



Revision Number: 002.7

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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** LOCTITE ABLESTIK 16-1LV PTB  
**known as Ablebond 16-1LV-H**  
**Product type/use:** Adhesive for the Aerospace Industry  
**Restriction of Use:** None identified  
**Company address:** Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067

**IDH number:** 1695223

**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**

**DANGER:** CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.  
 MAY CAUSE AN ALLERGIC SKIN REACTION.  
 MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING  
 DIFFICULTIES IF INHALED.  
 MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR  
 REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	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. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection. In case of inadequate ventilation wear respiratory protection.

**Response:** 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. If experiencing respiratory symptoms: Call a poison center or physician. 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)	CAS Number	Percentage*
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer	68082-29-1	70 - 80
Diethylenetriamine	111-40-0	10 - 20
Ethylene glycol	107-21-1	1 - 5
Triethylenetetramine	112-24-3	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

<b>Inhalation:</b>	If inhaled, immediately remove the affected person to fresh air. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Remove contaminated clothing and footwear. Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get medical attention.
<b>Eye contact:</b>	In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.
<b>Ingestion:</b>	Get immediate medical attention. DO NOT induce vomiting unless directed to do so by medical personnel.
<b>Symptoms:</b>	See Section 11.
<b>Notes to physician:</b>	Treat symptomatically and supportively.

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Use media appropriate for surrounding material.
<b>Special firefighting procedures:</b>	Wear full protective clothing. Wear self-contained breathing apparatus.
<b>Unusual fire or explosion hazards:</b>	May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses.
<b>Hazardous combustion products:</b>	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.

<b>Environmental precautions:</b>	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.
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**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:**

For the Part A plus Part B adhesive mixture, follow curing schedule as recommended in product literature. Do not heat Part B at temperatures greater than 100 °C (212 °F). This material may self-react at higher temperatures and cause an exotherm. The exotherm has the potential for release of excessive energy and toxic gasses. Empty containers retain product residue, so obey hazard warnings and handle empty containers as if they were full. Do not cut, grind, weld, or drill on or near this container.

**Storage:**

For safe storage, store between 0 °C (32°F) and 5 °C (41°F)  
Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials.

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
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer	None	None	None	None
Diethylenetriamine	(SKIN) 1 ppm TWA	None	None	None
Ethylene glycol	25 ppm TWA Vapor fraction 50 ppm STEL Vapor fraction 10 mg/m3 STEL Aerosol, inhalable.	None	None	None
Triethylenetetramine	None	None	1 ppm (6 mg/m3) TWA (SKIN)	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:**

Wear impervious gloves for prolonged contact. Use of impervious apron and boots are recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:**

Liquid

**Color:**

Amber

**Odor:**

Ammonia

**Odor threshold:**

Not available.

**pH:**

Not determined

**Vapor pressure:**

< 1.0 mm hg (20 °C (68°F))

**Boiling point/range:**

Not determined

**Melting point/ range:**

Not determined

**Specific gravity:**

0.96

**Vapor density:**

Not determined

<b>Flash point:</b>	> 93 °C (> 199.4 °F)
<b>Flammable/Explosive limits - lower:</b>	Not determined
<b>Flammable/Explosive limits - upper:</b>	Not determined
<b>Autoignition temperature:</b>	Not determined
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not determined
<b>Solubility in water:</b>	Partially soluble
<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>VOC content:</b>	< 10 g/l per SCAQMD Rule 1124 [EPA Test Method 24/304-91] (estimated)
<b>Viscosity:</b>	3,200 cp
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions.
<b>Hazardous reactions:</b>	May occur.
<b>Hazardous decomposition products:</b>	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.
<b>Incompatible materials:</b>	Keep away from strong oxidizing agents, strong Lewis or mineral acids.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately. Failure to observe these precautions may result in excessive heat build-up causing an exotherm. Do not heat mixed adhesive unless curing surfaces to be bonded.

## 11. TOXICOLOGICAL INFORMATION

<b>Relevant routes of exposure:</b>	Skin, Inhalation, Eyes
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### Potential Health Effects/Symptoms

<b>Inhalation:</b>	Mists, vapors or liquid may cause severe irritation or burns. May cause allergic respiratory reaction.
<b>Skin contact:</b>	This product is severely irritating to the skin and may cause burns. This product may cause an allergic skin reaction.
<b>Eye contact:</b>	This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.
<b>Ingestion:</b>	Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. Swallowing large volumes of ethylene glycol can lead to kidney damage.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer	None	No Records
Diethylenetriamine	Oral LD50 (Rat) Approximate 1,140 mg/kg Oral LD50 (Rat) = 1,080 mg/kg Oral LD50 (Rat) = 2.33 g/kg	Allergen, Irritant, Eyes
Ethylene glycol	Oral LD50 (Rat) = 5.89 g/kg Oral LD50 (Mouse) = 14.6 g/kg Dermal LD50 (Rabbit) = 9,530 mg/kg	Blood, Bone Marrow, Central nervous system, Developmental, Eyes, Irritant, Kidney, Liver, Metabolic
Triethylenetetramine	None	Allergen, Corrosive, Developmental, Irritant, Mutagen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer	No	No	No
Diethylenetriamine	No	No	No
Ethylene glycol	No	No	No
Triethylenetetramine	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:** Dispose of according to Federal, State and local governmental regulations.

**Hazardous waste number:** This product, if discarded, may be characterized as a RCRA corrosive waste, D002. 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:** Amines, liquid, corrosive, n.o.s. (Diethylenetriamine, Triethylenetetramine)  
**Hazard class or division:** 8  
**Identification number:** UN 2735  
**Packing group:** II

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Amines, liquid, corrosive, n.o.s. (Diethylenetriamine, Triethylenetetramine)  
**Hazard class or division:** 8  
**Identification number:** UN 2735  
**Packing group:** II

**Water Transportation (IMO/IMDG)**

**Proper shipping name:** AMINES, LIQUID, CORROSIVE, N.O.S. (Diethylenetriamine, Triethylenetetramine, C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer)  
**Hazard class or division:** 8  
**Identification number:** UN 2735  
**Packing group:** II  
**Marine pollutant:** C18 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer

<b>15. REGULATORY INFORMATION</b>
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**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, 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). Ethylene glycol (CAS# 107-21-1).

**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:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

<b>16. OTHER INFORMATION</b>
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**This safety data sheet contains changes from the previous version in sections:** New Safety Data Sheet format.

**Prepared by:** Regulatory Affairs

**Issue date:** 02/20/2019

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