

# UNIPRESS PA 5

## High-Grade Lubricating Oil for Metal Forming

The performance of metal forming operations is influenced by factors such as the shape of the workpieces, the method of processing, and the properties of the materials used. However, the choice of lubricating oil plays a particularly critical role, making the selection of an appropriate lubricant essential. For press working operations, the lubricating oil must form a robust oil film between the machinery and the materials to prevent issues such as material fracture, seizing, wrinkling, surface scratches on the product, and die wear. Additionally, as the working surfaces are subjected to a wide range of temperatures, the lubricant must maintain stable performance across these temperatures. **UNIPRESS PA 5** is a water-insoluble lubricating oil for press operations that not only offers excellent processing capabilities, wear prevention, and load resistance but also provides corrosion protection and rust prevention for the products.

### ● Special Features

#### 1. Suitable for a Wide Range of Materials

**UNIPRESS PA 5** is a press oil that is compatible with a variety of materials, including aluminum, copper, copper alloys, and low-carbon steel. It is especially well-suited for forming small parts and shapes with large bending radius, and is appropriate for processes such as bending, punching, and light drawing.

#### 2. Reduction in Oil Consumption

**UNIPRESS PA 5** is a low-viscosity oil comparable to spindle oil grades, which results in minimal adherence to parts and simplifies the oil removal process. It also contributes to reduced contamination of oil removal fluids.

#### 3. Minimal Skin Irritation

**UNIPRESS PA 5** does not contain chlorine or sulfur-based additives, thereby reducing odors and the risk of skin irritation.

#### 4. Superior Rust Prevention and Protection Against Discoloration of Copper-based Materials

Copper and copper alloy materials might discolor after press processing. **UNIPRESS PA 5**, with its specialized additives, prevents discoloration of these materials and also offers excellent rust protection for steel.

### ● Applications

Suitable for punching and drawing operations in automotive electrical components, home appliance parts, electronic materials, and electrical parts, as well as for spinning processes of aluminum materials.

### ● Coating Methods

Spraying, roll coating, and brushing

### ● Containers

200-liter drum and 20-liter can

### ● Typical Properties of UNIPRESS PA 5

Density (15°C)	g/cm <sup>3</sup>	0.838
Kinematic viscosity (40°C)	mm <sup>2</sup> /s	6.49
Flash point (COC)	°C	140
Pour point	°C	-20.0
Acid number	mgKOH/g	0.11

Note: The typical properties may be changed without notice. (June 2024)

### ● Precautions for Use

Please avoid mixing this oil with water. The presence of water may reduce the oil's ability to prevent discoloration in copper and copper alloy materials.



## Handling Precautions

▼ Follow these precautions when handling this product.

<b>Composition :</b>	Base Oil(s), Additives
<b>Hazard pictograms:</b>	
<b>Signal word:</b>	Danger
<b>Hazard Statement:</b>	May be fatal if swallowed and enters airways Harmful to aquatic life Harmful to aquatic life with long lasting effects
<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>• Avoid release to the environment.</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/doctor.</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>