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**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>LOCTITE CAT 9 known as Catalyst 9 (27g)</b>	<b>IDH number:</b>	1506419
<b>Product type:</b>	Catalyst	<b>Item number:</b>	CAT 9
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
Henkel Electronic Materials LLC	Telephone: +1 (888) 943-6535		
14000 Jamboree Road	MEDICAL EMERGENCY Phone: Poison Control Center		
Irvine, CA 92606	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.henkel.com/electronics		

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**DANGER:** HARMFUL IF SWALLOWED.  
 TOXIC 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	3
SKIN CORROSION	1C
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Do not breathe vapors, mist, or spray. Wash 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 SWALLOWED: Immediately call poison control or physician if you feel unwell. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 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. 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*
Tetraethylene pentamine	112-57-2	60 - 100
Triethylenetetramine	112-24-3	1 - 5

\* 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. Wash clothing before reuse. Get medical attention.
<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 unless directed to do so by medical personnel. 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. Oxides of nitrogen. 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. Advise authorities if product has entered or may enter sewers, water sources or extensive land areas.
<b>Clean-up methods:</b>	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). Store in a partly filled, closed container until 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. Do not taste or swallow. Refer to Section 8.
- Storage:** Keep in a cool, well ventilated area away 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	(SKIN) Aerosol. 1 ppm (5 mg/m <sup>3</sup> ) TWA Aerosol. (Skin sensitizer)	None
Triethylenetetramine	None	None	1 ppm (6 mg/m <sup>3</sup> ) TWA (SKIN)	None

- Engineering controls:** Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
- Respiratory protection:** Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
- 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:** Amber
- Odor:** Amine
- Odor threshold:** Not available.
- pH:** Not available.
- 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 - lower:** Not available.
- Flammable/Explosive limits - upper:** Not available.
- Autoignition temperature:** Not available.
- 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

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	None reasonably foreseeable.
<b>Incompatible materials:</b>	Nitrites.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

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

**Potential Health Effects/Symptoms**

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

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
Triethylenetetramine	None	Allergen, Corrosive, Developmental, Irritant, Mutagen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Tetraethylene pentamine	No	No	No
Triethylenetetramine	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:** D002: Corrosive.

## 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:** Tetraethylenepentamine  
**Hazard class or division:** 8  
**Identification number:** UN 2320  
**Packing group:** III

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Tetraethylenepentamine  
**Hazard class or division:** 8  
**Identification number:** UN 2320  
**Packing group:** III

### Water Transportation (IMO/IMDG)

**Proper shipping name:** TETRAETHYLENEPENTAMINE  
**Hazard class or division:** 8  
**Identification number:** UN 2320  
**Packing group:** III  
**Marine pollutant:** Tetraethylene pentamine

## 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:** None above reporting de minimis  
**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: New Safety Data Sheet format.

**Prepared by:** Tricia Voghell, Regulatory Affairs Specialist  
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