

# UNIPRESS PA1, PA2, PA1L, PA-L

## Quick-Drying Metal Working Oil

UNIPRESS PA Series is quick-drying metal working oil for the punching of a thin plate as main application. It also provides excellent performance in the shallow drawing and bending of general metal materials except resin coating materials.

### ● Special Features

**1. Omission or simplification of degreasing and washing step**

**2. Excellent drying property**

UNIPRESS PA Series shows superior drying characteristics and does not leave oil on the press surface.

**3. Extension of the mold polishing interval**

By the effect of high-performance anti-wear agent, extension of the mold polishing interval can be expected.

**4. Long-term superior finish accuracy**

**5. Outstanding rust preventing property**

It can prevent rust around 2-4 weeks in the indoor storage according to the environmental conditions.

**6. Chlorine-free oil**

**7. Applicable to a wide range of materials**

### ● Applications

(1) Electromagnetic steel, low alloy steel, hard aluminum, copper, copper alloy strips

(2) Press working such as punching, bending and shallow drawing of thin sheet (plate thickness: 1mm or less)

(3) Application Example

Processing of each part including motor, generator core, transformer iron core, electric equipment, household appliance, communication instrument, automobile, precision machinery, air-conditioning machine and office supplies.

### Example of use

(1) Punching of large generator core and large transformer iron core (type I and E).

(2) High speed punching of hermetic motor core for refrigerator.

(3) Stamping of small and middle-sized general-purpose motor core.

Electromagnetic silicon steel sheets: 0.35mm, 0.5mm, 0.8mm

General steel sheet (cold-rolled): 0.6mm

(4) Stamping and bending of the chassis of household appliance and parts of automobile.

Nickel silver: 0.8mm

Stainless: 0.4 ~ 0.6mm

General steel sheet (including bending): 0.8mm

(5) Shallow drawing, bending and stamping of home heating appliances.

Stove bottom plate, combustion tube, general steel sheet (cold-rolled): 0.4 ~ 0.6mm

### ● Performance comparison of the PA series

**PA1:** Standard type of quick-drying punching processing oil.

**PA2:** Low-odor compared with PA1, and contributes to the improvement of the working environment.

**PA1L:** Superior drying property compared with PA1.

**PA-L:** Superior drying property and improved extreme pressure performance compared with PA1. It is ideal oil for high-speed punching and welding work immediately after punching, enables life extension of high-speed punch and mold.

● **Containers**

200-liter drum, 20-liter can

● **Typical Properties of Unipress PA series**

Unipress		PA1	PA2	PA1L	PA-L
Item		Quick drying property	Low-odor	Superior drying property	Superior drying property, Improved workability
Color(ASTM)		L0.5	L0.5	L0.5	L0.5
Density (15°C)	g/cm <sup>3</sup>	0.775	0.750	0.768	0.768
Kinematic viscosity (40°C)	mm <sup>2</sup> /s	1.03	1.25	0.93	0.92
Flash point (TC)	°C	46.0	-	40.5	41.5
Flash point (PM)	°C	-	69.0	-	-
Pour point	°C	-45	-40	-45	-45
Copper strip corrosion(50°C,3h)		1	1	1	1



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




## Handling Precautions

▼ Follow these precautions when handling this product.

### UNIPRESS PA 1、 UNIPRESS PA 2

<b>Composition :</b>	Base Oil, Additives
<b>Precautionary pictograms:</b>	 
<b>Signal word:</b>	Danger
<b>Hazard Statement:</b>	Flammable liquid and vapour 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>• Use only non-sparking tools.</li><li>• Take precautionary measures against static discharge.</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>• IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</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>• Keep container tightly closed.</li><li>• Store in a well ventilated place. Keep cool.</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>

UNIPRESS PA 1L, UNIPRESS PA-L

<b>Composition :</b>	Base Oil, Additives
<b>Precautionary pictograms:</b>	
<b>Signal word:</b>	Danger
<b>Hazard Statement:</b>	<p>Flammable liquid and vapour</p> <p>Causes skin irritation</p> <p>May cause respiratory irritation ; or May cause drowsiness or dizziness</p> <p>May cause damage to organs (state all organs affected(liver,testis), if known) through prolonged or repeated exposure</p> <p>May be fatal if swallowed and enters airways</p>
<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>• Use only non-sparking tools.</li> <li>• Take precautionary measures against static discharge.</li> <li>• Use only outdoors or in a well-ventilated area.</li> <li>• Do not breathe dust/fume/gas/mist/vapours/spray.</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>• IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</li> <li>• Get Medical advice/attention if you feel unwell.</li> <li>• IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</li> <li>• Take off contaminated clothing and wash before reuse.</li> <li>• If skin irritation occurs : Get medical advice/attention.</li> <li>• Remove contact lenses if present and easy to do. Continue rinsing.</li> <li>• Do NOT induce vomiting.</li> <li>• In case of fire: Use suitable extinguishing media for extinction.</li> </ul>
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