SAFETY DATA SHEET

Prepared according to USA OSHA Hazcom 2012 / Canada WHMIS 2015

Date Prepared : 01/24/2017
SDS No : XSM5002 Part B Medium Panel Adhesive_ENG
Date Revised : 12/05/2017
Revision No : 2

XSM5002 Part B MEDIUM PANEL ADHESIVE, Metal and Aluminum

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: XSM5002 Part B MEDIUM PANEL ADHESIVE, Metal and Aluminum
Product Description: Part B Epoxy Adhesive, 103.5 ml / 3.5 fl oz US, Work Time: 50 - 70 min
General Use: Curing Agent for Epoxy adhesive / sealant
Product Stock/Code: XSM5002 / 5002 (Kit: 207 ml / 7.0 fl oz US)
Chemical Family: Polyaminoamide
Molecular Formula: Mixture / Mélange

Manufacturer / Supplier
Dominion Sure Seal Ltd.
6175 Danville Road, Mississauga
Ontario, Canada L5T 2H7
Fax: 905-670-5174
www.dominionsureseal.com
Customer Service: 905-670-5411

Emergency Telephone Numbers (24 hour)
CANUTEC : (613) 996-6666
CHEMTREC : (800) 424-9300

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

The classification and label elements stated below were prepared in accordance with the USA OSHA Hazard Communication Standard (29 CFR 1910.1200; Hazcom 2012) and the Canadian WHMIS regulations (Hazardous Products Regulations; WHMIS 2015). This information may be different from the actual product label information for labels that are regulated by other agencies.

Health hazards:

Skin Corrosion, Category 1B
Serious Eye Damage, Category 1
Skin Sensitization, Category 1
Reproductive Toxicity, Category 2

Physical hazards:

Not classified

Label elements

Hazardous components for labelling:
Polyamidoamine resin, 4-Nonylphenol (branched), Diethylenetriamine and Bisphenol A


Corrosion


Exclamation mark


Health hazard

Signal Word: DANGER

Hazard statement(s)

H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H361: Suspected of damaging fertility or the unborn child.

Precautionary statement(s)

Prevention:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe vapours.
P264: Wash hands and exposed skin thoroughly after handling.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves, protective clothing and eye protection.

Response:

P308+P313: IF exposed or concerned: Get medical advice/ attention.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P363: Wash contaminated clothing before reuse.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310: Immediately call a POISON CENTER or doctor/physician.

Storage:

P405: Store locked up.

Disposal:

P501: Dispose of contents/container in accordance with applicable local, regional and/or national regulations.

Hazards Not Otherwise Classified: No data available.

Emergency Overview

Immediate concerns: Causes skin and eye burns. May cause sensitization by skin contact. May damage the unborn child. Suspected of damaging fertility.

Comments: See sections 9 and 10 for more detailed information on physicochemical effects.
See section 11 for more detailed information on health effects.
See sections 12 for more detailed information on environmental effects.

The actual container label may not include the above label elements. The labeling shown above applies to products used solely for industrial / professional use.

Consumer products should be labeled in accordance with the Canadian Consumer Chemicals and Containers Regulations and US Consumer Product Safety Commission regulations. Consumer product labeling takes precedence over Canadian WHMIS 2015 and OSHA Hazcom 2012 Hazard Communication labeling.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS number

Polyamidoamine resin	23 - 25	64754-99-0
4-Nonylphenol (branched)	14 - 16	84852-15-3
Diethylenetriamine	1.5 - 2.5	111-40-0
Bisphenol A	1.5 - 2.5	80-05-7
Titanium dioxide	1 - 1.6	13463-67-7

4. FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes, keeping eyelids open, with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin Contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. 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: No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop. If you experience eye watering, headaches or dizziness, increase fresh air or leave the area.

Signs and Symptoms of Overexposure

Eye Contact: Corrosive. Will cause eye burns and permanent tissue damage.

Skin Contact: Causes skin burns, irritation and possible allergic reaction.

Ingestion: Can burn mouth, throat and stomach. Symptoms of ingestion may include abdominal pain, nausea, vomiting and diarrhea.

Inhalation: May be irritating to the eyes, nose, throat, and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation. Prolonged inhalation may be harmful.

Additional Information: No data available.

5. FIRE FIGHTING MEASURES

Flammable Properties: Will burn if involved in a fire.

Extinguishing Media: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material. Use an extinguishing agent suitable for the surrounding fire.

Hazardous Combustion Products: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Fire Fighting Procedures: Containers can build up pressure if exposed to heat (fire).

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

Sensitivity to Static Discharge: Product is not sensitive to static discharge.

Sensitivity to Mechanical Impact: Product is not sensitive to mechanical impact.

6. ACCIDENTAL RELEASE MEASURES

Small Spill: Ensure adequate ventilation. Cover spill area with suitable absorbent material (e.g., sand, earth, sawdust, vermiculite, Oil-Dri, Kitty Litter, etc.). Sweep up material being careful not to raise dust. Place in an appropriate disposal container and seal tightly. Avoid contact with eyes, skin, and clothing.

Environmental Precautions

Water Spill: Do not flush to sewer.

Land Spill: Avoid runoff into storm sewers and ditches which lead to waterways.

Special Protective Equipment: Clean up spills immediately, observing precautions in Protective Equipment section 8.

7. HANDLING AND STORAGE

General Procedures: Ensure thorough ventilation of stores and work areas.

Handling: Wear recommended personal protective equipment. Avoid contact with eyes, skin, and clothing. After handling, always wash hands thoroughly with soap and water.

Storage: Protect from physical damage. Keep containers tightly closed, when not in use. Store in a cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

OSHA / WHMIS 2015 HAZARDOUS COMPONENTS				
	Occupational Exposure Limits			
Chemical Name	**Type**		**ppm**	**mg/m³**
Polyamidoamine resin	**USA OEL**	**-**	-- [1]	-- [1]
4-Nonylphenol (branched)	**USA OEL**	**-**	-- [1]	-- [1]
Diethylenetriamine	**NIOSH REL**	**TWA**	1 [2]	4 [2]
	ACGIH TLV	**TWA**	1 [2]	4 [2]
Bisphenol A	**Germany (DFG)**	**TWA**	[2]	5 [2]
		STEL	[2]	5 [2]
Titanium dioxide	**OSHA PEL**	**TWA**	-- [3]	15 [3]
	ACGIH TLV	**TWA**	-- [3]	10 [3]

Footnotes:
1. This material does not have established exposure limits in the USA under OSHA, NIOSH, ACGIH.
2. Inhalable aerosol.
3. Dust - total fraction.

Engineering Controls: Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

Personal Protective Equipment

Eyes and Face: Wear safety glasses with side shields (or goggles). Contact lenses should not be worn when working with this product. Eye wash fountains should be readily available to areas of use and handling.

Skin Contact: Wear chemical resistant gloves.

Respiratory: Generally not required. Wear respiratory protection if ventilation is inadequate.

Protective Clothing: Wear protective clothing as necessary to prevent contact.

Work Hygienic Practices: Handle in accordance with good industrial hygiene and safety practices. Wash hands thoroughly after handling. Promptly remove soiled clothing/wash thoroughly before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State **:** Liquid

Odor	**:** Mild, amine
Odor Threshold	**:** No data available.
Appearance	**:** Viscous thixotropic paste
Color	**:** Beige
pH	**:** No data available.
% Volatiles	**:** < 1.0% w/w
Flash Point and Method	**:** > 150°C (302°F) Closed Cup
Flammable Limits	**:** No data available.
Autoignition Temperature	**:** No data available.
Vapor Pressure	**:** No data available.
Vapor Density	**:** No data available.
Boiling Point	**:** No data available.
Freezing Point	**:** No data available.
Melting Point	**:** Not Applicable
Solubility in Water	**:** Practically insoluble
Evaporation Rate (n-butyl acetate = 1)	**:** < 1
Density	**:** 1.55±0.05g/m at 20°C
Viscosity	**:** 200000 to 300000 cps at 22°C
VOC Content	**:** < 15 g/l (<0.125 lb/gal); < 1.0% w/w
Oxidizing Properties	**:** None

Comments: .

VOC Compliance Statement

VOC Content:	< 15 g/l (0.125 lb/gal) Part A + B as applied
Density, as applied:	1.40 to 1.50 g/ml
Total Volatiles:	< 1.0 % w/w, Part A + Part B as applied
Exempt Content:	0 % w/w; 0 % v/v
VOC Regulation:	SCAQMD Rule 1168 -Adhesives & Sealants - California
Coating Category:	Adhesive, All Other Adhesives

The product VOC content meets the 250 g/l limit for Adhesive, All Other Adhesives. The product also meets the small container exemption in the various Adhesives and Sealants district rules - packaged in ≤ 475 ml (16 fl oz) cartridges. California compliant.

VOC Regulation:	CARB, OTC – Consumer Product Regulations
Coating Category:	General Purpose Adhesive

This product VOC content meets the 10% w/w limit for the General Purpose Adhesive category under the CARB, OTC Consumer Products Regulations. 50 State compliant.

10. STABILITY AND REACTIVITY

Reactive Hazard **:** No

Hazardous Polymerization: Not expected to occur.

Stability: Stable.

Conditions to Avoid: Keep away from incompatible materials.

Possibility of Hazardous Reactions: Strong exothermic reaction with strong oxidants and strong acids.

Hazardous Decomposition Products: Carbon Monoxide and other toxic vapors.

Incompatible Materials: Acids, oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Chemical Name	Oral LD_{50} mg/kg(rat)	Dermal LD_{50} mg/kg(rabbit)	Inhalation LC_{50} mg/l
Polyamidoamine resin	> 5000	> 5000	No data available.
4-Nonylphenol (branched)	580	No data available.	No data available.
Diethylenetriamine	1553	1045	> 0.7(rat;4h - mist)
Bisphenol A	4240(rat) 3250(rat) 2500(mouse) 2400(mouse) 2230(rbt)	3000	>0.170(rat;6h)
Titanium dioxide	> 10,000	No data available.	No data available.

Acute Toxicity - Dermal LD_{50}: Based on available ingredient data, the classification criteria for Acute Dermal Toxicity are not met for this mixture. The calculated ATE is >2000 mg/kg.

Acute Toxicity - Oral LD_{50}: Based on available ingredient data, the classification criteria for Acute Oral Toxicity are not met for this mixture. The calculated ATE is >2000 mg/kg.

Acute Toxicity - Inhalation LC_{50}: Based on available ingredient data, the classification criteria for Acute Toxicity - inhalation are not met for this mixture. The calculated ATE is >20 mg/l/4h (vapours). At room temperature, exposure to vapor is minimal due to low volatility. This product is not sprayed during application; no spray mist can be generated so this route of exposure does not apply.

Notes: No additional toxicology information is available for this product itself.
(See Component Toxicity Information).
Primary Routes of Entry:
Eye contact. Inhalation. Skin contact. Ingestion.

Skin Irritation / Corrosion: Contains: Polyamidoamine resin, 4-Nonylphenol (branched) and Diethylenetriamine. The mixture is classified as: Skin Corrosive, category 1, based on summation of ingredient data (>5% ingredients classified as skin corrosive, category 1). Contact causes severe skin irritation and possible burns.

Eye Irritation / Serious Eye Damage: Contains: Polyamidoamine resin, 4-nonylphenol (branched), Diethylenetriamine and Bisphenol A. The mixture is classified as: Eye Damage, category 1, based on summation of ingredient data (> 3% ingredients classified as skin and/or eye category 1). Corrosive. Will cause eye burns and permanent tissue damage.

Respiratory / Skin Sensitizer: Contains: Diethylenetriamine and Bisphenol A. May cause sensitization by skin contact. The mixture is classified as: Skin Sensitizer, category 1 based on ingredient data (≥ 0.1% ingredients classified as a skin sensitizer, category 1 or sub-category 1A or ≥ 1.0% ingredients classified as a skin sensitizer,

sub-category 1B). Prolonged contact with this product can cause reddening, swelling, rash scaling or blistering. In those who have developed skin sensitization, these symptoms can develop as a result of contact with very small amount of the liquid material.
Based on available data, the classification criteria for respiratory sensitization are not met for this mixture (< 0.1% ingredients classified as a respiratory sensitizer, category 1 or sub-category 1A and < 1.0% ingredients classified as a respiratory sensitizer, sub-category 1B).

Germ Cell Mutagenicity: Based on available data, the classification criteria for Germ Cell Mutagenicity are not met for this mixture (< 0.1% ingredients classified as Germ Cell Mutagen, category 1A or 1B and < 1.0% ingredients classified as Germ Cell Mutagen, category 2).

Carcinogenicity

Chemical Name	NTP status	IARC status	OSHA status	Other
Polyamidoamine resin	--	--	--	--
4-Nonylphenol (branched)	--	--	--	--
Diethylenetriamine	--	--	--	--
Bisphenol A	--	--	--	--
Titanium dioxide	--	2B	--	A4 (ACGIH)

Notes: Based on available data, the classification criteria for Carcinogenicity are not met for this mixture (< 0.1% ingredients classified as a Carcinogen, category 1 or 2). Titanium dioxide is listed as Group 2B (possibly carcinogenic to humans). Titanium dioxide: applies only to respirable dust. The Titanium dioxide in this product is inextricably bound and therefore presents no potential for exposure during normal conditions of use of this product or in a forseeable emergency.

Reproductive Toxicity: Contains: 4-Nonylphenol (branched) and Bisphenol A. The mixture is classified as: Reproductive Toxicity, category 2 based on ingredient data using the applicable cut-off/concentration limits (≥ 0.1% ingredients classified as Reproductive Toxicity, category 2). Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure: Based on available data, the classification criteria for Specific Target Organ Toxicity - Single Exposure are not met for this mixture (< 1.0% ingredients classified as Specific Target Organ Toxicity - Single Exposure, category 1 or 2 and < 20% summation of all ingredients classified as Specific Target Organ Toxicity - Single Exposure, category 3).

Specific Target Organ Toxicity - Repeated Exposure: Based on available data, the classification criteria for Specific Target Organ Toxicity - Repeated Exposure are not met for this mixture (< 1.0% ingredients classified as Specific Target Organ Toxicity - Repeated Exposure, category 1 or 2).

Aspiration Hazard: Based on available data, the classification criteria for Aspiration Hazard are not met for this mixture (< 10% ingredients classified as an Aspiration Hazard, category 1 and/or mixture viscosity > 20.5 mm^2/s at 40 °C).

12. ECOLOGICAL INFORMATION

Environmental Data: No data available.

Ecotoxicological Information: No data available.

Bioaccumulation/Accumulation: No data available.

Distribution: No data available.

Aquatic Toxicity (Acute): No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

Disposal Method: Comply with applicable local, state or international regulations concerning solid or hazardous waste disposal and/or container disposal. Do not discharge substance/product into sewer system.

Product Disposal: Empty containers retain product residue; observe all precautions for product. Decontaminate containers prior to disposal.

14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

Technical Name : Polyamidoamine resin, 4-Nonylphenol (branched) and Diethylenetriamine

Primary Hazard Class/Division: 8

UN/NA Number : 3267

Packing Group : III

Other Shipping Information:
For products with an inner packaging < 5.0 L, this product may be shipped as a Limited Quantity.

Vessel (IMO/IMDG)

Shipping Name : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

Technical Name : Polyamidoamine resin, 4-Nonylphenol (branched) and Diethylenetriamine

UN/NA Number : 3267

Primary Hazard Class/Division: 8

Packing Group : III

Note: With an inner packaging < 5.0 L, this product may be shipped as a Limited Quantity.

Canadian Transportation of Dangerous Goods Regulations

Shipping Name : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

Technical Name : Polyamidoamine resin, 4-Nonylphenol (branched) and Diethylenetriamine

UN/NA Number : 3267

Primary Hazard Class/Division: 8

Packing Group : III

TDG Note:
With an inner packaging < 5.0 L, this component may be shipped as a Limited Quantity as per TDG Section 1.17.

15. REGULATORY INFORMATION

UNITED STATES

SARA Section 311/312 Hazard Categories

311/312 Health Hazards: Reproductive Toxicity, Serious Eye Damage, Skin Corrosion, Skin Sensitization

311/312 Physical Hazards: None

Fire Hazard : No
Sudden Release of Pressure : No
Reactive Hazard : No
Product Acute Toxicity : Yes

Product Chronic Toxicity : Yes

EPCRA Section 313 Toxic Chemicals

Chemical Name	Wt.%	CAS number
4-Nonylphenol (branched)	14 - 16	84852-15-3
Bisphenol A	1.5 - 2.5	80-05-7

EPCRA Section 302 Extremely Hazardous Substances

EPCRA Status:
This product contains no listed extremely hazardous substances that are subject to the reporting requirements of SARA Title III, Section 302.

CERCLA Hazardous Substances and Reportable Quantities (RQ)

CERCLA Status:
This product contains no CERCLA listed hazardous substances.

TSCA (The Toxic Substances Control Act)

TSCA Status:
All components are included or are otherwise exempt from inclusion on this inventory.

CAA 112(b) - Hazardous Air Pollutants

CAA 112(r) - List of Substances for Accidental Release Prevention:

This product contains no chemicals subject to CAA 112(b) or CAA 112(r).

California Proposition 65

Chemical Name	Wt.%	Listed
Bisphenol A	1.5 - 2.5	Female Reproductive
Titanium dioxide	1 - 1.6	Cancer

OSHA Hazard Communication Standard (29 CFR 1910.1200):
OSHA Status: Hazardous Product (See Section 2 for details).
This product has been classified in accordance with the hazard criteria of the USA OSHA Hazard Communication Standard (29CFR 1910.1200) and the Safety Data Sheet contains all the information required by the OSHA Hazard Communication Standard (HazCom 2012).

CANADA

WHMIS Hazard Symbol and Classification

See Section 2 for details.

WHMIS Regulatory Status:
This product has been classified in accordance with the hazard criteria of the Canadian Hazardous Products Regulations and the Safety Data Sheet contains all the information required by the Hazardous Products Regulations (WHMIS 2015).

WHMIS Classification:
WHMIS 2015 (Canada) Status: Hazardous Product (See Section 2 for details).

CEPA - National Pollutant Release Inventory (NPRI):
This product contains no chemicals subject to CEPA - NPRI.

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL):
All components are included or are otherwise exempt from inclusion on this inventory.

Comments VOC Content -- See section 9.

16. OTHER INFORMATION

Reason for Issue: NEW

Approved By: Jim Gordon **Title:** R&D Chemist / Chemiste de R&D

Prepared By : Regulatory Compliance / Conformité réglementaire **Date Revised:** 12/05/2017

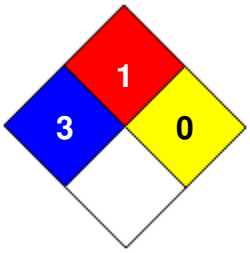
Information Contact: 905-670-5411

Revision Summary: This MSDS replaces the 08/22/2017 MSDS. Revised: **Section 4:** Signs and Symptoms of Overexposure - Inhalation. **Section 16:** HMIS RATING - HEALTH NFPA CODES - HEALTH.

HMIS RATING

HEALTH	*	3
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION		E

NFPA CODES



NFPA 30 / 30B Storage Classification: Combustible Liquid IIIB

Manufacturer Supplemental Notes: None

Data Sources: Not Available

Additional SDS Information:
N/AV Not Available
N/AP Not Applicable
ND Not yet determined
ACGIH American Conference of Governmental Industrial Hygienists
CAA The Clean Air Act
CCCR The Consumer Chemicals and Containers Regulations
CEPA The Canadian Environmental Protection Act
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
EPCRA The Emergency Planning and Community Right-To-Know Act
IARC International Agency for Research on Cancer
MSHA Mine Safety and Health Administration
NIOSH National Institute for Occupational Safety and Health
NTP National Toxicology Program
OSHA The Occupational Safety and Health Administration
SARA The Superfund Amendments and Reauthorization Act
WHMIS Workplace Hazardous Materials Information System

General Statements: No data available.

Comments: None

Manufacturer Disclaimer: The information contained herein is based on data considered accurate. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. No responsibility is assumed for personal injury or property damage to vendees or users or third parties, caused by the material. Such vendees or users assume all risks with the use of this material.