



Revision Number: 003.1

Issue date: 06/08/2010

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** DELETE EMA EPOXY ADHESIVE 4G PT  
**Product type:** Epoxy Hardener  
**Company address:** Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067

**IDH number:** 901523  
**Item number:** 10172\_150445N  
**Region:** United States  
**Contact information:**  
 Telephone: 860.571.5100  
 Emergency telephone: 860.571.5100  
 Internet: www.henkelna.com

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**Physical state:** Paste  
**Color:** Black  
**Odor:** Mercaptan

**HEALTH:** \*2  
**FLAMMABILITY:** 1  
**PHYSICAL HAZARD:** 1  
**Personal Protection:** See MSDS Section 8

**WARNING:** CAUSES EYE AND SKIN IRRITATION.  
 MAY CAUSE ALLERGIC SKIN REACTION.  
 MAY CAUSE RESPIRATORY TRACT IRRITATION.

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

**Potential Health Effects**

**Inhalation:** May cause respiratory tract irritation. May cause irritation to nose and throat. Vapors may cause headaches, nausea, dizziness and respiratory tract irritation. Shortness of breath.  
**Skin contact:** Allergic skin reaction. Moderate skin irritation. Itching. Redness.  
**Eye contact:** Moderate eye irritation. Redness.  
**Ingestion:** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Existing conditions aggravated by exposure:** Skin disorders. Skin allergies. Respiratory disorders. Eye 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	%
Aluminium hydroxide	21645-51-2	30 - 60
Polymercaptan hardener	Proprietary	30 - 60
2,4,6-Tris(dimethylaminomethyl)phenol	90-72-2	5 - 10
Distillates, petroleum, heavy thermal cracked	64741-81-7	5 - 10
Styrene	100-42-5	1 - 5
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Ethylene glycol	107-21-1	1 - 5
Benz(a)anthracene	56-55-3	0.1 - 1

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Keep individual calm. If symptoms develop and persist, get medical attention.

#### 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	> 93 °C (> 199.4 °F) Tagliabue closed cup
<b>Autoignition temperature:</b>	Not available
<b>Flammable/Explosive limits - lower:</b>	Not available
<b>Flammable/Explosive limits - upper:</b>	Not available
<b>Extinguishing media:</b>	Foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
<b>Unusual fire or explosion hazards:</b>	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
<b>Hazardous combustion products:</b>	Oxides of carbon. 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.

<b>Environmental precautions:</b>	Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	Remove all sources of ignition. Immediately contact emergency personnel. Scrape up as much material as possible. Clean residue with soap and water. Store in a partly filled, closed container until disposal.

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Keep away from heat, spark and flame. Do not breathe gas/fumes/vapor/spray. Avoid contact with eyes, skin and clothing. Keep container closed. Wash thoroughly after handling.
<b>Storage:</b>	Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Store in original container until ready to use.

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
Aluminium hydroxide	10 mg/m3 TWA (as Al) Total dust. 1 mg/m3 TWA Respirable fraction.	15 mg/m3 TWA (as Al) Total dust. 5 mg/m3 TWA (as Al) Respirable fraction.	None	None
Polymercaptan hardener	None	None	None	None
2,4,6-Tris(dimethylaminomethyl)phenol	None	None	None	None
Distillates, petroleum, heavy thermal cracked	None	None	None	None
Styrene	20 ppm TWA 40 ppm STEL	100 ppm TWA 200 ppm Ceiling 600 ppm MAX. CONC 5 minutes in any 3 hours	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
Ethylene glycol	100 mg/m3 Ceiling 1 Aerosol.	None	None	None
Benz(a)anthracene	Included in the regulation but with no data values. See regulation for further details. Exposure by all routes should be carefully controlled to levels as low as possible.	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.

**Skin protection:**

Chemical resistant, impermeable gloves.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Paste
<b>Color:</b>	Black
<b>Odor:</b>	Mercaptan
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	Negligible
<b>Boiling point/range:</b>	> 149 °C (> 300.2 °F)
<b>Melting point/ range:</b>	Not available
<b>Specific gravity:</b>	1.4
<b>Vapor density:</b>	Not available
<b>Flash point:</b>	> 93 °C (> 199.4 °F) Tagliabue closed cup
<b>Flammable/Explosive limits - lower:</b>	Not available
<b>Flammable/Explosive limits - upper:</b>	Not available
<b>Autoignition temperature:</b>	Not available
<b>Evaporation rate:</b>	Not available
<b>Solubility in water:</b>	Slight
<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>VOC content:</b>	0.04 % (value for resin and hardener together)

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	None
<b>Incompatible materials:</b>	Strong acids. Strong bases. Strong oxidizing agents.
<b>Conditions to avoid:</b>	Excessive heat. Store away from incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Aluminium hydroxide	No	No	No
Polymercaptan hardener	No	No	No
2,4,6-Tris(dimethylaminomethyl)phenol	No	No	No
Distillates, petroleum, heavy thermal cracked	No	Group 2B	No
Styrene	No	Group 2B	No
Silica, amorphous, fumed, crystal-free	No	No	No
Ethylene glycol	No	No	No
Benz(a)anthracene	Anticipated carcinogen.	Group 2B	No

Hazardous components	Health Effects/Target Organs
Aluminium hydroxide	Irritant, Lung, Respiratory
Polymercaptan hardener	No Records
2,4,6-Tris(dimethylaminomethyl)phenol	Irritant, Allergen
Distillates, petroleum, heavy thermal cracked	No Target Organs
Styrene	Blood, Ear, Eyes, Irritant, Liver, Mutagen, Nervous System, Some evidence of carcinogenicity
Silica, amorphous, fumed, crystal-free	Nuisance dust
Ethylene glycol	Blood, Bone Marrow, Central nervous system, Developmental, Eyes, Irritant, Kidney, Liver, Metabolic
Benz(a)anthracene	Blood, Immune system, Irritant, Liver, Mutagen, Respiratory, Skin, Some evidence of carcinogenicity

## 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

### U.S. Department of Transportation Ground (49 CFR)

<b>Proper shipping name:</b>	Not regulated
<b>Hazard class or division:</b>	None
<b>Identification number:</b>	None
<b>Packing group:</b>	None

**International Air Transportation (ICAO/IATA)**

Proper shipping name: Not regulated  
Hazard class or division: None  
Identification number: None  
Packing group: 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:** None above reporting de minimus  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health  
**CERCLA/SARA 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). Styrene (CAS# 100-42-5). Ethylene glycol (CAS# 107-21-1). Benz(a)anthracene (CAS# 56-55-3).

**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/NDSL Status:** Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

**WHMIS hazard class:** D.2.A, D.2.B

**16. OTHER INFORMATION**

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format.

Prepared by: Gary Pierson, Manager, Regulatory Affairs

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation does not assume responsibility for any results obtained by persons over whose methods Henkel Corporation 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 of Henkel Corporation's products. In light of the foregoing, Henkel Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation further disclaims any liability for consequential or incidental damages of any kind, including lost profits.



Revision Number: 004.1

Issue date: 06/08/2010

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product name:</b>	<b>DELETE EMA EPOXY ADHESIVE 4G PT</b>	<b>IDH number:</b>	901522
<b>Product type:</b>	Epoxy resin	<b>Item number:</b>	10172_150345N
<b>Company address:</b>	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	<b>Region:</b>	United States
		<b>Contact information:</b>	Telephone: 860.571.5100 Emergency telephone: 860.571.5100 Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

<b>Physical state:</b>	Paste	<b>HEALTH:</b>	*2
<b>Color:</b>	White	<b>FLAMMABILITY:</b>	1
<b>Odor:</b>	Mild	<b>PHYSICAL HAZARD:</b>	1
		<b>Personal Protection:</b>	See MSDS Section 8

**WARNING:** MAY CAUSE ALLERGIC SKIN REACTION.  
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

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

### Potential Health Effects

<b>Inhalation:</b>	Mild respiratory tract irritation. May cause irritation to nose and throat.
<b>Skin contact:</b>	Allergic skin reaction. Moderate skin irritation. Itching. Redness.
<b>Eye contact:</b>	Moderate eye irritation. Redness.
<b>Ingestion:</b>	Not expected under normal conditions of use.

**Existing conditions aggravated by exposure:** Eye, skin and respiratory disorders. Skin allergies.

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	%
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	30 - 60
Aluminium hydroxide	21645-51-2	30 - 60
Titanium dioxide	13463-67-7	5 - 10

## 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention.

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

**Ingestion:** DO NOT induce vomiting unless directed to do so by medical personnel. Keep individual calm. If symptoms develop and persist, get medical attention.

## 5. FIRE FIGHTING MEASURES

**Flash point:** > 93 °C (> 199.4 °F) Tagliabue closed cup

**Autoignition temperature:** Not available

**Flammable/Explosive limits - lower:** Not available

**Flammable/Explosive limits - upper:** Not available

**Extinguishing media:** 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:** Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

**Hazardous combustion products:** Oxides of carbon. 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. Immediately contact emergency personnel. Scrape up as much material as possible. Clean residue with soap and water. Store in a partly filled, closed container until disposal.

## 7. HANDLING AND STORAGE

**Handling:** Keep away from heat, spark and flame. Do not breathe gas/fumes/vapor/spray. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

**Storage:** Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Store in original container until ready to use.

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
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
Aluminium hydroxide	10 mg/m3 TWA (as Al) Total dust. 1 mg/m3 TWA Respirable fraction.	15 mg/m3 TWA (as Al) Total dust. 5 mg/m3 TWA (as Al) Respirable fraction.	None	None
Titanium dioxide	10 mg/m3 TWA	15 mg/m3 TWA Total dust.	None	None

<b>Engineering controls:</b>	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
<b>Respiratory protection:</b>	Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.
<b>Eye/face protection:</b>	Safety goggles or safety glasses with side shields.
<b>Skin protection:</b>	Chemical resistant, impermeable gloves.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Paste
<b>Color:</b>	White
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	Negligible
<b>Boiling point/range:</b>	> 149 °C (> 300.2 °F)
<b>Melting point/ range:</b>	Not available
<b>Specific gravity:</b>	1.68
<b>Vapor density:</b>	Not available
<b>Flash point:</b>	> 93 °C (> 199.4 °F) Tagliabue closed cup
<b>Flammable/Explosive limits - lower:</b>	Not available
<b>Flammable/Explosive limits - upper:</b>	Not available
<b>Autoignition temperature:</b>	Not available
<b>Evaporation rate:</b>	Not available
<b>Solubility in water:</b>	Slight
<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>VOC content:</b>	0.47 %; 7.9 g/l 0.04 % (value for resin and hardener together)

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	None
<b>Incompatible materials:</b>	Strong bases. Strong oxidizing agents. Strong acids.
<b>Conditions to avoid:</b>	Excessive heat. Store away from incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
Aluminium hydroxide	No	No	No
Titanium dioxide	No	Group 2B	No

Hazardous components	Health Effects/Target Organs
Epichlorohydrin-4,4'-isopropylidene diphenol resin	Allergen, Irritant
Aluminium hydroxide	Irritant, Lung, Respiratory
Titanium dioxide	Irritant, Respiratory, Some evidence of carcinogenicity

## 12. ECOLOGICAL INFORMATION

<b>Ecological information:</b>	Not available
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### 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:** Environmentally hazardous substance, liquid, n.o.s. (epoxy 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. (epoxy resin)  
**Hazard class or division:** 9  
**Identification number:** UN 3082  
**Packing group:** III  
**Marine pollutant:** epoxy 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 minimus  
**CERCLA/SARA Section 302 EHS:** None above reporting de minimus  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health  
**CERCLA/SARA 313:** None above reporting de minimus  
**California Proposition 65:** This product contains a chemical known in the State of California to cause cancer.

#### Canada Regulatory Information

**CEPA DSL/NDSL Status:** Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.  
**WHMIS hazard class:** D.2.A, D.2.B

### 16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format.

**Prepared by:** Gary Pierson, Manager, Regulatory Affairs

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Revision Number: 003.1

Issue date: 06/08/2010

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** Fast Cure Epoxy HARDENER  
**Product type:** Epoxy Hardener  
**Company address:** Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067  
**IDH number:** 701941  
**Item number:** 21425\_150445  
**Region:** United States  
**Contact information:**  
 Telephone: 860.571.5100  
 Emergency telephone: 860.571.5100  
 Internet: www.henkelna.com

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

<b>Physical state:</b>	Paste	<b>HEALTH:</b>	*2
<b>Color:</b>	Black	<b>FLAMMABILITY:</b>	1
<b>Odor:</b>	Mercaptan	<b>PHYSICAL HAZARD:</b>	1
		<b>Personal Protection:</b>	See MSDS Section 8

**WARNING:** CAUSES EYE AND SKIN IRRITATION.  
 MAY CAUSE ALLERGIC SKIN REACTION.  
 MAY CAUSE RESPIRATORY TRACT IRRITATION.

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

**Potential Health Effects**

**Inhalation:** May cause respiratory tract irritation. May cause irritation to nose and throat. Vapors may cause headaches, nausea, dizziness and respiratory tract irritation. Shortness of breath.  
**Skin contact:** Allergic skin reaction. Moderate skin irritation. Itching. Redness.  
**Eye contact:** Moderate eye irritation. Redness.  
**Ingestion:** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Existing conditions aggravated by exposure:** Skin disorders. Skin allergies. Respiratory disorders. Eye 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	%
Aluminium hydroxide	21645-51-2	30 - 60
Polymercaptan hardener	Proprietary	30 - 60
2,4,6-Tris(dimethylaminomethyl)phenol	90-72-2	5 - 10
Distillates, petroleum, heavy thermal cracked	64741-81-7	5 - 10
Styrene	100-42-5	1 - 5
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Ethylene glycol	107-21-1	1 - 5
Benz(a)anthracene	56-55-3	0.1 - 1

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Keep individual calm. If symptoms develop and persist, get medical attention.

#### 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	> 93 °C (> 199.4 °F) Tagliabue closed cup
<b>Autoignition temperature:</b>	Not available
<b>Flammable/Explosive limits - lower:</b>	Not available
<b>Flammable/Explosive limits - upper:</b>	Not available
<b>Extinguishing media:</b>	Foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
<b>Unusual fire or explosion hazards:</b>	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
<b>Hazardous combustion products:</b>	Oxides of carbon. 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.

<b>Environmental precautions:</b>	Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	Remove all sources of ignition. Immediately contact emergency personnel. Scrape up as much material as possible. Clean residue with soap and water. Store in a partly filled, closed container until disposal.

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Keep away from heat, spark and flame. Do not breathe gas/fumes/vapor/spray. Avoid contact with eyes, skin and clothing. Keep container closed. Wash thoroughly after handling.
<b>Storage:</b>	Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Store in original container until ready to use.

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
Aluminium hydroxide	10 mg/m3 TWA (as Al) Total dust. 1 mg/m3 TWA Respirable fraction.	15 mg/m3 TWA (as Al) Total dust. 5 mg/m3 TWA (as Al) Respirable fraction.	None	None
Polymercaptan hardener	None	None	None	None
2,4,6-Tris(dimethylaminomethyl)phenol	None	None	None	None
Distillates, petroleum, heavy thermal cracked	None	None	None	None
Styrene	20 ppm TWA 40 ppm STEL	100 ppm TWA 200 ppm Ceiling 600 ppm MAX. CONC 5 minutes in any 3 hours	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
Ethylene glycol	100 mg/m3 Ceiling 1 Aerosol.	None	None	None
Benz(a)anthracene	Included in the regulation but with no data values. See regulation for further details. Exposure by all routes should be carefully controlled to levels as low as possible.	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.

**Skin protection:**

Chemical resistant, impermeable gloves.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Paste
<b>Color:</b>	Black
<b>Odor:</b>	Mercaptan
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	Negligible
<b>Boiling point/range:</b>	> 149 °C (> 300.2 °F)
<b>Melting point/ range:</b>	Not available
<b>Specific gravity:</b>	1.4
<b>Vapor density:</b>	Not available
<b>Flash point:</b>	> 93 °C (> 199.4 °F) Tagliabue closed cup
<b>Flammable/Explosive limits - lower:</b>	Not available
<b>Flammable/Explosive limits - upper:</b>	Not available
<b>Autoignition temperature:</b>	Not available
<b>Evaporation rate:</b>	Not available
<b>Solubility in water:</b>	Slight
<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>VOC content:</b>	0.04 % (value for resin and hardener together)

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	None
<b>Incompatible materials:</b>	Strong acids. Strong bases. Strong oxidizing agents.
<b>Conditions to avoid:</b>	Excessive heat. Store away from incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Aluminium hydroxide	No	No	No
Polymercaptan hardener	No	No	No
2,4,6-Tris(dimethylaminomethyl)phenol	No	No	No
Distillates, petroleum, heavy thermal cracked	No	Group 2B	No
Styrene	No	Group 2B	No
Silica, amorphous, fumed, crystal-free	No	No	No
Ethylene glycol	No	No	No
Benz(a)anthracene	Anticipated carcinogen.	Group 2B	No

Hazardous components	Health Effects/Target Organs
Aluminium hydroxide	Irritant, Lung, Respiratory
Polymercaptan hardener	No Records
2,4,6-Tris(dimethylaminomethyl)phenol	Irritant, Allergen
Distillates, petroleum, heavy thermal cracked	No Target Organs
Styrene	Blood, Ear, Eyes, Irritant, Liver, Mutagen, Nervous System, Some evidence of carcinogenicity
Silica, amorphous, fumed, crystal-free	Nuisance dust
Ethylene glycol	Blood, Bone Marrow, Central nervous system, Developmental, Eyes, Irritant, Kidney, Liver, Metabolic
Benz(a)anthracene	Blood, Immune system, Irritant, Liver, Mutagen, Respiratory, Skin, Some evidence of carcinogenicity

## 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

### U.S. Department of Transportation Ground (49 CFR)

<b>Proper shipping name:</b>	Not regulated
<b>Hazard class or division:</b>	None
<b>Identification number:</b>	None
<b>Packing group:</b>	None

**International Air Transportation (ICAO/IATA)**

Proper shipping name: Not regulated  
Hazard class or division: None  
Identification number: None  
Packing group: 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:** None above reporting de minimus  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health  
**CERCLA/SARA 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). Styrene (CAS# 100-42-5). Ethylene glycol (CAS# 107-21-1). Benz(a)anthracene (CAS# 56-55-3).

**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/NDSL Status:** Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

**WHMIS hazard class:** D.2.A, D.2.B

**16. OTHER INFORMATION**

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format.

Prepared by: Gary Pierson, Manager, Regulatory Affairs

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation does not assume responsibility for any results obtained by persons over whose methods Henkel Corporation 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 of Henkel Corporation's products. In light of the foregoing, Henkel Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation further disclaims any liability for consequential or incidental damages of any kind, including lost profits.



Revision Number: 004.1

Issue date: 06/08/2010

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** Fast Cure Epoxy RESIN  
**Product type:** Epoxy resin  
**Company address:** Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067  
**IDH number:** 701930  
**Item number:** 21425\_150345  
**Region:** United States  
**Contact information:**  
 Telephone: 860.571.5100  
 Emergency telephone: 860.571.5100  
 Internet: www.henkelna.com

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

<b>Physical state:</b>	Paste	<b>HEALTH:</b>	*2
<b>Color:</b>	White	<b>FLAMMABILITY:</b>	1
<b>Odor:</b>	Mild	<b>PHYSICAL HAZARD:</b>	1
		<b>Personal Protection:</b>	See MSDS Section 8

**WARNING:** MAY CAUSE ALLERGIC SKIN REACTION.  
 MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

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

**Potential Health Effects**

**Inhalation:** Mild respiratory tract irritation. May cause irritation to nose and throat.  
**Skin contact:** Allergic skin reaction. Moderate skin irritation. Itching. Redness.  
**Eye contact:** Moderate eye irritation. Redness.  
**Ingestion:** Not expected under normal conditions of use.

**Existing conditions aggravated by exposure:** Eye, skin and respiratory disorders. Skin allergies.

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	%
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	30 - 60
Aluminium hydroxide	21645-51-2	30 - 60
Titanium dioxide	13463-67-7	5 - 10

**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.

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.



**Ingestion:** DO NOT induce vomiting unless directed to do so by medical personnel. Keep individual calm. If symptoms develop and persist, get medical attention.

## 5. FIRE FIGHTING MEASURES

**Flash point:** > 93 °C (> 199.4 °F) Tagliabue closed cup

**Autoignition temperature:** Not available

**Flammable/Explosive limits - lower:** Not available

**Flammable/Explosive limits - upper:** Not available

**Extinguishing media:** 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:** Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

**Hazardous combustion products:** Oxides of carbon. 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. Immediately contact emergency personnel. Scrape up as much material as possible. Clean residue with soap and water. Store in a partly filled, closed container until disposal.

## 7. HANDLING AND STORAGE

**Handling:** Keep away from heat, spark and flame. Do not breathe gas/fumes/vapor/spray. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

**Storage:** Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Store in original container until ready to use.

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
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
Aluminium hydroxide	10 mg/m <sup>3</sup> TWA (as Al) Total dust. 1 mg/m <sup>3</sup> TWA Respirable fraction.	15 mg/m <sup>3</sup> TWA (as Al) Total dust. 5 mg/m <sup>3</sup> TWA (as Al) Respirable fraction.	None	None
Titanium dioxide	10 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA Total dust.	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.

**Skin protection:** Chemical resistant, impermeable gloves.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Paste  
**Color:** White  
**Odor:** Mild  
**Odor threshold:** Not available  
**pH:** Not applicable  
**Vapor pressure:** Negligible  
**Boiling point/range:** > 149 °C (> 300.2 °F)  
**Melting point/ range:** Not available  
**Specific gravity:** 1.68  
**Vapor density:** Not available  
**Flash point:** > 93 °C (> 199.4 °F) Tagliabue 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:** Slight  
**Partition coefficient (n-octanol/water):** Not available  
**VOC content:** 0.47 %; 7.9 g/l  
0.04 % (value for resin and hardener together)

## 10. STABILITY AND REACTIVITY

**Stability:** Stable

**Hazardous reactions:** Will not occur.

**Hazardous decomposition products:** None

**Incompatible materials:** Strong bases. Strong oxidizing agents. Strong acids.

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

## 11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
Aluminium hydroxide	No	No	No
Titanium dioxide	No	Group 2B	No

Hazardous components	Health Effects/Target Organs
Epichlorohydrin-4,4'-isopropylidene diphenol resin	Allergen, Irritant
Aluminium hydroxide	Irritant, Lung, Respiratory
Titanium dioxide	Irritant, Respiratory, Some evidence of carcinogenicity

## 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

#### 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:** Environmentally hazardous substance, liquid, n.o.s. (epoxy 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. (epoxy resin)  
**Hazard class or division:** 9  
**Identification number:** UN 3082  
**Packing group:** III  
**Marine pollutant:** epoxy 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 minimus  
**CERCLA/SARA Section 302 EHS:** None above reporting de minimus  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health  
**CERCLA/SARA 313:** None above reporting de minimus  
**California Proposition 65:** This product contains a chemical known in the State of California to cause cancer.

#### Canada Regulatory Information

**CEPA DSL/NDSL Status:** Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.  
**WHMIS hazard class:** D.2.A, D.2.B

### 16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format.

**Prepared by:** Gary Pierson, Manager, Regulatory Affairs

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