



Revision Number: 001.3

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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** BONDERITE L-FG F 31 GRAPHITE FORGING LUBRICANT ACHESON known as DELTAFORGE F-31  
**IDH number:** 1224662

**Product type:** Lubricant  
**Restriction of Use:** None identified  
**Region:** United States

**Company address:** Henkel Corporation  
One Henkel Way  
Rocky Hill, Connecticut 06067

**Contact information:**  
Telephone: (860) 571-5100  
MEDICAL EMERGENCY Phone: Poison Control Center  
1-877-671-4608 (toll free) or 1-303-592-1711  
TRANSPORT EMERGENCY Phone: CHEMTREC  
1-800-424-9300 (toll free) or 1-703-527-3887  
Internet: www.henkelna.com

**2. HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW**

NOT CLASSIFIED. READ ENTIRE SAFETY DATA SHEET.

HAZARD CLASS	HAZARD CATEGORY
None	None

**PICTOGRAM(S)**

None

**Precautionary Statements**

**Prevention:** Not prescribed  
**Response:** Not prescribed  
**Storage:** Not prescribed  
**Disposal:** Not prescribed

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Hazardous Component(s)	CAS Number	Percentage*
Graphite	7782-42-5	10 - 30

\* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	If inhaled, immediately remove the affected person to fresh air. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get medical attention.
<b>Eye contact:</b>	Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.
<b>Ingestion:</b>	Get immediate medical attention. Do not induce vomiting.
<b>Symptoms:</b>	See Section 11.
<b>Notes to physician:</b>	Treat symptomatically and supportively.

#### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Wear full protective clothing. Wear self-contained breathing apparatus.
<b>Unusual fire or explosion hazards:</b>	Not a fire hazard. This product is an aqueous mixture which will not burn.
<b>Hazardous combustion products:</b>	Thermal decomposition can lead to release of irritating gases and vapors.

#### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

<b>Environmental precautions:</b>	Prevent further leakage or spillage if safe to do so. Wear appropriate protective equipment and clothing during clean-up. Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. Use only with adequate ventilation.
<b>Storage:</b>	For safe storage, store between 5.0 °C (41°F) and 30.0 °C (86°F) Keep container closed. Store in a cool, dry, well-ventilated area. Storage within given temperature limit Outside temperature limits, the properties of the product will change. Protect from direct sunlight. Keep from freezing. Protect from freezing.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Graphite	2 mg/m3 TWA Respirable fraction.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust. 15 MPPCF TWA	None	None

### Engineering controls:

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

### Respiratory protection:

If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

### Eye/face protection:

Wear safety glasses; chemical goggles (if splashing is possible).

### Skin protection:

Suitable protective clothing

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Black
Odor:	Ammonia
Odor threshold:	Not available.
pH:	11.0 - 11.5
Vapor pressure:	Not determined
Boiling point/range:	> 100 °C (> 212°F)
Melting point/ range:	<= 0 °C (<= 32°F)
Specific gravity:	1.05 - 1.15
Vapor density:	Not available.
Flash point:	Not applicable
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not applicable
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Disperses in water as a suspension
Partition coefficient (n-octanol/water):	Not determined
VOC content:	Not applicable
Viscosity:	700 - 1,000 mPa.s
Decomposition temperature:	Not available.

## 10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Thermal decomposition can lead to release of irritating gases and vapors.
Incompatible materials:	This product may react with strong acids or oxidizing agents.
Reactivity:	Not available.
Conditions to avoid:	Avoid excessive heat and ignition sources. Freezing conditions.

## 11. TOXICOLOGICAL INFORMATION

**Relevant routes of exposure:** Skin, Inhalation, Eyes

### Potential Health Effects/Symptoms

**Inhalation:** May cause respiratory tract irritation.  
**Skin contact:** May cause skin irritation.  
**Eye contact:** May cause irritation. This product may be severely irritating to the eyes.  
**Ingestion:** Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Graphite	None	Lung

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Graphite	No	No	No

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available.

## 13. DISPOSAL CONSIDERATIONS

**Information provided is for unused product only.**

**Recommended method of disposal:** Dispose of according to Federal, State and local governmental regulations.

**Hazardous waste number:** It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

### U.S. Department of Transportation Ground (49 CFR)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### Water Transportation (IMO/IMDG)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

## 15. REGULATORY INFORMATION

### United States Regulatory Information

<b>TSCA 8 (b) Inventory Status:</b>	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
<b>TSCA 12 (b) Export Notification:</b>	None above reporting de minimis
<b>CERCLA/SARA Section 302 EHS:</b>	None above reporting de minimis.
<b>CERCLA/SARA Section 311/312:</b>	Immediate Health
<b>CERCLA/SARA Section 313:</b>	None above reporting de minimis.
<b>California Proposition 65:</b>	This product contains a chemical known in the State of California to cause cancer.

### Canada Regulatory Information

<b>CEPA DSL/NDL Status:</b>	All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
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## 16. OTHER INFORMATION

**This safety data sheet contains changes from the previous version in sections:** This Safety Data Sheet contains changes from the previous version in Section(s): 2,3,9,11

**Prepared by:** Jennifer Mckay, Regulatory Affairs Specialist

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