

Safety Data Sheet



Revision Number: 008.0

Issue date: 05/08/2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE STYCAST ES 4512 PTA
known as HYSOL ES4512 PART A
GAL
Product type/use: Epoxy resin
Restriction of Use: None identified
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 497808

Item number: EA4512-B50
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

WARNING: CAUSES SKIN IRRITATION.
MAY CAUSE AN ALLERGIC SKIN REACTION.
CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
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, eye protection, and face protection.

Response: IF ON SKIN: Wash with plenty of water. 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 eye irritation persists: Get medical attention. Take off contaminated clothing.

Storage: Not prescribed

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*
Aluminium hydroxide	21645-51-2	30 - 60
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	30 - 60
Epoxy Resin	Proprietary	5 - 10

IDH number: 497808

Product name: LOCTITE STYCAST ES 4512 PTA known as HYSOL ES4512 PART A GAL
Page 1 of 5

Silica, amorphous, treated	68909-20-6	0.1 - 1
Carbon black - Nano	1333-86-4	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 breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin contact:	Wash with soap and water. Remove contaminated clothing and footwear. If symptoms develop and persist, 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. Never give anything by mouth to an unconscious person. Get 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:	Oxides of carbon. Oxides of aluminum. Halogenated compounds. Irritating organic vapours.

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:	Ensure adequate ventilation. Isolate area. Keep unnecessary personnel away. 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. Wear suitable protective clothing, gloves and eye/face protection. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling.
Storage:	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
Aluminium hydroxide	1 mg/m3 TWA Respirable fraction. 10 mg/m3 TWA (as Al) Total dust. 3 mg/m3 TWA Respirable particles. 10 mg/m3 TWA Inhalable particles.	15 mg/m3 TWA (as Al) Total dust. 5 mg/m3 TWA (as Al) Respirable fraction. 15 MPPCF TWA Respirable fraction. 15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction. 50 MPPCF TWA Total dust.	None	None
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
Epoxy Resin	None	None	None	None
Silica, amorphous, treated	10 mg/m3 TWA Inhalable dust.	6 mg/m3 TWA	None	None
Carbon black - Nano	3 mg/m3 TWA Inhalable fraction.	3.5 mg/m3 PEL 5 mg/m3 TWA Respirable fraction. 50 MPPCF TWA Total dust. 15 MPPCF TWA Respirable fraction. 15 mg/m3 TWA Total dust.	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

Physical state:	Viscous, liquid
Color:	Black
Odor:	Aromatic
Odor threshold:	Not available.
pH:	Not applicable, Product is non-soluble (in water).
Vapor pressure:	< 1 hPa (20 °C (68°F))
Boiling point/range:	Not available, > 100 °C (> 212°F) 1,013 hPa
Melting point/ range:	Not applicable, Product is a liquid
Specific gravity:	1.6
Vapor density:	> 1 20 °C
Flash point:	> 93 °C (> 199.4 °F) ; Estimated
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	< 1.0
Solubility in water:	Not miscible or difficult to mix
Solubility in water:	Partially miscible
Partition coefficient (n-octanol/water):	Not available.
VOC content:	< 1 %; < 10 g/l (estimated value for resin and hardener mixed together)
Viscosity:	Not available.
Decomposition temperature:	> 140 °C

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
Hazardous decomposition products:	Oxides of carbon. Oxides of aluminum. Halogenated compounds. Irritating organic vapours.
Incompatible materials:	Strong oxidizing agents. Strong acids and strong bases. Amines. Reacts with considerable heat release with some curing agents.
Reactivity:	Not available.
Conditions to avoid:	Store away from incompatible materials. Keep away from open flames, hot surfaces and sources of ignition.

11. TOXICOLOGICAL INFORMATION

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

Potential Health Effects/Symptoms

Inhalation:	May cause respiratory tract irritation.
Skin contact:	Causes skin irritation. May cause allergic skin reaction.
Eye contact:	Causes serious eye irritation.
Ingestion:	May cause irritation to the gastrointestinal tract, mouth and mucous membranes.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Aluminium hydroxide	Oral LD50 (Rat) = > 5,000 mg/kg Inhalation LC50 (Rat, 4 h) = > 0.888 mg/l Inhalation LC50 (Rat, 4 h) = > 2.3 mg/l	Irritant, Lung, Respiratory
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	Allergen, Irritant
Epoxy Resin	None	No Data
Silica, amorphous, treated	None	No Target Organs
Carbon black - Nano	Oral LD50 (Rat) = > 8,000 mg/kg	No Data

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Aluminium hydroxide	No	No	No
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
Epoxy Resin	No	No	No
Silica, amorphous, treated	No	No	No
Carbon black - Nano	No	Group 2B	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.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any packaging.

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. (Bisphenol-A Epichlorhydrin 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. (Bisphenol-A Epichlorhydrin resin)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
Marine pollutant:	Bisphenol-A Epichlorhydrin resin

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) 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. 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:	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: 2,3,8,9,11,13,16

Prepared by:	Product Safety and Regulatory Affairs
---------------------	---------------------------------------

Issue date:	05/08/2023
--------------------	------------

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

This Safety Data Sheet has been generated based on OSHA Hazard Communication Standard (29 CFR 1910.1200) and provides information in accordance with U.S. federal law only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.