

Permatex, Inc.
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 (877) 376-2839
 Emergency: 800-255-3924
 International Emergency: 813-248-0585

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 81668 STRIPPED THREAD REPAIR PART 1
Item No: 390220D
Product Type: Adhesive

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH TLV: TWA	OSHA PEL:
ETHOXYLATED BISPHENOL A DIMETHACRYLATE 24448-20-2	50-70	Not listed	Not Listed
ALUMINIUM POWDER 7429-90-5	20-40	10 mg/m ³ TWA (metal dust) ACGIH	15 mg/m ³ TWA (total dust), 5 mg/m ³ TWA (respirable)
ACRYLIC ACID 79-10-7	<5	2 ppm TWA	10 ppm TWA; 30 mg/m ³ TWA
TETRAHYDROFURFURYL METHACRYLATE 2455-24-5	<5	Not listed	Not Listed
SILICON DIOXIDE, AMORPHOUS 112945-52-5	<5	10 mg/m ³ TWA	6 mg/m ³ TWA

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye, skin and respiratory irritation. May cause skin sensitization. Note: This product does not contain microcrystalline silica.

Primary Routes of Entry: Eye and skin contact, ingestion, inhalation

Signs and Symptoms of Exposure: Repeated skin contact may cause allergic skin reactions. May cause redness to eyes and irritation to nasal passages.

Component	Weight%	NTP	ACGIH Carcinogens	IARC
ACRYLIC ACID 79-10-7	<5		A4 - Not Classifiable as a Human Carcinogen	Group 3 Monograph 71, 1999; Supplement 7, 1987; Monograph 19, 1979
SILICON DIOXIDE, AMORPHOUS 112945-52-5	<5			Amorphous Silica, Group 3: Vol. 68: 1997

Medical Conditions Recognized as Being Aggravated by Exposure: Acrylic acid: Upper respiratory and lung diseases, dermatitis.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.
Inhalation: Move to fresh air in case of accidental inhalation of vapours. Oxygen or artificial respiration if needed. Obtain medical attention.
Skin Contact: Wash off with soap and water. If skin irritation persists, call a physician.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): >200°F TCC
Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus.
Hazardous Products of Combustion: Irritating vapors, Oxides of nitrogen, Oxides of carbon
Unusual Fire/Explosion Hazards: If ignited, burns with unusual evolution. In a fire, reaction with water is possible.

Lower Explosive Limit: 2.0% Acrylic acid; 30.0 Aluminum metal

5. FIRE FIGHTING MEASURES

Upper Explosive Limit:

8.0% Acrylic acid

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store below 100 degrees F.

Handling: Do not inhale vapors. Avoid prolonged skin contact. Keep away from eyes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses

Skin: Rubber or plastic gloves.

Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product.

Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Gray liquid

Odor: MILD

Boiling Point: >300° F

pH: Does not apply

Solubility in Water: Slight

Specific Gravity: 1.39

VOC Content(Wt.%): <10% by weight

Vapor Pressure: Not determined

Vapor Density (Air=1): >1

Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions

Hazardous Polymerization: WILL NOT OCCUR.

Incompatibilities: Strong oxidizers, free radical initiators, inert gases

Conditions to Avoid: Heat.

Hazardous Products of Combustion: Irritating vapors, Oxides of nitrogen, Oxides of carbon

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.

US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Unrestricted

Hazard Class: None

UN/ID Number: None

Marine Pollutant: None

IATA

Proper Shipping Name: Not regulated

Class or Division: None

UN/ID Number: None

Product Name: 81668 STRIPPED THREAD REPAIR
PART 1

Item No: 390220D

IMDG

Proper Shipping:	Unrestricted
Hazard Class:	None
UN Number:	None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

ALUMINUM, ACRYLIC ACID

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present at or above the No Significant Risk Level.

TSCA Inventory Status:

Listed on Inventory: **YES** All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 1.

Estimated HMIS Classification: HEALTH 2, FLAMMABILILTY 1, PHYSICAL HAZARD 0

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: Denise Boyd, Manager-Environmental, Health & Safety
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Revision Date: January/30/2008

Revision 8

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 81668 STRIPPED THREAD REPAIR PART 2
 Item No: 390222D
 Product Type: Activator

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH TLV: TWA	OSHA PEL:
ETHOXYLATED BISPHENOL A DIMETHACRYLATE 24448-20-2	50-70	Not listed	Not Listed
ALUMINIUM POWDER 7429-90-5	20-40	10 mg/m ³ TWA (metal dust) ACGIH	15 mg/m ³ TWA (total dust), 5 mg/m ³ TWA (respirable)
SILICON DIOXIDE, AMORPHOUS 112945-52-5	<5	10 mg/m ³ TWA	6 mg/m ³ TWA
TETRAHYDROFURFURYL METHACRYLATE 2455-24-5	<5	Not listed	Not Listed

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye, skin and respiratory irritation. May cause skin sensitization. Note: This product does not contain microcrystalline silica.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation
Signs and Symptoms of Exposure: Repeated skin contact may cause allergic skin reactions. May cause redness to eyes and irritation to nasal passages.

Component	Weight%	NTP	ACGIH Carcinogens	IARC
SILICON DIOXIDE, AMORPHOUS 112945-52-5	<5			Amorphous Silica, Group 3: Vol. 68: 1997

Medical Conditions Recognized as Being Aggravated by Exposure: Preexisting pulmonary and dermatological disorders.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.
Inhalation: Move to fresh air in case of accidental inhalation of vapours. Obtain medical attention.
Skin Contact: Wash off with soap and water. If skin irritation persists, call a physician.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): >200°F TCC
Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus.
Hazardous Products of Combustion: Irritating vapors, Oxides of nitrogen, Oxides of carbon
Unusual Fire/Explosion Hazards: If ignited, burns with unusual evolution. In a fire, reaction with water is possible.

Lower Explosive Limit: 30.0 Aluminum metal
Upper Explosive Limit: Not determined

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store below 100 degrees F.
Handling: Do not inhale vapors. Avoid prolonged skin contact. Keep away from eyes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses
Skin: Rubber or plastic gloves.
Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product.
Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue-grey liquid
Odor: MILD
Boiling Point: >300°F
pH: Does not apply
Solubility in Water: Slight
Specific Gravity: 1.37
VOC Content(Wt.%): <2%
Vapor Pressure: Not determined
Vapor Density (Air=1): >1
Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR.
Incompatibilities: Strong oxidizers, free radical initiators, inert gases, Oxygen scavengers
Conditions to Avoid: Heat.
Hazardous Products of Combustion: Irritating vapors, Oxides of nitrogen, Oxides of carbon

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Unrestricted
Hazard Class: None
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Not regulated
Class or Division: None
UN/ID Number: None

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

Product Name: 81668 STRIPPED THREAD REPAIR
PART 2

Item No: 390222D

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

ALUMINUM

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present at or above the No Significant Risk Level.

TSCA Inventory Status:

Listed on Inventory: **YES** All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 1.

Estimated HMIS Classification: HEALTH 2, FLAMMABILTY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

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

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Revision Date: January/30/2008

Revision 7

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 81668 FORM-A-THREAD STRIPPED THREAD REPAIR PART 3
Item No: 390505D
Product Type: Release agent

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH TLV: TWA	OSHA PEL:
WATER 7732-18-5	>75	Not listed	Not Listed
POLYDIMETHYLSILOXANE 63148-62-9	1-10	Not listed	Not Listed

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye and skin irritation. Note: This product does not contain microcrystalline silica.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation
Signs and Symptoms of Exposure: Overexposure may cause eye and skin redness.

Medical Conditions Recognized as Being Aggravated by Exposure: None known.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.
Inhalation: None reasonably foreseeable.
Skin Contact: Wash off with soap and water. If skin irritation persists, call a physician.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): None
Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus.
Hazardous Products of Combustion: Formaldehyde, Irritating vapors
Unusual Fire/Explosion Hazards: None.

Lower Explosive Limit: Not determined.
Upper Explosive Limit: Not determined.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store below 100 degrees F. Do not allow freezing.
Handling: Avoid prolonged skin contact. Keep away from eyes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses
Skin: Rubber or plastic gloves.
Ventilation: Provide adequate ventilation.
Respiratory Protection: Not required under normal use.

Product Name: 81668 FORM-A-THREAD STRIPPED
THREAD REPAIR PART 3

Item No: 390505D

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Blue liquid
Odor:	NONE
Boiling Point:	212°F
pH:	9-11
Solubility in Water:	SOLUBLE
Specific Gravity:	1.0
VOC Content(Wt.%):	None
Vapor Pressure:	Not determined
Vapor Density (Air=1):	<1
Evaporation Rate:	Slower than ether

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable at normal conditions
Hazardous Polymerization:	WILL NOT OCCUR.
Incompatabilities:	None known
Conditions to Avoid:	Heat.
Hazardous Products of Combustion:	Formaldehyde, Irritating vapors

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name:	Unrestricted
Hazard Class:	None
UN/ID Number:	None
Marine Pollutant:	None

IATA

Proper Shipping Name:	Not regulated
Class or Division:	None
UN/ID Number:	None

IMDG

Proper Shipping:	Unrestricted
Hazard Class:	None
UN Number:	None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

NONE

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present at or above the No Significant Risk Level.

TSCA Inventory Status:

Listed on Inventory: YES All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 1, FLAMMABILITY 0, REACTIVITY 0.
Estimated HMIS Classification: HEALTH 1, FLAMMABILITY 0, PHYSICAL HAZARD 0

Product Name: 81668 FORM-A-THREAD STRIPPED
THREAD REPAIR PART 3

Item No: 390505D

16. OTHER INFORMATION

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