsibility characteristics are critical requirements, having good wet ability and high film strength providing extra rust protection and eliminating scuffing and scoring of the bearing. It is recommended for use in all Morgan oil bearings in no-twist rod mills in Steel plants. It is also recommended in applications where severe load conditions are encountered.

## INDUSTRIAL GEAR OILS

### 1. GEAR S K SUPER SP 68, 100, 150, 220, 320, 460, 680, 1000

These are premium quality heavy duty Industrial Gear Oils manufactured from high quality base stocks fortified with Extreme Pressure additives, Anti-Foam, Anti-Rust, and Anti-Oxidation agents, it has excellent oxidation and thermal stability. It contains Phosphorous and Sulphur as extreme pressure agents. These are non-corrosive to copper and copper alloys. It meets BIS: 8406-1993 and Cincinnati Milacron P-63, P-77, P-57, P-35. These oils are recommended for all heavy duty enclosed gear drives with circulation or splash lubrication system operating under heavy or shock load conditions, plain and antifriction bearing subjected to shock and heavy loads. It gives dependable performance for continuous service at operating temperature up to 110C. These oils are also suitable for spray lubrication systems requiring extreme pressure properties. Most suitable for FMG, Shanti Gear Box etc.

# INDUSTRIAL GEAR OILS

## 2. **GEAR S K SUPERMP100, 150, 220, 320, 460**

These Gear Oils are a new generation high performance Gear Oils formulated with high quality base stocks fortified with Extreme Pressure additive, Anti-Foam, Anti-Rust, and Anti-Oxidation agents, a unique additive package that provides outstanding protection against wear and MICRO PITTING, it improves operational efficiency through reduced friction and lower power consumption even at very low start up temperature. Suitable for both industrial spur & worm gear boxes experiencing Micro Pitting, Wear and heavy loads. These Gear Oils are recommended for use in Gearboxes prone to Micro Pitting and having high energy consumption, Gearboxes encountering heavy loads and vibrations. These oils are mostly suitable for A F Flender AG, Hansen transmissions, David Brown Radicon Gears Ltd.

## 3. **GEAR S K SUPER SYNTH 32, 46, 68, 100, 150, 220, 320, 460, 680, 1000 (Supreme Performance Synthetic Gear Oils)**

These are supreme performance fully Synthetic Gear oils designed to provide outstanding service in terms of equipment protection, oil life and trouble-free operation enabling increased customer productivity. These scientifically engineered oils are formulated from Synthetic base fluids with an inherently high viscosity index and a unique, proprietary, additive system which enables these products to provide outstanding performance in extreme service applications at high and low temperatures, well beyond the capabilities of Mineral Oils. These products are resistant to mechanical shear, even in heavily loaded gear and high shear bearing applications, so that there is virtually no loss of viscosity.

These products have low traction coefficients, which derive from the molecular structure of the base stocks used. This results in low fluid friction in the load zone of non-conforming surfaces such as gears and rolling contact bearings. Low fluid friction produces lower operating temperatures and improved gear efficiency, which translates into reduced power consumption. It also results in extended parts life and allows for more economical equipment design. The base oils used is having outstanding response to antioxidant additives resulting in superior resistance to oxidation and sludging, especially at high temperatures. The additive combination used in these oils also provides exceptional resistance to rusting and corrosion, very good antiwear, demulsibility, foam control and air release properties, as well as multimetal compatibility. These oils are also compatible with the same seal and other construction materials used in equipment normally lubricated with mineral oils.

These oils are compatible with the following seal materials: fluorocarbon, polyacrylate, polyurethane ether, some silicone, ethylene/acrylic, chlorinated polyethylene, polysulfide, and some nitrile rubbers. There is the potential for substantial variations in the elastomers being used today.

Specific applications include :

- Filled for life gearboxes, especially high ratio/ low-efficiency worm gears
- Remotely located gearboxes, where oil change-out is difficult
- Low temperature applications, such as ski lifts where seasonal oil changes can be avoided
- Mixer roll bearings and roll neck bearings where high temperatures are encountered
- Plastic calendars
- Severe centrifuge applications, including marine centrifuges
- Railroad A/C Traction Drives

\* suitable for Oil Flooded Rotary Screw Compressors compressing natural gas, field gas gathering, CO<sub>2</sub> and other process gasses used in the natural gas industry.

## HYDRAULIC & CIRCULATING OILS

### 1. HYDRO S K SUPER AW32, 46, 68, 100, 150, 220, 320, 460

These Oils are specially made for use in Hydraulic system and they are blended with high quality high viscosity Index base stocks and a special additive package consisting of Anti-Oxidant, Anti-Rust, Anti-Wear, Anti-Foam agents and Demulsifier. These oils are recommended for use in general Hydraulic equipment, enclosed Gear Boxes, Vacuum Pumps, Circulating oiling system and system having Vane Pump. They meet BIS: 10522: 1993 specifications for Hydraulic mineral oil types for ISO VG grades.

### 2. HYDRO S K SUPER 32, 46, 68, 100, 150, 220, 320, 460

These Oils are specially made for use in Hydraulic system and they are blended with high quality high viscosity Index base stocks and a special additive package consisting of Anti-Oxidant, Anti-Rust, Anti-Wear, Anti-Foam agents and Demulsifier. These oils are recommended for use in general Hydraulic equipment, enclosed Gear Boxes, Vacuum Pumps, Circulating oiling system and system having Vane Pump where mild Anti-Wear properties are required. They meet Denison HF-0, HF-1, HF-2, DIN 51524 Part 2, BIS: 10522: 1993 specifications for Hydraulic mineral oil types for ISO VG grades

### 3. S K SUPER HYDRONAS 68 (Super Clean Hydraulic Oil / Filtration Level NAS - 3)

This Super Clean Hydraulic Oil design for use in special purpose Hydraulic System and are made of HVI Oil chemically stable base stocks, fortified with Anti-Oxidant, Anti-Wear, Anti-Corrosive, Anti-Foam and Demulsifier having excellent filterability. However a major cause of failure of Hydraulic systems is contamination of the fluid. The reliability & working life of the components is greatly influenced by cleanliness of Hydraulic fluid. Although Hydraulic Oil may look clean & bright it may contain microscopic particle capable of seriously reducing the accuracy of the machine which depends on very clean Hydraulic Oil because valves use to give fine controls are precision built with fine clearance. This is particularly true for system operating at high pressure & those incorporating close tolerance components. The practical way to ensure cleanliness is to give Hydraulic Oil with lower NAS value. These Oils easily passes through the system filter without clogging them giving them long & trouble free service life. They meet Denison HF-0, DIN 51524 Part 2, BIS : 10522 : 1993 specifications for Hydraulic mineral oil types for ISO VG grades.

Other viscosity grade is available from ISO VG 12 to ISO VG 100.

### 4. HYDRO S K SUPER HLP L 32, 46, 68

Premium quality Hydraulic oils having excellent Anti-Wear properties, Oxidation stability, Hydrolytic stability, and has better resistance to thermal degradation. These oils are specially developed for sophisticated Hydraulic devices with Hydro Mechanical Actuators. These grades find application in systems where oil is used for extended periods. They meet Denison HF-2, Vickers (EATON) M-2950-S, DIN 51524 Part 2, BIS: 10522: 1993 specifications for Hydraulic mineral oil types for ISO VG grades. Recommended for use in Screw Compressors Vacuum Pumps, Mining Machinery and Machine Tools where mild EP type of oil are required.

### 5. HYDRO S K SUPER HLP 32, 46, 68

Premium quality Hydraulic oils having outstanding Lubrication characteristic and Anti-Wear properties. It has excellent Thermal & Oxidation stability with high FZG rating. These oils are specially formulated with HVI base oil & carefully selected additives to give outstanding performance. These oils meet the requirements of DIN 51524 HLP part 2 specifications, Denison HF-0 & HF-2, Vickers (EATON) M-2950-S, General Motors LS-2, U S Steel No.126 & 127 and Cincinnati Milacron P-68, P-69 & P-70. They also meet BIS: 10522 & 11656: 1993 specifications.

## HYDRAULIC & CIRCULATING OILS

### 6. HYDRO S K SUPER EP 32, 46, 68, 100, 150

These are EP type Hydraulic Oils specially formulated for efficient & trouble free operation. These are blended from highly refined, thermally & chemically stable base stocks with selective additives due to high oxidation stability its prevents oil thickening, gumming and formation of deposits and because of High Aniline Point ensures minimum effect on synthetic rubbers. These are recommended for use in lubrication of industrial machinery and Hydraulic systems, Circulation, Splash, Bath and Ring oiling systems. It can be easily operate up to 80 C. These grades are not recommended for use in Hydraulic systems containing silver and cadmium plated components

### 7. HYDRO S K SUPER ZF 32, 46, 68, 100, 150.

These are premium quality Zinc-free Hydraulic Oils formulated from high VI base stocks with carefully selected Zinc-free additives to meet the most stringent demands of modern Hydraulic systems. Its better filterability and improved thermal stability ensured minimum filter clogging, having good Anti-Wear performance. These are recommended for use in most severe Vane pump application due to excellent thermal stability make them ideals Hydraulic oil for Piston pumps and other Hydraulic application having likelihood of thermal deposit formation. Also suited for machining systems where Hydraulic oil leakage may contaminate waste water disposal systems. These are widely used in Machine tool and Plastic Moulding applications, Metal goods manufacture etc.

## SPECIAL PURPOSE HYDRAULIC OILS

### HYDRO S K SUPER JC 32, TH 46&LTP 100

Special purpose Hydraulic oils of Anti-Wear type having very high Viscosity Index and very low Pour Point incorporated with special VI improvers further fortified with Anti-Oxidant, Anti-Wear, Anti-Rust additives. The product is suitable for Modern Hydraulic systems used in Excavators working under heavy loads. where very low operating temperatures are encountered and application demands a very high Viscosity Index oil, It is recommended for modern Hydraulic systems used in Excavators, where above conditions prevail.

HYDRO S K SUPER JC 32 safely used in JCB Excavators.  
HYDRO S K SUPER TH 46 safely used in TATA HITACHI Excavators.  
HYDRO S K SUPER LTP 100 safely used in L & T POCLAIN.

## FIRE RESISTANT HYDRAULIC FLUID

### HYDRO S K SUPER FIREST 68, 100, 150 (Invert Emulsion Type)

These are a specially formulated Fire Resistant Hydraulic fluid. It is water-in-oil type emulsion blended from mineral oil and additives consisting of Emulsifiers, stabilisers and Rust Inhibitors. It meets BIS 10532 (Part 2) of 1993 specifications and HF-B classification of European Mines safety commission. It provides excellent stability, Anti-Wear performance, compatibility with all types of seals and hoses and rust protection. These oils are recommended for use in Hydraulic roof support system in Mines, Scoop Trams Shuttle cars in Mines & Steel industries. It is also suitable for dinting Machines, Heading Machines, Loaders, Creepers and Injection Moulding Machines in Plastic & Die Casting Machines.

# TEXTILE OILS

## 1. **S K SUPER SPIN 12, 22**

These oils are low viscosity Spindle Oil blended from high VI base stocks possessing excellent chemical & oxidation stability and further fortified with carefully selected Anti Oxidants & Rust Inhibitors, Anti-Wear and Anti-Foam agents to provide good strength to oil film, good demulsibility, high chemical stability, lower fluid friction & resistance to rust & corrosion. Meeting the requirement of Cincinnati Machine P-63 (ISO 10) and P-45 (ISO 22), General Motors LS-2, Recommended for Textile and Machine Tools, Spindle Bearing, Timing Gears, Centrifugal Separators and Hydraulic systems of certain high precision Machine Tools.

## 2. **S K SUPER TEXTOL 32, 68, 100, 220, C 32**

These are specially designed for lubrication of Textile Machinery, having excellent scourability and superior tackiness characteristics. These therefore, reduce the possibility of staining the cloth in different stages of cloth manufacturing in textile mills. These oil minimise wear, provide protection against rust and corrosion.

S K SUPER TEXTOL grades are recommended for lubrication of looms and other textile machinery where a scourable type of oil is preferred. S K SUPER TEXTOL C 32 is a special grade formulated for specific applications in Textile Industry, such as Wick-Fed Twister Rings, Circular Knitting Machine, Sewing Machines, Leather Aprons and Tapes etc.

## 3. **LOOMS K SUPER 100&150** **TEXTILEWEAVING LOOMOILS (Scourable&Circulation Mineral Loom Oil)**

These are specially made for SULZER type of high-speed weaving looms. These oils are unique cold-water washable oil, non-staining lubricant oil for centralized systems for all types of weaving looms. These oils have long life because of its excellent oxidation stability. These oils have good demulsibility, low foaming tendency and provide rust and corrosion to metal surface, prevent visible, undesirable stains and it is easily washable, gives enhance lubrication to reducing friction. It is designed for spray application using automatic lubricators fitted to the looms. Also provides good Anti-Wear properties to give suitable lubrication between the projectile and the guides during weaving. They are self-emulsifiable in water and readily removed from woven fabrics in aqueous scouring under mild detergent/alkali system. Contains an effective Anti-Corrosion additive system and is noncorrosive to the metals commonly used in Textile Machinery.

## 4. **S K SUPER SYNTH LOOM100, 150** **TEXTILEWEAVING LOOMOILS** **(Scourable&Circulation Synthetic Oil)**

These are unique, water washable, non-staining, Synthetic Lubricant for centralized system (oil box) for all types of weaving looms. It has a long life because of its excellent oxidation stability. The inherent nature of synthetic oil has very low friction & wear. Also because of its anticorrosive property it extends life of all moving parts lubricated. It prevents visible, undesirable stains & it is easily washable. It sticks to the chain and other moving parts of looms tenaciously for long-term lubrication. The product is easily washed away with cold water without leaving residue and so does not effect in further process. Better lubrication properties extend machine life. These oils mostly recommended for all heavy duty enclosed gears drive with circulation or splash lubrication system operating under heavy or shock condition and centralized lubrication system of weaving looms running in high-speed. It is recommended for use in weaving looms namely Piccanol, Somat-Rappier, Dornier Sulzer, Kayang Yhe, Sara Bonasetc.

## TEXTILE OILS

5. **S K SUPER SYNTH HS 46**  
(Synthetic High Speed Rotor Oil)

This is a highly stable Synthetic Lubricant designed for operating under high dynamic loads where speeds are also very high in order of 80,000 - 1, 00,000 RPM. It is normally used in place of HIGH SPEED GREASE used in rotor bearings of Open-end Spinning machines operating at higher speeds where oil lubrication is preferable to grease lubrication. It is suitable for the High Speed Rotor Bearings, Pulleys and Rollers of Open-End Spinning Machines, High Speed Spindles of Grinders etc.

6. **S K SUPER GERTEX 300, 800, 1000**

These are superior blend of Semi Synthetic Ester fortified with Extreme Pressure additive and Corrosion inhibitors, Anti-Oxidants. Optimum balance of additives provides excellent wear protection for lubrication of cams and open gears running in high speed weaving looms like RUTI-C, Sulzer and other makes. It has exceptional thermal & oxidation stability. Its high viscosity, adhesiveness, non creep and non flying off properties together with load carrying and superior Anti-Wear properties ensure satisfactory lubrication. This eliminates wear and tear for longer period. This oil is highly recommended for Metal & Plastic Gears.

Small quantity is sufficient for each application by manual brushing on gears and cams. The re-lubrication period can be biweekly or as per machine manufacturer's recommendation or as per the requirement.

## TURBINE OILS

**TURBO S K SUPER 32, 46, 68**

Premium Quality Turbine Oils are formulated from excellent additives and HVI selected base stocks to meet Denison HF-1, Cincinnati Machine P-38, P-55, P-57, DIN 51524 Part 1, BIS: 1012: 1993 specifications. The base oils used are highly paraffinic. Their performance is further promoted by addition of Anti-Oxidants, Rust Inhibitors and Anti-Foaming agents.

They provide exceptional Chemical and Oxidation stability with excellent Demulsibility in presence of heat, water and impurities. They are foam resistant giving protection against rusting of metal parts.

These are recommended for lubrication of all types of Turbines like Steam, Gas and Hydraulic and can be used in Hydraulic systems where long life performance is required.

## MACHINE TOOL WAY OILS

**WAY S K SUPER 68, 220**  
(Machine Tool Way Oils)

These grades have been formulated to impart special frictional characteristics that overcome the stick-slip motion, ordinarily associated with slow moving machine parts. They are also fortified with mild EP and Rust Preventive properties.

These oils are recommended for slide way lubrication of Planer, Grinder, Horizontal Boring Machines, Shapers, Jig Borers etc. involving high precision work and are also recommended for lubrication of gears by oil can.

## HIGH TEMPERATURE SYNTHETIC CHAIN OILS

### **S K SUPER SYNTH CHENOL 100, 180, 220, 320**

These are premium quality high temperature Synthetic Chain Oils formulated with synthetic base stocks & fortified with carefully selected additive package to provide lubrication for chains operating under high temperature in stenters and other machines, gives enhance lubricity and long service life, it prevents wear and thus extends life of the chains, gives effective lubrication over wide temperature range, it is highly resistant to Oxidation and Corrosion. It controls spreading with effective penetrating properties to minimize maintenance and downtime costs. It can be safely used in Chains in Stenters, Kilns, Paint Booths, Tunnel Cars, Core Ovens in Ceramics, Glass factories, Chemical, Fertilizers, Paper, Plywood and Conveyor systems, and can also be used as a bearing lubricant in high temperature environments.

### **S K SUPER SYNTH CHENOLM100, 180, 220, 320**

These grades contain additional additives like Extreme Pressure, water resistant chemicals. Moreover, it contains Moly Gel in soluble form which gives very high anti wear properties.

## COMPRESSOR OILS

### **1. S K SUPER COMPRESSOR 32, 46, 68**

These oils are specially developed Compressor Oils to provide satisfactory lubrication under prolonged high temperature and load conditions. They are exceptionally stable and are fortified with Anti-Oxidant and Anti-Rust additives.

These oils are excellent cylinder lubricants for high performance reciprocating and rotary air compressors & can be used up to 200C air discharge temperature. These oils meet DIN-51506 VD-L and ISO DIS-6521 specifications.

### **2. S K SUPER COMPRESSOR C 100, C 220**

These are Compressor Oil formulated with selected base stocks and a special compounding agent to give excellent resistance to washing effect of water. These are further fortified with Anti-Rust and Anti-Corrosion agent and have good fluidity at low temperature.

These grades meet DIN-51506 specifications.

Recommended for cylinder lubrication of single and multistage air compressors with moist air & provide excellent lubrication of Piston Rings, Valves, and Cylinder Liners etc.

### **3. S K SUPERVACMV 4**

This is a premium quality Vacuum Pump Oil specially design to provide excellent lubrication under prolonged high temperature and load condition, this is exceptionally stable and fortified with Anti-Oxidant and Rust Inhibitors. Product specially design to provide low vapour pressure (1X10 mm of Hg at 20C) and high thermal stability. It meets GOST: 23013-78 specifications for vacuum pump oil.

## COMPRESSOR OILS

### 4. **S K SUPER SYNTH 32, 46, 68, 100**

#### **(Synthetic Rotary Air Compressor and Turbocharger Lubricant)**

A supreme performance Synthetic Compressor oils primarily intended for the lubrication of severe duty Rotary Screw Compressors, Vane Air Compressors, and Turbochargers. They are particularly suited for marine and industrial applications subjected to high final compression temperatures or where extended oil drain intervals are desired. They are formulated with Synthetic hydrocarbon fluids and a high technology additive system that assures exceptional resistance to oxidation and thermal degradation and excellent wear protection, far superior to Mineral oil-based Air Compressor oils. They provide outstanding equipment protection and reliability for compressors operating under conditions where other Air Compressor oils are not meeting expectations. Their unique formulation provides the ability to reduce maintenance costs through minimizing equipment problems and downstream deposits and carryover. Their high viscosity index ensures effective lubrication at high temperatures. They exhibit a virtual absence of deposit formation and high autoignition ignition temperatures improving both performance and safety.

These oils are recommended for all Rotary Screw and Vane Air Compressors. They are particularly effective in Screw-type Compressors with oil injection cooling (a design which places especially high demands on the Compressor lubricant) and for continuous high temperature operation with discharge temperatures up to 200°C. They are compatible with all metals used in Compressor construction and with conventional Mineral oil-based Air Compressor oils, but admixture with other oils may detract from the total performance capability.

S K SUPERCOM SYNTH are not recommended for air compressors used in breathing air applications.

## REFRIGERATION COMPRESSOR OILS

### 1. **FREEZ S K SUPER 46, N 68**

These Refrigeration Compressor Oils are formulated from selected base stocks to provide low pour point, low floc point, good chemical stability and ready solubility in liquefied refrigerants, meet BIS : 4578 - 1989 specifications. N grades have additional characteristics of low Freon floc point. Freez S K SUPER grades are recommended for wide range of Refrigeration Compressors, both Reciprocating as well as Rotary, using all conventional Refrigerants except sulphur-dioxide. Freez S K SUPER N grades are recommended for the lubrication of hermetically sealed Refrigeration Compressors.

### 2. **FREEZ S K SUPER SEMSYN57**

#### **(Semi Synthetic Refrigeration Compressor Oil)**

This oil is a high quality Semi-Synthetic premium Refrigeration Compressor Oil based on Synthetic and Naphthenic base oil fortified with selective additive package with additionally Anti-Oxidant, Corrosion Inhibitor, Anti-Wear additives having low pour point. It exceed the requirements of the BIS 4578-1989 specification.

This oil is formulated to meet the lubrication requirements of Reciprocating and Rotary Refrigeration Compressors. FREEZ S K SUPER Sem Syn 57 oil is recommended for use with all Fluorocarbon Refrigerants and with Hydrocarbons and Ammonia in Refrigeration and Air Conditioning applications when the evaporation temperatures are lower than the pour point of the oil.

### 3. **FREEZ S K SUPER SYNTH 32, 46, 68**

#### **(Synthetic Refrigeration Oils)**

These are fully Synthetic, supreme performance lubricants, specifically designed for use in Refrigeration Compressors. They are formulated from Synthesized hydrocarbon, which have outstanding resistance to thermal & oxidative degradation. With their naturally high shear stable viscosity index and low temperature fluidity, they are able to perform in severe conditions that are

beyond the capabilities of conventional Mineral oils. Their solubility and miscibility with refrigerants is low, resulting in higher film thickness in the presence of refrigerants under pressure and reduced shaft seal leakage. Recommended for the lubrication of Refrigeration Compressors operating at very high temperatures, and for systems with very low evaporator temperatures. They are suitable for compressor systems using refrigerants such as ammonia, carbon dioxide and HCFCs such as R-22. They have also enjoyed excellent experience with CFC refrigerants such as R-12. They are compatible with all refrigerants except sulfur dioxide and have been particularly successful with systems using ammonia as the refrigerant.

## **PNEUMATIC TOOL / ROCK DRILL OILS**

### **S K SUPERNU-MAT 100, 220**

These Pneumatic Tool Oils are specially formulated with EP, Tackiness, Anti-Rust, and Anti-Wear additives to give load bearing characteristics & excellent adhesive characteristics & demulsibility properties, effective protection to metal surfaces against acidic corrosion.

Meeting the requirement of the Gardner-Denver, Ingersoll-Rand, Recommended for lubrication of Pneumatic equipments such as Rock Drills, Jack Hammers, Chippers, Wagon Drills etc. and are also used in small in-plant Pneumatic tools like Grinders, Filing Tools, Drills, Tappers, Impact Wrenches, Hoists, Riveters, etc.

## **STEAM CYLINDER OILS**

### **S K SUPER CYL TC 460, 680, 1000**

These are Steam Cylinder Oils formulated from high viscosity index heavy viscosity base stocks having enhanced lubricating properties and thermal stability. They have excellent oiliness and film strength characteristics, maximum resistance to washing effect of moisture and excellent load carrying ability. These grades are compounded with special fatty oil and contain adhesive agent.

These oils are recommended for Steam Engines operating under wet saturated steam conditions. These are widely used in Calendar Bearings and Sugar Mill Roller Bearings and for lubrications of worm gears.

## **OPEN GEAR COMPOUNDS**

These are Open Gear Compounds heavy viscous, adhesive type black petroleum products fortified with special tackiness agent which reduces oil consumption. They all have pronounced stringiness and excellent film strength to withstand high pressure encountered in heavily loaded open gears. They also possess good Rust Preventive Properties and have ability to stay in place and provide long lasting protection to Ropes and Open Gears.

These compounds are specially recommended for lubrication of conventional Open Gears, Cables and Wire Ropes.

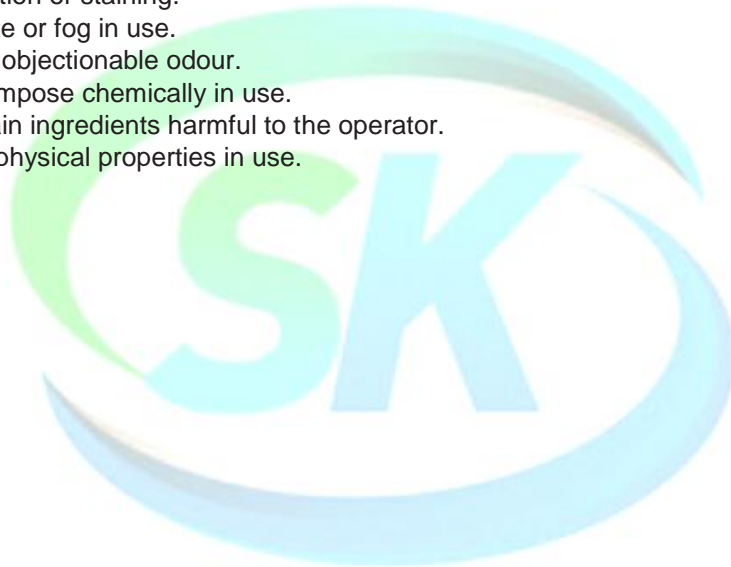
## METAL CUTTING FLUIDS

There have been great strides in machine tool design and cutting tool materials. This was due to the developments of new industrial materials, higher production demands and the ever smaller tolerances to which components have to be machined. This has led to corresponding advances in cutting fluid technology. Cutting fluids play an important role in speeding up production by enabling increased rates of metal removal to be used, and by reducing or even eliminating problems associated with severe and hazardous machining operations.

Vinayak Oil Industries developed a number of cutting fluids, each grade selectively formulated to give optimum performance on a wide range of metals.

S K SUPER cutting fluids have the following characteristics:

- No rusting or corrosion of machine, work piece or tool.
- No discoloration or staining.
- Do not smoke or fog in use.
- Do not have objectionable odour.
- Do not decompose chemically in use.
- Do not contain ingredients harmful to the operator.
- Retain their physical properties in use.



## METAL CUTTING FLUIDS

1. **S K SUPER CUT SO 30, 40**  
**(Soluble Cutting Oil)**

These Cutting Oil forms a milky emulsion with water and contains Anti-Rust agent and carrying cooling and lubricating properties which gives good surface finish and reduce tool wear. It is used in concentration of 5 to 10% depending on the severity of machining. For stable emulsion oil should be added to water and not water to oil. It meet BIS 1115-1991 specifications and is recommended for cutting operations on both ferrous and non-ferrous metals.

2. **S K SUPER CUT EP 60**  
**(Soluble Cutting Oil EP Type)**

This is heavy duty soluble Cutting Oil which contain an Extreme Pressure additive. Its main application is with high speed steel tools in practically all major cutting processes and on most metals, including difficult alloy steels. It is more effective than ordinary emulsifiable cutting oil in extending tool life. The most common emulsion strength used for machining ranges from 5 to 10% depending on the severity of machining.

3. **S K SUPER CUT SO 600**

This cutting oil forms a milky emulsion with water and contains anti-rust agent. This has cooling and lubricating properties which gives good surface finish and reduce tool wear. It is used in concentration of 5% to 10% depending on the severity of machining. For stable emulsion oil should be added to water and not water to oil. It meets BIS 1115-1991 specifications and is recommended for cutting operations on both ferrous and non-ferrous metals.

4. **S K SUPER KUL 70**  
**(Synthetic Cutting Oil)**

S K SUPER KUL 70 gives a translucent type of emulsion with water and it has an added advantage of clear visibility during machining. It has rust inhibitor to provide protection against rust and corrosion.

Application of S K SUPER KUL 70 provides excellent cooling and lubrication to expensive tools ensuring long tool life and excellent surface finish.

S K SUPER KUL 70 should be used in concentration of 3 - 5 % for all the machining operation. For specific use, concentration may very depend upon the machining required.

# METAL CUTTING FLUIDS

## STRAIGHT CUTTING FLUIDS

These products are a blend of refined Mineral oil and additives. Sulphur and Chlorine are incorporated to impart Extreme Pressure (EP) properties. High quality fatty oils are added to provide improved lubrication under boundary conditions and also to impart wetting characteristics.

Straight Cutting fluids are used as supplied without any dilution, to obtain optimum performance. The products are applied copiously to flood the work-tool-chip area thoroughly to derive maximum benefits of cooling vitally needed to increase tool life and production.

S K SUPER CUT NT series are be classified under three main categories.

- High Oiliness type
- EP Oils Non-staining type
- EP Oils staining type

### 1. S K SUPER CUT NT 20

This is neat Cutting Oil blended from high VI oils and contains chlorinated EP additive. It can be used for machining operations covering wide range. It gives good surface finish and tool wear is reduced to minimum. It can be recommended for use in Automobile, Bearing and Watch industries for Honing, Lapping and Super Finishing operations of ferrous and non-ferrous metals.

### 2. S K SUPER CUT NT 21

This is neat Cutting Oil blended from high VI oils and contains chlorinated EP and oiliness additives. It can be used for machining operations covering wide range. It gives good surface finish and tool wear is reduced to minimum. It can be recommended for use in Mild Steels, Carbon Steel, Nickel Steels and Manganese Steels and its use may be extended to Copper, Aluminium and their alloys if required. It meets BIS: 3065 1990 Type I, Grade II.

### 3. S K SUPER CUT NT 23

This is neat Cutting Oil blended from high VI oils and contains sulfurised fatty material. It can be used for machining operations covering wide range. It gives good surface finish and tool wear is reduced to minimum. It meets BIS: 3065-1990 specifications Type 2 grade II. It can be recommended for machining operations on both ferrous and non-ferrous metals.

### 4. S K SUPER CUT NT 25

This is neat Cutting Oil blended from high VI oils and contains higher oiliness additive and inactive sulphur. It can be used for machining operations covering wide range. It gives good surface finish and tool wear is reduced to minimum. It can be recommended for multi-spindle lathes where a number of operations like Turning, Honing, Chamfering etc. are performed.

### 5. S K SUPER CUT NT 26

This is neat Cutting Oil blended from high VI oils and contains higher oiliness additive, inactive sulphur and chlorine. It can be used for machining operations covering wide range. It gives good surface finish and tool wear is reduced to minimum. It can be recommended for most operations on medium machinability metals and even for severe operations on some of the free cutting steels and alloys.

## METAL CUTTING FLUIDS

### 6. S K SUPER CUT NT 55

This is neat Cutting Oil blended from high VI oils and contains higher oiliness additive and active sulphur and chlorine. It can be used for machining operations covering wide range. It gives good surface finish and tool wear is reduced to minimum. It can be recommended for all machining operations on high Tensile Steel and for less severe operations on stainless and heat resistant alloys. It is also recommended for Gear Hobbling, Thread-Cutting machines etc.

### 7. S K SUPER HARD CUT SP

This oil is specially formulated to meet the requirements for multipurpose cutting applications Low viscosity grade offers very high performance during precision applications.

This Oil fortified with superior combination of Additives to meet optimum requirements during high load with extreme pressure properties & anti-wear performance thus increasing the tool life of the work piece and machine tool's moving parts.

This oil virtually eliminates corrosion & rust to the equipment and reduces smoke/fog level.

Application : This oil can be effectively use in many cutting application. It's low viscosity helps to pump better & delivered to tool work piece interface high level of EP & anti-wear performance with good film strength make this oil useful for all types of screw machines & high speed machining & tuning application very good heat transfer characteristic makes this oil superior for gun drilling, deep hole drilling, tapping & thread milling application.

### 8. S K SUPER BROACH11 (Broaching oil)

This is a special purpose Broaching Oil formulated with carefully selected appropriate EP Additives. It ensures long Broaching life, gives excellent heat dissipation, reduced downtime in resetting & changing of broaches. It is most suitable for use in broaching of medium Carbon Steel for Automatic components.

### 9. S K SUPERHON981 (Honing Oil )

This is a low viscosity Neat Honing / Cutting Oil to impart excellent surface finish on machining of hardened Steels & Nickel alloys, can also be used in super finishing applications utilising stones rather than tapes also suitable for honing non-ferrous metals with Ceramic or Bakelite bonded Carborundum or Silicone carbide stone as well as metal bond Diamond stones.

## METAL CUTTING FLUIDS

Rolling of metals is a process by which the thickness of the metal is reduced to the desired level by means of rotating rolls in a mill. The technique of metal rolling largely depends up on the materials processed, equipment used and the operating conditions which also necessitate the use of the wide range of rolling fluids with properties varying according to the type of the metal and the condition of rolling.

Basic functional properties of Metal Rolling oil are :

- To reduce friction.
- To work as good conductor of heat.
- To have good demulsibility.
- To have good oxidation stability.
- Should be Non-corrosive, Non-staining & Non-toxic.



## METAL ROLLING OILS

### 1. S K SUPERHOT ROL

This oil is a premium quality Rolling Oil blended from finest quality refined mineral oil and selected additives for use in rolling sheets and sections. The oil possesses excellent chemical, thermal and oxidation stability making it suitable for all severe rolling conditions of operation. In addition it has excellent dispersancy for uniform roll pass lubrication along with good demulsibility, anti-wear and plate out characteristics. It's most beneficial in reduction of rolling mill power, increase in roll life, and improved quality of surface finish.

### 2. S K SUPER MET ROLN34

This is excellent non-staining oil for cold-rolling of Copper and Copper alloys such as brass and German silver. It is also used for cold-rolling Carbon steel and Stainless steel strips. This multipurpose roll oil can be used in all types of mills, including Multi-roller mills such as a Sendzimir and Sundwig, where it can be used to lubricate the mill bearings.

### 3. S K SUPER MET ROL 40

This is specially suited for use in Sendzimir mills for both ferrous and non-ferrous metals. In these mills MET ROL 40 also acts as the lubricant for the precision roll support bearing. It has good corrosion protection characteristics.

### 4. S K SUPER MET ROL C 45

This is a compounded Roll Oil which is non-staining and provides excellent performance in both ferrous and non ferrous metals. It is particularly useful for cold rolling of Carbon and Alloy Steel, Brass and Copper.

### 5. S K SUPER MET ROL C 12

This is Premium quality Rolling Oil manufactured from highly solvent refined mineral oil fortified with suitable additives. It is used for cold rolling of Copper and Copper alloys such as Brass and German silver. This oil is recommended in all types of mills including multi-roller mills like Sendzimir and Sundwig. It is also used for mill bearing lubrication.

## METAL WORKING FLUIDS

### QUENCHING OILS

The term Quenching normally refers to the controlled cooling of steel components in a fluid to give specified properties. The hardness and the other physical properties obtained depend upon the composition of the steel, the dimension of the component, the time and temperature of the heat treatment and the speed and duration of the quenching process.

A number of quenching mediums such as molten salts, brine solutions and synthetic oils can be used, but petroleum based quenching media find the widest application due to the following advantages. They are easier to control and give uniform hardness, suitable for large scale automation, are non-corrosive and non-toxic.

**QUENCHOS K SUPER** grades have been specially formulated from highly refined petroleum oils with additives and have the following characteristics.

- Good thermal properties
- Good chemical and oxidation stability
- High boiling points and low volatility
- High Flash and fire points

#### 1. **QUENCHOS K SUPER 39**

This oil is used for general purpose fast Quenching application containing special type of additive which gives accelerated quenching properties to the oil, good Oxidation and Thermal stability, high fluidity and low volatility. It meets BIS: 2664-1987 specifications recommended for quenching high speed Tools, Ball Bearings, Nuts and Bolts.

#### 2. **QUENCHOS K SUPER C 42**

This is a specially formulated Quenching Oil blended from supreme quality base stocks and high quality fatty oil, with excellent wetting characteristics and has a higher quenching speed. It is recommended for general purpose quenching operation, not suitable for quenching of cyanided parts. It meets requirement of BIS: 2664 – 1987 compounded type specification.

## SPARK EROSION FLUIDS

### S K SUPER SPARK EDM2, 3

S K SUPER SPARK Oils are premium quality low viscosity mineral oil, particularly suited for use as the working fluid Electrical-Discharge Machining (EDM), also called Spark Erosion Machining. These oils have the ability to provide uniform insulation and then to permit controlled electrical discharge at the breakdown voltage. S K SUPER SPARK oil also has the proper balance of viscosity, volatility, oxidation stability, heat transfer characteristics and low odour and toxicity. These properties enable to function as an insulator between tool and work piece, a spark conductor, a coolant and a flushing medium for chip removal.

## RUBBER PROCESS OIL

Petroleum Oil are used in the manufacture of virtually all Rubber products such as Tyres, Tubes, Battery Cases, Footwear, Mats, Hoses etc. They are the keystones from the raw material stage to the finished products. Rubber Oil is added to the polymer that may or may not have been oil extended. They perform the following functions.

- Facilitate mixing operation
- Reduce compounding time
- Improve process ability
- Modify physical properties of the finished product
- Minimise power consumption
- Reduce cost of finished goods

Rubber Process Oil can be broadly classified in to three basic groups depending on the physical arrangement of the carbon atoms namely, Paraffinics, Naphthenics and Aromatics. All petroleum oils are mixtures of various Hydrocarbon groups and their classification is arbitrary, and is based on the predominance of a particular Hydro-carbon group.

### 1. S K SUPER RUB 165

This is highly paraffinic medium viscosity type Rubber Process Oil specially developed for use as plasticiser in the manufacture of EPDM Rubbers. The oil also possesses good resistance to evaporation loss.

### 2. S K SUPER RUB 245

This is a light coloured paraffinic type of Rubber Process Oil and has good colour stability. It is also has high flash point and good high temperature properties, having low solvency. It finds greatest use in Butyl and Ethylene Propylene Rubber. It is recommended to use for the processing of light coloured Rubber good such as white walled Tyres, Shoe soles, Toys, Sporting goods etc.

### 3. S K SUPER RUB 255

This is a highly paraffinic type of Rubber Process Oil specially developed for compounding purpose of Shoe sole application. The oil has moderate solvency power with low evaporation loss.

### 4. S K SUPER RUB 541

This is a naphthenic type of Rubber Process Oil and has fairly good colour stability with adequate high temperature properties. Its solvency is better than S K SUPER RUB 245/255, and is suitable as general purpose Rubber Oil for Mats, Footwear, Moulded and Extruded goods.

### 5. S K SUPER RUB 590

This is a naphthenic type of Rubber Process Oil, specially developed to meet the requirement of the major Tyre manufacturer. The product is used to make the fabric-coating compound, used in coating Nylon Tyre cords of passenger vehicle tyres.

## RUBBER PROCESS OIL

### 6. S K SUPER RUB 710

This is an aromatic type of Rubber Process Oil and due to the presence of double bonds. It is the least stable compared to S K SUPER RUB 245 and S K SUPER RUB 541. It is dark in colour and has good solvency making it compatible with most Rubber Polymers. It finds extensive use in the manufacture of Automobile Tyres, Belting, Battery cases etc. where colour is not an important factor.

### 7. S K SUPER RUB 715

This is an aromatic type of Rubber Process Oil with higher viscosity and is specifically developed for use as extender oil in the manufacture of Styrene Butadiene Rubber.

## TRANSFORMER OIL

### S K SUPER TRANSOL

This is premium quality Transformer Oil formulated with specially refined high quality base stock having superior electrical properties like Dielectric strength and dissipation factor. It has high thermo-oxidative stability which prevents formation of sludge deposits on windings / insulation and does not cause choke of cooling ducts. Having superior interfacial tension provides excellent water separation characteristics. It meets BIS : 335 / 1993 and is recommended for use in all types of Transformers from medium to extra high voltage range ensuring peak performance & maximum safety during the life of the Transformer. It also can be used in Oil-immersed circuit breakers and switchgears.

## HEAT TRANSFER FLUIDS

### 1. THERMO S K SUPER 500

This is a Thermic Fluid used in indirect form of heating systems in processing Industries and is recommended for well designed heat transfer system up to 285C. This oil has good Oxidation and Chemical stability, low volatility and it is non corrosive and non toxic.

### 2. THERMO S K SUPER 600

This is a premium quality Heat Transfer Oil specifically developed for heat transfer system where bulk operating temperatures go up to 310C. This product is derived from the finest quality petroleum base stocks and is fortified with high performance additives to enhance performance at higher temperatures. It has ability to withstand higher operating temperatures, up to 310C, reduced oxidation and thermal degradation and minimal fouling and deposit formation on heat transfer surface.

Due to its superior Rust Preventive properties it inhibits scaling formation thus giving better heat transfer performance for longer life.

### 3. S K SUPER THERMO SYNTH

This is a premium quality Synthetic Heat Transfer Oil. It is fortified with high performance additives to enhance performance at higher temperatures. It has ability to withstand higher operating temperatures, reduced oxidation and thermal degradation and minimal fouling and deposit formation on heat transfer surface.

Due to its superior Rust Preventive properties it inhibits scaling formation thus giving better heat

## RUST PREVENTIVE OILS

Rust and Corrosion are factors of major economic importance costing industry and consumers abnormal expenses. This unwanted expenditure can be curtailed / eliminated markedly through the use of petroleum-based temporary Rust and Corrosion Preventives.

Various protective measures like alloying, plating, painting etc. are used by the Engineering Industry to prevent metals from the effects of Corrosion. While the measures indicated above are of a permanent / semi-permanent nature, petroleum based Rust Preventives find wide application for temporary corrosion protection during storage and transportation.

**RUSTO S K SUPER** grades have been selectively formulated for various applications and offer the following Advantages.

These are:

- Non-staining.
- Compatible with lubricating oils and hence the surface film need not be removed.
- Easily applied by brush, spray or swab.
- Easily removable by solvent.
- Economical.

### 1. RUSTOS K SUPER SDW 173, 184, 274

These are is a superior quality Rust Preventive specially designed for protecting all types of Bearings as well as Metal sheets and Components for extended duration. It can also be used for inter process treatment as well as for application on the precision parts as the packaging stage. They consist of Film forming ingredients, Rust Inhibitors and Water displacing additives in solvent. On evaporation of the solvent, thin, soft film is obtained.

Due to its excellent water displacement characteristics surface of the metal is protected even with the traces of moisture and due to its higher reserve alkalinity along with advanced Rust Inhibitor protects the metal from salty as well as acid fumes environment for longer period.

These products can further be diluted with mineral turpentine oil to cut the cost when used for inter process or mild treatments. The product can be applied by spray or cold dip method.

### 2. RUSTOS K SUPER NS 285

This is a non-solvent type protective Rust Preventing Oil of low viscosity with oil soluble Corrosion Inhibitor. It can be applied easily by dipping or spraying. The oil coat can be removed by suitable solvent. It is recommended for Steel Sheets, Strips, and Metal Components for short term storage indoor or outdoor as well.

## RUST PREVENTIVE OILS

### 3. RUSTOS K SUPER 301 (3 in 1 solution for Degreasing, Derusting and Phosphating)

This is a versatile solution formulated to remove light grease, oil, mill scale, rust from iron and steel surfaces. It converts the surface to a complex iron phosphate compound which is totally passive to oxidation. The treated articles can be oiled or painted directly for further rust resistance. Application process is simple in operation and doesn't need any laboratory control. It can be applied either by wiping or by dipping the articles in the solution.

#### Method of application by wipe

Mix one part of RUSTO S K SUPER 301 with 2 to 3 parts of water. Soak a piece of cloth into the solution and apply the solution on metal surface. Rub gently to loose the rust. Keep the surface wet throughout by re-applying solution till rust is totally removed. Wipe surface dry. (Do not use water).

#### Method of application by Immersion:

Mix one part of RUSTO S K SUPER 301 with 3 to 4 parts of water. Immerse the parts for 15 to 20 minutes or more depending on the amount of rust and oils present. Remove the de-rusted parts and allow them to dry up. If any grey powder is observed clean it by dry clean cloth.

The derusting can be accelerated by heating the bath to 50-60 C. Heating is also recommended when uniform derusting and coating is required at accelerated speed.

## METAL DRAWING COMPOUNDS

A very important segment of the metal working industry is metal forming. In this process the metal, instead of being cut or machined, is forced drawn to acquire the desired dimensions by the use of the suitable mechanical equipment. Metal forming process includes operations like pressing, stamping, deep drawing, wire drawing, tube drawing and forging. During these operations considerable amount of heat and stress are generated.

S K SUPER DRAW grades are tailor made to satisfy the various requirements included in metal drawing / forging operations.

### 1. **S K SUPER DRAW15**

It is a stable, non-staining, mineral oils blended with fatty oils to improve wetting characteristics. It has good cooling ability and is recommended for use in Aluminium wire drawing operation.

### 2. **S K SUPER DRAW44**

It is non-staining, water-soluble cream coloured paste for "dry on" or emulsion application. It is manufactured with specially balanced mixture of soap and fat. It is especially suitable for use as an effective coolant in wire drawing operations. The recommended dilution ratio with water is between 1 to 5 % depending upon the gauge of wire to be drawn. It is also found useful in deep drawing of automotive bodies and metal sheets.

## AGRICULTURAL SPRAY OIL

### AGROS K SUPER OIL

This is specially formulated Agricultural Spray Oil, made from high quality Base Stocks for protection of apple tree from San Jose scales, protection of Rubber plantation from fungus phytophthora, (which leads to abnormal leaf fall affecting the vitality of trees resulting in loss of latex yield), protection of Mango trees controlling deadly sooty mould diseases by killing various magnifier organism & repelling insects. It protects TeakWoods by avoiding attack of dor & white ants by dissolving film covering on them, thus making them inactive. Also helpful in protection of Eucalyptus, cinchona etc. It is sprayed as oil-in-water emulsion at 3-5% dosage in water during month of Dec/Jan when the temperature is low (or make emulsion in cold water by adding ice) for better coverage of film on trees. It is non phyto-toxic & compatible with most insecticides mixture of emulsion and also with copper oxychloride which gives superb results for controlling all kind of fungus. This mixture can be easily applied by either mini micron sprayers / aerial sprayers. It controls muscules scales, Brown & olive scales & other pests because of its excellent wetting characteristics. Excellent Biodegradability, does not degrade soil characteristic like other pesticides & chemicals.

These are specially formulated oils for protection of :

- Apple tree from San Jose scales.
- Rubber plantation from fungus phytophthora (which leads to abnormal leaf fall affecting the vitality of trees resulting in loss of latex yield).
- Mango trees controlling deadly sooty mould diseases by killing various magnifier organism & repelling insects.
- Teak woods by preventing attack of dor & white ants.

These Oils fulfils all specifications required by the following research centres and also recommended by the same.

- Fruit Research station - Shalimar
- Rubber Research Institute of India - Kottayam
- Government Research Institute - Ghaziabad
- Central Institute of Horticulture for Northern plains - Lucknow.

## FOOD GRADE OIL

### **S K SUPER FGO (Food Grade Machinery Oil)**

This products has been Design Specially to meet for biodegradability requirement & to protect against health hazards. It is formulated with special types of base Stocks associated with carefully selected additives to meet the performance inline which Dioctyl-sebacate.

This oil is recommended for all kind of Food Grade Lubrication requirements.

## INDUSTRIAL GREASES

While lubricating oils are the best suited products for the lubrication of any machine element, their use is not feasible in situation where the product is likely to leak out and not remain in bearing over extended periods of service. To lubricate such situations satisfactorily, solid to semi-solid materials of dispersions of thickening agents in liquid lubricants and containing, if necessary, other ingredients for imparting special properties have been developed. Such materials are known as lubricating greases.

S K SUPER Greases are the outcome of many years of Technical and Scientific experience. The petroleum lubricating oils used in their manufacture are carefully selected to give excellent lubricating characteristics. Modern manufacturing equipment, scientifically developed formulae, careful supervision, vast manufacturing experience and accurate controls ensure very high manufacturing standards resulting in the production of complete range of greases of proven qualities required to meet the service conditions prevailing in the modern sophisticated industrial machines.

### 1. **S K SUPER PALE EP GREASE**

This is high grade Calcium soap base grease containing Extreme Pressure additives, designed for heavily loaded bearings both Plain & Anti-friction, Work-roll and Back-up Roll bearings in ferrous and non-ferrous rolling mills. Operating a moderate speed upto 2000 RPM & temperature upto 70C. It has excellent adhesiveness, thermal and mechanical stability, protect from corrosion & oxidation. They are water resistant having high load carrying capacity.

### 2. **S K SUPER HYLOADEP GREASE**

This is high grade Lithium soap base grease containing Extreme Pressure additives. They have excellent thermal and mechanical stability, protect from corrosion & oxidation. They are water resistant having high load carrying capacity. Recommended for Automotive Bearings, Earth moving equipments, Gear couplings, Electric motors and heavy Mining machinery. They meet BIS 7623 of 1993 specification for EP Greases.

### 3. **S K SUPER CALIGRAPH / S K SUPER LITHOGRAPH GREASE** **(Graphite Greases)**

These greases are made with either Calcium or Lithium soap base depending on their application requirements. They contain fine Graphite Gel as a lubricant. The higher percentage of Graphite depends on the specific application. Both this types possess high water resistance and good sealing proprieties. Recommended for use in Plain Bearings in wet condition, Rail Flanges, Leaf Springs, Hydraulic Rams, Plungers, Elevator Cable, Wire Ropes, Pantograph Pans, and as Anti-Seize Compound. It meets BIS 508 grade 1, 2 & 3 1993 specifications.

### 4. **S K SUPER CALICOM**

This grease is formulated from Calcium Complex soap thickener with HVI oils having inherent Extreme Pressure Anti-Wear, Anti-Fretting and Lubricity properties designed to cover nearly all greases application requirements. They are suitable for use under both dry and wet conditions due to high dropping point. They have lower tendency to soften with increasing temperatures.

### 5. **S K SUPER ALCOM**

This sprayable grease is formulated from Aluminium Complex soap thickener with HVI oils and additive package giving protection against corrosion, oxidation and wear which ensures extended life of open gears subject to high loads, shock loads, extreme ambient temperatures and very dusty environment. Specially develop for open gears operating in adverse conditions. It is suitable for lubrication of all types of large to small open gears on Kilns, Mills, Mixers etc. working under heavy loads and prone to excessive pitting, scaling or abrasive wear. This grease is recommended for Steel Wire Ropes, Open Gear couplings of Bulldozers, Gear Wheels & Spur gears of Cranes, Excavators, Winches & Crushing machines. It is used in Industries like Cement

## INDUSTRIAL GREASES

### 6. S K SUPER CHAIN GREASE

This is a highly specialised compound formulated with Anti-Rust, Anti-Wear & Friction Modifier additives. Recommended for the lubrication of Chains & applied by dipping the chain in the melted compound so that it penetrates well in between the narrow clearances of the pin-bush and the bush rollers. It is resistance to formation of tight links & reducing wear and elongation of chains and also protects the sprocket and Transmission components against Rust, Corrosion and Wear.

### 7. S K SUPER SYNCOM GREASE

This is a fully Synthetic oil base grease design for very high speed bearing lubrication. It does not oxidize & leave no carbon residue. So the service life is 5 to 10 times longer compared to petroleum oils base greases. It adheres strongly to revolving surface, forms a tenacious film that does not rupture at high speed. So the starting torque requires is very low. A combination of special additives enhances performance of the grease. It can be widely use for High-speed Spindles, Bearings on milling, Grinding and other high-speed machines. Open end spinning and other high-speed applications in Textile and Synthetic fibres.

### 8. S K SUPER MOLITHIUM GREASE (Moly Grease)

This is Lithium base grease compounded with Moly Gel. It has excellent Anti-Wear and Load carrying properties. It provides lubrication under extreme conditions of temperature pressure, presence of dust, water, steam and corrosive atmosphere. This grease is used as anti-seize compounds for threaded connections, Nuts and Bolts mainly recommended for Bearings exposed to high temperature, extreme pressure, shock loads, chassis fittings, Construction and Earthmoving machinery, Farm Tractors and Automotive Bearings. They meet BIS 12203 of 1993 specifications.

### 9. S K SUPER HT GREASE

This is Non Soap Grease having unique properties to give advantages over soap type thickeners. They are extremely stable at high temperature, water resistant, shock load absorbing and not affected by acids and alkalis. It can lubricate satisfactorily at temperature up to 230C and will not melt or soften appreciably even at higher temperature. It is recommended for lubrication of Plain and Anti-friction bearings and Machine elements at high temperature under shock loads.

### 10. S K SUPERHTMGREASE

This is Non Soap Grease fortified with Moly Gel having unique properties to give advantages over soap type thickeners. They are extremely stable at high temperature, water resistant, shock load absorbing and not affected by acids and alkalis enhances the load bearing capacities at higher temperatures. It can lubricate satisfactorily at temperature up to 230C and will not melt or soften appreciably even at higher temperature. It is recommended for lubrication of Plain and Anti-friction bearings and Machine elements at high temperature under shock loads.

It meets BIS: 12790-1989 grade 3 and IPSS: 1-09-008.

# INDUSTRIAL GREASES

## 11. S K SUPER SYNTH HT&HTMGREASE

These product is supreme performance antiwear Greases primarily intended for high temperature applications. Combination of the unique features of Synthetic base Oil with non-soap thickener. The excellent resistance to thermal and oxidative degradation provided by the base, coupled with the excellent high temperature structural stability and high dropping point of the clay thickener result in an outstanding high temperature greases. The nature of the Synthetic base Oil and its high viscosity index also provide superior low temperature lubrication as well as excellent film protection at high temperatures.

Because of its low traction properties (compared to Mineral Oil) it offer the potential for energy savings through reduced friction and lower torque, and reduced temperatures in the load zone of rolling element bearings.

S K SUPER SYNTH HTM Grease is modified with Moly Gel for extra wear protection.

These Greases is used in numerous high temperature applications, as well as applications where low temperature start-up or running torque are important. They provide excellent Grease life at high temperatures and offer extended relubrication periods and energy savings potential.

These Greases offer excellent high temperature grease life, bearing protection and Grease integrity along with excellent low temperature capability and good wear protection. Specific applications include:

### S K SUPER SYNTH HT GREASE

- High speed bearings and thrust bearings where a wide temperature range is desired
- It is particularly suitable for use in electric motor bearings where operating conditions demand reduced friction, low wear and long service life
- Extreme temperature applications with a recommended operating temperature range of -50° C to 200° C (with appropriate relubrication intervals).

### S K SUPER SYNTH HTM GREASE

- The presence of molybdenum disulphide makes it particularly suitable for the lubrication of sliding machine elements such as cams and ways, which are subject to long relubrication intervals, limited motion or shock loading.
- Oven conveyor or kiln bearings which are subject to high temperatures or cycling between high and normal temperatures.
- Extreme temperature applications with a recommended operating temperature range of -40° C to 200° C (with appropriate relubrication intervals).

## 12. S K SUPER POLUR GREASE

This is POLYUREA Grease customized for Lubrication of Electric Motors. This Grease offers a significant performance advantages over conventional soap thickened grease. This Non Soap Synthetic Grease based on Polyurea technology is extremely tough and long lasting for Electrical Motors over 30 HP.

Most grease (soap based) use soap as a sponge to hold and release their oil and additive combination when lubrication is required, eventually the oil is consumed and the part has to be regreased S K SUPER POLUR grease uses a gel structure to securely bind the synthetic oil additive to the polyurea thickner which provides the grease exceptional resistance to oil bleeding at even high temperatures up to 500°F, the rust and corrosion protection is enhanced as over long periods the water air or corrosive material cannot penetrate the gel structure of S K SUPER POLUR grease as with other greases.

**THE NLGI 1.5 CONSISTENCY IS SUITABLE DESIGNED FOR THE COMPATIBILITY WITH THE MOTOR INSULATION.**

### APPLICATIONS

## INDUSTRIAL GREASES

### 13. S K SUPER TEF GREASE

This Grease formulated with activated PTFE (Poly Tetra Fluoro Ethylene) & selected additives, it can be used almost any greasing application to improve lubrication and reduce temperature and wear, gives corrosion protection and water repellent properties.

PTFE is the slipperiest substance known to science which provides the lowest co-efficient of friction. The activated PTFE forms a protective film on all the metal surfaces, parts of the inner hub & bearing thereby giving total protection to the metal surfaces, bearings and enhancing the lubrication by eliminating friction to near zero levels.

This High Temperature, High Pressure PTFE Grease can be used in a vast verity of applications in Industries, Heavy Vehicles, Construction Equipment, Universal Joints, Wheel Bearings, Leaf Springs, King pins Chassis, Tow Balls, Water Pumps, Turn-tables, Clutch release Bearings, Ball Joints etc.

### 14. S K SUPER SILICONE GREASE

This is high quality products prepared from carefully selected raw materials. They are highly stable, resist oxidation for long time at high temperature and have excellent dielectric properties. They are compatible with Rubber and Plastic and are resistant to water, solvents and chemicals. They are non-toxic and can withstand high pressure and extreme temperatures (-40C to 300C). These products are useful as lubricant for high Vacuum systems, Valves, Stop Cocks and Joints.

They are recommended for lubrication of electric motor bearings, as insulators and sealants for Plastic, Rubber and Glass joints.

### 15. S K SUPER FGG (Food Grade Machinery Grease)

This is Food Grade Machinery Grease. It is Aluminium Complex base grease developed especially for lubrication of equipment in the food and beverage industry. It can be used for lubrication of food processing machinery; wherein there is a chance of incidental contact of lubricant with foodstuffs.

Provides improved high and low temperature performance in comparison with Lithium or Calcium base food grade machinery greases. Due to its higher dropping point and excellent pumpability over wide temperature ranges, it performs well at varied operating temperatures.

Its excellent pumpability also makes it effective for use in central lubrication systems. Has excellent thermal & oxidation stability. Alternate heating and cooling does not affect its physical characteristics.

It is non-toxic grease providing dependable lubrication to Ball, Roller, Needle, Journal and Sliding Bearings. It is especially recommended for Conveyors, Juice extractors, Filling equipment, Bread wrappers, packing machinery and Bread slicers. It also has excellent water resistance & recommended wherever exposure to water is in consideration. It is highly resistant to acids and corrosion making suitable for applications in the Citrus fruit processing industries.

## INDUSTRIAL GREASES

### 16. S K SUPER METALICA 550 (High Temperature Grease)

This grease contains high percentage of Moly Gel with Synthetic carriers and special additive package. It is recommended for use in lubrication of Bearings, Bushes, Spindles, Furnace joints, Oven Conveyor Motors & spares part operating at very high temperature where any of the conventional soap base grease cannot be recommended.

### S K SUPER METALICA 1100 (High Temperature Grease)

This Grease is a 'Cu' base anti-seize compound used for assembly and dismantling of threaded connections Nuts, Bolts, Studs, Screws, Pipe fittings & Valves at high temperature. It reduces torque. It is resistant to hot, cold and sea water and also protects from rust & corrosion. It leaves little or no carbon residue. It is useful in Metal Gasket, Bearings, Electric Motor Bearings, Hot Steam lines, Flanges of furnaces, Turbines etc.

Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly.

Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacturing. The information contained herein is subject to change without notice.

