



Revision Number: 001.2

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: BONDERITE L-FG 31 GRAPHITE FORGING LUBRICANT ACHESON known as DELTAFOR GE31
Product type: Lubricant
Restriction of Use: None identified
Company address: Henkel Corporation
 One Henkel Way
 Rocky Hill, Connecticut 06067

IDH number: 1224547

Region: United States

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

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

5. FIRE FIGHTING MEASURES

Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear full protective clothing. Wear self-contained breathing apparatus.
Unusual fire or explosion hazards:	Aqueous mixture, ignitable (see flashpoint), with no sustained combustibility - flame will extinguish after ignition. This product is an aqueous mixture which will not burn.
Hazardous combustion products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.

6. ACCIDENTAL RELEASE MEASURES

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

Environmental precautions:	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.
Clean-up methods:	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

Handling:	Wash thoroughly after handling. Avoid breathing vapors or mists of this product. Use only with adequate ventilation. For industrial use only.
Storage:	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. Keep 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/m ³ TWA Respirable fraction.	5 mg/m ³ PEL Respirable fraction. 15 mg/m ³ PEL Total dust. 15 MPPCF TWA	None	None

Engineering controls:	Ventilation should effectively remove and prevent buildup of any vapor/mist/fume/dust 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:	Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Black
Odor:	Ammonia
Odor threshold:	Not available.
pH:	10.8 - 11.4
Vapor pressure:	Not determined
Boiling point/range:	> 100 °C (> 212°F)
Melting point/ range:	<= 0 °C (<= 32°F)
Specific gravity:	1.08 - 1.13
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 applicable
Solubility in water:	Disperses in water as a suspension
Partition coefficient (n-octanol/water):	Not determined
VOC content:	Not applicable
Viscosity:	100 - 500 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:	Keep away from heat, ignition sources and incompatible materials. 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: This product may cause irritation to the eyes. 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

TSCA 8 (b) Inventory Status:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS:	None above reporting de minimis.
CERCLA/SARA Section 311/312:	Immediate Health
CERCLA/SARA Section 313:	None above reporting de minimis.
California Proposition 65:	No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

CEPA DSL/NDSL Status:	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 Material Safety Data Sheet contains changes from the previous version in Section(s): 2,3,9

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