

# BONDERITE L-FG F 591 ACHESON

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## PRODUCT DESCRIPTION

BONDERITE L-FG F 591 ACHESON provides the following product characteristics:

<b>Technology</b>	Lubricant
<b>Product Type</b>	Water based graphite lubricant
<b>Application</b>	Forging Die Lubricant

BONDERITE L-FG F 591 ACHESON is an ammonia free Version of BONDERITE L-FG F 31 (known as Deltaforge F 31).

BONDERITE L-FG F 591 ACHESON exhibits excellent stability with no separation or settling in the concentrate. This assures constant quality from top to bottom and results in consistent forging performance.

BONDERITE L-FG F 591 ACHESON is an essentially odourless, smokeless, water-based graphited die lubricant.

It is formulated to provide excellent lubricity and release when used on difficult press work and highly automated processes, including hot, warm, and precision forging.

BONDERITE L-FG F 591 ACHESON contains a unique graphite particle size and configuration, along with a special stabiliser and binder system.

These properties produce excellent lubricity and release, faster wetting, higher dilution ratios, and longer die life.

### Special features

- No Ammonia
- Improved bio-stability against bacterial infection

### Application Areas:

Due to its high stability this product can be used in hard water without the risk of precipitations.

BONDERITE L-FG F 591 ACHESON is used as a lubricant for hot forging steel, precision forging, warm forging steel and hot forging powder metal.

## TECHNICAL DATA

Pigment/Lubricating solid	high purity micro-graphite
Carrier	water
Consistency	medium viscous liquid
Density, kg/m <sup>3</sup>	1.1
pH-value	~11.2

## DIRECTION OF USE

### Preliminary Statement:

Prior to use it is necessary to read the **Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

### Dilution:

BONDERITE L-FG F 591 ACHESON is supplied as a concentrate and can normally be diluted with ordinary tap water prior to use.

However, if the tap water is extremely high in mineral content, check with your HENKEL representative for assistance.

Add water to the concentrate, not the reverse. Stir the concentrate thoroughly, then add one part water slowly while stirring until the mixture is homogenous. The remaining water may be added rapidly while stirring until the desired dilution is reached.

### Dilution Ratios:

The recommended dilution ratio depends on the difficulty of the job and the cooling required. For initial trials, a ratio of one part BONDERITE L-FG F 591 ACHESON to ten parts water by volume is proposed. Ratios of 1 : 20 and greater are common during production. Use a more concentrated mixture, 1 : 3 (product:diluent), to lubricate tooling hotter than 320°C.

### Application:

For best results, diluted BONDERITE L-FG F 591 ACHESON should be applied by conventional spray techniques. Spray application provides uniform coating thickness, complete die coverage, and lower friction values.

### Classification:

Please refer to the corresponding **Material Safety Data Sheets** for details on:

- Hazards identification**
- Transport information**
- Regulatory information**

### Storage:

- 24 months from date of qualification under original seal.

Store BONDERITE L-FG F 591 ACHESON in a cool place, but do not allow it to freeze.

Product should not be used once frozen.

Always tightly reseal the container to prevent evaporation or contamination.



## ADDITIONAL INFORMATION

### Disclaimer

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Reference 0.1