

SAFETY DATA SHEET

SECTION 1: Identification

PERFORMANCE SPEC: **MIL-DTL-24441D(SH) dated August 27, 2009**
TYPE: **Type IV, Formula 152, MIL-DTL-24441/31B**
DESCRIPTION: **Paint, Epoxy-Polyamide, White – Two Component System (COMPONENT A)**
NSN's: **8010-01-380-2343; 8010-01-380-2448**
MANUFACTURED BY: **Stic-Adhesive Products Co., Inc.**
3950 Medford St., Los Angeles, CA 90063
Phone (323) 268-2956; Transportation Emergency (Chemtrec) (800) 424-9300

SECTION 2: Hazardous Identification

GHS CLASSIFICATION

Flammable Liquids: Category 3
Eye Irritation: Category 2A
Skin Irritation: Category 3

GHS LABEL ELEMENT

Hazard Pictograms:



Signal Word:

- Warning

Hazard Statements:

- H226: Flammable liquid and vapor
- H316: Causes mild skin irritation
- H319: Causes serious eye irritation

Precautionary Statements: Prevention

- P210: Keep away heat/sparks/open flame/hot surfaces – No Smoking
- P233: Keep container tightly closed
- P240: Ground/bond container and receiving equipment
- P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment
- P242: Use only non-sparking tools
- P243: Take precautionary measures against static discharge
- P264: Wash skin thoroughly after handling
- P280: Wear protective gloves/ eye protection/ face protection

Precautionary Statements: Response

- P303 + P361 + P353: IF ON SKIN: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P370 + P378 IN CASE OF FIRE: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or universal aqueous film forming foam).
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

SECTION 3: Composition/Information on Ingredients

<u>Chemical</u>	<u>CAS Number</u>	<u>% by Weight</u>
Talc	14807-96-6	0% - 10%
Polyamide Adduct	68953-09-3	0% - 35%
Butanol	71-36-3	0% - 35%
Titanium Dioxide	13463-67-7	0% - 58%
Thixatrop Agent	Trade Secret	0% - 10%
Polyamide	Trade Secret	0% - 10%

SECTION 4: First-Aid Measures**Potential Exposure Routes**

- Eye contact
- Ingestion
- Inhalation
- Skin contact

Potential Health Effects

- **Eye contact** may cause eye irritation include stinging, tearing, redness, and swelling of eyes.
- **Ingestion** may cause headaches, dizziness, fatigue, and central nervous system depression along with gastrointestinal disturbances.
- **Inhalation** of vapor or mist is possible. It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful.
- **Skin contact** may cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, skin burns, and other skin damage.

Recommendations for Immediate Medical Care

- **Eye Contact:** If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.
- **Ingestion:** Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Do not induce vomiting unless directed to do so by a physician. If possible, do not leave individual unattended.
- **Inhalation:** If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.
- **Skin Contact:** Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention.

SECTION 5: Fire-Fighting Measures**Suitable extinguishing media**

Dry chemical, Carbon dioxide (CO₂), Alcohol-resistant foam

Hazardous combustion products

No hazardous combustion products are known

Precautions for fire-fighting

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

NFPA Flammable and Combustible Liquids Classification

Flammable Liquid Class IB

SECTION 6: Accidental Release Measures**Personal precautions**

Use personal protective equipment. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods for cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

SECTION 7: Handling and Storage**Handling**

Avoid contact with skin or eyes, avoid breathing vapors. Handle in well ventilated work space and prevent buildup of vapors, especially in low lying areas. Do not eat, drink or smoke when handling. Empty container may contain

explosive vapor. Remove all potential sources of ignition from vicinity when handling. All containers should be grounded or bounded when material is transferred. Smoking in the area is prohibited. Avoid using in any spray application without strict conformance to all applicable electrical codes and the OSHA limit for maximum allowable airborne concentrations.

Storage

Keep container closed when not in use. Keep away from oxidizers, heat, flames, and sparks. Keep in cool, dry ventilated storage area, and store away from ignition sources.

SECTION 8: Exposure Controls/Personal Protection

Talc

ACGIH	Time Weighted Average	2 mg/m3
OSHA	Permissible Exposure Limit	20 mppcf

Polyamide Adduct

ACGIH	time weighted average	5 mg/m3
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Butanol

ACGIH	time weighted average	20 ppm
OSHA	Permissible exposure limit	100 ppm
OSHA	Permissible exposure limit	300 mg/m3

Titanium Dioxide

ACGIH	Time Weighted Average	10 mg/m3
OSHA	Permissible Exposure Limit	15 mg/m3

Thixatropo Agent

ACGIH	Time Weighted Average	10 mg
OSHA	Permissible Exposure Limit	15 mg

General Advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use. Wear resistant gloves (consult your safety equipment supplier). Discard gloves that show tears, pinholes, or signs of wear.

Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

SECTION 9: Physical and Chemical Properties

Physical state	Liquid
Color	Colored viscous - White
Odor	Solvent like
Boiling point/boiling range	241 – 246 °F (116 - 119 °C)
Volatile Organic Compound (VOC)	340 g/L admixed 1:1 by volume with component B (maximum)
pH	no data available
Flash point	96 °F / 35.6 °C Tag closed cup
Upper explosion limit	Butanol 11.2%
Lower explosion limit	Butanol 1.4%
Vapor pressure	4.4 mmHg @ 68 °F (20 °C) for Butanol
Relative vapor density	Heavier than air
Density	11.5 – 12.5 lbs
Solubility(ies)	Soluble in most organic solvents, not soluble in water
Viscosity, dynamic	no data available

Viscosity, kinematic ^[1] _{SEP}	no data available
Solids in Solution ^[1] _{SEP}	no data available
Decomposition temperature ^[1] _{SEP}	no data available

SECTION 10: Stability and Reactivity**Stability**

Stable.

Conditions to avoid

Heat, flames and sparks. excessive heat, and exposure to moisture. Prevent vapor accumulation.

Incompatible products

Strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, Hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

SECTION 11: Toxicological Information**Acute Oral Toxicity**

Polyamide Adduct	: LD 50 Rat: 200 – 2,000 mg/kg
Butanol	: LD 50 Rat: 790 mg/kg ^[1] _{SEP}
Titanium Dioxide	: LD 50 Rat: 10,000 mg/kg
Thixatropo Agent	: LD 50 Rat: 5,000 mg/kg

Acute Inhalation Toxicity

Polyamide Adduct	: LC 50 Rat: 20.0 mg/l 4h
Butanol	: LC 50 Rat: 17.7 mg/l
Titanium Dioxide	: LC 50 Rat: 6,082 mg/l
Thixatropo Agent	: LC 50 Rat: 0.14 mg/l

Acute Dermal Toxicity

Polyamide Adduct	: LD 50 Rabbit: 2,070 mg/kg
Butanol	: LD 50 Rabbit: 3,400 mg/kg
Titanium Dioxide	: LD 50 Rabbit: 10,000 mg/kg
Thixatropo Agent	: LD 50 Rabbit: 0.14 mg/l

Carcinogenicity

This product does not contain known carcinogens in concentrations in excess of 0.1% under OSHA, NTP or IARC

SECTION 12: Ecological Information

N/A

SECTION 13: Disposal Considerations

N/A

SECTION 14: Transport Information

US DOT Category:	Paint Related Material	Hazard Class:	3	ID No.:	UN-1263
		Packaging Group:			III

SECTION 15: Regulatory Information

N/A

SECTION 16: Other Information

DISCLAIMER: The material in this Safety Data Sheet (SDS) is, to the best of our knowledge, accurate as of the date issued. However, neither STIC-ADHESIVE nor any of its subsidiaries or agents assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. Compliance with all applicable federal, state, and local laws and regulations remains the responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist. Given the quantity of variables that affect use and application of our products, many of which are within the user's control and unique to each user's knowledge, STIC-ADHESIVE MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE.

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Signal Word:

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- P303 + P361 + P353: IF ON SKIN: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P370 + P378 IN CASE OF FIRE: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or universal aqueous film forming foam).
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

SECTION 3: Composition/Information on Ingredients

<u>Chemical</u>	<u>CAS Number</u>	<u>% by Weight</u>
Epichlorohydrin, Bisphenol A	25085-99-8	0% - 57%
Talc	14807-96-6	0% - 45%
Aromatic Hydrocarbons	64742-95-6	0% - 25%
1,2,4 Trimethylbenzene	95-63-6	0% - 10%
1,3,5 Trimethylbenzene	108-67-8	0% - 10%
Thixatropo Agent	Trade Secret	0% - 10%

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Potential Health Effects

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- **Inhalation:** If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.
- **Skin Contact:** Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention.

SECTION 5: Fire-Fighting Measures**Suitable extinguishing media**

Dry chemical, Carbon dioxide (CO₂), Alcohol-resistant foam

Hazardous combustion products

No hazardous combustion products are known

Precautions for fire-fighting

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

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Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods for cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

SECTION 7: Handling and Storage**Handling**

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explosive vapor. Remove all potential sources of ignition from vicinity when handling. All containers should be grounded or bounded when material is transferred. Smoking in the area is prohibited. Avoid using in any spray application without strict conformance to all applicable electrical codes and the OSHA limit for maximum allowable airborne concentrations.

Storage

Keep container closed when not in use. Keep away from oxidizers, heat, flames, and sparks. Keep in cool, dry ventilated storage area, and store away from ignition sources.

SECTION 8: Exposure Controls/Personal Protection

Talc

ACGIH	Time Weighted Average	2 mg/m3
OSHA	Permissible Exposure Limit	20 mppcf

Aromatic Hydrocarbons

ACGIH	time weighted average	20 ppm
OSHA	Permissible exposure limit	100 ppm

1,2,4 Trimethylbenzene

ACGIH	Time Weighted Average	25 ppm
OSHA	Permissible Exposure Limit	25 ppm

1,3,5 Trimethylbenzene

ACGIH	Time Weighted Average	25 ppm
OSHA	Permissible Exposure Limit	25 ppm

Thixatropé Agent

ACGIH	Time Weighted Average	20 mppcf
OSHA	Permissible Exposure Limit	20 mppcf

General Advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use. Wear resistant gloves (consult your safety equipment supplier). Discard gloves that show tears, pinholes, or signs of wear.

Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

SECTION 9: Physical and Chemical Properties

Physical state	Liquid
Color	Colored viscous
Odor	Solvent like
Boiling point/boiling range	308 – 335 °F (153 - 168 °C)
Volatile Organic Compound (VOC)	340 g/L admixed 1:1 by volume with component A (maximum)
pH	no data available
Flash point	100 °F / 37.8 °C
Upper explosion limit	Aromatic Hydrocarbons 7.0%
Lower explosion limit	Aromatic Hydrocarbons 1.0%
Particle size	no data available
Vapor pressure	4.4 mmHg @ 68 °F (20 °C)
Relative vapor density	Heavier than air
Density	10.8 – 11.3 lbs
Solubility(ies)	Soluble in most organic solvents, not soluble in water
Viscosity, dynamic	no data available

Viscosity, kinematic ⁽¹⁾ _(SEP)	no data available
Solids in Solution ⁽¹⁾ _(SEP)	no data available
Decomposition temperature ⁽¹⁾ _(SEP)	no data available

SECTION 10: Stability and Reactivity**Stability**

Stable.

Conditions to avoid

Heat, flames and sparks, excessive heat, and exposure to moisture. Prevent vapor accumulation.

Incompatible products

Strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, Hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

SECTION 11: Toxicological Information**Acute Oral Toxicity**

Epichlorohydrin, Bisphenol A	: LD 50 Rat: 15,000 mg/kg
Aromatic Hydrocabons	: LD 50 Rat: 5,000 mg/kg ⁽¹⁾ _(SEP)
1,2,4 Trimethylbenzene	: LD 50 Rat: 3,400 mg/kg
1,3,5 Trimethylbenzene	: LD 50 Rat: 5,000 mg/kg

Acute Inhalation Toxicity

Aromatic Hydrocabons	: LC 50 Rat: 10 mg/l 4h
1,2,4 Trimethylbenzene	: LC 50 Rat: 18 mg/l/4 h

Acute Dermal Toxicity

Epichlorohydrin, Bisphenol A	: LD 50 Rabbit: 23,000 mg/kg
Aromatic Hydrocabons	: LD 50 Rabbit: 2,000 mg/kg ⁽¹⁾ _(SEP)
1,2,4 Trimethylbenzene	: LD 50 Rabbit: 3,160 mg/kg

Carcinogenicity

This product does not contain known carcinogens in concentrations in excess of 0.1% under OSHA, NTP or IARC

SECTION 12: Ecological Information

N/A

SECTION 13: Disposal Considerations

N/A

SECTION 14: Transport Information

US DOT Category: Paint Related Material

Hazard Class: 3

ID No.: UN-1263

Packaging Group: III

SECTION 15: Regulatory Information

N/A

SECTION 16: Other Information

DISCLAIMER: The material in this Safety Data Sheet (SDS) is, to the best of our knowledge, accurate as of the date issued. However, neither STIC-ADHESIVE nor any of its subsidiaries or agents assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. Compliance with all applicable federal, state, and local laws and regulations remains the responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist. Given the quantity of variables that affect use and application of our products, many of which are within the user's control and unique to each user's knowledge, STIC-ADHESIVE MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE.