

IND-2506-2104E

# SUPER MULPUS DX

## HIGH-PERFORMANCE MULTIPURPOSE LUBRICATING OIL FOR INDUSTRIAL MACHINERY

SUPER MULPUS DX is a high-grade industrial lubricating oil blended from highly solvent-refined paraffinic base oils and carefully selected additives. Its outstanding performance meets the requirements for bearing oils, gear oils, hydraulic oils and slideway oils for general-purpose industrial machinery, and it was developed with top-quality features normally found only in specialty oils. Because SUPER MULPUS DX is a multipurpose industrial oil, it is ideal for streamlining lubrication management in factories.

### ● SPECIAL FEATURES

#### 1. Excellent Lubrication

SUPER MULPUS DX has an excellent anti-wear and extreme-pressure performance, so it provides excellent lubrication.

#### 2. Outstanding Oxidative and Thermal Stability

Because SUPER MULPUS DX is blended from highly refined based oils with outstanding oxidative and thermal stability as well as carefully selected oxidation inhibitors, it suffers very little oxidative degradation or sludge formation even when used for long periods of time. It provides especially good oxidative stability at high temperatures, so it performs extremely well even in hot circulation systems.

#### 3. Excellent Separation from Water and from Water-soluble Cutting Fluids

Thanks to SUPER MULPUS DX's excellent ability to separate water, it is easy to remove a moderate amount of water from the oil by letting the oil stand or by using a centrifugal separator.

#### 4. Outstanding Rust Prevention

SUPER MULPUS DX is blended with top-quality antirust additives, so it prevents rust and corrosion in the lubrication system even when moisture becomes mixed with the oil.

#### 5. Excellent Antifoaming Performance

SUPER MULPUS DX is also blended with high-performance defoaming agents, so it prevents circulation problems caused by foaming.

### ● GRADES

SUPER MULPUS DX comes in twelve grades: 2, 5, 10, 22, 32, 46, 68, 100, 150, 220, 320, and 460. These numbers indicate the ISO viscosity grade.

This wide range of viscosity grades means that SUPER MULPUS DX is available in the proper viscosity for any application.

### ● APPLICATIONS

1. Lubrication of many types of bearings for steel and nonferrous metal rolling mills, rubber and plastic rolls, calender rolls, papermaking machines, electric motors, generators, pumps, fans, etc.
2. Lubrication of many types of transmissions
3. Hydraulic systems
4. Many types of lubrication for machine tools (bearings, gears, hydraulics, slideways)
5. Oil circulation systems for gears and bearings that are susceptible to rust and oil degradation
6. Lubrication of bearings in textile machinery and other high-speed rotating machinery
7. Hydraulic oil for instruments and remote-controlled hydraulic devices

### ● SHIPPING CONTAINERS

200-liter drums and 20-liter cans.

## ●TYPICAL PROPERTIES OF SUPER MULPUS DX

Grade of SUPER MULPUS DX	2	5	10	22	32	46
Color (ASTM)	L0.5	L0.5	L0.5	L0.5	L0.5	L1.0
Density (15°C), g/cm <sup>3</sup>	0.833	0.842	0.845	0.860	0.870	0.874
Kinematic viscosity (40°C), mm <sup>2</sup> /s (100°C), mm <sup>2</sup> /s	2.20 1.01	4.45 1.60	9.65 2.60	21.9 4.32	31.9 5.43	46.5 6.90
Viscosity index	—	—	99	103	105	104
Flash point (COC), °C	108	118	162	225	230	238
Pour point, °C	-30	-30	-30	-35	-30	-30
Copper strip corrosion (100°C, 3 h)	1	1	1	1	1	1
Rust prevention (distilled water, 60°C, 24 h)	No rust					

Grade of SUPER MULPUS DX	68	100	150	220	320	460
Color (ASTM)	L1.0	L1.0	L2.0	L3.0	L3.0	L3.5
Density (15°C), g/cm <sup>3</sup>	0.882	0.888	0.892	0.895	0.900	0.910
Kinematic viscosity (40°C), mm <sup>2</sup> /s (100°C), mm <sup>2</sup> /s	68.2 8.88	100 11.2	158 15.4	216 19.0	320 24.3	473 31.4
Viscosity index	103	97	98	99	97	97
Flash point (COC), °C	260	270	278	284	302	320
Pour point, °C	-22.5	-22.5	-22.5	-12.5	-12.5	-12.5
Copper strip corrosion (100°C, 3 h)	1	1	1	1	1	1
Rust prevention (distilled water, 60°C, 24 h)	No rust	No rust	No rust	No rust	No rust	No rust

Note: The typical properties may be changed without notice. (September 2010)



## Handling Pre-cautions

▼ Follow these precautions when handling this product.

SUPER MULPUS DX 2, 5, 10, 22

<b>Composition :</b>	Base Oil, Additives
<b>Precautionary pictograms:</b>	
<b>Signal word:</b>	Danger
<b>Hazard Statement:</b>	May be fatal if swallowed and enters airways
<b>Precautionary Statements:</b> <b>Prevention</b>	<ul style="list-style-type: none"><li>• Do not handle until all safety precautions have been read and understood.</li><li>• Wear protective gloves/protective clothing/eye protection/face protection.</li><li>• Do not allow the eyes to become exposed to the product. Do not swallow the product.</li><li>• Wash hands thoroughly after handling.</li><li>• Do not eat, drink or smoke when using this product.</li></ul>
<b>Response</b>	<ul style="list-style-type: none"><li>• IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.</li><li>• IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</li><li>• If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician.</li><li>• IF ON SKIN: Wash with plenty of soap and water.</li><li>• Do NOT induce vomiting.</li></ul>
<b>Storage</b>	<ul style="list-style-type: none"><li>• The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight.</li><li>• Containers that have been opened must be tightly sealed.</li><li>• Store locked up.</li></ul>
<b>Disposal</b>	<ul style="list-style-type: none"><li>• Dispose of contents/container in accordance with local/regional/national/international regulations.</li><li>• If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.</li></ul>

SUPER MULPUS DX 32, 46, 68, 100, 150, 220, 320, 460

<b>Composition :</b>	Base Oil, Additives
<b>Precautionary pictograms:</b>	Not applicable
<b>Signal word:</b>	Not applicable
<b>Hazard Statement:</b>	Not applicable
<b>Precautionary Statements:</b>	<ul style="list-style-type: none"> <li>• Do not handle until all safety precautions have been read and understood.</li> <li>• Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>• Do not allow the eyes to become exposed to the product. Do not swallow the product.</li> <li>• Wash hands thoroughly after handling.</li> <li>• Do not eat, drink or smoke when using this product.</li> </ul>
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