REVISED Nov./2014



MATERIAL SAFETY DATA SHEETS

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 5405NS Part A (Resin)

Technical Name: Epoxy Resin

2. HAZARDS IDENTIFICATION

Inhalation effects: Not expected to be relevant, however, when exposure to vapors or mists is

possible, it could cause respiratory tract irritation.

Skin effects: May be mildly irritating. May cause skin sensitization.

Eye effects: May be mildly irritating.

Ingestion effects: Not likely to be a relevant route of exposure.

Human health hazards: May be irritating to the eyes and skin. Contact with hot material can cause

thermal burns. May cause skin sensitization.

Safety hazards: Material will not burn unless preheated.

Hazard Classification: N/A Physical Classification: Symbol: None

Signal Word: None

Health Classification:

Irritant: Causes mild skin or eye irritation Category 3

Symbol:

Signal Word: Warning

3. COMPOSITION AND INFORMATION ON HARMFUL INGREDIENTS

Ingredients	Cas No.	OSHA PEL	ACGIH TLV	Other Limits	%Composition
Bisphenol-A-	25068-38-6	N/A	N/A	N/A	100
(epichlorohydrin); epoxy					
resin(number average					
molecular weight<=700).					

^{*}Proprietary means the specific chemical identity and/or weight percent is being withheld as a trade secret.

MP 5405NS Part A (Resin)

Epoxy Resin

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

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

Specific hazards during fire fighting: Material will not burn unless preheated. Cool fire exposed containers with water.

Special protective equipment for fire fighters: Do not enter confined fire space without full bunker gear, including a SCBA.

6. ACCIDENTAL RELEASE MEASURES

Spill control: Avoid contact. Evacuate area. Eliminate ignition sources. Ventilate area.

Containment: Dike, contain, and absorb with clay, sand, or other suitable material.

Cleanup: For large spills, pump to storage/salvage vessels. Soak up residue with clay, sand, or other suitable material.

Special procedures: Prevent spill from entering drainage/sewer systems, waterways, and surface waters

7. HANDLING AND STORAGE

Do not get in eyes, on skin or clothing. Wash with soap and water after using. Particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Air dry and then launder contaminated clothing and protective gear before reuse.

Storage: keep in a cool, dry place. Keep containers closed when not in use. Keep away from open flames and high temperatures.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

OSHA PEL: N/A

Engineering Controls: Use good general local ventilation when working with this material.

Eye Protection: Safety goggles / glasses suitable for use with chemicals.

Respiratory protection: None required under normal conditions of use.

Skin Protection: Nitrile / polyethylene gloves, coveralls, avoid cotton products.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:
Flashpoint: >100°C
Solubility in Water: Slight
Boiling Point:>150 °C
Specific Gravity: 1.15
Evaporation rate: N/D
Melting Point: N/D

Vapor Pressure: 1 mbar @68°F

MP 5405NS Part A (Resin)

Epoxy Resin

10. REACTIVITY AND STABILITY

This material is chemically stable. Hazardous polymerization will not occur.

Conditions to avoid: Avoid high temperatures.

Incompatible materials: Oxidizers, acids, and bases.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 > 2000 mg/kg Acute dermal effects: LD50 > 2000 mg/kg

Sensitization: May cause skin

sensitization.

Carcinogenicity: Recent 2-year bioassays in rats and mice exposed dermally yielded no evidence of carcinogenicity.

Mutagenicity: Resins of this type have proved to be inactive when tested by in vivo mutagenicity assays. These resins have shown activity in in vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells. The significance of these tests to man is unknown.

Inhalation effects: Not expected to be relevant, however, when exposure to vapors or mists is possible, it could cause respiratory tract irritation.

Skin effects: May be mildly irritating. May cause skin sensitization. Eye effects: May be mildly irritating.

Ingestion effects: Not likely to be a relevant route of exposure.

12. ECOLOGICAL INFORMATION

Biodegradability: This section will be completed as ecological reviews are completed.

Toxicity to fish: This section will be completed as ecological reviews are completed.

13. DISPOSAL INFORMATION

This material must be disposed in compliance with local, state, and federal regulations. When in consumer packaging this material must be disposed of as household waste. Check 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.

15. REGULATORY INFORMATION

TSCA: All components listed.

DSL: All components listed.

SARA Section 311/312 hazard classes: Chronic health hazard.

California Proposition 65: Contains Phenyl Glycidyl Ether (< 6 PPM), which was listed as carcinogenic on October 1st, 1990.



MP5405NS Part A (Resin) Methyl Methacryalte

16. OTHER INFORMATION

Initial: 8/22/2007 Revised: Sept 2014

HMIS HEALTH 2 FLAMMABILITY 1 REACTIVITY 0
NFPA HEALTH 2 FIRE HAZARD 1 REACTIVITY 0

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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Engineering Excellence

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REVISED SEPT/2014



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Product Name: MP 5405NS Part B (Hardener)

Technical Name: Curing Agent

2. HAZARDS IDENTIFICATION

Routes of Entry: Skin, inhalation, and ingestion

Health Hazards: (Inhalation) Considered slightly toxic by inhalation. Can cause irritation of

respiratory tract and nausea. Overexposure may cause delayed lung injury and chemical pneumonia.

(Skin) Causes skin irritation.

(Eyes) Causes eye irritation.

(Ingestion) Harmful if swallowed.

Carcinogenicity: Not a known carcinogen.

NTP: Not a known or anticipated carcinogen.

IARC: This component has not been classified by the IARC.

OSHA: Not an OSHA-Regulated Carcinogen.

WHMIS: D2B

Signs and Symptoms of Exposure:

(Eyes) Redness, swelling, tearing, and hazy vision.

(Skin) Redness, swelling, blistering, and itching.

(Inhalation) Soreness of the nose and throat, coughing and sneezing.

(Ingestion) Pain, vomiting, abdominal tenderness, nausea, blood in vomitus, and blood In feces.

Medical Conditions Aggravated by Exposure: Preexisting eye, lung, and skin disorders may be aggravated by exposure.

Emergency First Aid Procedures: (Inhalation) Remove victim to fresh air and provide oxygen if breathing is difficult.

Give artificial respiration if not breathing. Get medical attention

Hazard Classification: N/A
Physical Classification: Hardener

Symbol: none Signal Word: none

Health Classification:

Irritant: Causes mild skin or eye irritation Category 3

Symbol:

Signal Word: Warning

3. COMPOSITION AND INFORMATION ON HARMFUL INGREDIENTS

Ingredients	Cas No.	OSHA PEL	ACGIH TLV	Other Limits	%Composition
Mercaptan/Amine Blend	Trade	N/A	N/A	N/A	90-100
	Secret				

MP 5405NS Part B (Hardener)

Curing Agent

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

Flash Point: 200°F (PMCC)

Flammable Limits: LEL=N/D UEL=N/D

Extinguishing Media: Water fog, foam, dry chemical or CO2.

Special Fire Fighting Procedures: Wear self contained breathing apparatus. Cool fire-exposed

containers with water.

Unusual Fire and Explosion Hazards: None Known

6. ACCIDENTAL RELEASE MEASURES

Ventilate area of spill. Flood area with water to polymerize. Absorb with sand / earth and dispose in accordance with local, state, and federal regulations.

7. HANDLING AND STORAGE

When using large volumes ensure that operational area is well ventilated.

Store between 5-25°C; avoid strong light and heat sources. These products should never be frozen.

Avoid skin contact and inhalation of vapor.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Engineering Controls: Use good general local ventilation when working with this material.

Eye Protection: Safety goggles / glasses suitable for use with chemicals.

 $\textbf{Respiratory Protection: Always use appropriate filter mask \it / respirator.}$

Skin Protection: Nitrile / polyethylene gloves, coveralls, avoid cotton products.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Clear to slight amber liquid with mercaptan-like odor.

State: Transparent liquid

Odor: Intensive

Color(s): Colourless to yellowish

Flashpoint: >100°C Density: 1,130 g/cm³

Viscosity (dynamic): 80,000-120,000 mPa s

MP 5405NS Part B (Hardener) Curing Agent

10. REACTIVITY AND STABILITY

Stability: Stable

Incompatibility: Oxidizers

Hazardous Polymerization: Will not occur.

Conditions to Avoid: No known conditions to avoid.

Hazardous Decomposition: Oxides of carbon, nitrogen, and sulfur; hydrogen sulfide

11.TOXICOLOGICAL INFORMATION

None

12. ECOLOGICAL INFORMATION

None.

13. DISPOSAL INFORMATION

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

14. TRANSPORTATION INFORMATION

DOT INFORMATION: Not regulated for highway transportation.

AIR INFORMATION (IATA): UN3334, Aviation Regulated Liquid, N.O.S. (Mercaptan Amine Blend), 9

15. REGULATORY INFORMATION

TSCA

All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

SARATitleIII,Section13

This product does contain the following chemical(s) which are defined as toxic chemicals under and subject to the reporting requirements of, Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFRP art 372.

Methyl Methacrylate

MP 5405NS Part B (Hardener)

Curing Agent

16. OTHER INFORMATION

Initial: 8/22/2007 Revised: Nov. 2014

HMIS HEALTH 2 FLAMMABILITY 1 REACTIVITY 0
NFPA HEALTH 2 FIRE HAZARD 1 REACTIVITY 0

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