

## Additin® RC 2317 EP Additive

### Type

EP additive; light coloured, low odoured, low viscosity, active sulphur carrier

### Technical Data

Composition	sulphurized vegetable fatty acid esters, mineral oil-free
Appearance	light brown, clear, low viscosity liquid
Colour (ASTM-D 1500)	typ. 4.5
Sulphur	approx. 17 % weight
Active sulphur (ASTM-D 1662)	approx. 8 % weight
Copper corrosion (ASTM-D 130) 5 % weight Additin RC 2317 in a paraffinic base oil, 3 h/100 °C	3a - 3b
Viscosity, 40°C (ASTM-D 445)	approx. 55 mm <sup>2</sup> /s
Density, 20°C (ASTM-D 1298)	approx. 1.01 g/ml
Flash point, COC (ASTM-D 92)	> 180°C

### Application

- medium and heavy duty cutting oils
- deep hole drilling oils
- honing oils
- grinding oils
- broaching oils

Additin RC 2317 is a light-coloured, near odourless, low viscosity sulphur carrier. It is used for manufacturing metalworking fluids for cutting operations.

Due to its low viscosity Additin RC 2317 is ideally suited for formulating metalworking fluids such as deep hole drilling and honing oils from which an excellent flushing effect is required. By virtue of specially selected raw material Additin RC 2317 exhibits a very low pourpoint and extended solubility in various base fluids compared to conventional sulphur carriers. Therefore Additin RC 2317 is ideally suited for metalworking oils based on hydrocrack oils.

The performance of metalworking fluids containing Additin RC 2317 can be increased by combination with zinc dithiophosphates, e.g. Additin RC 3038, phosphoric acid partial esters or ashless phosphorus-sulphur additives e.g. RC 3880.



### Solubility

Soluble in mineral oils and synthetic base oils. However, it is necessary to verify the solubility in the base oils used and the compatibility with other additives.

### Test Results

#### Paraffinic base oil, ISO VG 15

	base oil, no additives	+ 2 % b. w. RC 2317	+ 5 % b. w. RC 2317	+ 10 % b. w. RC 2317	+ 15 % b. w. RC 2317
Four-ball test (DIN 51350, part 2) weld load	600 - 700 N	1800 - 2000 N	2000 - 2200 N	2800 - 3000 N	3200 - 3400 N
Four-ball test (DIN 51350, part 3) scar diameter 1h/300N	0.70 mm	0.50 mm	0.60 mm	0.63 mm	0.75 mm
Four-ball test (ASTM D-2783) weld point LWI			200 kg 38 kg	250 kg 42 kg	
Load-carrying test according to Brugger load capacity	< 20 N/mm <sup>2</sup>	approx. 45 N/mm <sup>2</sup>	approx. 60 N/mm <sup>2</sup>	approx. 85 N/mm <sup>2</sup>	approx. 95 N/mm <sup>2</sup>

### Packing Unit

200 kg bung hole drums

### Storage Conditions

In a dry place at room temperature approx. 24 months.

### Handling

Consult material safety data sheet (MSDS)  
for additional handling information on Additin RC 2317.

® = registered trade mark \* The analytical data are guide values. Additin RC 2317 is on EINECS and TSCA inventory.



Our technical advice - whether verbal, in writing or by way of trials - is given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us as to their suitability for the intended processes and uses. The application, use and processing of the products are beyond our control and, therefore, entirely your own responsibility. Should, in spite of this, liability be established for any damage, it will be limited to the value of the goods delivered by us and used by you. We will, of course, provide products of consistent quality within the scope of our General Conditions of Sale and Delivery.

**LANXESS Deutschland GmbH**  
**Business Unit Additives**  
Kennedyplatz 1  
D-50569 Cologne, Germany  
E-Mail: [lubricant.additives@lanxess.com](mailto:lubricant.additives@lanxess.com)  
<http://add.lanxess.com>

