

# EHV CABLE OIL (LAB)

## Alkyl benzene

As the demand for electric power in the center of big cities increases, high and extra high voltage (Extra High Voltage) cable transmissions are in the spotlight. At higher transmission voltages, each electrically insulating material must have better electrical properties and stability than conventional ones. The plenty experience of developing insulating oil, corporation of electric wire manufacturers, and feedback from our various customers enable us to develop excellent insulation oil for cables. **EHV CABLE OIL (LAB)** is a linear alkylbenzene-based insulating oil for ultra-high voltage cables.

### ● Characteristics

#### 1. Excellent electrical characteristics

**EHV CABLE OIL (LAB)** is manufactured with excellent synthetic technology in our petrochemical department, and in addition, it is processed under good quality control from manufacture to shipment, so its electrical characteristics are extremely high.

- (1) High breakdown voltage
- (2) High volume resistivity
- (3) Small dielectric loss tangent

#### 2. Excellent thermal stability

Even if the temperature of the cable oil rises as the transmission voltage rises, **EHV CABLE OIL (LAB)** is less susceptible to thermal deterioration and its electrical characteristics are less degraded, so it can be adopted for a long time even in a high electric field.

#### 3. Excellent hydrogen gas absorption

Hydrogen gas generation during corona discharge is extremely important for cable insulating oil as it can lead to grave incidents. **EHV CABLE OIL (LAB)** has a high specific dispersion, so it has excellent hydrogen gas absorption.

#### 4. Corrosiveness

Since **EHV CABLE OIL (LAB)** does not contain impurities such as corrosive substances, there are few copper corrosion problems and adverse effects on insulating materials.

### ● Applications

1. Extra high voltage oil filled cable.
2. High voltage capacitors (condensers)

### ● Containers

Tank trucks and 200-liter drums

### ● Typical properties of EHV CABLE OIL (LAB)

Density (15°C )	g/cm <sup>3</sup>	0.861
Color (Saybolt)		above+30
Flash point(PM)	°C	146
Kinematic viscosity (40°C)	mm <sup>2</sup> /s	4.3
	(100°C) mm <sup>2</sup> /s	1.5
Pour point	°C	- 50 <sup>(-)</sup>
Acid number	mgKOH/g	0.00
Corrosive sulfur (140°C,19h)		Non corro- sive
Sulfur content	mass%	0.00
Specific dispersion(25°C)		134
Dielectric breakdown voltage (2.5 mm) kV		Above70
Power factor (80°C)	%	0.00
Specific resistivity(80°C)	TΩm	2.5x10 <sup>2</sup>

Note: The typical properties may be changed without a notice (August. 2005)



## Handling Precautions

▼ Follow these precautions when handling petroleum products.

<b>Composition :</b>	Alkyl Benzene
<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>