

Revision Number: 007.0

Issue date: 10/12/2017

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name:

Product type: Restriction of Use: Company address: Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067

LOCTITE ABLESTIK 56C known as Eccobond 56C-R DUM MY Conductive adhesive None identified

IDH number:

1585693

Region: United States **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 WARNING: CAUSES SKIN IRRITATION.

MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION.

HAZARD CATEGORY
2
2A
1



#### **Precautionary Statements**

Prevention:	Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Contaminated w ork clothing should not be allow ed out of the w orkplace. Wear protective gloves, eve 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. 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.

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)	CASNumber	Percentage*
Silver	7440-22-4	70 - 80
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	10 - 20
P-tert-Butylphenyl 1-(2,3-epoxy)propyl ether	3101-60-8	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 w ith plenty of w ater (using soap, if available). Remove contaminated clothing and footwear. If symptoms develop and persist, 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 w ith w ater 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 Metals in Section 3. Toxic and irritating vapors.

# 6. ACCIDENTAL RELEASE MEASURES

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

Environmental precautions:	Do not allow product to enter sew er or waterways.
Clean-up methods:	Remove all sources of ignition. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Ensure adequate ventilation. Isolate area. Keep unnecessary personnel away. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, saw dust). Scrape up spilled material and place in a closed container 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:

Keep container tightly closed and in a cool, w ell-ventilated place aw ay from incompatible materials. Keep aw ay 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	0.1 mg/m3 TWA Dust and fume.	0.01 mg/m3 PEL (as Ag)	None	None
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
P-tert-Butylphenyl 1-(2,3-epoxy)propyl ether	None	None	None	None

Engineering controls:

Respiratory protection:

Eye/face protection:

Provide adequate local exhaust ventilation to maintain w orker exposure below exposure limits.

established exposure limits exists. 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

show ers and eye wash stations should be available.

Use a NIOSH approved air-purifying respirator if the potential to exceed

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: Color: Odor: Odor threshold: pH: Vapor pressure: Boiling point/range: Meltingpoint/range: Specific gravity: Vapor density: Flash point: Flammable/Explosive limits - low er: Flam mable/Explosive limits - upper: Autoignition temperature: Flam mability: Evaporation rate: Solubility in water: Partition coefficient (n-octanol/water): VOC content: Viscosity: Decomposition temperature:

Liquid Silver None Not available. Not available. Not available. > 204 °C (> 399.2 °F) Not available. 3.5 Not applicable > 93 °C (> 199.4 °F) Not available. Not available. Not available. Not applicable Not applicable Insoluble Not applicable 0% Not available. 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 Metals in Section 3. Toxic fumes. Irritating vapors.
Incompatible materials:	Strong oxidizing agents. Strong acids and strong bases.
Reactivity:	Not available.
Conditions to avoid:	Keep aw ay 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: Skin contact:	May cause respiratory tract irritation. Coughing. Shortness of breath. Causes skin irritation. May cause allergic skin reaction. Argyria (a non-toxic, cosmetic blue-gray
Eye contact:	discoloration of the skin and mucous membranes that is irreversible). Causes serious eye irritation. Redness. Tearing.
Ingestion:	May cause gastrointestinal tract irritation if sw allowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Silver	Oral LD50 (Rat) = > 5,000 mg/kg Dermal LD50 (Rat) = > 2,000 mg/kg	Allergen, Eyes, Irritant, Respiratory, Skin
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	Allergen, Irritant
P-tert-Butylphenyl 1-(2,3-epoxy)propyl ether	None	Irritant, Allergen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Silver	No	No	No
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
P-tert-Butylphenyl 1-(2,3-epoxy)propyl ether	No	No	No

# **12. ECOLOGICAL INFORMATION**

Ecological information:

Not available.

## 13. DISPOSAL CONSIDERATIONS

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

Recommended method of disposal:

Hazardous waste number:

Follow all local, state, federal and provincial regulations for disposal.

e number:

D011: Silver (Check TCLP Level).

#### **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 substances, solid, n.o.s.
Hazard class or division:	9
Identification number:	UN 3077
Packing group:	
DOT Hazardous Substance(s):	Silver
International Air Transportation (ICAO/IATA	.)
Proper shipping name:	RQ, Environmentally hazardous substance, solid, n.o.s. (Silver)
Hazard class or division:	9
Identification number:	UN 3077
Packing group:	II
Water Transportation (IMO/IMDG)	
Proper shipping name:	RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Silver)
Hazard class or division:	9
Identification number:	UN 3077
Packing group:	
Marine pollutant:	Silver

## **15. REGULATORY INFORMATION**

#### **United States Regulatory Information**

TSCA 8 (b) Inventory Status: TSCA 12 (b) Export Notification:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory. None above reporting de minimis
CERCLA/SARA Section 302 EHS: CERCLA/SARA Section 311/312: CERCLA/SARA Section 313:	None above reporting de minimis. Immediate Health This product contains the follow ing 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 (CAS# 7440-22-4).
CERCLA Reportable quantity:	Silver (CAS# 7440-22-4) 1,000 lbs. (454 kg)
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.

### **16. OTHER INFORMATION**

This safety data sheet contains changes from the previous version in sections: 2, 9, 14

Prepared by: Product Safety and Regulatory Affairs

Issuedate: 10/12/2017

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Revision Number: 001.0

Issue date: 10/05/2021

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Product type/use: Restriction of Use: Company address: Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067

LOCTITE CAT 9 known as Catalyst 9-H IDH number: Adhesive None identified

1585775

United States Region: **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

# DANGER:

EMERGENCY OVERVIEW HARMFUL IF SWALLOWED OR IN CONTACT WITH SKIN. CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. MAY CAUSE AN ALLERGIC SKIN REACTION.

HAZARD CLASS	HAZARD CATEGORY
ACUTE TOXICITY ORAL	4
ACUTE TOXICITY DERMAL	4
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1



#### **Precautionary Statements**

Prevention:	Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Do not eat, drink or smoke w hen using this product. Contaminated w ork clothing should not be allow ed out of the w orkplace. Wear protective gloves, clothing, eye and face protection.
Response:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse.
Storage:	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)	CASNumber	Percentage*
Tetraethylene pentamine	112-57-2	80 - 100
3,6-diazaoctanethylenediamine	112-24-3	5 - 10

IDH number: 1585775

\* 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 w ith plenty of w ater (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.
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. FI	RE 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 w ith w ater 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. Toxic and irritating vapors.
6. ACCID	ENTAL RELEASE MEASURES
Use personal protection recommended in Section unprotected personnel.	on 8, is olate the hazard area and deny entry to unnecessary and
Environmental precautions:	Do not allow product to enter sew er or waterways. Advise authorities if product has entered or may enter sew ers, water sources or extensive land areas.
Clean-up methods:	Evacuate and ventilate spill area; dike spill to prevent entry into w ater system; w ear full protective equipment during clean-up. Soak up w ith inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, saw dust). Store in a partly filled, closed container until disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.
7. H	ANDLING AND STORAGE
Handling:	Use only w ith adequate ventilation. Prevent contact w ith eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not taste or sw allow. Refer to Section 8.
Storage:	Keep in a cool, w ell ventilated area aw ay from heat, sparks and open flame. Keep container tightly closed until ready for use. Avoid moisture.

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
Tetraethylene pentamine	None	None	1 ppm (5 mg/m3) TWA Aerosol. (SKIN) Aerosol. (Skin sensitizer.)	None
3,6-diazaoctanethylenediamine	None	None	1 ppm (6 mg/m3) TWA (SKIN)	None
3,6,9,12- tetraazatetradecamethylenediamine	None	None	None	None

Engineering controls:

Respiratory protection:

Eye/face protection:

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

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

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 show ers 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: Color:	Liquid Amber
Odor:	Amine
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	< 0.1 mm hg (20 °C (68°F))
Boiling point/range:	375 °C (707°F)
Melting point/ range:	Not applicable
Specific gravity:	0.99
Vapor density:	> 1.0
Flash point:	160 °C (320°F) Pensky Martens closed cup
Flammable/Explosive limits - low er:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flam m ability:	Not applicable
Evaporation rate:	Not applicable
Solubility in water:	Soluble
Partition coefficient (n-octanol/water):	Not determined
VOC content:	441.5 g/l
Viscosity:	Not available.
Decomposition temperature:	Not available.

# **10. STABILITY AND REACTIVITY**

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	None reasonably foreseeable.
Incompatible materials:	Nitrites. Strong oxidizing agents. Acids.
Reactivity:	Not available.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition. Store aw ay from incompatible materials.

# 11. TOXICOLOGICAL INFORMATION

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

#### Potential Health Effects/Symptoms

Inhalation:	Mists, vapors or liquid may cause severe irritation or burns.
Skin contact:	Causes skin burns. Harmful in contact with skin. May cause allergic skin reaction.
Eye contact:	Causes serious eye damage.
Ingestion:	Harmful if sw allowed. Irritation and corrosive action can occur in the mouth, stomach tissue and
-	digestive tract if sw allowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Tetraethylene pentamine	Oral LD50 (Rat) = 3.99 g/kg Oral LD50 (Rat) = 2.1 g/kg Dermal LD50 (Rabbit) = 0.66 g/kg	Irritant, Mutagen, Allergen
3,6-diazaoctanethylenediamine	None	Allergen, Corrosive, Developmental, Irritant, Mutagen
3,6,9,12- tetraazatetradecamethylenediamine	None	Irritant, Allergen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Tetraethylene pentamine	No	No	No
3,6-diazaoctanethylenediamine	No	No	No
3,6,9,12- tetraazatetradecamethylenediamine	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.

## 14. TRANSPORT INFORMATION

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

U.S. Department of Transportation Ground	(49 CFR)
Proper shipping name:	Tetraethylenepentamine
Hazard class or division:	8
Identification number:	UN 2320
Packing group:	Ш
International Air Transportation (ICAO/IATA	.)
Proper shipping name:	Tetraethylenepentamine
Hazard class or division:	8
Identification number:	UN 2320
Packing group:	Ш
Water Transportation (IMO/IMDG)	
Proper shipping name:	TETRAETHYLENEPENTAMINE
Hazard class or division:	8
Identification number:	UN 2320
Packing group:	III

## 15. REGULATORY INFORMATION

#### United States Regulatory Information

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

#### **16. OTHER INFORMATION**

This safety data sheet contains changes from the previous version in sections: First issue.

Prepared by:	Product Safety and Regulatory Affairs
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Issue date: 10/05/2021

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. How ever, 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 w arranties, express or implied, including w arranties of merchantability and fitness for a particular purpose, arising fromsale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

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