



SAFETY DATA SHEET (SDS)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: ECT-VRM 2000 A
Other means of identification: None
Recommended use: Epoxy Resin, Vapor Reduction Membrane
Manufactured by: CTM Adhesives Inc.
8320 Grenache
Montréal, Québec
Canada H1J 1C5
E-mail Address : www.ctmadhesives.com
Prepared by: The Health, Safety and Environmental Department of CTM Adhesives
Telephone number of preparer: 1-514-321-5540
Fax number: 1-514-321-5570
Emergency Telephone Number:
24-Hour Emergency Telephone Number Canada (CANUTEC) : (613) 996-6666

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification of hazardous product

- Skin Sensitization (Category 1B)
- Skin Corrosion/irritation (Category 2)
- Serious eye damage/irritation (Category 2A)
- Acute Toxicity, Oral (Category 5)
- Hazardous to the aquatic environment - acute (Category 2)
- Hazardous to the aquatic environment - chronic (Category 2)

GHS Label Elements

Hazard Pictograms/symbols



Signal Word: WARNING

Hazard and Precautionary Statements:

- H303** May be harmful if swallowed
- H315** Causes skin irritation
- H317** May cause an allergic skin reaction
- H319** Causes serious eye irritation
- H401** Toxic to aquatic life
- H411** Toxic to aquatic life with long lasting effects

P261 Avoid breathing dust/fume/gas/mist/vapours/spray. **P264** Wash with plenty of water and soap thoroughly after handling. **P272** Contaminated work clothing should not be allowed out of the workplace. **P280** Wear protective gloves/eye protection. **P305 + P351 + P338** **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. **P337 + P313** If eye irritation persists: Get medical advice/attention. **P302 + P352** **IF ON SKIN:** Wash with plenty of water. **P333 + P313** If skin irritation or rash occurs: Get medical advice/attention. **P312** **IF SWALLOWED:** Call a POISON Center/doctor/...if you feel unwell. **P362 + P364** Take off contaminated clothing and wash before reuse. **P273** Avoid release to the environment. **P391** Collect spillage. **P501** Dispose of contents/container into safe container in accordance with local, regional or national regulations.

Other Hazards Known: None known

GHS Special Labeling: EUH205 - "Contains epoxy constituents. See information supplied by the manufacture."

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Concentration (%)</u>
Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin	25068-38-6	60 - 100 %
alkyl glycidyl ether	68609-97-2	1 - 10 %
benzyl alcohol	100-51-6	1 - 10 %



SAFETY DATA SHEET (SDS)

SECTION 4. FIRST AID MEASURES

<u>Ingestion</u>	IF SWALLOWED: Call a POISON Center/doctor/...if you feel unwell.
<u>Skin Contact</u>	IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
<u>Eye Contact</u>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists: Get medical advice/attention

Most important symptoms and effects (acute and delayed)

Prolonged or repeated contact may cause skin irritation with local redness. May cause eye irritation. Corneal injury is unlikely. Has caused allergic skin reactions in humans.

Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General Information

If exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure the medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: In case of fire: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂)
Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this might spread the fire.

Specific hazards arising from the hazardous product: During fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Special protective equipment and precautions for fire-fighting: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing. Avoid contact with this material during fire-fighting operations. If contact is likely, change to full chemical resistant fire-fighting clothing with self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Isolate area. Keep unnecessary and unprotected personnel away. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillage cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental Precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Avoid prolonged or repeated contact with skin. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid use of electric band heaters. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store in cool and dry, under well-ventilated conditions. Store away from incompatible materials (see Section 10 of the SDS). Keep container closed when not in use. Do not reuse empty container without commercial cleaning or reconditioning.



SAFETY DATA SHEET (SDS)

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters (biological limit values or exposure limit values and source of those values)

Exposure limits:

CAS 25068-38-6	For Workers: Acute - systemic effects Dermal 8.330 mg/kg bw/day Inhalation 12.25 mg/m ³ For Consumers: Acute - systemic effects Dermal 3.571 mg/kg bw/day Inhalation 0.75 mg/m ³ For Workers: Long-term - systemic effects Dermal 8.330 mg/kg bw/day Inhalation 12.25 mg/m ³ For Consumers: Long-term - systemic effects Dermal 3.571 mg/kg bw/day Inhalation 0.75 mg/m ³
CAS 68609-97-2	No exposure limits noted for the ingredient(s)
CAS 100-51-6	No exposure limits noted for the ingredient(s)

Engineering Controls

Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines.

Personal Protective Equipment

Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator. Wear appropriate chemical resistant protective gloves. Wear tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists. Wear appropriate protective clothing. When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Eyewash fountains and safety showers are recommended in the work area.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State/ Appearance/ Color:	Transparent liquid, Clear	Vapour Pressure:	Not available
Odour:	Odorless to mild	Vapour Density:	Not available
Odour threshold:	Not available	Relative Density:	1.122 (g/ml)
pH:	Not available	Solubility:	Partial
Melting/freezing point:	Not available	Partition coefficient-n-octanol/water:	Not available
Initial boiling point/range:	Not available	Auto-ignition temperature:	Not available
Flash point (closed cup):	> 93 °C	Decomposition temperature:	Not available
Evaporation rate:	Not available	Viscosity:	1200 - 1400 cps
Flammability (solids and gases):	Not available	VOC:	45 g/L
Upper and lower flammability/explosive limits	Not available	Other:	None known

SECTION 10. STABILITY AND REACTIVITY

Reactivity: This product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability: This product is stable under normal conditions.

Possibility of hazardous reactions: This product will polymerize if mixed with an amine. Considerable heat can evolve.

Conditions to Avoid: Avoid temperatures exceeding the flash point. Avoid unintended contact with amines.

Incompatible materials: Strong oxidizers, strong alkalis, strong mineral acids, amines.

Hazardous decomposition products: Unknown.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely routes of exposure (inhalation, ingestion, skin and eye contact):

May be harmful if swallowed. May cause skin irritation. May cause an allergic skin reaction. May cause eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics:

High airborne concentrations of vapors may cause irritation of the respiratory tract and mucous membranes. Symptoms may include stinging, itching, tearing, redness, swelling, and blurred vision.

Delayed and immediate effects (chronic effects from short- term and long-term exposure):

Skin Sensitization – Sensitization after skin contact possible; **Respiratory Sensitization** – No data available; **Germ Cell Mutagenicity** – No data available; **Carcinogenicity** – No ingredient listed by IARC, ACGIH, NTP or OSHA **Reproductive Toxicity** No data available;



SAFETY DATA SHEET (SDS)

Specific Target Organ Toxicity — Single Exposure – No data available; **Specific Target Organ Toxicity - Repeated Exposure** – No data available; **Aspiration Hazard** – No data available; **Health Hazards Not Otherwise Classified** – No data available.

Numerical measures of toxicity (ATE; LD₅₀ & LC₅₀):

- CAS 25068-38-6 LD₅₀, Oral - Rat >15000 mg/kg
LD₅₀, Dermal - Rabbit 23000 mg/kg
- CAS 68609-97-2 LD₅₀, Oral - Rat 17100 mg/kg
LD₅₀, Dermal - Rabbit >4.5 mL/kg
- CAS 100-51-6 LD₅₀, Oral - Rat 1360 mg/kg

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial information):

Hazardous to the aquatic environment

Product	Species	Result
CAS 25068-38-6	LC ₅₀ Oncorhynchus mykiss (rainbow trout)	2 mg/l -96 h
	EC ₅₀ Daphnia magna (Water flea)	1.8 mg/l - 48 h
CAS 68609-97-2	LC ₅₀ Fish	> 1800 mg/l - 96 h
	LC ₅₀ Fish	> 5000 mg/l - 96 h
CAS 100-51-6	EC ₅₀ Invertebrates	6.07-7.2 mg/l - 48 h
	LC ₅₀ Pimephales promelas (fathead minnow)	460 mg/l - 96 h
	LC ₅₀ Lepomis macrochirus (bluegill)	10 mg/l - 96 h
	LC ₅₀ Menidia peninsulae (silverside minnow)	32 mg/l - 96 h

Persistence and degradability: Not enough data available.

Bioaccumulative potential: Bioconcentration potential is moderate.

Mobility in soil: Low potential for mobility in soil.

Other adverse effects: No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

Information on safe handling for disposal/methods of disposal/contaminated packaging: Dispose of contents/container into safe container in accordance with local, regional or national regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number; Proper shipping name; Class(es); Packing group (PG) of the TDG Regulations:

UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol-A-(epichlorhydrin) epoxy resin); CLASS 9; PG III

UN Number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime):

UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol-A-(epichlorhydrin) epoxy resin); CLASS 9; PG III

UN Number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air):

UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol-A-(epichlorhydrin) epoxy resin); CLASS 9; PG III

Special Precautions (transport/conveance): May also be shipped as a LIMITED QUANTITY in accordance with TDG.

Environmental hazards (IMDG or other): Marine Pollutant

Bulk transport (usually more than 450L in capacity): Possible

SECTION 15. REGULATORY INFORMATION

Safety/health Canadian regulations specifics: Refer to section 2 for the appropriate classification. This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).

Environmental Canadian regulations specifics: Refer to section 3 for ingredient(s) of the DSL.

Safety/health/environmental outside regulations specifics: None



PRODUCT IDENTIFIER – ECT-VRM 2000 Part A
DATE & VERSION - 14 September 2016 Version 1

SAFETY DATA SHEET (SDS)

SECTION 16. OTHER INFORMATION

Date of latest revision of the safety data sheet: 14 September 2016

Disclaimer:

NOTICE TO READER:

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END OF S.D.S.