



Revision Number: 001.2

Issue date: 02/01/2012

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: BONDERITE L-FG DG 349 FORGING LUBRICANT ACHESON known as DELTAGLAZE349
 Product type: Coating
 IDH number: 1224777
 Region: United States
 Company address: Henkel Corporation, 32100 Stephenson Highway, Madison Heights, MI 48071
 Contact information: Telephone: 248.583.9300
 For Chemical Emergency: Call CHEMTREC at 800.424.9300
 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state:	Liquid	HEALTH:	2
Color:	grey	FLAMMABILITY:	4
Odor:	Alcoholic	PHYSICAL HAZARD:	0
		Personal Protection:	See MSDS Section 8

DANGER: CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
 EXTREMELY FLAMMABLE.
 ASPIRATION HAZARD IF SWALLOWED.
 POSSIBLE CANCER HAZARD.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation: This product is irritating to the respiratory system. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.

Skin contact: This product is irritating to the skin. A component in this product may be absorbed through the skin, especially if skin is damaged. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Eye contact: This product may cause irritation to the eyes. Exposure to vapor may cause tearing of the eyes, irritation and burning sensation.

Ingestion: Harmful if swallowed. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Existing conditions aggravated by exposure: Eye, skin and respiratory disorders.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
2-Propanol	67-63-0	30 - 60
Boron oxide (B ₂ O ₃)	1303-86-2	10 - 30
Stoddard solvent	8052-41-3	10 - 30
Xylenes	1330-20-7	5 - 10
Borax	1330-43-4	1 - 5
Ethylbenzene	100-41-4	1 - 5
Quartz (SiO ₂)	14808-60-7	0.1 - 1

4. FIRST AID MEASURES

Inhalation:	If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.
Skin contact:	Immediately wash skin thoroughly with soap and water. Obtain medical attention if irritation persists.
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. If vomiting occurs, prevent aspiration by keeping the patient's head below the knees.

5. FIRE FIGHTING MEASURES

Flash point:	5 °C (41°F) Pensky Martens closed cup
Autoignition temperature:	Not available.
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
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:	Fire and Explosion hazards are DANGEROUS when this material is exposed to heat or flame.
Hazardous combustion products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

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. Isolate area. Keep unnecessary personnel away. Block any potential routes to water systems. Wear appropriate protective equipment and clothing during clean-up.
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: Avoid contact with eyes, skin and clothing. Remove all sources of ignition. Use only with adequate ventilation. Make sure containers are properly grounded before use or transfer of material.

Storage: For safe storage, store between 0 °C (32°F) and 30.0 °C (86°F). Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Store away from heat, sparks, flames, or other sources of ignition.

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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
2-Propanol	200 ppm TWA 400 ppm STEL	400 ppm (980 mg/m ³) TWA	None	None
Boron oxide (B ₂ O ₃)	10 mg/m ³ TWA	15 mg/m ³ TWA Total dust.	None	None
Stoddard solvent	100 ppm TWA	500 ppm (2,900 mg/m ³) TWA	None	None
Xylenes	100 ppm TWA 150 ppm STEL	100 ppm (435 mg/m ³) TWA	None	None
Borax	2 mg/m ³ TWA Inhalable fraction. 6 mg/m ³ STEL Inhalable fraction.	None	None	None
Ethylbenzene	20 ppm TWA	100 ppm (435 mg/m ³) TWA	None	None
Quartz (SiO ₂)	0.025 mg/m ³ TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m ³ TWA Respirable. 0.3 mg/m ³ TWA Total dust.	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 impervious gloves for prolonged contact. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron and boots are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	grey
Odor:	Alcoholic
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	27.9 mm hg
Boiling point/range:	82 °C (179.6 °F)
Melting point/ range:	-89 °C (-128.2 °F)
Specific gravity:	1.0
Vapor density:	Not available.
Flash point:	5 °C (41°F) Pensky Martens closed cup

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Product name: BONDERITE L-FG DG 349 FORGING LUBRICANT ACHESON known as DELTAGLAZE349

Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Evaporation rate:	1
Solubility in water:	Not available
Partition coefficient (n-octanol/water):	Not available
VOC content:	598 g/l
Viscosity:	800 - 1,200 cp

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Incompatible materials:	This product may react with oxidizing agents.
Conditions to avoid:	Avoid excessive heat and ignition sources. High temperatures.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
2-Propanol	No	No	No
Boron oxide (B2O3)	No	No	No
Stoddard solvent	No	No	No
Xylenes	No	No	No
Borax	No	No	No
Ethylbenzene	No	Group 2B	No
Quartz (SiO2)	Known To Be Human Carcinogen.	Group 1	No

Hazardous components	Health Effects/Target Organs
2-Propanol	Allergen, Blood, Brain, Central nervous system, Irritant, Kidney, Liver, Spleen
Boron oxide (B2O3)	Blood, Central nervous system, Gastrointestinal, Irritant, Kidney, Liver, Lung, Metabolic, Nuisance dust, Skin, Vascular
Stoddard solvent	Irritant, Central nervous system
Xylenes	Cardiac, Central nervous system, Irritant, Kidney, Liver
Borax	Blood, Central nervous system, Gastrointestinal, Irritant, Kidney, Liver, Skin, Less weight gain and food intake.
Ethylbenzene	Irritant, Central nervous system
Quartz (SiO2)	Immune system, Lung, Some evidence of carcinogenicity

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: If discarded, this product is considered a RCRA ignitable waste, D001.

14. TRANSPORT INFORMATION

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

Proper shipping name: Paint
Hazard class or division: 3
Identification number: UN 1263
Packing group: II

International Air Transportation (ICAO/IATA)

Proper shipping name: Paint
Hazard class or division: 3
Identification number: UN 1263
Packing group: II

Water Transportation (IMO/IMDG)

Proper shipping name: PAINT
Hazard class or division: 3
Identification number: UN 1263
Packing group: II

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 minimus
CERCLA/SARA Section 302 EHS: None above reporting de minimus
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health, Fire
CERCLA/SARA 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Xylenes (CAS# 1330-20-7). Ethylbenzene (CAS# 100-41-4). Naphthalene (CAS# 91-20-3).
CERCLA Reportable quantity: Xylenes (CAS# 1330-20-7) 100 lbs. (45.4 kg)
California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDL Status: One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-Domestic Substances List.
WHMIS hazard class: B.2, D.2.A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format. Updated composition in Section 3.

Prepared by: Jennifer Mckay, Regulatory Affairs Specialist

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