



Revision Number: 002.0

Issue date: 01/22/2018

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE ABLESTIK EMI 8660S **IDH number:** 2343744
Product type: Conductive coating **Region:** United States
Restriction of Use: None identified **Contact information:**
Company address: Henkel Corporation Telephone: +1 (860) 571-5100
 One Henkel Way MEDICAL EMERGENCY Phone: Poison Control Center
 Rocky Hill, Connecticut 06067 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

This product contains one or more components that are exempt from listing on the U. S. Toxic Substances Control Act (TSCA) in inventory because a polymer exemption has been granted in accordance with 40 CFR 723.250.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER: FLAMMABLE LIQUID AND VAPOR.
 MAY CAUSE AN ALLERGIC SKIN REACTION.
 CAUSES SERIOUS EYE IRRITATION.
 SUSPECTED OF CAUSING CANCER.
 CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	3
EYE IRRITATION	2A
SKIN SENSITIZATION	1
CARCINOGENICITY	2
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1

PICTOGRAM(S)



Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flames, hot surfaces - no smoking. Keep container tightly closed. No release into water. Use explosion-proof equipment. Use non-sparking tools. Take action to prevent static discharges. 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, clothing, eye and face protection.

Response: If on skin (or hair): Take off immediately all contaminated clothing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Wash contaminated clothing before reuse. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

Storage: Store in a well-ventilated place. Keep cool. Store locked up.

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

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*
Silver Nano Powder	7440-22-4	40 - 50
Nickel	7440-02-0	10 - 20
Diethylene glycol monobutyl ether	112-34-5	5 - 10
2-Butoxyethanol	111-76-2	1 - 5
n-Butyl acetate	123-86-4	1 - 5
manganese ferrite black spinel	68186-94-7	1 - 5

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

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin contact: Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Symptoms: See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special fire fighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.

Unusual fire or explosion hazards: Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

Hazardous combustion products:

Oxides of carbon. Oxides of nitrogen. Oxides of Metals in Section 3.
Aldehydes. Ketones. Acids. Toxic fumes. Irritating 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:

Do not allow product to enter sewer or waterways.

Clean-up methods:

Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, saw dust). Store in a closed container until ready for disposal.

7. HANDLING AND STORAGE

Handling:

Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container closed.

Storage:

For safe storage, store at or below -40 °C (-40°F)
Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Keep away from heat, spark and flame. Protect from direct sunlight.

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
Silver Nano Powder	0.1 mg/m ³ TWA Dust and fume.	0.01 mg/m ³ PEL (as Ag)	None	None
Nickel	1.5 mg/m ³ TWA Inhalable fraction.	1 mg/m ³ PEL (as Ni)	None	None
Diethylene glycol monobutyl ether	10 ppm TWA Inhalable fraction and vapor.	None	None	50 ppm TWA 75 ppm STEL
2-Butoxyethanol	20 ppm TWA	50 ppm (240 mg/m ³) PEL (SKIN)	None	None
n-Butyl acetate	50 ppm TWA 150 ppm STEL	150 ppm (710 mg/m ³) PEL	None	None
manganese ferrite black spinel	0.1 mg/m ³ TWA (as Mn) Inhalable fraction. 0.02 mg/m ³ TWA (as Mn) Respirable fraction.	5 mg/m ³ Ceiling (as Mn)	None	None

Engineering controls:

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection:

Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.

Eye/face protection: Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

Skin protection: Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Silver
Odor:	None
Odor threshold:	Not available.
pH:	Not available.
Vapor pressure:	Not available.
Boiling point/range:	Not available.
Melting point/ range:	Not available.
Specific gravity:	4.04
Vapor density:	Not available.
Flash point:	50 °C (122°F) calculated
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Soluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	11 %
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen. Oxides of Metals in Section 3. Aldehydes. Ketones. Acids. Toxic fumes. Irritating vapors.
Incompatible materials:	Strong oxidizing agents. Strong acids and strong bases. Ammonia. Peroxides. Halogenated compounds.
Reactivity:	Not available.
Conditions to avoid:	Keep away from heat, ignition sources and incompatible materials. Protect from direct sunlight.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

Inhalation: May cause respiratory tract irritation. May cause central nervous system effects with nausea, dizziness and headache.

Skin contact: May cause skin irritation. May cause allergic skin reaction. Argyria (a non-toxic, cosmetic blue-gray discoloration of the skin and mucous membranes that is irreversible).

Eye contact: Causes serious eye irritation. Redness. Tearing.

Ingestion: May cause gastrointestinal tract irritation if sw allowed. This product contains nanoparticles. The particle size-related health effects of nanoparticles have not been fully investigated.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Silver Nano Powder	Oral LD50 (Rat) = > 5,000 mg/kg Dermal LD50 (Rat) = > 2,000 mg/kg	No Data
Nickel	None	No Data
Diethylene glycol monobutyl ether	Oral LD50 (Rabbit) = 2,200 mg/kg Oral LD50 (Rat) = 4,500 mg/kg Oral LD50 (Rat) = 5,660 mg/kg Oral LD50 (Rat) = 7,292 mg/kg Oral LD50 (Mouse) = 2,400 mg/kg Oral LD50 (Rat) = 6,600 mg/kg Oral LD50 (Rat) = 6,560 mg/kg Dermal LD50 (Rabbit) = 2,700 mg/kg Dermal LD50 (Rabbit) = 4,120 mg/kg	Blood, Central nervous system, Irritant, Kidney
2-Butoxyethanol	Oral LD50 (Rat) = 560 mg/kg Oral LD50 (Mouse) = 1.2 g/kg Oral LD50 (Rabbit) = 0.32 g/kg Oral LD50 (Rat) = 1.48 g/kg Oral LD50 (Mouse) = 1,519 mg/kg Dermal LD50 (Rabbit) = 400 mg/kg Inhalation LC50 (Rat, 4 h) = 486 ppm	Blood, Central nervous system, Irritant, Kidney, Liver
n-Butyl acetate	Oral LD50 (Rat) = 14,000 mg/kg Oral LD50 (Rat) = 14,130 mg/kg	Irritant, Central nervous system
manganese ferrite black spinel	None	No Data

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Silver Nano Powder	No	No	No
Nickel	Reasonably Anticipated to be a Human Carcinogen.	Group 2B	No
Diethylene glycol monobutyl ether	No	No	No
2-Butoxyethanol	No	No	No
n-Butyl acetate	No	No	No
manganese ferrite black spinel	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

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: Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. D001: Ignitable. D011. Silver. D007. Chromium.

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: Coating solution
Hazard class or division: 3
Identification number: UN 1139
Packing group: III
DOT Hazardous Substance(s): Nickel, Silver

International Air Transportation (ICAO/IATA)

Proper shipping name: Coating solution
Hazard class or division: 3
Identification number: UN 1139
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: COATING SOLUTION (Silver)
Hazard class or division: 3
Identification number: UN 1139
Packing group: III
Marine pollutant: Silver

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: This product contains one or more components that are exempt from listing on the U. S. Toxic Substances Control Act (TSCA) inventory because a polymer exemption has been granted in accordance with 40 CFR 723.250.

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: Fire, 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). Silver Nano Powder (CAS# 7440-22-4). Nickel (CAS# 7440-02-0). Diethylene glycol monobutyl ether (CAS# 112-34-5). 2-Butoxyethanol (CAS# 111-76-2). manganese ferrite black spinel (CAS# 68186-94-7).

CERCLA Reportable quantity: Silver Nano Powder (CAS# 7440-22-4) 1,000 lbs. (454 kg)
Nickel (CAS# 7440-02-0) 100 lbs. (45.4 kg)
Phosphorous (CAS# 7723-14-0) 1 lbs. (0.454 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/NDSL 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: 1, 14

Prepared by: Product Safety and Regulatory Affairs

Issue date: 01/22/2018

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.