

LUBE

DeoAdd[®] 8-1150

EP additive for grinding & demanding machining operations

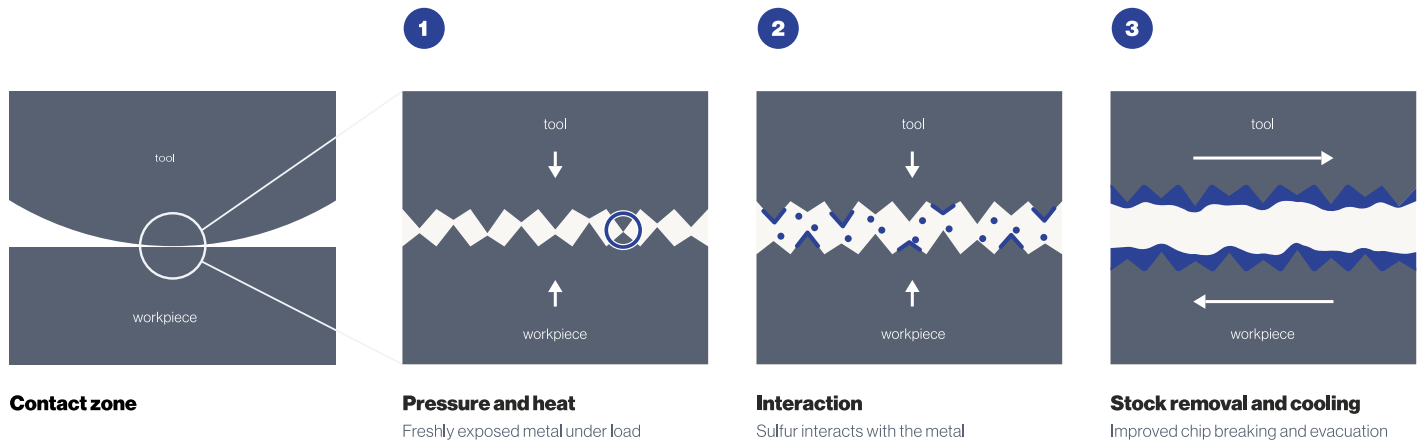
value in every step

We take additives personally.

A process has many steps. Only one decides.

The decisive step in grinding and machining operations takes place in the contact zone between tool and workpiece. What happens there within fractions of a second determines tool life, surface finish and process reliability. That is exactly where DeoAdd® 8-1150 goes to work.

What happens in the contact zone



01. Pressure and heat

Extreme contact pressure and temperature converge within a few square micrometers. The tool is working on freshly exposed, chemically highly reactive metal.

02. Interaction

The strong creep properties of DeoAdd® 8-1150 support the base fluid, carrying sulfur rapidly into the contact zone and promoting interaction with the metal surface.

03. Stock removal and cooling

Improved chip breaking evacuates material and heat rapidly. Tool life and surface finish remain stable.

With ~27% sulfur, ~16% of it active, DeoAdd® 8-1150 has the reserves this mechanism requires. What matters, however, is that the active component actually arrives:

Its exceptional creep properties carry it right into the narrow gap of the contact zone — even in deep-hole drilling, where other additives no longer reach.



Where 8-1150 works

Machining: grinding, high-speed grinding, deep-hole drilling, cutting

High-performance additive based on alpha olefins for grinding and cutting operations on medium- to high-alloy steels (e.g., stainless steel) and titanium materials.

Focus: high-speed grinding and deep-hole drilling — where the contact zone is thermally most stressed and least accessible.

Property	Value	Test method	What it means
Color	Amber	—	—
Total sulfur	~27%	ASTM D6481	~16% of it active — the reserve for the extreme-pressure range
Density at 20 °C	approx. 950 kg/m³	ASTM D4052	—
Kinematic viscosity at 40 °C	approx. 21 mm²/s	ASTM D7042	Strong creep properties; deliberately free of hazard labeling
Flash point, COC	> 200 °C	ASTM D92	Suitable for high-speed machining
Copper corrosion (10% in paraffinic oil)	4c	ASTM D130	EP performance for high-strength materials; uninhibited for formulation freedom

An alternative to polysulfide additives

Established polysulfide sulfur carriers (CAS 68515-88-8) are widely used, but they are subject to PRTR (Pollutant Release and Transfer Register) reporting requirements in Japan or carry hazard labeling obligations. DeoAdd® 8-1150 was not developed as a chemically equivalent replacement; it offers an alternative solution for these use cases. Thanks to its exceptional combination of low viscosity and high sulfur content, DeoAdd® 8-1150 is a very good choice for certain applications.

Low viscosity without labeling

For an additive to creep into the contact zone, it has to be low in viscosity. But if it falls below a defined viscosity limit, it becomes subject to hazard labeling.

At ~21 mm²/s at 40 °C, DeoAdd® 8-1150 is deliberately set just above this limit. That means full creep performance in the contact zone — without adding a hazard labeling obligation to your formulation.

Benefits at a glance	Target applications
High sulfur content Around 16% active in ~27% total sulfur: a load-carrying protective film even under extreme loads, and longer tool life. Creep-capable and label-free Deliberately formulated above the classification limit: the active component reaches the contact zone even in deep-hole drilling and narrow gaps, without making your formulation subject to hazard labeling. One type for both lines Suitable for oil-based and water-miscible formulations: fewer raw materials, fewer approvals. Chlorine-free and free of heavy metals No changeover risk from tightening chlorine regulations, and easier disposal. Straightforward handling and blending Flash point > 200 °C, medium viscosity of ~21 mm²/s.	 Machining processes: Ideal for low-viscosity applications such as grinding, high-speed grinding, deep-hole drilling and cutting.  Materials: Medium- to high-alloy steels (e.g. stainless steel), titanium materials  Formulations: oil-based and water-miscible

