



Revision Number: 010.0

Issue date: 07/21/2020

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product name:</b>	<b>LOCTITE STYCAST ES 4212 PTB known as HYSOL ES4212 PART B GAL</b>	<b>IDH number:</b>	497988
<b>Product type/use:</b>	Epoxy Hardener	<b>Item number:</b>	EB4212-B50
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
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		

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**DANGER:** CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.  
MAY CAUSE AN ALLERGIC SKIN REACTION.

HAZARD CLASS	HAZARD CATEGORY
SKIN CORROSION	1C - Corrosive
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1

### PICTOGRAM(S)



### Precautionary Statements

<b>Prevention:</b>	Avoid breathing 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.
<b>Response:</b>	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.
<b>Storage:</b>	Store locked up.
<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

Hazardous Component(s)	CAS Number	Percentage*
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	68953-36-6	30 - 60
Wollastonite (Ca(SiO <sub>3</sub> ))	13983-17-0	30 - 60
Talc	14807-96-6	10 - 30

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Tetraethylene pentamine	112-57-2	5 - 10
Limestone	1317-65-3	1 - 5
Quartz (SiO <sub>2</sub> )	14808-60-7	0.1 - 1

\* 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>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Skin contact:</b>	Remove contaminated clothing and footwear. Immediately flush skin with plenty of water (using soap, if available). 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 unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate 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.
<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>	Ammonia. Oxides of carbon, oxides of nitrogen, irritating organic 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>	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

<b>Handling:</b>	Provide adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Refer to Section 8.
<b>Storage:</b>	Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Do not store in reactive metal containers.

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
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	None	None	None	None
Wollastonite (Ca(SiO <sub>3</sub> ))	1 mg/m <sup>3</sup> TWA Inhalable fraction.	None	None	None
Talc	2 mg/m <sup>3</sup> TWA Respirable fraction.	0.1 mg/m <sup>3</sup> TWA Respirable. 20 MPPCF TWA 2.4 MPPCF TWA Respirable.	None	50 ppm
Tetraethylene pentamine	None	None	1 ppm (5 mg/m <sup>3</sup> ) TWA Aerosol. (SKIN) Aerosol. (Skin sensitizer)	None
Limestone	10 mg/m <sup>3</sup> TWA Total dust.	5 mg/m <sup>3</sup> PEL Respirable fraction. 15 mg/m <sup>3</sup> PEL Total dust.	None	None
Quartz (SiO <sub>2</sub> )	0.025 mg/m <sup>3</sup> TWA Respirable fraction.	0.05 mg/m <sup>3</sup> TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m <sup>3</sup> OSHA_ACT (Respirable dust.) 0.05 mg/m <sup>3</sup> PEL Respirable dust. 2.4 MPPCF TWA Respirable. 0.1 mg/m <sup>3</sup> TWA Respirable.	None	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

<b>Physical state:</b>	Liquid
<b>Color:</b>	Tan
<b>Odor:</b>	Ammoniacal
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Alkaline
<b>Vapor pressure:</b>	Not available.
<b>Boiling point/range:</b>	Not determined
<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	1.45
<b>Vapor density:</b>	Not available.
<b>Flash point:</b>	101.6 °C (214.88 °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
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not available.
<b>Solubility in water:</b>	Partially miscible
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	0 %; 0 g/l Estimated
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	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. Oxides of nitrogen. Ammonia. Nitric acid. Nitrosamines.
<b>Incompatible materials:</b>	Strong oxidizing agents. Strong acids and strong bases. Peroxides. CAUTION! N-nitrosamines (many of which are known to be potent carcinogens) may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. This product slowly corrodes copper, aluminum, zinc and galvanized surfaces.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	High temperatures. Keep away from open flames, hot surfaces and 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>	May cause respiratory tract irritation. Contains crystalline silica (quartz), which is classified as a possible carcinogen. However, the crystalline silica present in this product is encapsulated in the liquid and will only be liberated if the product is sanded or abraded, and even then what is liberated will not be pure crystalline silica. Appropriate precautions, however, should be taken if the product is sanded or abraded to prevent personnel from breathing the dust.
<b>Skin contact:</b>	Causes skin burns. May cause allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye damage. Burns of the eye may cause blindness.
<b>Ingestion:</b>	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
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	None	No Records
Wollastonite (Ca(SiO <sub>3</sub> ))	None	Lung
Talc	None	Irritant, Lung, Some evidence of carcinogenicity
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
Limestone	None	Nuisance dust
Quartz (SiO <sub>2</sub> )	None	Immune system, Lung, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	No	No	No
Wollastonite (Ca(SiO <sub>3</sub> ))	No	No	No
Talc	No	No	No
Tetraethylene pentamine	No	No	No
Limestone	No	No	No
Quartz (SiO <sub>2</sub> )	Known To Be Human Carcinogen.	Group 1	Yes

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

<b>Recommended method of disposal:</b>	Follow all local, state, federal and provincial regulations for disposal.
<b>Hazardous waste number:</b>	D002: Corrosive. 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)

<b>Proper shipping name:</b>	Tetraethylenepentamine solution
<b>Hazard class or division:</b>	8
<b>Identification number:</b>	UN 2320
<b>Packing group:</b>	III

### International Air Transportation (ICAO/IATA)

<b>Proper shipping name:</b>	Tetraethylenepentamine solution
<b>Hazard class or division:</b>	8
<b>Identification number:</b>	UN 2320
<b>Packing group:</b>	III

### Water Transportation (IMO/IMDG)

<b>Proper shipping name:</b>	AMINES, LIQUID, CORROSIVE, N.O.S. solution (Fatty acids, tall-oil, reaction products with tetraethylenepentamine, Tetraethylene pentamine)
<b>Hazard class or division:</b>	8
<b>Identification number:</b>	UN 2735
<b>Packing group:</b>	III
<b>Marine pollutant:</b>	Fatty acids, tall-oil, reaction products with tetraethylenepentamine

## 15. REGULATORY INFORMATION

### United States Regulatory Information

<b>TSCA 8 (b) Inventory Status:</b>	All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.
<b>TSCA 12 (b) Export Notification:</b>	None above reporting de minimis
<b>CERCLA/SARA Section 302 EHS:</b>	None above reporting de minimis.
<b>CERCLA/SARA Section 311/312:</b>	Immediate Health, Delayed Health
<b>CERCLA/SARA Section 313:</b>	None above reporting de minimis.
<b>California Proposition 65:</b>	This product contains a chemical known in the State of California to cause cancer.

### Canada Regulatory Information

<b>CEPA DSL/NDL Status:</b>	All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
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## 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 11,16

<b>Prepared by:</b>	Product Safety and Regulatory Affairs
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