Safety Data Sheet



Revision Number: 007.0 Issue date: 02/19/2020

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE STYCAST RE 2038 known as IDH number:

HYSOL RE2038 GAL

Product type/use: Epoxy resin Item number: Restriction of Use: None identified Region:

Company address: Henkel Corporation

One Henkel Way

Rocky Hill, Connecticut 06067

Item number:RE2038-B50Region:United States

Contact information:

Telephone: +1 (860) 571-5100

MEDICAL EMERGENCY Phone: Poison Control Center

500528

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: COMBUSTIBLE LIQUID.

CAUSES SKIN IRRITATION.

MAY CAUSE AN ALLERGIC SKIN REACTION.

CAUSES SERIOUS EYE IRRITATION.

SUSPECTED OF CAUSING GENETIC DEFECTS.

SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	4
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1
GERM CELL MUTAGENICITY	2
REPRODUCTIVE TOXICITY	2

PICTOGRAM(S)



Precautionary Statements

IDH number: 500528

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been

read and understood. Keep away from heat, sparks, open flames, not surfaces - no smoking. 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 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 exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing. In case of fire: Use

foam, dry chemical or carbon dioxide to extinguish.

Storage: Store in a well-ventilated place. Keep cool. 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*
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	80 - 100
butyl glycidyl ether	2426-08-6	10 - 30

^{*} 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: Immediately flush skin with plenty of water (using soap, if available). 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. Check for and remove any contact lenses. 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 medical

attention.

Symptoms: See Section 11.

IDH number: 500528

5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide. Do not use high

volume water jet.

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as

turn-out gear. In case of fire, keep containers cool with water spray.

Unusual fire or explosion hazards: Closed containers may rupture (due to build up of pressure) when exposed to

extreme heat. Vapors are heavier than air and may travel to ignition sources

and flash back.

Hazardous combustion products: Oxides of carbon. Halogenated compounds. Aldehydes. Acids. 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. Advise authorities if product

has entered or may enter sewers, water sources or extensive land areas.

Clean-up methods: Remove all sources of ignition. Ensure adequate ventilation. Prevent further

leakage or spillage if safe to do so. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable and closed containers for disposal. Refer to Section 8 "Exposure Controls /

Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling: Use only with adequate ventilation. During use and until all vapors are gone:

Keep area ventilated - do not smoke; extinguish all flames, pilot lights, and heaters; turn off stoves, electrical tools and appliances, and any other sources of ignition. Make sure containers are properly grounded before use or transfer of material. 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.

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
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
butyl glycidyl ether	3 ppm TWA (SKIN) (Dermal sensitization)	50 ppm (270 mg/m3) PEL	None	None

Engineering controls:

Use explosion-proof mechanical ventilation and local exhaust to control

contaminants to within their occupational exposure limits during the use of this

product.

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

Not available.

Physical state:

Color:

Odor:

Odor threshold:

pH:

Liquid

Yellow

Aromatic

Not available.

Not available.

Vapor pressure: 0.4 kPa (25 °C (77°F))

Boiling point/range: > 100 °C (> 212°F)1,013 hPa

Melting point/range: > 100 °C (> 212°
Melting point/ range: Not available.

Specific gravity: 1.13
Vapor density: 4.5 (Air = 1)
Flash point: 73 °C (163.4 °F)

Flammable/Explosive limits - lower: Not available. Flammable/Explosive limits - upper: Not available. Autoignition temperature: Not available. Combustible Liquid Flammability: Evaporation rate: Not available. Solubility in water: Negligible Partition coefficient (n-octanol/water): Not available. VOC content: None Not available. Viscosity:

Decomposition temperature:

IDH number: 500528

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

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. Aldehydes. Acids. Halogenated compounds.

Incompatible materials: Keep away from strong oxidizing agents, strong Lewis or mineral acids. Strong alkalis. Primary

and secondary aliphatic amines.

Reactivity: Not available.

Conditions to avoid: Keep away from open flames, hot surfaces and sources of ignition. High temperatures. Avoid

static discharge. Store away from incompatible materials.

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. Redness. Pain and discomfort.Ingestion:May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	Allergen, Irritant
butyl glycidyl ether	Oral LD50 (Rat) = 2,000 mg/kg Oral LD50 (Rat) = 2.05 g/kg Oral LD50 (Mouse) = 1.53 g/kg Dermal LD50 (Rabbit) = 0.788 g/kg	Irritant, Allergen, Central nervous system, Liver, Mutagen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
butyl glycidyl ether	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

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: Combustible liquid, n.o.s. (n-Butyl glycidyl ether)

Hazard class or division: Combustible Liquid

Identification number: NA 1993 Packing group: III

IDH number: 500528 Product name: LOCTITE STYCAST RE 2038 known as HYSOL RE2038 GAL Page 4 of 5

International Air Transportation (ICAO/IATA)

Hazard class or division:

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epichlorhydrin

resin) 9 UN 3082

Identification number: UN Packing group:

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:
CERCLA/SARA Section 311/312:
CERCLA/SARA Section 313:

None above reporting de minimis.
Fire, Immediate Health, Delayed Health
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

IDH number: 500528

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: 2,16

Prepared by: Product Safety and Regulatory Affairs

Issue date: 02/19/2020

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Revision Number: 005.0 Issue date: 04/27/2017

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE STYCAST HD 3475 known as IDH number: 449614

HYSOL HD3475 QT

Product type:Epoxy HardenerItem number:HD3475-B30Restriction of Use:None identifiedRegion:United States

Company address: Contact information:

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.

MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING

DIFFICULTIES IF INHALED.

HAZARD CLASS	HAZARD CATEGORY
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1

PICTOGRAM(S)



Precautionary Statements

IDH number: 449614

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. In case of inadequate ventilation wear respiratory

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. If

experiencing respiratory symptoms: Call a poison center or physician. 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*
Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct	68610-56-0	60 - 70
Diethylenetriamine	111-40-0	20 - 30
4,4'-Isopropylidenediphenol	80-05-7	1 - 5

^{*} 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: Immediately flush skin with plenty of water (using soap, if available). Remove

contaminated clothing and footwear. 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 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: In case of fire, keep containers cool with water spray.

Hazardous combustion products: Oxides of carbon, oxides of nitrogen, irritating organic vapors. Ammonia.

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: Remove all sources of ignition. 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. Keep away from heat, spark and flame.

Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist.

Wash thoroughly after handling. Refer to Section 8.

Storage: Store in original container until ready to use. 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
Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct	None	None	None	None
Diethylenetriamine	(SKIN) 1 ppm TWA	None	None	None
4,4'-Isopropylidenediphenol	None	None	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. Wear chemical goggles or

a full face shield. 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: Ammoniacal Odor threshold: Not available. pH: Not applicable Vapor pressure: 0.2 mm hg Boiling point/range: 207 °C (404.6 °F) Melting point/ range: Not available.

Specific gravity:

Vapor density: Not determined

Flash point: > 93 °C (> 199.4 °F) Closed cup

Flammable/Explosive limits - lower:
Flammable/Explosive limits - upper:
Autoignition temperature:
Flammability:
Flammability:
Evaporation rate:
Solubility in water:
Partition coefficient (n-octanol/water):
Not available.
Not available.
Not available.

VOC content: < 1 %; < 10 g/l (value for resin and hardener together)

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:

IDH number: 449614

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. Oxides of carbon. Oxides of nitrogen. Ammonia. Irritating vapors.

Incompatible materials: Nitrous acid and other nitrosating agents. Strong acids. Strong oxidizing agents.

Reactivity: Not available.

Conditions to avoid: Excessive heat. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

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

Potential Health Effects/Symptoms

Inhalation: May cause respiratory tract irritation. May cause allergic respiratory reaction. Shortness of

breath. Wheezing. Coughing.

Skin contact: Causes skin burns. May cause allergic skin reaction. May be harmful if absorbed through skin.

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
Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct	None	No Records
Diethylenetriamine	Oral LD50 (Rat) Approximate 1,140 mg/kg Oral LD50 (Rat) = 1,080 mg/kg Oral LD50 (Rat) = 2.33 g/kg	Allergen, Irritant, Eyes
4,4'-Isopropylidenediphenol	Oral LD50 (Rat) = 4,100 mg/kg Oral LD50 (Rat) = 3,300 mg/kg Oral LD50 (Mouse) = 5,280 mg/kg Oral LD50 (Mouse) = 2,500 mg/kg Oral LD50 (Mouse) = 4,100 mg/kg	Allergen, Blood, Irritant, Kidney, Reproductive, Spleen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct	No	No	No
Diethylenetriamine	No	No	No
4,4'-Isopropylidenediphenol	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: Waste from this product may be hazardous as defined under the Resource

Conservation and Recovery Act (RCRA) 40 CFR 261. 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: Diethylenetriamine

Hazard class or division:

Identification number: UN 2079 Packing group:

International Air Transportation (ICAO/IATA)

Proper shipping name: Diethylenetriamine

Hazard class or division: Identification number: UN 2079

Packing group:

Water Transportation (IMO/IMDG) Proper shipping name: **DIETHYLENETRIAMINE**

Hazard class or division: Identification number:

UN 2079 Packing group:

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). 4,4'-Isopropylidenediphenol (CAS# 80-05-7).

California Proposition 65: This product contains a chemical known to the State of California to cause birth defects or

other reproductive harm.

Canada Regulatory Information

IDH number: 449614

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, 8, 11

Prepared by: Debbie Friday, Regulatory Affairs Specialist

Issue date: 04/27/2017 **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.

IDH number: 449614