



Revision Number: 005.0

Issue date: 08/04/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE® 0151 EPOXI-PATCH® ADHESIVE RESIN (KIT PART NO. 83176)	IDH number:	702159
Product type:	Epoxy resin	Item number:	83176_193035
Restriction of Use:	None identified	Region:	United States
Company address:	Contact information:		
Henkel Corporation	Telephone: (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

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

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	4
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1

PICTOGRAM(S)



Precautionary Statements

Prevention:	Keep away from heat, sparks, open flames, hot surfaces - no smoking. Avoid breathing vapors, mist, or spray. Wash 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 soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. 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.
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*
Epoxy resin	Proprietary	60 - 100
Butyl 2,3-epoxypropyl ether	2426-08-6	10 - 30
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5

* Exact percentage is a 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 unless directed to do so by medical personnel. 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:	In case of fire, keep containers cool with water spray. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Hazardous combustion products:	Oxides of carbon. Irritating organic fragments. Acids. Aldehydes.

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. 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). Scrape up as much material as possible. Clean residue with soap and water. 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. Keep container closed. Refer to Section 8.

Storage: Store in original container until ready to use. Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Store away from heat, sparks, flames, or other sources of ignition.

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
Epoxy resin	None	None	None	None
Butyl 2,3-epoxypropyl ether	3 ppm TWA (SKIN)	50 ppm (270 mg/m3) PEL	None	None
Silica, amorphous, fumed, crystal-free	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m3 TWA	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:	Liquid, Paste
Color:	Milky, white
Odor:	None
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	2 mm hg (20 °C (68°F))
Boiling point/range:	140 °C (284°F)
Melting point/ range:	Not available.
Specific gravity:	1.13
Vapor density:	Not available.
Flash point:	81 °C (177.8 °F) Pensky Martens closed cup
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Evaporation rate:	Not available.
Solubility in water:	Not miscible or difficult to mix
Partition coefficient (n-octanol/water):	Not available.
VOC content:	0.0 %; 0 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:	Polymerization is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.
Hazardous decomposition products:	Oxides of carbon. Aldehydes. Acids. Irritating organic fragments.
Incompatible materials:	Strong acids. Strong bases. Strong oxidizing agents. Amines. Strong alkalis. Water.
Reactivity:	Not available.
Conditions to avoid:	Avoid temperatures above 38°C (100°F). Excessive heat. Store away from incompatible materials. Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately. Failure to observe these precautions may result in excessive heat build-up causing an exotherm.

11. TOXICOLOGICAL INFORMATION

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

Potential Health Effects/Symptoms

Inhalation:	Inhalation of vapors or mists of the product may be irritating to the respiratory system. Coughing. Shortness of breath.
Skin contact:	Causes skin irritation. May cause allergic skin reaction. Itching. Redness.
Eye contact:	Causes serious eye irritation. If left untreated, corneal damage can occur and injury is slow to heal.
Ingestion:	May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Epoxy resin	None	Allergen, Irritant
Butyl 2,3-epoxypropyl ether	Oral LD50 (RAT) = 2,000 mg/kg Oral LD50 (RAT) = 2.05 g/kg Dermal LD50 (RABBIT) = 0.788 g/kg Inhalation LC50 (RAT) = 670 mg/l Inhalation LC50 (RAT, 8 h) = > 670 mg/l	Irritant, Allergen, Central nervous system, Liver, Mutagen
Silica, amorphous, fumed, crystal-free	None	Nuisance dust

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epoxy resin	No	No	No
Butyl 2,3-epoxypropyl ether	No	No	No
Silica, amorphous, fumed, crystal-free	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: 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

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 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, Fire
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: New Safety Data Sheet format.

Prepared by: Sheila Gines, Regulatory Affairs Specialist

Issue date: 08/04/2014

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Revision Number: 006.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE® 0151 EPOXI-PATCH® ADHESIVE HARDENER (KIT PART NO. 83176)	IDH number:	702160
Product type:	Epoxy Hardener	Item number:	83176_AB0151
Restriction of Use:	None identified	Region:	United States
Company address:	Contact information:		
Henkel Corporation	Telephone: (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	1B
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1

PICTOGRAM(S)



Precautionary Statements

Prevention:	Do not breathe dust or fumes. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, 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 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*
Polyamide	Proprietary	60 - 100
Triethylenetetramine	112-24-3	10 - 30
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5

* Exact percentage is a 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. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
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:	In case of fire, keep containers cool with water spray. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Hazardous combustion products:	Oxides of carbon. Oxides of nitrogen. Irritating organic fragments.

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. 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). Scrape up as much material as possible. 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. Keep container closed. Refer to Section 8.

Storage: Store in original container until ready to use. Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Store away from heat, sparks, flames, or other sources of ignition.

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
Polyamide	None	None	None	None
Triethylenetetramine	None	None	1 ppm (6 mg/m3) TWA (SKIN)	None
Silica, amorphous, fumed, crystal-free	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m3 TWA	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.

Eyeface 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:	Paste
Color:	Translucent, Amber
Odor:	Ammoniacal
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	0.01 mm hg (20 °C (68°F))
Boiling point/range:	270 °C (518°F)
Melting point/ range:	Not available.
Specific gravity:	0.98
Vapor density:	5
Flash point:	> 129.5 °C (> 265.1 °F) ; Estimated
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Evaporation rate:	Not available.
Solubility in water:	Not miscible or difficult to mix
Partition coefficient (n-octanol/water):	Not available.
VOC content:	0 %; 0 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:	Polymerization is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.
Hazardous decomposition products:	Hydrocarbons. Oxides of carbon. Oxides of nitrogen. Irritating organic vapours.
Incompatible materials:	Strong acids. Strong bases. Strong oxidizing agents. Amines. Water.
Reactivity:	Not available.
Conditions to avoid:	Avoid temperatures above 38°C (100°F). Excessive heat. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials. Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately. Failure to observe these precautions may result in excessive heat build-up causing an exotherm.

11. TOXICOLOGICAL INFORMATION

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

Potential Health Effects/Symptoms

Inhalation:	May cause irritation to nose and throat. Inhalation of vapors or mists of the product may be irritating to the respiratory system.
Skin contact:	Corrosive to skin. Causes skin burns. May cause allergic skin reaction. Rash. Redness.
Eye contact:	Causes serious eye damage. Redness. Tissue damage.
Ingestion:	May cause burns of mouth and throat 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
Polyamide	None	No Records
Triethylenetetramine	None	Allergen, Corrosive, Developmental, Irritant, Mutagen
Silica, amorphous, fumed, crystal-free	None	Nuisance dust

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Polyamide	No	No	No
Triethylenetetramine	No	No	No
Silica, amorphous, fumed, crystal-free	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:	It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

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:	Triethylenetetramine solution
Hazard class or division:	8
Identification number:	UN 2259
Packing group:	II

International Air Transportation (ICAO/IATA)

Proper shipping name:	Triethylenetetramine solution
Hazard class or division:	8
Identification number:	UN 2259
Packing group:	II

Water Transportation (IMO/IMDG)

Proper shipping name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. solution (Triethylenetetramine, Polyamide resin)
Hazard class or division:	8
Identification number:	UN 3267
Packing group:	II
Marine pollutant:	Polyamide resin

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/NDL Status:	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: New Safety Data Sheet format.

Prepared by: Sheila Gines, Regulatory Affairs Specialist

Issue date: 08/04/2014

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