

PSAIL® 3220B is a highly effective ashless extreme-pressure (EP) and anti-wear additive based on a *tert*-butyl phenyl phosphate ester structure. It is primarily used to reduce friction and wear under high-load boundary lubrication conditions, effectively extending equipment service life and lowering energy consumption. This additive exhibit excellent synergistic effects with other sulfur-, phosphorus, and chlorine-based EP/anti-wear agents while providing certain corrosion inhibition and oxidation resistance properties. It demonstrates good solubility in both mineral and synthetic base oils. Widely used in industrial oils (e.g., gear oils, hydraulic oils), metalworking fluids and greases. It is also widely used as the base oil for high-performance, fire-resistant hydraulic oil.

CHEMICAL COMPOSITION

T-butyl phenyl phosphate

CAS No.: 78-33-1

TYPICAL PROPERTIES

Test Item	Typical Data	Method
Appearance	Colorless transparent liquid	Visual inspection
Density at 20°C, g/cm ³	1.14	GB/T 1884-2000
Viscosity at 40°C, mm ² /s	47.0	GB/T 265-1988
Acid number, mgKOH/g	≤0.1	GB/T 264-1983
Water content, %	≤0.1	GB/T 11133-2015
TPP content, %	1.00	HPLC

Note: The above analytical data are not specifications.

PERFORMANCE CHARACTERISTICS

- Excellent extreme pressure wear resistance
- Good rust/corrosion resistance
- Good antioxidant properties

APPLICATION

- Industrial oils
- Metal working fluids
- Grease
- Fire-resistant hydraulic oil

USAGE METHOD

- Added to the formulation directly and compatibility needs to be tested before adding
- Recommended dosage: 0.5%-4.0%

RELATIVE PRODUCTS

- Durad 150B, Durad 220B

PACKAGING AND STORAGE

Packaging	50kg plastic drum or 230kg 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®3220B**.

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