



### 1. CHEMICAL PRODUCT

Adhesive Systems, Inc. 9411 Corsair Road Frankfort, IL 60423 1-800-552-0299 Phone 1-815-464-5650 Fax

## EMERGENCY PHONE 1-800-255-3924

International +01+813-248-0585

Product Name: MP 54216CL

Technical Name: Epoxy Resin

## 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION(S)

Health: Skin Irritation, Category 2A Eye Irritation, Category 2

Skin Sensitization, Category 1

GHS LABEL ELEMENTS:

Symbol: Signal Word: Warning

Hazard Statements:

H315: Causes skin irritation.

H317: May cause allergic skin reaction.

H319: Causes serious eye irritation.

Precautionary/Prevent Statements:

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

5468C4VS: Contain epoxy constituents. May produce an allergic reaction.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P272: Contaminated work clothing should not be allowed in the work place.

P362: Take off contaminated clothing and wash before reuse.

P363: Wash contaminated clothing before reuse.

P391: Collect spillage.

P264: Wash skin and hands thoroughly after handling.

#### Response:

P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313: Get medical advice/attention.

P302+P352: IF ON SKN: Wash with plenty of soap and water.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

Storage:

P403+P235: Store in a well ventilated place. Keep cool.

Disposal:

7944L501: Dispose of in a manner consistent with local, state, and federal regulations.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	Cas No.	%Composition
Bisphenol-A-diglycidyl ether resin	25068-38-6	80-100

## 4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

Skin contact: In case of contact with hot product, immediately flood the affected area with cold water. Wipe excess material from exposed area. Flush exposed skin with water and follow by washing with soap if available. Carefully remove clothing; if clothing is stuck to a burn area do not pull it off, but cut around it. Cover burn area do not pull it off, but cut around it. Transport to nearest medical facility for additional treatment.

Eye contact: Flush eye with water. Rest eyes for 30 minutes. If symptoms persist, consult a physician. Ingestion: Do not induce vomiting. Have victim rinse out mouth with water, then drink sips of water to remove taste from mouth. In general, no treatment is necessary unless large quantities are ingested. However, get medical advice. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

## 5. FIRE FIGHTING MEASURES

Flammable Class: Not flammable.

Extinguishing media: Carbon dioxide, dry chemical, foam, or water fog.

Hazardous combustion products: Carbon monoxide, carbon dioxide, phenolics.

Explosion hazards: None known.

Fire fighting procedures: Use water spray to knock down vapors and to keep containers cool.

Fire fighting equipment: As in any fire, wear self-contained apparatus pressure demand (MSHA/NIOSH approved approved or equivalent) and full protective gear.

Fire explosion: None known.

Sensitive to static discharge: None known.

Sensitivity to impact: None known.

Hazardous decomposition products: Carbon dioxide, carbon monoxide, and other toxic or irritating compounds may form when heated to decomposition.

### 6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Absorb liquid and place in a sealed container.

LARGE SPILL: Contain spill with dike to prevent entry into sewers. Absorb liquid and place in sealed container for disposal.

#### **ENVIRONMENTAL PRECAUTIONS:**

Water Spill: This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

Land Spill: None known.

Air Spill: None known.

## 7. HANDLING AND STORAGE

GENERAL PROCEDURES: Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. HANDLING: Avoid breathing dust/vapor/mist/gas. Avoid contact with skin/eyes/clothing. Keep containers closed when not in use.

STORAGE: Store in a cool place in original container. Protect from sunlight. Keep away from sources of ignition. STORAGE TEMPERATURE(S): Store between 50°F and 75°F.

LOADING TEMPERTURE: Not Established.

STORAGE PRESSURE: Not Established.

## 8. EXPOSURE CONTROL AND PERSONAL PROTECTION

ENGINEERING CONTROLS: Not established.

PERSONAL PROTECTIVE EQUIPMENT:

Eyes and Face: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash proof goggles.

Skin: Wear rubber gloves to avoid prolonged contact.

Respiratory: Use only in a well ventilated area.

Protective Clothing: Wear rubber gloves and apron.

WORKING HYGENIC PRACTICES: Avoid contact with skin and eyes. Wash thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Slight amber/odor slight pH: Not established. Per cent of Volatile: Not established Flashpoint:>200°C (CC-Closed Cup) Vapor Pressure: 0.03 mmHg @ 25°C Vapor Density: No data available on this product. **Boiling Point: >320°C** Freezing Point: No data available on this product. Melting Point: No data available on this product. Thermal Decomposition: No data available on this product. Solubility in Water: Slight (5.4 to 8.4 mg/L @ 20°C **Specific Gravity: 1.1** Evaporation rate: No data available on this product. **Melting Point: N/D** Vapor Pressure: 0.03mbar @171°F **VOC: Not applicable.** 

## **10. REACTIVITY AND STABILIITY**

STABLE: Yes HAZARDOUS POLYMERIZATION: No STABILITY: Stable POLYMERIZATION: Will not occur. CONDITIONS TO AVOID: Avoid temperatures above 300°F. HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, aldehydes, acids, and other organic substancesmay be formed during combustion (>500°F) temperature degradation. INCOMPATIBLE MATERIALS: Strong acids, oxidizing agents, mineral and organic bases, and especially aliphatic amines.

COMMENTS: REACTIVITY: Product may react if exposed to oxidizing materials, acids, or bases.

### **11. TOXICOLOGICAL INFORMATION**

ACUTE:

Eyes: Direct contact may cause mild irritation. Dermal (LD<sub>50</sub>): 23000 mg/kg (Rabbit) Oral (LD<sub>50</sub>): 15000 mL/kg (Rat) Inhalation (LC<sub>50</sub>): No data available Eye Effects: Mildly to moderately irritating. Skin Effects: Irritating to skin. May cause allergic skin reaction with prolonged contact. Chronic: Repeated exposure may cause skin sensitization. Subchronic: None Known. **CARCINOGENICITY: IARC: Not Listed. NTP: Not Listed. OSHA: Not Listed. Repeated dose effects: None Known.** Irritation: Prolonged or repeated skin contact may cause irritation. **Corrosivity: None Known.** Sensitization: May cause sensitization. **Neurotoxicity: None Known. Genetic Effects: None Known. Reproductive Effects: None Known. Target Organs: None Known. Teratogenic Effects: None Known. Mutagenicity: None Known.** Synergistic Materials: None Known.

### **12. ECOLOGICAL INFORMATION**

ENVIRONMENTAL DATA: Do not flush to sewer.
ECOTOXICOLOGICAL INFORMATION:

Rainbow Trout: LC50, semi-static test, 96 h: 2 mg/L
Water Flea: EC50, static test, 48 h, immobilization: 1.8 mg/L
Bacteria: IC50, 18 h: >42.6 mg/L

BIOACCUMULATION/ACCUMULATION: Bioconcentration potential is moderate (BCF 100 to 3000 or Log Pow 3 to 5.
NOTE(S): Material is toxic to aquatic organisms. (LC50 between 1 to 10 mg/L in the most sensitive species.

### 13. DISPOSAL INFORMATION

This material must be disposed in compliance with local, state, and federal regulations. Follow local and state regulations for disposal of this product as a household waste in your state or municipality.

#### 14. TRANSPORTATION INFORMATION

Not regulated for transport: DOT, IMO/IMDG, ADR/RID, ICAO/IATA.

#### **15. REGULATORY INFORMATION**

TSCA: All ingredients in this product are in compliance with TSCA. SARA Title III (Superfund Amendments and Reauthorization Act) Fire: No Pressure Generating: No Reactivity: No Acute: No Chronic: No To the best of our knowledge this product does not contain chemicals at levels which require reporting under this statute. CALIFORNIA PROPOSITION 65: No California Proposition 65 ingredients are known

to be in this product.

#### CANADA:

WHMIS HAZARD SYSBLE AND CLASSIFICATION: Toxic Symbol: Irritant WHMIS Class: D2B- Eye or Skin Irritant D2B-Skin Sensitizer

#### **16. OTHER INFORMATION**

## Initial: 8/22/2007 Revised: April/2015

HMIS	HEALTH 2	FLAMMABILITY 1	<b>REACTIVITY 0</b>
NFPA	HEALTH 2	FIRE HAZARD 1	<b>REACTIVITY 0</b>

NON-WARRANTY: Information contained herein is based on tests we believe to be reliable and accurate. It is offered in good faith for the benefit of the consumer. Adhesive Systems shall not be liable for any injury, loss, or damage in the use of it's chemical products since the conditions of use are beyond our control. In every case we urge and recommend the user conduct tests to determine to their own satisfaction that the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. Because of changing reporting requirements and other variables it is impossible to guarantee the accuracy of the information contained in this document. It is the responsibility of the user to determine proper personal protection based on the actual condition of use and to comply with all Federal, State, and Local laws and regulations.

Revised: May/2015

Engineering Excellence For technical information and support call 1-800-552-0299 or visit our website at

REVISED APRIL/2015



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International +01+813-248-0585

Product Name: **MP 54216CL Part B (Hardener)** Technical Name: **Curing Agent for Adhesive** 

### 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION(S)

Health: Acute

Toxicity (Oral), Category 4 Skin Sensitization, Category 1 Skin Irritation, Category 2 Eye Irritation, Category 2A

Health Classification: Irritant: Causes mild skin or eye irritation Category 3

#### **GHS LABEL ELEMENTS: Exclamation Mark**



Signal Word: Warning

Hazard Statements:

H302: Harmful if swallowed.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Cause serious eye irritation.

**Precautionary/Preventive Statements:** 

5468C5VS: Contains epoxy constituents. May product an allergic reaction.

P261: Avoid breathing dust/fumes/gas/mist/vapors/spray.

P264: Wash skin and hands thoroughly after handling.

P270: Do not eat, drink, or smoke when using this product.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P363: Wash contaminated clothing before reuse.

**Response:** 

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P333+P313: If irritation or rash occurs: Get medical advice/attention.

P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. P301+P312: IF SWALLOWED: Call a Poison Center or doctor/physician if you feel unwell.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

Disposal:

7944L501: Dispose of in a manner consistent with federal, state, and local regulations.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	Cas No.	%Composition	
Polyamide	CAS not available per 29CFR1910.1200	30-40	
Polyamide resin	CAS: 68410-23-1	30-40 10-25 5-10 <5 <2.5	
Hydrogenated terphenyl	CAS: 61788-32-7	5-10	
Amino ether	CAS withheld per 29CFR1910.1200(i)	<5	
Polyphenyl	CAS: 68956-74-1	<2.5	

## 4. FIRST AID MEASURES

EYES: Flush eye(s) with water for 15 minutes. Get medical attention.

SKIN: Immediatelý wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms reoccur. Wash clothing before reuse.

INGESTION: If swallowed do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE:

**EYES:** Cause eye irritation.

SKIN: Contact causes skin irritation.

SKIN ABSORBTION: None known.

INGESTION: Ingestion of this material can cause mouth, throat, esophageal, and gastrointestinal tract irritation.

INHALATION: Prolonged or excessive inhalation may cause respiratory tract irritation.

ACUTE TOXICITY: Slightly irritating to eyes and respiratory tract.

CHRONIC EFFECTS: Avoid contact with eyes: may cause redness, irritation, and conjunctivitis.

## 5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Not flammable.

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

HAZARDOUS COMBUSTION PRODUCTS: Combustion products may include: oxides of carbon, nitrogen, and sulfur; hydrogen sulfides.

**EXPLOSION HAZARDS:** None known.

FIRE FIGTHING PROCEDURES: Use a water spray to keep fire exposed containers cool and to knock down vapors which may result from product decomposition.

FIRE FIGHTING EQUIPMENT: As in any fire wear self contained breathing apparatus pressure demand,

(MSHA/NIOSH approved or equivalent) and full protective gear.

FIRE EXPLOSION: None known.

SENSITIVE TO STATIC DISCHARGE: None known.

SENSITIVITY TO IMPACT: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustible by-products of carbon monoxide/dioxide, hydrogen sulfide, and oxides of sulfur.

## 6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Absorb liquid and place in sealed container for disposal.

LARGE SPILL: Absorb the liquid and scrub the area with detergent and water. Avoid runoff into storm sewers and ditches which lead to waterways.

**Environmental Precautions:** 

WATER SPILL: This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

LAND FILL: None known.

AIR SPILL: None known.

Special Protective Equipment:

Use vinyl latex gloves, chemical splash goggles or safety glasses with side shields.

#### 7. HANDLING AND STORAGE

GENERAL PROCEDURES: Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. HANDLING: Avoid breathing (dust, vapor, mist, gas). Avoid contact with skin, eyes, and clothing. Keep container closed when not in use.

STORAGE: Store between 50°F and 75°F.

LOADING TEMPERATURE: Not established.

LOADING/UNLOADING VISCOSITY: Not established.

STORAGE PRESSURE: Not established.

ELECTROSTATIC ACCUMULATION HAZARD: None known.

### 8. EXPOSURE CONTROL AND PERSONAL PROTECTION

ENGINEERING CONTROLS: Use only in a well ventilated area. Ventilation rates should be matched to conditions. If applicable, use process enclosure(s), local exhaust ventilation, or other engineering controls to maintain airborne levels below the recommended exposure limits.

Hydogenated terphenyl (CAS 61788-32-7)

REL: Long term value: 5mg.m<sup>3</sup>, 0.5 ppm

TLV: Long term value: 4.9mg/m<sup>3</sup>, 0.5 ppm nonirradiated

Triethylenetetramine (CAS 112-24-3)

WEEL: Long term value: 6mg/m<sup>3</sup>, 1ppm (skin)

#### PERSONAL PROTECTIVE EQUIPMENT:

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash proof goggles. SKIN: Wear rubber gloves to avoid prolonged skin contact. RESPIRATORY: Use only in a well ventilated area. PROTECTIVE CLOTHING: Wear protective clothing. Launder contaminated clothing before reuse.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: MP54190-Amber MP54190 GR-Gray **Physical state: Liquid.** Percent of volatile: not established. Flash Point: >200°F (DIN 51758) Flammable Limits: Not established. Autoignition Temperature: Not established. Vapor Pressure: Not established. Vapor Density: Not determined Boiling Point: >392°F Freezing Point: Not established. **Melting Point: Not established. Pour Point: Not established. Thermal Decomposition: Not established.** Solubility in Water: Slight. **Evaporation Rate: Not established.** Specific gravity: 1.17 (water = 1)

## **10. REACTIVITY AND STABILITY**

STABLE: Yes HAZARDOUS POLYMERIZATION: No STABILITY: Stable POLYMERIZATION: None known. CONDITIONS TO AVOID: Avoid storage near large masses of epoxy resins. POSSIBILITY OF HAZARDOUS REACTIONS: None known. HAZARDOUS POLYMERIZATION PRODUCTS: Combustible by products of carbon monoxide/dioxide, other toxic chemicals may be produced. INCOMPATIBLE MATERIALS: Avoid strong oxidizing agents and amines especially when hot. COMMENTS: REACTIVITY: Product may react if exposed to oxidizing agents.

### **11.TOXICOLOGICAL INFORMATION**

#### ACUTE:

EYES: No data available on this product. DERMAL: (LD<sub>50</sub>) No data available on this product. SKIN ABSORPTION: No data available on this product. ORAL: (LD<sub>50</sub>) No data available on this product. INHALATION: (LD<sub>50</sub>) No data available on this product. **EYE EFFECTS:** Mildly to moderately irritating. SKIN EFFECTS: Irritating to skin. May cause allergic skin reaction with prolonged contact. **CHRONIC:** None known. SUBCHRONIC: None known. CARCINOGENICITY: IARC: Not listed. NTP: Not listed. **OSHA:** Not listed. **REPEATED DOSE EFFECTS: None known.** SENSITIZATION: Irritating to skin. May cause allergic skin reaction with prolonged contact. **NEURO TOXICITY: None known. GENETIC EFFECTS: None known. REPRODUCTIVE EFFECTS:** None known. **TARGET ORGANS:** None known. **TERATOGENIC EFFECTS:** None known. **MUTAGENICITY:** None known.

#### **12. ECOLOGICAL INFORMATION**

ENVIRONMENTAL DATA: No data available on this product. ECOTOXICOLOGICAL INFORMATION: No data available on this product. BIOACCUMULTION/ACCUMULATION: No data available on this product. Notes: No data available on this product.

#### **13. DISPOSAL INFORMATION**

DISPOSAL METHOD: Dispose of following all Local Authority requirements for disposal. PRODUCT DISPOSAL: Dispose of in a manner consistent with Federal, State, and Local regulations. EMPTY CONTAINER: Dispose of in a manner consistent with Federal, State, and Local regulations.

## 14. TRANSPORTATION INFORMATION

Not regulated for transport: DOT, IMO/IMDG, ADR/RID, ICAO/IATA.

### **15. REGULATORY INFORMATION**

TSCA: All ingredients in this product are in compliance with TSCA (Toxic Substance Control Act). USA Regulation Lists

SARA (Superfund Amendments and Reauthorization Act of 1986)
 Section 302 (Extremely Hazardous Substance(s): none listed
 Section 313 (Toxic Release Inventory (TRI) reporting): none listed
 Section 311/312 (Hazardous Chemical Inventory Reporting):
 CAS 68410-23-1, Polyamide Resin, A 10-<20%</li>
 CAS 112-24-3, Triethylenetetramine, A 0.1-<1%</li>

SARA TITEL III (Superfund Amendments and Reauthorization Act) FIRE: No PRESSURE GENERATING: No REACTIVITY: No ACUTE: Yes CHRONIC: No

CALIFORNIA PROPOSITION 65: No California 65 chemicals are known to be in this product.

#### CANADA:

WHMIS HAZARD SYMBOL AND CLASSIFICATION: Toxic Symbol: Irritant WHMIS CLASS: D2B-Toxic (Irritant) D2B-Toxic (Irritant)

### **16. OTHERINFORMATION**

HMIS	HEALTH 2	FLAMMABILITY 1	<b>REACTIVITY 0</b>
NFPA	HEALTH 2	FIRE HAZARD 1	<b>REACTIVITY 0</b>

NON-WARRANTY: Information contained herein is based on tests we believe to be reliable and accurate. It is offered in good faith for the benefit of the consumer. Adhesive Systems shall not be liable for any injury, loss, or damage in the use of it's chemical products since the conditions of use are beyond our control. In every case we urge and recommend the user conduct tests to determine to their own satisfaction that the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. Because of changing reporting requirements and other variables it is impossible to guarantee the accuracy of the information contained in this document. It is the responsibility of the user to determine proper personal protection based on the actual condition of use and to comply with all Federal, State, and Local laws and regulations

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For technical information and support call **1-800-552-0299** or visit our website at

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