Balkamp Form-A-Thread(TM) Stripped Thread Repair Adhesive

MATERIAL SAFETY DATA SHEET Effective Date: none Revision Date: none

Balkamp Form-A-Thread(TM) Stripped Thread Repair Adhesive

Code: LOC Page: 1

Section 1 - Product and Company Identification

PRODUCT NAME: Balkamp Form-A-Thread(TM) Stripped Thread Repair Adhesive

MANUFACTURER'S NAME: EMERGENCY TELEPHONE NUMBER Loctite Corporation (203)571-5100

Rocky Hill, CT 06067 MISCELLANEOUS INFORMATION

Section 2 - Hazardous Ingredients

Ingredients CAS No. %

Aromatic dimethacrylate ester 24448-20-2 35-40

Glass 65997-17-3 25-30

ALUMINUM 7429-90-5 20-25

ACRYLIC ACID* 79-10-7 3-5

Heterocyclic methacrylate 2455-24-5 1-3

SILICA, AMORPHOUS (FUMED) 7631-86-9 1-3

1-Acetyl-2-phenylhydrazine 114-83-0 0.1-1

CUMENE HYDROPEROXIDE* 80-15-9 0.1-1

2,6-DI-tert-BUTYL-p-CRESOL 128-37-0 0.1-0.5

Ingredients which have exposure limits

Exposure Limits (TWA) ACGIH OSHA OTHER Ingredients (TLV) (PEL)

ALUMINUM 10 mg/m3 dust 15 mg/m3 dust None 5 mg/m3 respir.

^{*} This component is listed as a SARA Section 313 Toxic Chemical.

ACRYLIC ACID 2 ppm TWA skin 10 ppm TWA skin 1 ppm TWA skin 5.9 mg/m3 skin 30 mg/m3 skin 3 ppm STEL skin SILICA, AMORPHOUS (FUMED) 10mg/m3 TWA 6mg/m3 TWA None 2,6-DI-tert-BUTYL-p-CRESOL None None 10 mg/m3

Exposure Limits (STEL) ACGIH OSHA Ingredients (TLV) (PEL)

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MATERIAL SAFETY DATA SHEET Effective Date: none Revision Date: none

Balkamp Form-A-Thread(TM) Stripped Thread Repair Adhesive

Code: LOC Page: 2

Section 3 - Hazards Indentification

Toxicity: Liquid is an eye and skin irritant.

Vapors may irritate eye, nose and throat.

Estimated oral LD50 more than 5000 mg/kg. Estimated dermal LD50 more than 2000 mg/kg.

Primary Routes of Entry: None known

Signs and symptoms

of Exposure: Irritation of eyes, skin, nose or throat. May

cause dermatitis on, prolonged contact in

sensitive individuals. Existing Conditions

Aggravated by Exposure: Acrylic acid: Upper respiratory and lung

diseases, dermatitis

Literature Referenced Carcinogen

Ingredients Target Organ and Other Health Effects NTP IARC OSHA

Aromatic dimethacrylate ester ALG IRR NO NO NO

Glass No Data NO NO NO

ALUMINUM IRR LUN NO NO NO

ACRYLIC ACID ALG COR IRR NO N/A NO

Heterocyclic methacrylate ALG IRR NO NO NO

SILICA, AMORPHOUS (FUMED) NUI NO N/A NO

1-Acetyl-2-phenylhydrazine ALG NO NO NO

CUMENE HYDROPEROXIDE ALG CNS COR IRR MUT NO NO NO

2,6-DI-tert-BUTYL-p-CRESOL IRR MUT NO N/A NO

Abbreviations

N/A Not Applicable ALG Allergen CNS Central nervous system COR Corrosive IRR Irritant LUN Lung MUT Mutagen NUI Nuisance dust

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Section 4 - First Aid Measures

Ingestion: Do not induce vomiting. Keep individual calm.

Obtain medical attention

Inhalation: Remove to fresh air. If symptoms persist, obtain

medical attention.

Skin Contact: Wash with soap and water.

Eye Contact: Flush at least 15 minutes with water. Obtain

medical attention.

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MATERIAL SAFETY DATA SHEET Effective Date: none Revision Date: none

Balkamp Form-A-Thread(TM) Stripped Thread Repair Adhesive

Code: LOC Page: 3

Section 5 - Firefighting Measures

Flash Point: More than 200 Deg. F Method: Tag Closed Cup

Recommended

Extinguishing Agents: Carbon dioxide, foam, dry chemical

Hazardous Products formed

by Fire or Thermal Decomp Irritating organic vapors

Unusual Fire or

Explosion Hazards: If ignited, burns with unusual heat evolution. In

a fire, reaction with water is possible.

Explosive Limits:

(% by volume in air)Lower 2.0% Acrylic acid

30% Aluminum metal

(% by volume in air)Upper 8.0% Acrylic acid

Unknown Aluminum metal

Section 6 - Environmental Release Measures

Steps to be taken in case

of spill or leak: Soak up with an inert absorbent. Store in a partly

filled, closed container until disposal.

Section 7 - Handling and Storage

Safe Storage: Store below 100 Deg. F

(Contact Loctite Customer Service 1-800-243-4874 for shelf Life information)

Handling: Avoid prolonged skin contact. Keep away from eyes. Avoid

breathing of vapors.

Section 8 - Exposure Controls/Personal Protection

Eyes: Safety glasses or goggles. Skin: Rubber or plastic gloves.

Ventilation: Sufficient to maintain vapor concentration below

TLV.

See Section 2 for Exposure Limits.

MATERIAL SAFETY DATA SHEET Effective Date: none Revision Date: none

Balkamp Form-A-Thread(TM) Stripped Thread Repair Adhesive

Code: LOC Page: 4

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Section 9 - Physical and Chemical Properties

Appearance: Grey Liquid

Odor: Mild

Boiling Point: More than 300 Deg. F

pH: Does not apply Solubility in Water: Low Specific Gravity 1.57

Volatile Organic Compound

(EPA Method 24) 9.9%

Vapor Pressure: Less than 5mm at 80 Deg. C
Vapor Density: Not available Evaportation Rate
(Ether = 1) Not available
Section 10 - Stability and Reactivity
Stability: Stable
Hazardous Polymerization: Will not occur
Incompatibility: None
Hazardous Decomposition
Products (non-thermal): None
Section 11 - Toxicological Information
See Section 3.
Section 12 - Ecological Information
No data available
Section 13 - Disposal Considerations
Recommended methods of
disposal: Incinerate following EPA and local regulations.
Section 14 - Transport Information
DOT (49 CFR 172)
Domestic Ground Transport
Proper Shipping Name: Unrestricted
Hazard Class or
Division: Unrestricted Identification Number: None
140HHIII TUHIOH TUHO

IATA

Marine Pollutant: None

Proper Shipping Name: Unrestricted Class or Division: Unrestricted UN or ID Number: None

MATERIAL SAFETY DATA SHEET Effective Date: none Revision Date: none

Balkamp Form-A-Thread(TM) Stripped Thread Repair Adhesive

Code: LOC Page: 5

Section 15 - Regulatory Information

CA Proposition 65: No Prop65 chemicals are known to be present.

Section 16 - Other Information

Estimated NFPA(R) Code:

Health Hazard: 2 Fire Hazard: 1 Reactivity Hazard: 1

Specific Hazard: Does not apply

Estimated HMIS(R) Code:

Health Hazard: 2

Flammability Hazard: 1 Reactivity Hazards: 1

Personal Protection: See Section 8.

NFPA is a registered trademark of the National Fire Protection Assn. HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Stephen Repetto

Title: Research Chemist, Environmental Health & Safety Company: Loctite Corp., 1001 Tr Br Cr, Rocky Hill CT 06067

(24hr.) Phone: (860) 571-5100

Revision Date: January 22, 1996 Revision: 0028

Balkamp Form-A-Thread(TM) Stripped Thread Repair Activator

MATERIAL SAFETY DATA SHEET Effective Date: none Revision Date: none

Balkamp Form-A-Thread(TM) Stripped Thread Repair Activator Code: LOC Page: 1
Section 1 - Product and Company Identification
PRODUCT NAME: Balkamp Form-A-Thread(TM) Stripped Thread Repair Activator
MANUFACTURER'S NAME: EMERGENCY TELEPHONE NUMBER Loctite Corporation (203)571-5100
Rocky Hill, CT 06067 MISCELLANEOUS INFORMATION
Section 2 - Hazardous Ingredients
Ingredients CAS No. %
Aromatic dimethacrylate ester 24448-20-2 40-45
Glass 65997-17-3 25-30
ALUMINUM 7429-90-5 20-25
Heterocyclic methacrylate 2455-24-5 1-3
SILICA, AMORPHOUS (FUMED) 7631-86-9 1-3 Organo-copper compound 1338-02-9 0.1-0.5
Organo-copper compound 1336-02-7 0.1-0.3
Ingredients which have exposure limits
Exposure Limits (TWA) ACGIH OSHA OTHER
Ingredients (TLV) (PEL)
ALUMINUM 10 mg/m3 dust 15 mg/m3 dust None
5 mg/m3 respir.
SILICA, AMORPHOUS (FUMED) 10mg/m3 TWA 6mg/m3 TWA None
Organo-copper compound Cu 0.2mg/m3fume Cu 0.1mg/m3fume None Cu 1 mg/m3 dust Cu 1 mg/m3 dust
Cu i mg/mo dust Cu i mg/mo dust
Exposure Limits (STEL) ACGIH OSHA
Ingredients (TLV) (PEL)

MATERIAL SAFETY DATA SHEET Effective Date: none Revision Date: none Balkamp Form-A-Thread(TM) Stripped Thread Repair Activator Code: LOC Page: 2 Section 3 - Hazards Indentification Toxicity: Estimated oral LD50 more than 5000 mg/kg. Estimated dermal LD50 more than 2000 mg/kg. Primary Routes of Entry: None known Signs and symptoms of Exposure: May cause dermatitis on prolonged contact in sensitive individuals. Liquid may be an eye irritant **Existing Conditions** Aggravated by Exposure: None known Literature Referenced Carcinogen Ingredients Target Organ and Other Health Effects NTP IARC **OSHA** Aromatic dimethacrylate ester ALG IRR NO NO NO Glass No Data NO NO NO ALUMINUM IRR LUN NO NO NO Heterocyclic methacrylate ALG IRR NO NO NO SILICA, AMORPHOUS (FUMED) NUI NO N/A NO Organo-copper compound BLO IRR NO NO NO ______ Abbreviations

N/A Not Applicable ALG Allergen BLO Blood IRR Irritant LUN Lung NUI Nuisance dust

Section 4 - First Aid Measures

Ingestion: Do not induce vomiting. Keep individual calm.

Obtain medical attention

Inhalation: Remove to fresh air. If symptoms persist, obtain

medical attention.

Skin Contact: Wash with soap and water.

Eye Contact: Flush at least 15 minutes with water. Obtain

medical attention.

MATERIAL SAFETY DATA SHEET Effective Date: none Revision Date: none

Balkamp Form-A-Thread(TM) Stripped Thread Repair Activator

Code: LOC Page: 3

Section 5 - Firefighting Measures

Flash Point: More than 200 Deg. F Method: Tag Closed Cup

Recommended

Extinguishing Agents: Carbon dioxide, foam, dry chemical

Hazardous Products formed

by Fire or Thermal Decomp Irritating organic vapors

Unusual Fire or

Explosion Hazards: If ignited, burns with unusual heat evolution. In

a fire, reaction with water is possible.

Explosive Limits:

(% by volume in air)Lower 30% Aluminum metal

(% by volume in air)Upper Unknown Aluminum metal

Section 6 - Environmental Release Measures

Steps to be taken in case

of spill or leak: Soak up with an inert absorbent. Store in a partly

filled, closed container until disposal. Residue

may be cleaned with solvent.

Section 7 - Handling and Storage

Safe Storage: Store below 110 Deg. F. Observe normal safety precautions.

(Contact Loctite Customer Service 1-800-243-4874 for shelf Life information)

Handling: Avoid prolonged skin contact. Keep away from eyes. Section 8 - Exposure Controls/Personal Protection Eyes: Safety glasses or goggles. Skin: Rubber or plastic gloves. Ventilation: Does not apply See Section 2 for Exposure Limits. MATERIAL SAFETY DATA SHEET Effective Date: none Revision Date: none Balkamp Form-A-Thread(TM) Stripped Thread Repair Activator Code: LOC Page: 4 Section 9 - Physical and Chemical Properties Appearance: Blue-grey liquid Odor: Mild Boiling Point: More than 300 Deg. F pH: Does not apply Solubility in Water: Low Specific Gravity 1.57 Volatile Organic Compound (EPA Method 24) 3.6% Vapor Pressure: Less than 5mm at 80 Deg. C Vapor Density: Not available **Evaportation Rate** (Ether = 1) Not available Section 10 - Stability and Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur

Incompatibility: Strong oxidizers.

Hazardous Decomposition Products (non-thermal): None

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See Section 3.
Section 12 - Ecological Information
No data available
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Recommended methods of disposal: Incinerate following EPA and local regulations.
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DOT (49 CFR 172)
Domestic Ground Transport Proper Shipping Name: Unrestricted
Hazard Class or Division: Unrestricted
Identification Number: None Marine Pollutant: None
IATA Proper Shipping Name: Unrestricted
Class or Division: Unrestricted UN or ID Number: None
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Effective Date: none Revision Date: none
Balkamp Form-A-Thread(TM) Stripped Thread Repair Activator Code: LOC Page: 5
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CA Proposition 65: No Prop65 chemicals are known to be present.

Section 16 - Other Information

Estimated NFPA(R) Code:

Health Hazard: 2 Fire Hazard: 1

Reactivity Hazard: 1

Specific Hazard: Does not apply

Estimated HMIS(R) Code:

Health Hazard: 2

Flammability Hazard: 1 Reactivity Hazards: 1

Personal Protection: See Section 8.

NFPA is a registered trademark of the National Fire Protection Assn. HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Stephen Repetto

Title: Research Chemist, Environmental Health & Safety

Company: Loctite Corp., 1001 Tr Br Cr, Rocky Hill CT 06067

(24hr.) Phone: (860) 571-5100

Revision Date: January 22, 1996 Revision: 0024