



Material Safety Data Sheet

103 Slow Hardener

Date Of Preparation: March 8, 2011

MSDS No. 32

Revision: 0003

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: 103 Slow Hardener
Other Designations: Curing Agent, Epoxy
General Use: Laminating, Adhesive and Casting Resin
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

Hazard Designation:



HMIS	
H	3
F	1
R	0

C: Corrosive N: Dangerous for the environment

Risk Phrases pertaining to particular dangers

R35: Causes burns.

R22: Harmful if swallowed

R51/53: Toxic to aquatic organisms may cause long term adverse effects in the aquatic environment.

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

Section 3 - Hazards Identification

Component	ACGIH TWA	Exposure Limits OSHA PEL	Hazard Designation	Weight Percent (%)
Methylenebis(cyclohexyl)amine, 4,4' CAS Number: 1761-71-3 EINECS Number: 217-168-8	None Established	None Established	C N	65-70
Polypropylene triamine CAS Number: 39423-51-3 EINECS Number: 500-105-6	None Established	None Established	Not Classified	30-35

Section 4 - First Aid Measures

Inhalation: Remove to fresh air; if breathing is labored seek medical attention.

Eye Contact: Flush with water for 15 minutes; seek medical attention

Skin Contact: remove with soap and water: if redness or rash develops seek medical attention:
Launder contaminated clothing before reuse.

Ingestion: do not induce vomiting; seek medical attention

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

Section 5 - Fire-Fighting Measures

Flash Point: 347°F (175°C)

Flammability Classification: Combustible Liquid, Class III

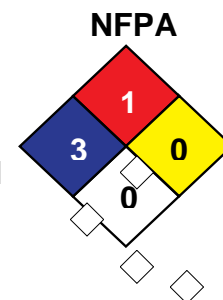
Extinguishing Media: Foam, Dry Chemical, and Carbon Dioxide

Unusual Fire or Explosion Hazards: None

Hazardous Combustion Products: May generate Ammonia gas, Oxides of Nitrogen and Carbon 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

Containment: Dike and contain for later disposal. Do not release into sewers or waterways.

Cleanup: Cover minor spills with sodium bisulfate to neutralize and reduce vapors. Spray with water. Place in metal containers for recovery or disposal. Clean-up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing.

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

Section 7 - Handling and Storage

Handling Precautions: Avoid prolonged or repeated eye and skin contact. Avoid breathing vapors and use only with adequate ventilation. Use good general housekeeping procedures.

Storage Requirements: Keep away from oxidizers. Store in Closed containers. Use only with adequate ventilation.

Section 8 - Exposure Controls / Personal Protection

Respiratory Protection: Follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators. *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:

Appearance and Odor: Light Amber liquid,
ammonia odor

Vapor Pressure: <1 mm/Hg @ 21°C

Vapor Density (Air=1): >1

Specific Gravity (H₂O=1, at 4 °C): 0.96

Water Solubility: No Data

Boiling Point: No Data

Freezing/Melting Point: No Data

Evaporation Rate: No Data

pH: No Data

Section 10 - Stability and Reactivity

Stability: This material 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 epoxies under uncontrolled conditions.

Hazardous Decomposition Products: Thermal oxidative decomposition of can produce: Ammonia gas, Oxides of Nitrogen and Carbon when burned. Combustion of product under oxygen-starved conditions can be expected to produce numerous toxic products including nitriles, cyanic acid, isocyanates, cyanogens, nitrosamines, amides, and carbamates.

Section 11- Toxicological Information

Eye Effects: will cause burns

Skin Effects: will cause burns

Acute Toxicity Effects Data:

Oral LD50 (rat): 625 mg/kg

Dermal LD50 (rabbit): 2,110 mg/kg

Mutagenicity: No Data

Teratogenicity: No Data

Section 12 - Ecological Information

Ectotoxicity Effects Data:

Fish: LC50 (96h) 46-100 mg/l

Algae: EC50(72h) 140-200 mg/l

Section 13 - Disposal Considerations

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

Section 14 - Transport Information

DOT

IATA

IMDG

Shipping Name:

Amine, liquid, corrosive, n.o.s.
(4, 4' Methylenebis(cyclohexanamine
and Polypropylene triamine)

UN #: 2735

Hazard Class: 8

Packing Group: II

Label: Corrosive

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Amine, liquid, corrosive, n.o.s.
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Section 15 - Regulatory Information

EPA REGULATIONS:

SARA 312 (40 CFR #70) Hazard Classification: Acute Health Hazard, Chronic Health Hazard

SARA Title III Section 313 (40 CFR 372): None

TSCA Inventory Status (40CFR710): All components of this formula are 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.



CANADIAN REGULATIONS:

WHMIS Identification: Class D-1B: Material causing immediate and serious toxic effects (Toxic).

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>R35: Causes burns. R22: Harmful if swallowed R51/53: Toxic to aquatic organisms may cause long term adverse effects in the aquatic environment.</p>	 <p>C: Corrosive</p>  <p>N: Dangerous for the environment</p>	<p>S1/2: Keep locked up and out of reach of children S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S36/37/39: Wear suitable protective clothing, gloves, and eye face/protection. S45: In case of an accident or if you feel sick, seek medical attention. S61: Avoid release to the environment.</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.