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|------| | MATERIAL SAFETY DATA SHEET |

SECTION 1 _ CUEMICAL DEODUCT AND COMPANY IDENTIFICATION

| SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION |

PRODUCT NAME : FIXMASTER PIPE REPAIR TAPE

IDENTIFICATION NUMBER: 39676, 39808, 39809, 39810, 39811, 96321, 96322

PRODUCT USE/CLASS : Repair wrap

MANUFACTURER:

Loctite Corporation

1001 Trout Brook Crossing

Rocky Hill, Connecticut 06067

ROCKY HIII, COMMCCCICAC 00007

EMERGENCY TELEPHONE: 860-571-5100 24 hrs

PREPARER: Safety Health & Regulatory Affairs PREPARE DATE: 10/15/98

|-----|
| SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS |

WI/WI %

ITEM ------ CHEMICAL NAME ------ CAS NUMBER LESS THAN

-----01 4,4'-diphenylmethanediisocyanate 101-68-8 25.0 %

02 Polymethylenepolyphenyl isocyanate 39310-05-9 15.0 %

----- EXPOSURE LIMITS -----

		ACGI	LH		OSHA	COMPANY	
-	ITEM	TLV-TWA	TLV-STEL	PEL-TWA	PEL-STEL	TLV-TWA	SKIN
-							
	01	.005ppm	N.E.	.02ppm		N.E.	NO
	02	N.E.	N.E.	N.E.	N.E.	N.E.	NO
	====	=========		=======	=========	========	=====
	j		SECTION 3	- HAZARDS	IDENTIFICATION		i
	====	=========	=======	=======	=========	========	=====
	1						ı

EMERGENCY OVERVIEW: Causes skin and eye irritation. May cause allergic skin reaction.

ACUTE EFFECTS - EYE CONTACT: Moderately irritating to the eyes.

ACUTE EFFECTS - SKIN CONTACT: Contact causes skin irritation. May cause allergic skin reaction. Moderate irritant. Prolonged contact with uncured material may cause dermatitis.

ACUTE EFFECTS - INHALATION: Vapors which may be formed at elevated temperatures may be irritating. Strong respiratory sensitizer.

ACUTE EFFECTS - INGESTION: May cause nausea and vomiting.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: *Preexisting pulmonary and dermatological disorders may be aggravated by exposure to hazardous components. *Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated overexposure to 4,4'diphenylmethane (MDI) and/or polymeric MDI aerosols. Lung tumors have been observed in animals exposed to aerosol droplets for their lifetime (@ 6 mg/m3). No effects are anticipated to occur at levels at or below

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recommended safe exposure limits. Aerosol formation is not expected to occur under recommended usage conditions.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT, EYE CONTACT

| SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SECTION 4 - FIRST AID MEASURES

|-----|
SKIN CONTACT: Remove contaminated clothing. Wash skin with soap and water. Get medical attention.

INHALATION: If symptoms occur, remove to fresh air. Medical personnel may administer oxygen if breathing is difficult. Seek medical attention if symptoms persist.

INGESTION: Swallowing less than an ounce will not cause significant harm. For larger amounts, DO NOT induce vomiting, but give one or two glasses of water to drink and get medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: none LOWER EXPLOSIVE LIMIT: N.A. UPPER EXPLOSIVE LIMIT: N.A. AUTOIGNITION TEMPERATURE: No data EXTINGUISHING MEDIA: CO2, DRY CHEMICAL, FOAM

UNUSUAL FIRE AND EXPLOSION HAZARDS: Irritating and/or toxic gases or fumes may be generated by thermal decomposition or combustion.

SPECIAL FIREFIGHTING PROCEDURES: Use NIOSH-approved self-contained breathing apparatus and full protective clothing. Water stream directed into fire may cause frothing with subsequent spread of flame.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Reclaim clean material. Briefly soak contaminated material in water and allow to cure until stiff. If local regulations permit, dispose of in sanitary landfill. Cured material is inert and non-hazardous.

|-----|
| SECTION 7 - HANDLING AND STORAGE

HANDLING: Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid contact with skin and eyes. FOR INDUSTRIAL USE ONLY.

STORAGE: Store away from heat. Store in a tightly closed container. KEEP OUT OF THE REACH OF CHILDREN.

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SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION ______

ENGINEERING CONTROLS: General ventilation usually adequate. Local exhaust as needed to control vapor or dust levels to below lowest component TLV. RESPIRATORY PROTECTION: None normally required under general ventilation. If TLV/PEL is exceeded, if use is performed in a poorly-ventilated space, or if inhalation effects occur, use NIOSH-approved vapor cartridge respirator in accordance with applicable health and safety regulations and manufacturer's recommendations.

SKIN PROTECTION: Clean clothing to cover skin. Butyl rubber gloves.

Nitrile gloves. PVA gloves. EYE PROTECTION: Chemical splash goggles.

OTHER PROTECTIVE EQUIPMENT: Accessible eye wash and safety shower.

HYGIENIC PRACTICES: Follow general industrial safety practices during use. Do not smoke or eat during use. DO NOT reuse empty containers without commercial clean or recondition. Follow all MSDS/label precautions even after container is emptied.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

|-----| BOILING RANGE : 381 - 400 F VAPOR DENSITY : Is heavier than air

: No appreciable ODOR THRESHOLD : No data ODOR

APPEARANCE : Colored gauze EVAPORATION RATE: Is slower than Butyl

SOLUBILITY IN H2O: Reacts with water Acetate FREEZE POINT : No data SPECIFIC GRAVITY: 1.3473

VAPOR PRESSURE : Not applicable pH @ 0.0 % : N/A PHYSICAL STATE : Solid VISCOSITY : Not : Not applicable

COEFFICIENT OF WATER/OIL DISTRIBUTION: No data

SECTION 10 - STABILITY AND REACTIVITY ______

CONDITIONS TO AVOID: No Information.

INCOMPATIBILITY: Strong Lewis or mineral acids. Strong bases or oxidants. Metals. Surface-active compounds. Reaction with amines and mercaptans in large amounts or under uncontrolled conditions releases considerable heat and may release acrid fumes. Water. Alcohols. Amines.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon. Oxides of nitrogen, ammonia. Toxic monomers. Various hydrocarbons. Irritating aldehydes and ketones. Traces of hydrogen cyanide in oxygen-deficient environments.

HAZARDOUS POLYMERIZATION: Could occur under normal conditions. STABILITY: This product is stable under normal storage conditions.

|-----| SECTION 11 - TOXICOLOGICAL PROPERTIES |-----|

No product or component toxicological information is available.

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SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL TEST DATA: No Information.

|-----

| SECTION 13 - DISPOSAL CONSIDERATIONS |

DISPOSAL METHOD: Review all current federal, state, and local regulations

regarding health and disposal for appropriate disposal procedures.

|-----

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Not regulated

DOT TECHNICAL NAME: N/A

DOT HAZARD CLASS: N/A HAZARD SUBCLASS: N/A

DOT UN/NA NUMBER: N/A PACKING GROUP: MN/A RESP. GUIDE PAGE:

IMDG/OCEAN INFORMATION: Not regulated.

IATA/ICAO/AIR INFORMATION: Not regulated.

|-----|

SECTION 15 - REGULATORY INFORMATION

1910.1200)

CERCLA - SARA HAZARD CATEGORY:

This product has been reviewed and is considered, under applicable definitions, to meet the following categories: IMMEDIATE HEALTH HAZARD

SECTION 15 - REGULATORY INFORMATION

SARA SECTION 313: This product contains the following substances subject to the reporting requirements of Section 313 and 40 CFR Part 372:

----- CHEMICAL NAME ----- CAS NUMBER WT/WT % IS LESS THAN

4,4'-diphenylmethanediisocyanate 101-68-8 25.0 %

NEW JERSEY RIGHT-TO-KNOW: The following materials are non-hazardous, but

are among the top five components in this product:

----- CHEMICAL NAME ----- CAS NUMBER
Polyurethane prepolymer 9048-57-1
Fillers (non-hazardous) unknown

PENNSYLVANIA RIGHT-TO-KNOW: The following non-hazardous ingredients are

present in the product at greater than 3%:
----- CHEMICAL NAME ----- CAS

NAME ----- CAS NUMBER mer 9048-57-1

Polyurethane prepolymer 9048-57-1 Fillers (non-hazardous) unknown

CALIFORNIA PROPOSITION 65: WARNING: The chemical(s) noted below and

HENKEL LOCTITE CANADA INC.

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contained in this product, are known to the State of California to cause cancer, birth defects or other reproductive harm: ----- CHEMICAL NAME ----- CAS NUMBER No Proposition 65 chemicals exist in this product.

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: D2B

COMPONENT RCRA CLASSIFICATIONS: Not regulated

COMPONENT RCRA CODES: No Information. CERCLA RQ VALUE (MINIMUM): None known

SECTION 16 - OTHER INFORMATION

______ HMIS RATINGS - HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 1

PREVIOUS MSDS REVISION DATE: none

VOLATILE ORGANIC COMPOUNDS (VOCS): 0 grams/ltr

LEGEND: N.A. - Not Applicable, N.E. - Not Established,

N.D. - Not Determined

ABBREVIATIONS: ACGIH = American Conference of Governmental Industrial Hygienists; OSHA = US Occupational Health and Safety Administration; UK = United Kingdom; TLV-TWA = Threshold Limit Value-Time Weighted Average (8 hrs); STEL = Short-Term Exposure Limit (15 min); C = Ceiling Value; PEL = Permissible Exposure Limit

Material Safety Data Sheet



Revision Number: 004.0 Issue date: 05/14/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:Pipe Repair Kit EPOXY STICKIDH number:702201Product type:Epoxy stickItem number:96322_314111Region: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

<u>HMIS:</u> HEALTH:

Physical state:PuttyHEALTH:*2Color:Metallic, BlackFLAMMABILITY:1Odor:Mercaptan, SulfurPHYSICAL HAZARD:0

Personal Protection: See MSDS Section 8

WARNING: MAY CAUSE ALLERGIC SKIN REACTION.
MAY CAUSE EYE AND SKIN IRRITATION.

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

Potential Health Effects

Inhalation: 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.

Skin contact: May cause allergic skin reaction. May cause skin irritation.

Eye contact: This product may cause irritation to the eyes.

Ingestion: May cause gastrointestinal tract irritation if swallowed.

Existing conditions aggravated by

exposure:

Eye, skin and respiratory disorders.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR

1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%	
Talc	14807-96-6	30 - 60	
Iron	7439-89-6	10 - 30	
Epoxy resin	Proprietary	10 - 30	
Glass, oxide, chemicals	65997-17-3	10 - 30	
Polyether polymercaptan	Unknown	5 - 10	
Filler	Proprietary	5 - 10	
Substituted aminophenol	Proprietary	5 - 10	
Treated fumed silica	67762-90-7	1 - 5	
Quartz (SiO2)	14808-60-7	0.1 - 1	

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give

artificial respiration. If symptoms develop and persist, 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. Thoroughly clean shoes before

reuse.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. If

symptoms develop and persist, 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.

5. FIRE FIGHTING MEASURES

Flash point: > 93.3 °C (> 199.94 °F) Setaflash Closed Cup

Autoignition temperature:

Flammable/Explosive limits - lower:

Not applicable

Flammable/Explosive limits - upper:

Not applicable

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: None

Hazardous combustion products: Oxides of carbon. Oxides of sulfur. Halogenated compounds. Metal oxide

fumes

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. Wear appropriate personal protective equipment.

Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

Scrape up spilled material and place in a closed container for disposal.

7. HANDLING AND STORAGE

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

Wash thoroughly after handling. Ensure adequate suction. Keep container

closed.

Storage: For safe storage, store at or below 32 °C (89.6 °F)

Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Keep away from heat, spark and flame. Protect from

direct sunlight.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Talc	2 mg/m3 TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 20 MPPCF TWA 0.3 mg/m3 TWA Total dust.	None	50 ppm
Iron	None	None	None	None
Epoxy resin	None	None	None	None
Glass, oxide, chemicals	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction.	None	None
Polyether polymercaptan	None	None	None	None
Filler	None	None	None	None
Substituted aminophenol	None	None	None	None
Treated fumed silica	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction.	None	None
Quartz (SiO2)	0.025 mg/m3 TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 0.3 mg/m3 TWA Total dust.	None	None

Engineering controls: Use local ventilation if general ventilation is insufficient to maintain vapor

concentration below established 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.

Skin protection: Use chemical resistant, impermeable clothing including gloves and either an

apron or body suit to prevent skin contact. Neoprene, Butyl-rubber, or nitrile-

rubber gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Putty

Color:Metállic, BlackOdor:Mercaptan, SulfurOdor threshold:Not available.

IDH number: 702201 Product name: Pipe Repair Kit EPOXY STICK

pH:Not applicableVapor pressure:Not determinedBoiling point/range:Not available.Melting point/ range:Not applicableSpecific gravity:2.247

Vapor density: Not applicable

Flash point: > 93.3 °C (> 199.94 °F) Setaflash Closed Cup

Flammable/Explosive limits - lower:

Flammable/Explosive limits - upper:

Autoignition temperature:

Evaporation rate:

Solubility in water:

Partition coefficient (n-octanol/water):

VOC content:

Not applicable

Not miscible

Not available.

< 1 %

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 sulfur. Halogenated compounds. Metal oxide

fumes.

Incompatible materials: None identified.

Conditions to avoid: Keep away from heat, ignition sources and incompatible materials. Protect

from direct sunlight.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Talc	No	No	No
Iron	No	No	No
Epoxy resin	No	No	No
Glass, oxide, chemicals	No	No	No
Polyether polymercaptan	No	No	No
Filler	No	No	No
Substituted aminophenol	No	No	No
Treated fumed silica	No	No	No
Quartz (SiO2)	Known To Be Human Carcinogen.	Group 1	No

Hazardous components	Health Effects/Target Organs
Talc	Irritant, Lung, Some evidence of carcinogenicity
Iron	Eyes, Lung
Epoxy resin	Allergen, Irritant
Glass, oxide, chemicals	Allergen, Respiratory
Polyether polymercaptan	No Data
Filler	No Target Organs
Substituted aminophenol	Irritant, Allergen
Treated fumed silica	Irritant
Quartz (SiO2)	Immune system, Lung, Some evidence of carcinogenicity

12. ECOLOGICAL INFORMATION

Ecological information: Not applicable

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

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:
Hazard class or division:
Identification number:
Packing group:
Not regulated
None
None

Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated Hazard class or division: None Identification number: None Packing group: None

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 minimus

CERCLA/SARA Section 302 EHS:
CERCLA/SARA Section 311/312:
CERCLA/SARA 313:

None above reporting de minimis
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

WHMIS hazard class:

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic

Substances List. D.2.A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 8

Prepared by: Rena Petrides, Regulatory Affairs Specialist

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IDH number: 702201 Product name: Pipe Repair Kit EPOXY STICK