



Revision Number: 008.0

Issue date: 01/30/2017

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE STYCAST ES 4212 PTB
known as HYSOL ES4212 PART B
GAL A2

Product type: Epoxy Hardener

Restriction of Use: None identified

Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 627829

Item number: EB4212-B50A2

Region: United States

Contact information:
Telephone: (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.

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

PICTOGRAM(S)



Precautionary Statements

Prevention: 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.

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. 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*
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	68953-36-6	40 - 50
Wollastonite (Ca(SiO ₃))	13983-17-0	30 - 40
Talc	14807-96-6	10 - 20
Tetraethylene pentamine	112-57-2	5 - 10
Limestone	1317-65-3	1 - 5
Quartz (SiO ₂)	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

Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Skin contact:	Remove contaminated clothing and footwear. Immediately flush skin with plenty of water (using soap, if available). Get medical attention. Wash clothing 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 immediate medical attention.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

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

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	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:	Provide adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. 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. 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 ₃))	None	None	None	None
Talc	2 mg/m ³ TWA Respirable fraction.	0.1 mg/m ³ TWA Respirable. 0.3 mg/m ³ TWA Total dust. 2.4 MPPCF TWA Respirable. 20 MPPCF TWA	None	50 ppm
Tetraethylene pentamine	None	None	(SKIN) Aerosol. 1 ppm (5 mg/m ³) TWA Aerosol. (Skin sensitizer)	None
Limestone	10 mg/m ³ TWA Total dust.	5 mg/m ³ PEL Respirable fraction. 15 mg/m ³ PEL Total dust.	None	None
Quartz (SiO ₂)	0.025 mg/m ³ TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m ³ TWA Respirable. 0.05 mg/m ³ PEL	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

Physical state:	Liquid
Color:	Tan
Odor:	Ammoniacal
Odor threshold:	Not available.
pH:	Alkaline
Vapor pressure:	Not available.
Boiling point/range:	Not determined

Melting point/ range:	Not available.
Specific gravity:	1.45
Vapor density:	Not available.
Flash point:	101.6 °C (214.88 °F) Closed cup
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not determined
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Partially miscible
Partition coefficient (n-octanol/water):	Not available.
VOC content:	0 %; 0 g/l Estimated
Viscosity:	Not available.
Decomposition temperature:	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 nitrogen. Ammonia. Nitric acid. Nitrosamines.
Incompatible materials:	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.
Reactivity:	Not available.
Conditions to avoid:	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
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Potential Health Effects/Symptoms

Inhalation: May cause respiratory tract irritation.
Skin contact: Causes skin burns. May cause allergic skin reaction.
Eye contact: Causes serious eye damage. Burns of the eye may cause blindness.
Ingestion: 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 ₃))	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 ₂)	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 ₃))	No	No	No
Talc	No	Group 2B	No
Tetraethylene pentamine	No	No	No
Limestone	No	No	No
Quartz (SiO ₂)	Known To Be Human Carcinogen.	Group 1	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. 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: 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: AMINES, LIQUID, CORROSIVE, N.O.S. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine, Tetraethylene pentamine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III
Marine pollutant: Fatty acids, tall-oil, reaction products with tetraethylenepentamine, 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: This product contains a chemical known in the State of California to cause cancer.

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: 3

Prepared by: Debbie Friday, Regulatory Affairs Specialist

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