



Revision Number: 006.0

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**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>LOCTITE ABLESTIK 293-1 known as TRA-BOND 293-1</b>	<b>IDH number:</b>	1409243
<b>Product type:</b>	Epoxy adhesive	<b>Region:</b>	United States
<b>Restriction of Use:</b>	None identified	<b>Contact information:</b>	
<b>Company address:</b>	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	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 DAMAGE.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1

**PICTOGRAM(S)****Precautionary Statements**

<b>Prevention:</b>	Avoid breathing vapors, mist, or spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye and face protection. Wear protective gloves.
<b>Response:</b>	IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. Immediately call a poison control center or physician. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing.
<b>Storage:</b>	Not prescribed
<b>Disposal:</b>	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**

IDH number: 1409243

Product name: LOCTITE ABLESTIK 293-1 known as TRA-BOND 293-1  
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Hazardous Component(s)	CAS Number	Percentage*
Epoxy resin	Proprietary	30 - 60
Epoxy resin	Proprietary	10 - 30
Limestone	1317-65-3	10 - 30
Imidazole derivative	Proprietary	5 - 10
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
4-Methylimidazole	822-36-6	0.1 - 1
1-Methylimidazole	616-47-7	0.1 - 1
Epoxy resin	Proprietary	0.1 - 1
Glycidol	556-52-5	0.1 - 1

\* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Skin contact:</b>	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Get medical attention. Wash clothing before reuse.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Symptoms:</b>	See Section 11.

#### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.
<b>Unusual fire or explosion hazards:</b>	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
<b>Hazardous combustion products:</b>	Oxides of carbon. Toxic and 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.

<b>Environmental precautions:</b>	Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	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. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a closed container until ready for disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

## 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. Refer to Section 8.

**Storage:** For safe storage, store at or below -40 °C (-40°F)  
Keep in a cool, well ventilated area away from heat, sparks and open flame.  
Keep container tightly closed until ready for use.

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
Epoxy resin	None	None	None	None
Epoxy resin	None	None	None	None
Limestone	10 mg/m3 TWA Total dust.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust.	None	None
Imidazole derivative	None	None	None	None
Silica, amorphous, fumed, crystal-free	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m3 TWA	None	None
4-Methylimidazole	None	None	None	None
1-Methylimidazole	None	None	None	None
Epoxy resin	None	None	None	None
Glycidol	2 ppm TWA	50 ppm (150 mg/m3) PEL	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

<b>Physical state:</b>	Paste, Liquid
<b>Color:</b>	Black
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	< 1 mbar (20 °C (68°F))
<b>Boiling point/range:</b>	> 107 °C (> 224.6 °F)
<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	1.2
<b>Vapor density:</b>	> 1.0
<b>Flash point:</b>	> 93 °C (> 199.4 °F) Closed cup
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Autoignition temperature:</b>	Not determined

Evaporation rate:	Not applicable
Solubility in water:	Slightly soluble
Partition coefficient (n-octanol/water):	Not applicable
VOC content:	7 g/l
Viscosity:	Not available.
Decomposition temperature:	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Hydrocarbons. Irritating organic vapours.
<b>Incompatible materials:</b>	Strong oxidizing agents. Strong acids and strong bases.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	High temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

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

**Inhalation:** Vapors may cause headaches, nausea, dizziness and respiratory tract irritation. Coughing. Shortness of breath.

**Skin contact:** Causes skin irritation. May cause allergic skin reaction.

**Eye contact:** Causes serious eye damage. Redness. Tearing.

**Ingestion:** May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Epoxy resin	None	Allergen, Irritant
Epoxy resin	None	Irritant, Allergen
Limestone	None	Nuisance dust
Imidazole derivative	None	No Target Organs
Silica, amorphous, fumed, crystal-free	None	Nuisance dust
4-Methylimidazole	Oral LD50 (RAT) = 751 mg/kg Dermal LD50 (RABBIT) = 440 mg/kg	No Data
1-Methylimidazole	None	Allergen, Developmental, Gastrointestinal, Liver, Reproductive
Epoxy resin	None	No Data
Glycidol	Oral LD50 (RAT) = 640 mg/kg Oral LD50 (RAT) = 850 mg/kg Oral LD50 (RAT) = 420 mg/kg Oral LD50 (RAT) = 463.8 mg/kg Oral LD50 (RAT) = 760 mg/kg Oral LD50 (RAT) = 760 mg/kg Inhalation LC50 (RAT, 4 h) = 580 mg/l	Allergen, Brain, Central nervous system, Corrosive, Eyes, Immune system, Irritant, Kidney, Liver, Mutagen, Reproductive, Respiratory, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epoxy resin	No	No	No
Epoxy resin	No	No	No
Limestone	No	No	No
Imidazole derivative	No	No	No
Silica, amorphous, fumed, crystal-free	No	No	No
4-Methylimidazole	No	Group 2B	No
1-Methylimidazole	No	No	No
Epoxy resin	No	No	No
Glycidol	Reasonably Anticipated to be a Human Carcinogen.	Group 2A	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:** Not a RCRA hazardous waste.

### 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:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

#### International Air Transportation (ICAO/IATA)

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

#### Water Transportation (IMO/IMDG)

**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)  
**Hazard class or division:** 9  
**Identification number:** UN 3082  
**Packing group:** III  
**Marine pollutant:** Epoxy resin

### 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 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). Glycidol (CAS# 556-52-5).  
**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:** Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

### 16. OTHER INFORMATION

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

**Prepared by:** Sheila Gines, Regulatory Affairs Specialist

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