



Revision Number: 003.2

Issue date: 04/26/2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: BONDERITE L-FM 177 FORMING LUBRICANT ACHESON known as COPPERSKIN 177 x 1 93 kg

IDH number: 597466

Product type/use: Not available.

Restriction of Use: None identified

Region: United States

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

Contact information:
Telephone: +1 (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

DANGER: CAUSES SKIN IRRITATION.
MAY CAUSE AN ALLERGIC SKIN REACTION.
CAUSES SERIOUS EYE IRRITATION.
CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2

PICTOGRAM(S)



Precautionary Statements

Prevention: Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection.

Response: IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if you feel unwell. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.

Storage: Not prescribed

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

IDH number: 597466

Product name: BONDERITE L-FM 177 FORMING LUBRICANT ACHESON known as COPPERSKIN 177 x 1 93 kg

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*
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	10 - 30
Sorbitan, tri-9-octadecenoate, (Z,Z,Z)-	26266-58-0	10 - 30
Castor oil	8001-79-4	5 - 10
Surfactant	Proprietary	5 - 10
Castor oil, sulfated, sodium salt	68187-76-8	1 - 5
Diethanolamine	111-42-2	1 - 5
Amides, coco, N,N-bis(hydroxyethyl), compds. with diethanolamine	67785-12-0	1 - 5
Tris(2-hydroxyethyl)hexahydro triazine	4719-04-4	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

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:	For skin contact flush with large amounts of water. If symptoms develop and persist, get medical attention.
Eye contact:	In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.
Ingestion:	Get medical attention. DO NOT induce vomiting unless directed to do so by medical personnel. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Symptoms:	See Section 11.

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:	This product is combustible at high temperatures.
Hazardous combustion products:	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.

Environmental precautions:	Prevent further leakage or spillage if safe to do so. Dike the spilled material, where this is possible. Block any potential routes to water systems. Isolate area. Keep unnecessary personnel away.
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Clean-up methods:

Collect spilled material with an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Flush area with water to remove trace residue. Dispose of according to Federal, State and local governmental regulations.

7. HANDLING AND STORAGE

Handling:

Avoid contact with eyes, skin and clothing. Avoid breathing mists or aerosols of this product. Wash thoroughly after handling.

Storage:

For safe storage, store between 40 °F (4.4 °C) and 120 °F (48.9 °C). Keep the container tightly closed and in a cool, well-ventilated place. 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
Distillates (petroleum), hydrotreated heavy naphthenic	Exposure by all routes should be carefully controlled to levels as low as possible. Included in the regulation but with no data values. See regulation for further details	500 ppm (2,000 mg/m ³) PEL 5 mg/m ³ PEL Mist.	None	None
Sorbitan, tri-9-octadecenoate, (Z,Z,Z)-	None	None	None	None
Castor oil	None	None	None	None
Surfactant	None	None	None	None
Castor oil, sulfated, sodium salt	None	None	None	None
Diethanolamine	1 mg/m ³ TWA Inhalable fraction and vapor. (SKIN) Inhalable fraction and vapor.	None	None	None
Amides, coco, N,N-bis(hydroxyethyl), compds. with diethanolamine	None	None	None	None
Tris(2-hydroxyethyl)hexahydro triazine	None	None	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 chemical goggles; face shield (if splashing is possible).

Skin protection:

Chemical resistant, impermeable gloves. Use of impervious apron and boots are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Liquid

Color:

Dark brown

Odor:

Mild amine

Odor threshold:

Not available.

pH:	9.3 - 9.9 (5% solution)
Vapor pressure:	Not determined
Boiling point/range:	> 100 °C (> 212°F)calculated
Melting point/ range:	Not determined
Specific gravity:	0.922 at 20 °C (68°F)
Vapor density:	Not determined
Flash point:	> 212 °C (> 413.6 °F) calculated
Flammable/Explosive limits - lower:	Not determined
Flammable/Explosive limits - upper:	Not determined
Autoignition temperature:	Not determined
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Disperses in water as emulsion
Partition coefficient (n-octanol/water):	Not determined
VOC content:	< 5 % EPA Method 24
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Upon decomposition, product emits acrid dense smoke with carbon dioxide,carbon monoxide, trace oxides of nitrogen and sulfur, and water.
Incompatible materials:	This product may react with oxidizing agents.
Reactivity:	Not available.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:	Skin, Inhalation, Eyes
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Potential Health Effects/Symptoms

Inhalation:	Inhalation of vapors or mists of the product may be irritating to the respiratory system.
Skin contact:	This product may cause irritation to the skin. This product may cause an allergic skin reaction.
Eye contact:	This product may cause irritation to the eyes. Symptoms include itching, burning, redness and tearing.
Ingestion:	Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances. May be harmful if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Distillates (petroleum), hydrotreated heavy naphthenic	None	Irritant
Sorbitan, tri-9-octadecenoate, (Z,Z,Z)-	None	Irritant
Castor oil	None	Irritant
Surfactant	None	Irritant
Castor oil, sulfated, sodium salt	None	No Target Organs
Diethanolamine	Oral LD50 (Rat) = 710 mg/kg Oral LD50 (Rat) = 1.82 g/kg	Allergen, Corrosive, Irritant, Liver, Respiratory
Amides, coco, N,N-bis(hydroxyethyl), compds. with diethanolamine	None	Irritant, Allergen, Corrosive, Skin, Liver, Kidney, Nervous System, Lung, Heart, Reproductive, Thyroid, Pancreas, Blood, Adrenals
Tris(2-hydroxyethyl)hexahydro triazine	None	Irritant, Allergen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Distillates (petroleum), hydrotreated heavy naphthenic	Known To Be Human Carcinogen.	Group 1	No
Sorbitan, tri-9-octadecenoate, (Z,Z,Z)-	No	No	No
Castor oil	No	No	No
Surfactant	No	No	No
Castor oil, sulfated, sodium salt	No	No	No
Diethanolamine	No	Group 2B	No
Amides, coco, N,N-bis(hydroxyethyl), compds. with diethanolamine	No	No	No
Tris(2-hydroxyethyl)hexahydro triazine	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Do not empty into drains / surface water / ground water.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Material, if discarded, is not expected to be a characteristic hazardous waste under RCRA. Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

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: RQ, Environmentally hazardous substance, liquid, n.o.s.
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
DOT Hazardous Substance(s): Diethanolamine

International Air Transportation (ICAO/IATA)

Proper shipping name: RQ, Environmentally hazardous substance, liquid, n.o.s.
Hazard class or division: 9
Identification number: UN 3082
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard class or division: 9
Identification number: UN 3082
Packing group: III

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: Castor oil, sulfated, sodium salt (CAS# 68187-76-8).

CERCLA/SARA Section 302 EHS: None above reporting de minimis.
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA Section 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). Diethanolamine (CAS# 111-42-2).

CERCLA Reportable quantity: Diethanolamine (CAS# 111-42-2) 100 lbs. (45.4 kg)

California Proposition 65: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. This product contains a chemical known in the State of California to cause cancer.

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.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Regulatory Affairs

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