

PSAIL® 3890 is a multifunctional ashless additive primarily used in industrial oils and metalworking fluids, delivering outstanding extreme pressure and anti-wear performance along with exceptional oxidation resistance. It can serve as an alternative to zinc dialkyldithiophosphate (ZDDP) for formulating metalworking fluids and industrial oils that require no zinc or other metals. In metalworking applications, when combined with sulfur carriers, this additive significantly improves workpiece surface finish and extends tool life.

CHEMICAL COMPOSITION

Dialkyldithiophosphates

CAS No.: 68413-48-9

TYPICAL PROPERTIES

Test Item	Typical Data	Method
Appearance	Yellow clarified liquid	Visual inspection
Density at 20°C, g/cm ³	1.00	GB/T 1884-2000
Flash point open cup, °C	150.0	GB/T 3536-2008
Phosphorus content, %	5.0	NB/SH/T 0824-2010
Sulfur content, %	11.0	NB/SH/T 0824-2010

Note: The above analytical data are not specifications.

PERFORMANCE CHARACTERISTICS

- Ashless anti-wear additive with excellent oxidation resistance
- Can be used as a substitute for ZDDP in the formulation of zinc-free metalworking fluids and industrial oils
- Often compounded with sulfur additives for use in metalworking applications

APPLICATION

- Hydraulic oil
- Gear oil
- Greases
- Metalworking fluids

USAGE METHOD

- Added to the formulation directly and compatibility needs to be tested before adding
- Recommended dosage: 0.2-1.5 %

RELATIVE PRODUCTS

- RC 3890

PACKAGING AND STORAGE

Packaging	50kg plastic drum or 200kg steel drum (Net weight)
Storage conditions	Store in a cool, dry, well-ventilated warehouse

HANDLING INFORMATION

Avoid contact with skin, eyes and clothing. Operate in accordance with good industrial health and safety practices. Please refer to material safety data sheet (MSDS) for additional handling information on **PSAIL®3890**.

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