

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_p/10A, τ_{on}/90 μsec, τ_{off}/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 ² /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.

Composition :	Base Oil
Precautionary pictograms:	
Signal word:	Danger
Hazard Statement:	Combustible liquid May be fatal if swallowed and enters airways
Precautionary Statements: Prevention	<ul style="list-style-type: none">• Do not handle until all safety precautions have been read and understood.• Wear protective gloves/protective clothing/eye protection/face protection.• Do not allow the eyes to become exposed to the product. Do not swallow the product.• Keep away from heat/sparks/open flames/hot surfaces – No smoking.• Use explosion-proof electrical/ventilating/lighting/equipment.• Ground/bond container and receiving equipment.• Wash hands thoroughly after handling.• Do not eat, drink or smoke when using this product.
Response	<ul style="list-style-type: none">• IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.• IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.• If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician.• IF ON SKIN: Wash with plenty of soap and water.• Do NOT induce vomiting.• In case of fire: Use suitable extinguishing media for extinction.
Storage	<ul style="list-style-type: none">• The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight.• Containers that have been opened must be tightly sealed.• Store locked up.
Disposal	<ul style="list-style-type: none">• Dispose of contents/container in accordance with local/regional/national/international regulations.• If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.