

# METAL WORK HS

## Synthetic Oil for High Speed Electric Discharge Machining

**METAL WORK HS** is a highly refined synthetic hydrocarbon oil. **METAL WORK HS** demonstrates superior performances as electric discharge machining oil for high speed work, and also indicates high oxidation stability, scentless property, low skin irritancy and low risk of fire.

### ● Special Features

1. **METAL WORK HS** can realize productivity improvement by shortening time in the rough and finish machining due to its low viscosity and high insulation property.

2. **METAL WORK HS**, which has been used long time in a market, helps improvement of the work environment and efficiency by the selection of synthetic hydrocarbon oil with unscented nature and low skin irritancy.

3. **METAL WORK HS** is safe and low risk of fire in the handling due to relatively high flash point.

4. **METAL WORK HS** indicates less color change because of good oxidation stability, which helps the observation of the machining condition.

### ● SKD-11 Machining Test Result

In order to compare the efficiency of electric discharge machining, machining speed was measured with **METAL WORK HS** and commercially available synthetic oil (Oil A). **METAL WORK HS** showed superior performance.

METAL WORK HS	Oil A
80mg/min	64mg/min

#### <Machining Conditions>

Electrode: 10mm × 10mm(Cu)

Surface Roughness: 35 μm R max.

I<sub>p</sub>/10A, τ<sub>on</sub>/90 μsec, τ<sub>off</sub>/25 μsec

### ● Containers

200 liter drums & 20liter cans

### ● Typical properties of METAL WORK HS

Appearance		Transparent liquid
Color(Saybolt)		+20
Density		0.795
Kinematic viscosity(40°C)	mm <sup>2</sup> /s	2.4
Flash point(PM)	°C	96
Pour point	°C	-12.5
Acid number	mgKOH/g	0.00
Distillation		
Initial Boiling Point	°C	224
End Point	°C	322

Note: The typical properties are subject to change without notice.



## Handling Precautions

▼ Follow these precautions when handling this product.

<b>Composition :</b>	Base Oil
<b>Precautionary pictograms:</b>	
<b>Signal word:</b>	Danger
<b>Hazard Statement:</b>	Combustible liquid 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>• Keep away from heat/sparks/open flames/hot surfaces – No smoking.</li><li>• Use explosion-proof electrical/ventilating/lighting/equipment.</li><li>• Ground/bond container and receiving equipment.</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><li>• In case of fire: Use suitable extinguishing media for extinction.</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>