



Material Safety Data Sheet

Metalset A-4

MSDS No. 10

Date of Preparation: November 16, 2010

Revision: 00015

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Metalset A-4 Part A

General Use: Epoxy Adhesive

Manufacturer: Smooth-On Inc., 2000 St. John St., Easton PA 18042

Phone (610) 252-5800, FAX (610) 252-6200

Emergency Contact: Chem-Tel

Domestic 800-255-3924

International 813-248-0585

Section 2- Hazards Identification

Europe



Xi: Irritant

Canada



HMIS	
H	1
F	1
R	1

Information pertaining to particular dangers

R36/38: Irritating to eyes and skin.

R43: May cause sensitization by skin contact.

Classified according to Articles 6 & 7 of Directive 1999/45/EC

Section 3 - Composition / Information on Ingredients

Component	ACGIH TWA	OSHA PEL	Hazard Designation	Weight Percent (%)
Diglycidyl Ether of Bisphenol A CAS Number: 25068-38-6 EINECS Number: 500-033-5	None Established	None Established	Xi N	50-60%

Section 4 - First Aid Measures

Inhalation: Remove source(s) of contamination and move victim to fresh air.

Eye Contact: Flush eyes with plenty of water. If irritation persists, seek medical attention.

Skin Contact: In case of skin contact, wash thoroughly with soap and water; remove contaminated clothing and launder before reuse.

Ingestion: Do not induce vomiting unless instructed by a physician. Contact physician immediately.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 5 - Fire-Fighting Measures

Flash Point: >485 °F (252 °C)

Flash Point Method: PMCC

Flammability Classification: Non-Flammable

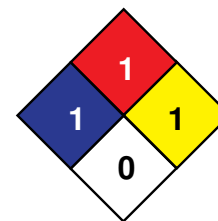
Extinguishing Media: Foam, Dry Chemical, and Carbon Dioxide

Unusual Fire or Explosion Hazards: None

Hazardous Combustion Products: Oxides of Nitrogen and Carbon, Acids and Aldehydes when burned.

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure-demand or positive-pressure mode.



Section 6 - Accidental Release Measures

Spill /Leak Procedures: Dike and contain spill; absorb or scrape up excess into suitable container for disposal. Stop or reduce discharge if it can be done safely.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Minimize breathing of vapors and avoid prolonged or repeated contact with skin. Wear proper protective equipment. If ventilation is not sufficient, wear proper respiratory equipment. Use good general housekeeping procedures.

Storage Requirements: Store in cool dry, well-ventilated area.

Section 8 - Exposure Controls / Personal Protection

Respiratory Protection: Follow OSHA respirator regulations 29 CFR 1910.134 and European Standard EN 149; wear an MSHA/NIOSH or European Standard EN149 approved respirator. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas

Protective Clothing/Equipment: Wear chemically protective gloves, boots, and aprons to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.



Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics

Section 9 - Physical and Chemical Properties

Physical State:	Water Solubility: negligible
Appearance and Odor: gray Paste; mild odor	Boiling Point: None (Polymeric Resin)
Vapor Pressure: None (Polymeric Resin)	Freezing/Melting Point: None (Polymeric Resin)
Vapor Density (Air=1): None (Polymeric Resin)	Evaporation Rate: None (Polymeric Resin)
Specific Gravity (H₂O=1, at 4 °C): 1.44	Volatile Organic Compounds (grams/Liter): None
Viscosity: 1600 poise	

Section 10 - Stability and Reactivity

Stability: This product is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: Strong oxidizing agents, strong Lewis or mineral acids.

Conditions to Avoid: Mixing with Amines under uncontrolled conditions.

Hazardous Decomposition Products: Thermal oxidative decomposition can produce: Oxides of Nitrogen and Carbon, Acids and Aldehydes when burned.

Section 11- Toxicological Information

LC50 Oral	LC50 Dermal
Rat: >5000 mg/kg	Rabbit: 20,000 mg/m ³

Section 12 - Ecological Information

Not established

Section 13 - Disposal Considerations

Disposal: This material must be disposed of in accordance with applicable local regulations.

Section 14 - Transport Information

DOT	IATA	IMDG
Not Regulated	Not Regulated	Not Regulated

Section 15 - Regulatory Information

United States EPA Regulations:

US TSCA Inventory Status (40 CFR 710): All components of this product is listed on the TSCA inventory.

California Proposition 65: This product does not intentionally contain any chemicals which have been identified by the state of California to cause cancer, birth defects or other reproductive harm.

Section 15 - Regulatory Information (continued)


Canadian Regulations;

WHMIS Identification: **D2B**

CDSL/NDL (Canadian Domestic Substance List/Non Domestic Substance List): **Listed on CDSL**



Labeling according to EEC Directive

Risk Phrases	Symbol(s) Required for EU Label	Safety Phrases
<p>R36/38: Irritating to eyes and skin.</p> <p>R43: May cause sensitization by skin contact.</p>	 Xi: Irritant	<p>S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</p> <p>S36/37/39: Wear suitable protective clothing, gloves and eye and face protection.</p> <p>S45: In case of accident or if you feel unwell, seek medical advice.</p>

16 - Other Information

Disclaimer: The information contained in this MSDS is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Directive 1907/2006/EEC (REACH). Hazard symbols and risk phrases are based on maximum listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) or the European Union (EU/EEC) directive 1907/2006/EEC and are considered trade secrets under US Federal Law (29CFR and 40CFR), Canadian Law (Health Canada Legislation), and European Union Directives.



Material Safety Data Sheet

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Section 2- Hazards Identification

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Xi: Irritant

HMIS	
H	2
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Information pertaining to particular dangers

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R43: May cause sensitization by skin contact.

Classified according to Articles 6 & 7 of Directive 1999/45/EC

Section 3 - Composition / Information on Ingredients

Component	ACGIH TWA	OSHA PEL	Hazard Designation	Weight Percent (%)
Tetraethylene Pentamine CAS Number: 112-57-2 EINECS Number: 203-986-2	None Established	None Established	Xi C	2-5%
Triethylene Tetramine CAS Number: 112-24-3 EINECS Number: 203-950-6	None Established	None Established	Xi C	1-3%

Section 4 - First Aid Measures

Inhalation: Remove source(s) of contamination and move victim to fresh air.

Eye Contact: Flush eyes with plenty of water. If irritation persists, seek medical attention.

Skin Contact: In case of skin contact, wash thoroughly with soap and water; remove contaminated clothing and launder before reuse.

Ingestion: Do not induce vomiting unless instructed by a physician. Contact physician immediately.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 5 - Fire-Fighting Measures

Flash Point: >485 °F (252 °C)

Flash Point Method: PMCC

Flammability Classification: Non-Flammable

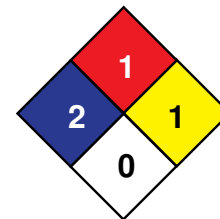
Extinguishing Media: Foam, Dry Chemical, and Carbon Dioxide

Unusual Fire or Explosion Hazards: None

Hazardous Combustion Products: Oxides of Nitrogen and Carbon, Acids and Aldehydes when burned.

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure-demand or positive-pressure mode.



Section 6 - Accidental Release Measures

Spill /Leak Procedures: Dike and contain spill; absorb or scrape up excess into suitable container for disposal. Stop or reduce discharge if it can be done safely.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Minimize breathing of vapors and avoid prolonged or repeated contact with skin. Wear proper protective equipment. If ventilation is not sufficient, wear proper respiratory equipment. Use good general housekeeping procedures.

Storage Requirements: Store in cool dry, well-ventilated area.

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Respiratory Protection: Follow OSHA respirator regulations 29 CFR 1910.134 and European Standard EN 149; wear an MSHA/NIOSH or European Standard EN149 approved respirator. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas

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Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics

Section 9 - Physical and Chemical Properties

Physical State:

Appearance and Odor: White Paste;
ammonia odor

Vapor Pressure: <1 @ 25 °C

Vapor Density (Air=1): No Data

Specific Gravity (H₂O=1, at 4 °C): 1.4

Water Solubility: negligible

Boiling Point: No Data

Freezing/Melting Point: No Data

Evaporation Rate: No Data

Viscosity (poise): 3200

Volatile Organic

Compounds (grams/Liter): None

Section 10 - Stability and Reactivity

Stability: This product is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: Strong oxidizing agents, strong Lewis or mineral acids.

Conditions to Avoid: Mixing with Amines under uncontrolled conditions.

Hazardous Decomposition Products: Thermal oxidative decomposition can produce: Oxides of Nitrogen and Carbon, Acids and Aldehydes when burned.

Section 11- Toxicological Information

Not Determined

Section 12 - Ecological Information

None Established

Section 13 - Disposal Considerations

Disposal: This material must be disposed of in accordance with applicable local regulations.

Section 14 - Transport Information

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