

BDS International
Head Office
BDS Lube
Technical Data Sheet

BDS Lube 4T 20W-50 Motor Bike 4T Max Synthetic Blended is a high-performance mineral engine oil formulated with modern additives for use in small four stroke engines. It gives complete protection against wear & corrosion at extremely high temperatures. It provides high performance reliability to help protect and clean your engine and help prolong engine life.

| |
|---|
| Meets the Requirement: |
| API SM SM/JASO MA2 |

Typical Characteristics

| Properties | BDS Lube 4T 20W-50 | Method |
|--|--------------------|------------|
| SAE Viscosity Grade | 20W-50 | SAE J300 |
| Kinematic Viscosity @ 40°C, mm ² /s @ 100°C, mm ² /s | 170,4 18,4 | ASTM D445 |
| Viscosity Index | 120 | ASTM D2270 |
| Flash Point (COC), °C | 242 | ASTM D92 |
| Pour Point, °C | -31 | ASTM D97 |
| Density @ 20°C, kg/m ³ | 888 | ASTM D4052 |
| Total Base Number, mg KOH/g | 6,0 | ASTM D2896 |

Health Safety & Environment

Information is provided for products in the relevant Safety Data Sheet (SDS). This provides guidance on potential hazards, precautions and first-aid measures, together with environmental effects and disposal of used products. SDS's are available upon request through your sales contract office. This product should not be used for purposes other than its intended use.

Available Size: 1L

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BDS Lube™ 4T 20W-40 Motor Bike 4T Max Synthetic Blended is a high-performance mineral engine oil formulated with modern additives for use in small four stroke engines. It gives complete protection against wear & corrosion at extremely high temperatures. It provides high performance reliability to help protect and clean your engine and help prolong engine life.

| |
|---|
| Meets the Requirement: |
| API SM SM/JASO MA2 |

Typical Characteristics

| Properties | BDS Lube 4T 20W-40 | Method |
|---|--------------------|------------|
| SAE Viscosity Grade | 20W-40 | SAE J300 |
| Kinematic Viscosity @ 40°C, mm ² /s @100°C, mm ² /s | 122 15 | ASTM D445 |
| Viscosity Index | 114 | ASTM D2270 |
| Flash Point (COC), °C | 240 | ASTM D92 |
| Pour Point, °C | -24 | ASTM D97 |
| Density @ 15°C, kg/m ³ | 885 | ASTM D4052 |
| Total Base Number, mg KOH/g | 6,0 | ASTM D2896 |

Health Safety & Environment

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Available Size: 1L

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BDS Lube™ Motor Bike 4T 10W-40 is a Semi synthetic four-stroke engine oil developed to obtain highest performance and protection of motor Bike engines under extreme driving conditions. The specially designed low traction, coefficient synthetic ester base oil incorporated in this formulation reduces engine internal frictional losses and improves performance. It ensures increased power, ultimate engine and wet clutch protection for maximum power transfer and smooth shifting.

| |
|--|
| Meets the Requirement: |
| API SM SM/JASO MA2 |

APPLICATION: Motor Bike 4T 10W-40 is recommended for air cooled and water cooled four-stroke motor Bike engines, especially developed for Racing, Sport and Cruising motor bikes.

FEATURES & BENEFITS:

- Excellent wear protection.
- High shear stability and viscosity retention.
- Excellent wet clutch compatibility.
- High film strength for optimum lubrication.

PERFORMANCE LEVELS: Meets and Exceeds:

- API SN
- JASO MA2

TYPICAL PERFORMANCE:

| Parameters | Astm | Unit | Motor Bike 4T |
|---------------------------------------|--------|----------|---------------|
| SAE Grades | | | 10W-40 |
| SAE Kinematic Viscosity @ 104°F /40°C | D-7042 | CST | 95.4 |
| Kinematic Viscosity @ 212°F /100°C | D-7042 | CST | 14.1 |
| Viscosity Index | D-2270 | - | 152 |
| SP. Gravity @15°C/ 60°F | D-4052 | g/cm3 | 0.865 |
| Flash Point (min) | D-92 | °C | 230 |
| Pour Point (max) | D-97 | °C | -39 |
| TBN | D-2896 | Mg KOH/g | 7 |
| CCS (at -25°C) | D-5293 | m.Pa.S | >7000 |

HEALTH & SAFETY, ENVIRONMENT:

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment. Dispose to an authorized used oil collection point. For further Information on Safety Guidelines please refer to MSDS available on our website www.lubrex.net

HEALTH & SAFETY: This product is not likely to present any significant health or safety hazards when properly used in the recommended application and good standards of personal hygiene are maintained. Reference is made to the Safety Data Sheet (SDS) which is available on request via your local sales office or via the internet www.lubrex.net

PROTECT THE ENVIRONMENT: Take used oil to an authorized collection point. Comply with local regulation. Do not discharge into drains, soil or water.

STORAGE: We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60°C, exposed to hot sun or freezing conditions.

PARAMETERS ASTM UNIT MOTOR 4T SAE Grades 10W-40 Kinematic Viscosity @ 104°F /40°C D-7042 cSt 95.4 Kinematic Viscosity @ 212°F /100°C D-7042 cSt 14.1 Viscosity Index D-2270 - 152 SP. Gravity @15°C/ 60°F D-4052 g/cm³ 0.865 Flash Point (min) D-92 °C 230 Pour Point (max) D-97 °C -39 TBN D-2896 Mg KOH/g 7 CCS, (at -25°C) D-5293 m.Pa.S

Available Size: 1L

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BDS LUBE™ PRO 4T is an advanced four-stroke motorcycle engine oil. This product helps to provide an outstanding level of performance in today's high-performance motorcycles. It will help keep 4-stroke engines running clean protecting even in extreme operating conditions.

Features and Benefits

BDS LUBE PRO 4T combines high performance synthetic base stocks and a precisely balanced component system to help provide outstanding engine cleanliness, excellent wear protection at high temperatures and highly effective protection from corrosion. Use of BDS LUBE PRO 4T helps to maintain maximum power output due to the inherently strong performance and protection provided by the synthetic technology. This specially engineered motorcycle engine oil helps to deliver unsurpassed performance under severe operating conditions in All Seasons, driving environments, from mild to severe, and on the racetrack. Key features and potential benefits include:

| Features | Advantages and Potential Benefits |
|--|--|
| Optimised frictional properties | Consistent power due to reduced frictional losses Overall optimized balance of engine performance and fuel economy |
| Exceptional wear protection | Helps to extend engine life |
| Outstanding thermal and oxidation stability | Fluid film protection at all operating temperatures minimizing deposit formation especially at the high operating temperatures found in air-cooled engines |
| Outstanding low-temperature properties | Effective lubrication at low ambient temperatures helping to enable easy starting, rapid wear protection and less drain on starter systems |
| Excellent detergent/dispersant capability | Outstanding engine cleanliness, smooth and reliable operation |
| Effective protection from rust and corrosion | Long life of critical valve train and bearing components |

Applications

•BDS LUBE PRO 4T is specifically recommended for lubrication of four-stroke motorcycle engines in high performance motorcycles.

Specifications and Approvals

| |
|--|
| This product meets or exceeds the requirements of: |
|--|

API SN/JASO MA2

Properties and Specifications

| | |
|-------|------------|
| Grade | SAE 10W-40 |
|-------|------------|

| | |
|--|-------|
| Kinematic Viscosity @ 100 C, mm ² /s, ASTM D445 | 13.4 |
| Kinematic Viscosity @ 40 C, mm ² /s, ASTM D445 | 85.9 |
| Viscosity Index, ASTM D2270 | 159 |
| Density @ 15 C, g/ml, ASTM D1298 | 0.849 |
| Flash Point, Pensky-Martens Closed Cup, °C, ASTM D93 | 204 |
| Pour Point, °C, ASTM D97 | -48 |

Health and safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS).

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PRODUCT DESCRIPTION

BDS LUBE 4T 10W-30 is a semi synthetic motorcycle oil for modern four-cycle gasoline engines of sport bikes, all-terrain vehicles, and snowmobile, equipped with catalytic converters. Enhances fuel efficiency and ensures optimal clutch performance during start-up, accelerations and full speed. BDS LUBE 4T 10W-30 is enhanced with unique anti-friction technology, to considerably reduce friction and wear of highly loaded engine parts that are exposed to intensive duty cycles and high operating temperatures. It prevents premature oil thickening caused by high temperature stress onto the engine. Maximum protection in critical motorcycle parts – engine, gearbox & clutch systems.

APPLICATION

Recommended for all types of 4-stroke gasoline motorcycle engines requiring a viscosity grade of SAE 10W-30 and API SN or JASO MA2 or MA oils. Suitable for use in cold and warm climates. Meets the most demanding needs of American, Japanese, European, Chinese, Indian, Asian and other 4-stroke motorcycle makers.

WARRANTY

BDS LUBE 4T 10W-30 meets or exceeds the OEM's warranty requirements of 4-stroke motorcycles where API SN and JASO MA2 or MA oil is required. TOTACHI® guarantees full compliance on the written specifications indicated on product labels.

CUSTOMER BENEFITS

- Fuel efficiency Optimum viscosity for fast oil circulation in the engine that gives instant protection and fuel savings from engine start-up.
- Smoother gear shifts High lubricating properties and enhanced clutch grip properties for a seamless and smoother acceleration from start-up to full speed ride.
- Optimized oil service life High quality components to ensure that motorcycle is at its peak condition between each service interval.

MEETS SPECIFICATIONS & REQUIREMENTS OF:

- API SM/JASO MA2

Suitable for use in various OEMs such as HONDA, HERO, SUZUKI, PEUGEOT, KAWASAKI, YAMAHA and other OEMs requiring a 10W-30 API SN or JASO MA2 or MA oils.

Before using this product make sure, it is consistent with OEM's recommendations for the equipment operating conditions and customer's maintenance practices.

Typical Characteristics

| CHARACTERISTICS | UNITS | VALUES | STANDARDS |
|----------------------------------|----------|------------|----------------|
| SAE Grade | - | 10W-30 | SAE J300 |
| Kinematic viscosity at: 40 oC | - cSt | - 73.10 | - ASTM D445 |
| 100 oC | cSt | 10.93 | ASTM D445 |
| Viscosity index | - | 139 | ASTM D2270 |
| Cranking viscosity at -25oC | mPa-s | 6129 | ASTM D5293 |
| Color | - | L2.0 | ASTM D1500 |
| Flash point | oC | 234 | ASTM D92 |
| Pour point | oC | -42 | ASTM D6892 |
| Density at 30 oC | kg/L | 0.8553 | ASTM D4052 |
| Total Base Number | mg KOH/g | 7.6 | ASTM D2896 |

STORAGE AND HANDLING GUIDELINES

- Avoid exposing products to direct sunlight.
- Store in cool and dry places. Avoid exposing products to moisture.
- It is highly recommended to store drums indoors or under cover on pallets and racks.

ENVIRONMENT, HEALTH and SAFETY.

Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit the Product Information Center.

Available Size: 1L

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BDS Lube CNG 20W-50 with Clean Guard Engine Protection Technology is a superior quality multigrade engine oil for all year round use in dedicated CNG engines and dual fuel engines under all driving conditions. It provides high levels of protection against wear, corrosion, deposit formation and keeps the engine cool at the same time.

It's viscosity index improver ensures full multigrade performance between services.

BDS Lube CNG 20W50 is suitable for use in automotive CNG and dual fuel engines where the manufacturer recommends an API SG or earlier specification 20W-50 lubricants.

Advantages:

- Proven engine protection.
- Keep your engine cool.
- Helps prolong engine life.

Typical Characteristics

| Properties | Method | Units | Purity Lube CNG 20W-50 |
|----------------------------|------------|--------------------|------------------------|
| Density @ 15°C, Relative | ASTM D4052 | g/ml | 0.887 |
| Viscosity, Kinematic 100°C | ASTM D445 | mm ² /s | 17.5 |
| Viscosity, CCS -15°C (20W) | ASTM D5293 | mPa.s (cP) | 8600 |
| Viscosity, Kinematic 40°C | ASTM D445 | mm ² /s | 156 |
| Viscosity Index | ASTM D2270 | None | 123 |
| Pour Point | ASTM D97 | °C | -24 |
| Flash Point, PMCC | ASTM D93 | °C | 211 |
| Ash, Sulphated | ASTM D874 | %wt | 0.74 |

Product Performance Claims: API SM

Storage: All packages should be stored under cover. Where outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products shouldn't be stored above 60°C, exposed to hot sun or freezing conditions.

KEY BENEFITS:

- Superior oxidation stability and energy efficiency.
- Excellent sludge control and extra wear protection at high temperatures and severe operating conditions.

- **Outstanding overall engine cleanliness and also provides long engine life.**

Performance Standards: SAE 20W-50 API SM.

Health Safety & Environment

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Available Size: 2L

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BDS Lube 0W-20

Passenger Vehicle fully synthetic Engine Oils



Engine oil



Mineral



Multigrade



Gasoline and diesel engines



Normal system operating pressure

BDS Lube 0W-20 oils are high quality fully synthetic engine lubricants providing reliable protection under a wide variety of operating conditions. They contain an effective balance of detergents and dispersants to minimize the formation of sludge and deposits, retain alkalinity and reduce wear.

Applications



- Gasoline and diesel engines without diesel particulate filters (DPF) requiring oil with API SP, ILSAC-GF-6A standards
- Older engine technologies
- Passenger cars, light trucks, farm equipment

Meets the Requirement:
 API- SP, ILSAC-GF-6A

| Features | Advantages and Potential Benefits |
|-------------------------------------|---|
| Multi-purpose application | Suitable for a wide range of vehicles |
| Wear protection | Proven anti-wear additives protect throughout the range of operating conditions for prolonged engine life |
| Thermal and oxidation stability | Resists oil thickening during whole drain interval |
| Detergent and dispersant properties | Control of high temperature deposits formation to prevent sludge and keep engine cleaner |

Available Size: 4L

Typical Characteristics

BDS Lube 0W-20

| | |
|---|-------|
| SAE grade | 0W-20 |
| cSt @ 100°C | 8..34 |
| Dynamic viscosity,CCS,ASTM D 5293 | |
| cP @ -35°C | 6200 |
| Mini-rotary viscometer (MRV), ASTM D 4684 | |
| cP @ -40°C | 48000 |
| Total base number, mg KOH/g, ASTM D 2896 | 8.33 |
| Sulfated ash, wt%, ASTM D 874 | 0.86 |
| Pour point, °C, ASTM D 97 | -40 |
| Flash point (COC), °C, ASTM D 92 | 220 |
| Density @ 15°C, kg/l, ASTM D 4052 | 0.846 |

Health Safety & Environment

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BDS Lube 5W-30

Passenger Vehicle Semi Synthetic Engine Oils

BDS Lube 5W-30 oils are high quality mineral engine lubricants providing reliable protection under a wide



Engine oil



Mineral



Multigrade



Gasoline and diesel engines



Normal system operating pressure

variety of operating conditions. They contain an effective balance of detergents and dispersants to minimize the formation of sludge and deposits, retain alkalinity and reduce wear.

Applications



- Gasoline and diesel engines without diesel particulate filters (DPF) requiring oil with API: SP ACEA C2, A5/B5ILSAC GF-6A standards
- Older engine technologies
- Passenger cars, light trucks, farm equipment

Typical Characteristics

| | |
|-------------------------------------|--|
| Meets the Requirement: | API-SP ACEA C2, A5/B5ILSAC GF-6A |
| Thermal and oxidation stability | Resists oil thickening during whole drain interval |
| Detergent and dispersant properties | Control of high temperature deposits formation to prevent sludge and keep engine cleaner |

| Properties | BDS Lube 5W-30 | Method |
|---|----------------|-------------|
| SAE Viscosity Grade | 5W-30 | SAE J300 |
| Kinematic Viscosity cSt @ 40°C | 59.72 | ASTM D 445 |
| cSt @ 100°C | 10.36 | |
| High-temperature, high-shear viscosity (HTHS), cP @ -30°C | 3.05 | ASTM D 4683 |
| Viscosity Index | 163 | ASTM D 2270 |
| Dynamic Viscosity, CCS, cP @ -30°C | 5050 | ASTM D 5293 |
| Total base number, mg KOH/g | 7.82 | ASTM D 2896 |
| Flash Point, (COC), °C | 233 | ASTM D 92 |
| Pour Point, °C | -42 | ASTM D 97 |

| | | |
|----------------------|-------|-------------|
| Density @ 15°C, kg/l | 0.853 | ASTM D 4052 |
|----------------------|-------|-------------|

Health Safety & Environment

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Available Size: 4L.

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BDS Lube™ *Passenger Vehicle Fully Synthetic Engine Oils*.10W-30 is an advanced fully synthetic motor oil designed to deliver outstanding engine protection to keep your engine running like new and protect critical engine parts for up to 5,000 miles between oil changes. **10W30** is a high-performance engine oil formulated with modern additives for use in small four stroke engines. It gives complete protection against wear & corrosion at extremely high temperatures. It provides high performance reliability to help protect and clean your engine and help prolong engine life.

Advantages

BDS EDGE with fluid titanium technology provides superior motor oil strength for engines that work harder due to higher engine pressures, helping your vehicle maximize engine performance. * Reduces metal to metal contact across a range of different driving speeds. * Protects the engine for the entire drain interval as recommended by your owner's manual even under extreme pressure. * Decrease engine deposit formulation to help maximize engine performance

Meets the Requirement:
 API-SN

Typical Characteristics

| Name | Method | Units | EDGE 10W-30 (US) |
|--|------------|--------------------|------------------|
| Density @ 15C, Relative | ASTM D4052 | g/ml | 0.856 |
| Appearance | Visual | - | Clear & Bright |
| Viscosity, Kinematic 100C | ASTM D445 | mm ² /s | 11.3 |
| Pour Point | ASTM D97 | °C | -39 |
| Viscosity, MRV / Yield Stress -30C (10W) | ASTM D4684 | mPa.s (cP) | 17452 |
| Viscosity, CCS -25C (10W) | ASTM D5293 | mPa.s (cP) | 4100 |
| Viscosity, Kinematic 40C | ASTM D445 | mm ² /s | 71.5 |
| Viscosity Index | ASTM D2270 | None | 151 |
| Noack Volatility | ASTM D5800 | % Loss | 8.5 |
| Viscosity, HTHS 150C | ASTM D4683 | cP | 3.2 |

Additional Information

Health and Safety

Based on available information, this product is not expected to produce adverse effect on health when used for the applications referred to above and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contact office or via the Internet at [www.castrol.com/ us](http://www.castrol.com/us). This product should not be used for purposes other than the applications referred to above. If disposing of used product, take care to protect the environment; return used oil to collection center.

Health Safety & Environment

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Available Size: 4L

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BDS Lube 20W-50

Passenger Vehicle Engine Oils



Engine oil



Mineral



Multigrade



Gasoline and diesel
engines



Normal system
operating pressure

BDS Lube 20W-50 oils are high quality Semi Synthetic engine lubricants providing reliable protection under a wide variety of operating conditions. They contain an effective balance of detergents and dispersants to minimize the formation of sludge and deposits, retain alkalinity and reduce wear.

Applications



- Gasoline and diesel engines without diesel particulate filters (DPF) requiring oil with API SN standards
- Older engine technologies
- Passenger cars, light trucks, farm equipment

Meets the Requirement:
API SN

| Features | Advantages and Potential Benefits |
|-------------------------------------|---|
| Multi-purpose application | Suitable for a wide range of vehicles |
| Wear protection | Proven anti-wear additives protect throughout the range of operating conditions for prolonged engine life |
| Thermal and oxidation stability | Resists oil thickening during whole drain interval |
| Detergent and dispersant properties | Control of high temperature deposits formation to prevent sludge and keep engine cleaner |

Available Size: 4L

Typical Characteristics

| Properties | Purity Lube 20W-50 | Method |
|--|---------------------------|---------------|
| SAE Viscosity Grade | 20W-50 | SAE J300 |
| Kinematic Viscosity @ 40°C, mm ² /s @ 100°C, mm ² /s | 172.6 18.00 | ASTM D445 |
| Viscosity Index | 120 | ASTM D2270 |
| Flash Point (COC), °C | 232 | ASTM D92 |
| Pour Point, °C | -25 | ASTM D97 |
| Density @ 15°C, kg/m ³ | 0.881 | ASTM D4052 |
| Total Base Number, mg KOH/g | 7.3 | ISO 6619 |
| Dynamic Viscosity, CCS, ASTM D5293 | | |
| cP @ -15°C | 6700 | |

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BDS Lube 20W-50 is an extra high performance **diesel engine oil** that provides excellent lubrications and promotes long engine life. It provides outstanding performance in both modern, demanding low-emission diesel engines and older diesel engines operating on low or high Sulphur fuel. This product combines a blend of high-performance base stocks with a balanced additive system to provide excellent control of oil thickening due to soot build-up and high temperatures as well as outstanding resistance to oxidation, corrosion and high temperature deposits.

Features and Benefits

High output, low emission engines significantly increase demands on engine lubricants. Tighter engine design, use of inter-coolers, and turbochargers increase thermal stresses on the lubricant. Low emission engine technologies such as higher fuel injection pressure and retarded timing require improved oil performance in areas such as oxidation stability, soot dispersions, and volatility. **BDS Lube 20W-50** is formulated from high performance base oils and a balanced additive system to contribute to optimum engine performance in modern diesel and gasoline engines as well as older models. The key potential benefits include:

| Features | Advantages and Potential Benefits |
|--|---|
| High thermal and oxidation stability | |
| TBN reserves | Deposit control and acid neutralization |
| Stay-in-grade shear stability | Wear protection and viscosity control |
| Advanced detergency/dispersion | Cleaner engines and longer component life |
| Improved soot handling | Improved viscosity control and used oil pumpability |
| Excellent low temperature properties | Start-up wear protection |
| Component compatibility | Longer gasket and seal life |
| Meets demanding specifications of key OEMs | One engine oil for mixed fleet operations |

Available Size: 1L,5L,7.5L,8.5L,11L, 10L, 18L, 20L, 205L

Typical Characteristics

Purity Lube 20W-50 Diesel Engine Oil

| | |
|---|-------|
| SAE Grade | 20W50 |
| Kinematic viscosity, ASTM D 445 cSt@100°C | 19.11 |
| Dynamic viscosity, CCS, ASTM D 5293 | |
| cP @-15°C | 8860 |
| cP @-20°C | - |
| cP @-25°C | - |
| cP @-30°C | - |
| Pour Point, °C, ASTM D 97 | -26 |
| Flash Point (COC), °C, ASTM D 92 | 240 |
| Density @ 15°C, kg/l, ASTM D 4052 | 0.885 |
| Sulfated ash, wt%, ASTM D 874 | 1.55 |
| Total base number, mg KOH/g, ASTM D 2896 | 10.8 |

These data are given as an indication of typical values, not exact specifications.

Industry and OEM Specifications

- API service Classification
- Diesel CI-4/SL

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BDS Lube 15W-40 is an extra high performance **diesel engine oil** that provides excellent lubrications and promotes long engine life. It provides outstanding performance in both modern, demanding low-emission diesel engines and older diesel engines operating on low or high Sulphur fuel. This product combines a blend of high-performance base stocks with a balanced additive system to provide excellent control of oil thickening due to soot build-up and high temperatures as well as outstanding resistance to oxidation, corrosion and high temperature deposits.

Features and Benefits

High output, low emission engines significantly increase demands on engine lubricants. Tighter engine design, use of inter-coolers, and turbochargers increase thermal stresses on the lubricant. Low emission engine technologies such as higher fuel injection pressure and retarded timing require improved oil performance in areas such as oxidation stability, soot dispersions, and volatility. **BDS Lube 15W-40** is formulated from high performance base oils and a balanced additive system to contribute to optimum engine performance in modern diesel and gasoline engines as well as older models. The key potential benefits include:

| Features | Advantages and Potential Benefits |
|--|---|
| High thermal and oxidation stability | |
| TBN reserves | Deposit control and acid neutralization |
| Stay-in-grade shear stability | Wear protection and viscosity control |
| Advanced detergency/dispersion | Cleaner engines and longer component life |
| Improved soot handling | Improved viscosity control and used oil pumpability |
| Excellent low temperature properties | Start-up wear protection |
| Component compatibility | Longer gasket and seal life |
| Meets demanding specifications of key OEMs | One engine oil for mixed fleet operations |

Available Size: 1L,5L,7.5L,8.5L,11L, 10L, 18L, 20L, 205L

Typical Characteristics

Purity Lube 15W-40 Diesel Engine Oil

| | |
|---|-------|
| SAE Grade | 15W40 |
| Kinematic viscosity, ASTM D 445 cSt@100°C | 14.34 |
| Dynamic viscosity, CCS, ASTM D 5293 | |
| cP @-15°C | - |
| cP @-20°C | 6460 |
| cP @-25°C | - |
| cP @-30°C | - |
| Pour Point, °C, ASTM D 97 | -31 |
| Flash Point (COC), °C, ASTM D 92 | 229 |
| Density @ 15°C, kg/l, ASTM D 4052 | 0.874 |
| Sulfated ash, wt%, ASTM D 874 | 1.33 |
| Total base number, mg KOH/g, ASTM D 2896 | 10.9 |

These data are given as an indication of typical values, not exact specifications.

Industry and OEM Specifications

- API service Classification
- Diesel CI-4/SL

Health Safety & Environment

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BDS Lube Automatic Gear Oil 85W140 is extra high performance commercial gear lubricants formulated from select base oils and an advanced additive system. These lubricants are engineered for performance in heavy-duty commercial transmissions, axles and final drives where extreme pressure and shock loading are expected. They provide excellent chemical and thermal stability at elevated bulk oil temperatures, good performance at low temperature and have demonstrated good rust protection resulting from water contamination and wet conditions.

Today's heavy equipment applications place higher performance demands on drive train lubricants. Higher speeds, higher torque and heavy loads require improved formulations to maximize equipment life and optimize operating costs. Longer service intervals place additional demands on the gear lubricant. **BDS Lube Automatic Gear Oil 85W140** is engineered to meet these challenges. The key benefits include:

| Features | Advantages and Potential Benefits |
|---|---|
| High thermal and oxidation stability | Extended gear and bearing life due to minimal deposits and longer seal life |
| Good protection against low speed/high torque wear and against high-speed scoring | Increased load carrying capability and reduced operating costs |
| Excellent rust, staining and corrosion protection | Reduced wear and longer component life |
| Effective low temperature lubrication | Reduced wear and ease of start-up |
| Wide multipurpose capability | Reduced number of gear lubricants to simplify and minimize misapplication |
| Good resistance to foaming | Maintains film strength for effective lubrication |
| Compatible with typical automotive seals and gaskets | Minimum leakage and reduced contamination |

Approvals

- API-GL-5

Typical Characteristics

| Properties | Method | BDS Lube Automatic Gear Oil 85W140 |
|--|------------|------------------------------------|
| Grade | | 85W-140 |
| Flash Point COC | ASTM D92 | 230 |
| Viscosity, Kinematic 100°C, mm ² /s | ASTM D445 | 25.4 |
| Viscosity, Kinematic 40°C, mm ² /s | ASTM D445 | 333 |
| Pour Point | ASTM D97 | -18 |
| Viscosity Index | ASTM D2270 | 99 |

Health Safety & Environment

Information is provided for products in the relevant Safety Data Sheet (SDS). This provides guidance on potential hazards, precautions and first-aid measures, together with environmental effects and disposal of used products. SDS's are available upon request through your sales contract office. This product should not be used for purposes other than its intended use.

PACK SIZES 1L, 4L, 20L, 205L Drum.

BDS International
Head Office
BDS Lube
Technical Data Sheet

BDS LUBE Automatic Gear Oil 80W-90 is high performance gear oil formulated using the latest Sulphur phosphorus technology, which assures excellent protection of the gears against metal-to metal contact under the most severe conditions, even under shock-loads. This Oil contains special additives leaving a protective film upon the surfaces to prevent corrosion and wear. Due to its adjusted viscometry's, these oils can be applied in cold conditions (see pour point). This Oil is recommended for use in bevel, spiral bevel and hypoid gear type differentials (either single or double reduction) and in power dividers where API GL-5 is specified.

APPLICATION: Recommended for use in bevel, spiral bevel and hypoid gear type differentials (either single or double reduction) and in power dividers where API GL-5 is specified.

SPECIAL FEATURES

1. **Superior oxidation and thermal stability** This Oil shows a superior oxidation and thermal stability and has a good resistance against foaming. Even at higher temperatures an effective lubricating film thickness assures proper lubrication.
2. **Excellent Resistance for Wear, Corrosion, Foaming and Oxidation** This Oil shows an excellent resistance against wear, corrosion and foaming as well as oxidation and ageing at elevated temperatures.

TYPICAL PROPERTIES

| | | |
|---|-----------------------------------|---------------|
| RECOMMENDATIONS & SPECIFICATIONS | SAE viscosity grade | 80W-90 |
| API GL-5 | Density (20°C), g/cm ³ | 0.895 |
| CASE MS 1316 | - | - |
| Chrysler MS 9020 | Flash point (COC), °C | 207 |
| DTFR 12B110 / MB 235.20 | Kinematic viscosity (40°C) | 133 |
| Ford M2C154-A/ M2C197-A/ M2C9002-A/ M2C94-A | mm ² /s | - |
| GOST TM-3/TM-5 | (100°C), mm ² /s | 14.2 |
| Iveco 18-1805 | Viscosity index | 105 |
| MAN 342 type M-1 | - | - |
| MIL-L-2105B/C/D | Pour point, °C | -30.0 |
| Scania STO 1:0 | - | - |
| Volvo 97314 | - | - |
| ZF 12A | - | - |

Approvals

- API-GL-5

PACK SIZES 1L, 4L, 20L, 205L Drum.

BDS International
Head Office
BDS Lube
Technical Data Sheet

Product Description

BDS LUBE Manual GEAR OIL SAE 140 is a high-performance, heavy-duty gear lubricant formulated from premium base oils and an advanced additive system. This lubricant is designed for heavy-duty automotive transmissions, axles, and differentials. Furthermore, it is engineered to operate efficiently in transmissions requiring protection against wear and scoring, while also providing a high level of oil film protection.

Features & Benefits

- Good thermal & oxidation stability protects against deposit formation and oil thickening, thus maintains the life and performance of lubricant and transmission.
- Enhanced anti-wear properties and outstanding film strength provides exceptional equipment protection, that not only results in fewer breakdowns but also helps improve transmission efficiency.
- Excellent rust and corrosion protection for longer component life.
- Compatibility with seals and gaskets, leads to minimize oil leakage and reduced contamination.

Specifications

ALES GEAR OIL SAE 140 meets or exceeds following International and Builder specifications:

- API GL-4
- MIL-L-2105 (U.S Military Specification)

Application

ALES GEAR OIL SAE 140 is suitable for use in following:

- Suitable for Heavy duty manual transmissions, axles and final drives requiring API GL-4 level performance.
- Applications like Off-highway industries including construction, mining, quarrying, and agriculture.

Typical Characteristics

| ALES GEAR OIL SAE 140 | Test Method | Units | 140 |
|------------------------|-------------|--------|-------|
| Density @ 15 0C | ASTM D 4052 | gm/c c | 0.910 |
| Viscosity @ 40 0C | ASTM D 445 | cSt | 447 |
| Viscosity @ 100 0C | ASTM D 445 | cSt | 30.0 |
| Viscosity Index | ASTM D 2270 | - | 95 |
| Pour Point | ASTM D 97 | °C | -9 |
| Flash Point (COC) | ASTM D 92 | °C | 260 |
| Copper Strip Corrosion | ASTM D 130 | - | 1B |
| Foam Seq I,II,III | ASTM D 892 | ml/m l | 20/0 |
| Phosphorus | ASTM D 4951 | %wt | 0.026 |

BDS International
Head Office
BDS Lube
Technical Data Sheet

BDS Lube Universal Tractor Transmission Oil (UTTO) GL-5 10W-30 is suitable for use in gearboxes, differential conic assemblies, power take-offs, hydraulic systems, wet brakes (synthesized or compound), clutches and other ancillary devices fitted in tractors and off-road equipment's. Excellent shear stability enhances the protection of all the lubricated parts ensuring the right viscosity along its use reducing unexpected shutdowns improving the reliability and efficiency.

Properties

- Excellent anti-wear protection and loading capacity, even in extreme working conditions.
Good rust resistance and compatibility with joint materials.
- Its friction features are carefully formulated to eliminate screeching in wet brakes optimizing the performance.
- Its versatility makes it suitable for use with a wide variety of agricultural machinery
- Viscosity 10W-30 as hydraulic oil, not for use as a motor oil.

Product Performance Claims: API GL-4

Typical Characteristics

| Properties | Unit | Method | Value |
|---------------------------------------|-------------------|------------|------------|
| SAE Viscosity Grade | | SAE J 300 | 10W-30 |
| Viscosity @ 100°C Viscosity @ 40°C | cSt | ASTM D445 | 10,8 65 |
| Density at 15°C | g/cm ³ | ASTM D4052 | 0.882 |
| Pour Point | °C | ASTM D97 | -36 |
| Viscosity Index | | ASTM D2270 | 140 |
| TBN | mm KOH/g | ASTM D2896 | 9,5 |
| Flash Point | °C | ASTM D92 | 220 |

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

Head Office
BDS Lube
 Technical Data Sheet

BDS Lube VG-68 Hydraulic Oil are based upon mineral oil enhanced with a stabilized zinc additive system. It is primarily for use in hydraulic equipment, but is suitable for other duties in which lubricants with good oxidation stability and lubrication performance are required.

Product Performance Claims: API VG-68

Advantages:

- Good anti-wear performance.
- Prevents wear of internal components reducing downtime.
- Resistance to oxidation.
- Extends service life.
- Good water separation.
- Reduces downtime and prolongs lubricant life.

Typical Characteristics

| Name | Method | Units | Hydraulic Oil 46 | Hydraulic Oil 68 |
|-------------------------------|------------------------------|--------------------|------------------|------------------|
| ISO Viscosity Grade | - | - | 46 | 68 |
| Density @ 15C | ISO 12185 / ASTM D4052 | g/ml | 0.88 | 0.88 |
| Kinematic Viscosity @ 40°C | ISO 3104 / ASTM D445 | mm ² /s | 46 | 68 |
| Kinematic Viscosity @ 100°C | ISO 3104 / ASTM D445 | mm ² /s | 6.8 | 8.77 |
| Viscosity Index | ISO 2909 / ASTM D2270 | - | >95 | >95 |
| Pour Point | ISO 3016 /ASTM D97 | °C | -27 | -27 |
| Flash Point - open cup method | ISO 2592 | °C | 229 | 229 |

| | | | | |
|---|-----------------------------|-------------------|------|------|
| | /ASTM D92 | | | |
| Foam Sequence I - tendency /stability | ISO 6247 / ASTM D892 | ml/ml | 10/0 | 10/0 |
| Water Separation @ 54°C (40/37/3) | ISO 6614 / ASTM D1401 | minutes | 15 | 15 |
| Air Release @ 50°C | ISO 9120 / ASTM D3427 | minutes | 8 | 8 |
| Rust test - synthetic seawater (24hrs) | ISO 7120 / ASTM D665B | Rating | Pass | Pass |
| FZG Gear Scuffing test - A/ 8.3/90 | ISO 14635- 1 | Failure LoadStage | 12 | 12 |

BDS International
Head Office
BDS Lube
Technical Data Sheet

Description:

BDS LUBE Hydraulic Oil VG-46 is a premium quality general purpose anti-wear hydraulic fluid containing a zinc/phosphorous additive to minimize wear and provides superior thermal stability, anti-foam, rust, corrosion and oxidation protection in high-speed, high-pressure vane, gear, and piston pumps operating over a wide temperature range. It is formulated according to the ISO viscosity grade classifications to perform in extended service intervals to reduce downtime and increase time between equipment service. MG OIL Hydraulic VG-46 anti-wear Hydraulic oil meets, exceeds or match the performance specifications and complies with most industrial, marine and mobile applications where service requirements are normal to moderate and long-term, heavy-duty wear protection for stability and durability.

Benefits and Applications

- Excellent thermal stability
- Special additives provide sludge and deposit control, and longer service life
- Excellent rust and corrosion protection for all system components
- Provide superior water separation and demulsibility
- Excellent anti-foam protection and rapid air release
- Provides anti-wear protection for pumps, motors, valves and other hydraulic circuit components operating und

APPLICATION

- Hydraulic system operating under moderate to severe conditions in mobile and industrial service
- Older hydraulic system where leakage is a problem and cost-effective hydraulic oil providing all round protection is required
- Provides anti-wear protection for pumps, motors, valves and other hydraulic circuit components operating under high pressures and loads
- Mobile hydraulic fluid power transmission system and general machine lubrication
- Hydraulic applications in a wide variety of industrial, marine and mobile equipment
- Vane and gear pumps operating under high loads, as recommended by pump manufacturers.
- Severe service hydraulic systems, employing axial and radial piston pumps, as recommended by pump manufacturers.

Technical Data

| SL | Properties | Units | Test Method | Results |
|----|-------------------|--------------------|-------------|---------|
| 01 | ISO Grade | - | - | VG-46 |
| 02 | Color | - | ASTM D-1500 | RED |
| 03 | Viscosity @ 40°C | Mm ² /s | ASTM D-445 | 45.8 |
| 04 | Viscosity @ 100°C | Mm ² /s | ASTM D-445 | 6.8 |
| 05 | Viscosity Index | - | ASTM D-2270 | 101 |
| 06 | Density @ 15°C | g/ml ³ | ASTM D-1298 | 0.842 |
| 07 | Plash Point | °C | ASTM D-92 | 210 |
| 08 | Pour Point | °C | ASTM D-97 | -24 |

| | | | | |
|----|---|----------------------------|---------------|--------------------|
| 09 | Total Acid Number (TAN) | mg KOH/g | ASTM D-974 | 0.4 |
| 10 | Rust Test | - | ASTM D-665A/B | Pass |
| 11 | Foaming Sequence-1 Sequence-2 Sequence-3 | ml /ml ml /ml ml /ml | ASTM D-892 | 5/0 10/0 5/0 |
| 12 | Water separability @ 54°C, 40-37-3 | mins | ASTM D-1401 | 15 |
| 13 | FZG A/8.3/90 | LSF | DIN-51354 | 10 |
| 14 | Copper Strip Corrosion 3h at 100°C | Rating | ASTM D-130 | 1a |
| 15 | Air Release | mins | - | 7 |
| 16 | Oxidation Stability, | - | ASTM D-943 | 4500 |

Health & Safety Environment

This product is unlikely to present any significant health and safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with eyes and skin, use proper impervious gloves with used oil. After skin contact, wash immediately with soap and water

BDS International
Head Office
BDS Lube
Technical Data Sheet

DESCRIPTION

BDS LUBE HD 50 is a fast setting, fiber reinforced, latexmodified, shrinkage compensated, heavy duty, one component concrete repair material requiring only water to mix and apply. HD 50 is a cement-based compound having similar characteristics to normal portland cement mixes and is compatible with portland cement concrete.

USE

HD 50 is designed for the repair of heavy-duty surfaces such as concrete highways, bridge decks, parking structures, airport runways, freezer rooms, industrial and warehouse floors, and loading docks. HD 50 is a flowable material that may be poured into place for horizontal applications or into formed vertical and overhead applications.

FEATURES

- High compressive strength quickly – over 2,000 psi in one hour
- Resists salt penetration and damage from freeze/thaw cycles
- Contains no chlorides or magnesium phosphate
- Meets ASTM C-928; Specification for Very Rapid Hardening Cementitious Repair Materials
- Non-Corrosive
- Aggregate extension – Up to 60% on repairs greater than 2 inches (5cm) deep
- Can be coated with epoxy in as little as 4 hours ■ Sulfate resistant

PROPERTIES

Meets ASTM C-928: As a Type R-3 mortar Compressive Strength – ASTM C-109 At 73°F (22.8°C) 1 Hour 2000 psi (13.8 MPa) 3 Hours 3500 psi (24.1 MPa) 1 Day 5200 psi (35.9 MPa) 7 Days 6500 psi (44.8 MPa) 28 Days 8000 psi (55.1 MPa)

Slant Shear Bond Strength ASTM C-882 (*modified per ASTM C 928) 1 day 2,000 psi (13.8 MPa) 7 days 2,750 psi (18.9 MPa) Length Change of Hardened Cement Mortar and Concrete ASTM C 157 (*modified per ASTM C 928) Length Change @ 28 days Air Cure -0.09% Water Cure 0.04%

Scaling Resistance (Freeze/Thaw) - ASTM C-672 Average of 3 specimens 25 cycles 0 (no scaling) Scaling of oven-dry mass @ 25 cycles 0.0 lbs/ft² Rapid Freeze/Thaw Test: ASTM C-666 At 300 Cycles - No loss

Mixing

Mix with a low -speed drill or, for larger projects a mortar mixer with rubber tipped blades, by adding the water first and then the powder. Mixing time should be two to three minutes and placing should not exceed fifteen minutes. Adequate placing and finishing equipment and material should be available for continuous placement of the material.

Placement:

Using freshly mixed material, scrub a thin layer onto the SSD substrate with a stiff fiber brush and place the repair mortar before the scrub coat dries. Trowel the repair material onto the surface to a minimum thickness of 1/2 in. (1.3 cm) and a maximum thickness of 2 in. (5.1 cm).

For repairs over 2 in. (5 cm) up to 6 in (15 cm) deep, the material should be extended 60% by weight with clean, SSD, pea gravel with an approximate size of 3/8 in (9.5 mm) and conforming to the requirements of ASTM C 33. For deeper applications, please contact Chemical Technical Services.

CURING

Water cure for a minimum of 1 hour or apply a Dayton Superior ASTM C309 water-based curing compound to the repaired area immediately after placement.

CLEAN

UP Clean tools and equipment immediately with water. Hardened material will require mechanical removal.

Purity Lube HD 40/50 are high-performance heavy-duty engine oils primarily intended for use in gasoline automotive engines of passenger cars, commercial vehicles and farm equipment. They may also be used in diesel engines of commercial vehicles and contractor equipment. They are formulated from high quality mineral base oils and an advanced additive system to provide the excellent performance required for modern combustion engines. They contain an effective balance of detergents and dispersants to minimize the formation of sludge and deposits, retain alkalinity (TBN) and reduce wear.

Features and Benefits

- Great engine cleanliness.
- Good protection against wear and corrosion.
- Extended intervals between oil drain.
- Low oil consumption.
- Reduced inventory costs for mixed fleet operations.

STORAGE

Shelf life of unopened bags, when stored in a dry facility, is 12 months. Excessive temperature differential and/or high humidity can shorten the shelf-life expectancy. Store in a cool, dry area free of direct sunlight.

Surface Preparation:

The concrete must be sound and free of all foreign material, including oil, grease, dust, laitance, or other surface contaminants. Surface preparation in accord with ICRI Guidelines is recommended. The edges of the patches should be saw-cut perpendicular to the surface to a minimum depth of 1/2 in. (13 mm). Best results will be obtained by abrasive blasting the area to be repaired, providing uniform depth, a high surface profile and a firm bonding area. All surfaces to be repaired should be in a saturated-surface-dry (SSD) condition with no standing water on the surface.

Water Requirements:

Use 6½ pints (3.07 L) of water /50 lb. (22.7 kg) of powder.

LIMITATIONS

FOR PROFESSIONAL USE ONLY Prior to coating, moisture content must be measured and comply with the coating manufacture's requirements. Any and all curing material must be removed from the HD50 prior to coating. When testing the field mixed material, other factors such as variations in mixing, water content, temperature and curing conditions should be considered. When using less than one bag always dry mix the full bag prior to each use. **DO NOT** apply at temperatures below 40°F (5°C) without following the cold weather concreting procedures outlined in ACI 306. For application in temperatures below 45°F (4°C), best results will be obtained by warming the material and mix water as well as the substrate. Colder temperatures will extend the setting time and warmer temperatures will reduce the setting time. **DO NOT** featheredge. Do not re-temper the mixed material or use admixtures. Do not use for resurfacing or topping large floor areas. Mixing equipment should be cleaned with water frequently and prior to material hardening.

PRECAUTIONS

READ SDS PRIOR TO USING PRODUCT

- Product contains Crystalline Silica and Portland Cement – Avoid breathing dust – Silica may cause serious lung problems
- Use with adequate ventilation
- Wear protective clothing, gloves and eye protection (goggles, safety glasses and/or face shield)
- Keep out of the reach of children
- Do not take internally
- In case of ingestion, seek medical help immediately
- May cause skin irritation upon contact, especially prolonged or repeated. If skin contact occurs, wash immediately with soap and water and seek medical help as needed.
- If eye contact occurs, flush immediately with clean water and seek medical help as needed
- Dispose of waste material in accordance with federal, state and local requirements

Typical Properties*

| Purity Lube HD Properties | | |
|--|------|------|
| SAE Grade | 40 | 50 |
| Viscosity @ 100°C, cSt, ASTM D445 | 14.8 | 18.8 |
| Total Base Number, mg KOH/g, ASTM 2896 | 6.5 | 6.5 |
| Sulfated Ash, wt%, ASTM D874 | 0.7 | 0.7 |

| | | |
|---------------------------|-----|-----|
| Flash Point, °C, ASTM D92 | 220 | 220 |
| Pour Point, °C, ASTM D97 | -6 | -6 |

Product Performance Claims: API SG/CD

Health and Safety Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed.

BDS International
Head Office
BDS Lube
Technical Data Sheet

Product Description

BDS LUBE HD 40 is a heavy-duty engine oil primarily intended for use in gasoline automotive engines of passenger cars, commercial vehicles and farm equipment. It may also be used in diesel engines of commercial vehicles and contractor equipment. It is formulated from high quality mineral base oils and an advanced additive system to provide the excellent performance required for modern combustion engines. It contains an effective balance of detergents and dispersants to minimize the formation of sludge and deposits, retain alkalinity (TBN) and reduce wear.

Features and Benefits

- Improved engine cleanliness.
- Good protection against wear and corrosion.
- Extended intervals between oil drain.
- Low oil consumption.
- Reduced inventory costs for mixed fleet operations.

Applications

BDS LUBE HD 40 is recommended for the lubrication of gasoline engines for passenger cars, commercial vehicles and farm equipment as well as diesel engines for commercial vehicles and contractor equipment. It can also be used in gear and hydraulic applications if the builder approves the use of engine oils.

Typical Properties

| | |
|--|------|
| SAE Grade | 40 |
| Viscosity, ASTM D 445 | - |
| cSt @ 100°C | 14.4 |
| Sulfated Ash, wt %, ASTM D 874 | 0.87 |
| Total Base Number, mg KOH/g, ASTM D 2896 | 6.0 |
| Pour Point, °C, ASTM D 97 | -21 |
| Flash Point, °C, ASTM D 92 | 252 |

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the

Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment. The Mobil logotype, the Pegasus design, and Mobil HD are trademarks of ExxonMobil Corporation, or one of its subsidiaries.

API SJ

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 Technical Data Sheet

BDS LUBE DEXRON-IV Full Synthetic ATF. Multi-Vehicle DEXRON®-VI ATF is a high-performance universal ATF providing superior oxidation control, extended service intervals, maximum year-round low and high temperature performance, improved fuel economy and shear stability. It is suitable for use where GM DEXRON®-VI, DEXRON® III/III(H)/IIE, DEXRON® II, Ford MERCON® LV, Allison®, Honda® Z-1, Hyundai/Kia SP-II/III/IV, Toyota WS, T-III, T-IV, Mercedes Benz®, or Nissan® Matic C/D/J/K/S Fluids are recommended.

Approvals, Applications and Benefits

Approvals, Applications and Benefits

- GM DEXRON®, DEXRON® II, II-E, III, III-G, III-H, VI • Ford MERCON®, MERCON® LV • Acura ATF-Z1 • Audi 5 HP LT71141
- Chrysler (Mopar) ATF-Plus, ATF +3, ATF +4 • Allison C-3, C-4, TES-295, TES-389 • CAT TO-2 • Daewoo LT 71141 • Esso LT 71141
- BMW • Honda Z-1 • Hyundai/Kia SP-II/III/IV • JASO • FIAT T-IV type, JWS 3309 • Jaguar ATF 3403 M115, ATF LT71141, ZF 5HP24
- ISUZU BESCO ATF-II /III • Mazda ATF D-II/M-III/M-V/FZ/S-1/N-1 • MINI COOPER T-IV • Opel (all vehicles)
- Peugeot ZF 4HP20
- Mercedes • Mitsubishi • Nissan/ Infinity Matic Fluids • Toyota ATF D-II/D-III/T-III/T-IV/WS • VW 5 HP, G-055-025 A2 (JWS 3309)
- Porsche ZF 5HP19FL, ZF 5HP20, LT71141 • Saab T-IV • Scion (all vehicles) • Shell 3403, M115, LA 2634 • Subaru ATF • Suzuki ATF
- Vickers M2950-S, I-286-S • Voith • Volvo CE 97340 • ZF all 3 & 4 speed transmission • and many more
- Superior all-temperature, year-round protection and high performance
- Advanced anti-wear protection and shear stability
- Smoother shifting, protection against shudder
- Extended life of service and performance

Typical Characteristics - Dexron® VI - V200401

| GRADE | Test Method | DEXRON®-IV |
|---------------------------|-------------|------------|
| Color | Visual | Red |
| Viscosity @ 100°C, cSt | ASTMD 445 | 5.8 |
| Viscosity @ 40°C, cSt | ASTMD 445 | 29.5 |
| Viscosity Index | ASTMD 2270 | 145 |
| Pour Point, °C/°F | ASTMD 97 | 51/ -59.8 |
| Flash Point, COC °C/°F | ASTMD 92 | 220 / 428 |
| API Gravity | ASTMD 1298 | 36.0 |
| Brookfield Vis.cP @ -40°C | ASTMD 2983 | 10,000 |

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BDS Lube
Technical Data Sheet

BDS LUBE MP3 LITHIUM Grease is a high performance; heavy duty extreme pressure grease made from Lithium soap to withstand high pressure and harsh operating condition.

It is used in lubrication of slide, ball and roller bearing, wheel -bearings, universal joints, chassis and various shock loaded or vibrating application in transport, agriculture and off-road vehicles.

Suitable for general purpose grease for industrial applications requiring a NLGI 3 grade extreme pressure grease and high operating temperature

Advantages: -

It has got very high drop point and anti-corrosion properties which protects the parts from wear and corrosion.

It has got very high water and temperature resistance properties which makes it suitable for universal application thus optimizing the inventory.

Typical Characteristics: -

| SR NO | Characteristics | Unit | Test Method | Specifications |
|--------------|---------------------------------------|-------------|--------------------|-------------------------------|
| 01 | Appearance/Color | - | Visual | Smooth Homogeneous/Red |
| 02 | Thermal Usage Range | °C | - | 150-165 |
| 03 | Worked Penetration, 60x | - | ASTM D 217 | 220-250 |
| 04 | Drop Point | °C | ASTM D 566 | 5 Max |
| 05 | Timken Test | Kg | ASTM D 2509 | 260 Min |
| 06 | Four Ball Machine Welding Test | Kg | ASTM D 2596 | 5 Max |
| 07 | Base | - | - | Lithium Complex |

Packing 150Kg,10Kg, 400gm.200gm.

PRODUCTS DESCRIPTION

BDS LUBE MP3 Grease is a high quality NLGI 3 multipurpose grease suitable for both automotive and industrial applications. It is manufactured from high quality base stocks, and superior quality performance additives. It provides excellent oxidation stability, mechanical stability and water wash out characteristics to enable trouble free operation under varying conditions.

Features

- Multi-purpose with excellent mechanical and oxidation stability.
- Good water resistant and anti-rust properties. Can be applied to equipment's under moist and water presented conditions.

APPLICATIONS

It is suitable for lubricating rolling bearing, sliding bearing, wheel bearing and chassis lubrication and other friction points of general mechanical equipment's. Application temperature range: -20°C to 130°C. This grease is particularly suited for the lubrication of construction and mining equipment such as bulldozers, scrapers, loading shovel and all off highway trucks where greased components are subjected to continuous heavy loads and shock loads. This grease can be applied by gun or used in centralized systems, capable of pumping the appropriate NLGI grade.

Characteristics

| S.NO. | PROPERTIES | MP-3 |
|-------|--|----------------------|
| 01 | Appearance | Light Yellow |
| 02 | Consistency of worked grease, @ 25±0.5°C,0.1mm units (60 double strokes) | 220 to 250 |
| 03 | Drop Point, °C, min. | 180 |
| 04 | Soap Type | Mixed based |
| 05 | Structure | Smooth & homogeneous |
| 06 | Base Oil Viscosity @40°C, cst | 100 |

Packing 150Kg,10Kg, 400gm.200gm.

