



MATERIAL SAFETY DATA SHEET

ELASTOCOL STICK

H₂O

Disponible en français

WHMIS	PROTECTIVE CLOTHING	TRANSPORT OF DANGEROUS GOODS
		Not regulated

SECTION I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Elastocol Stick H₂O
Use: Water-based primer for membrane.

Code of MSDS: CA U DRU SS FS 085
Formula number: 508.1
Revision date: May 13, 2008
Revised by: Michel Galtier, Health and Safety Supervisor
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Manufacturer: Soprema Canada
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In case of emergency:

SOPREMA (8:00am to 5:00pm – Eastern time): (800) 567-1492
CANUTEC (Canada) (24h.): (613) 996-6666
CHEMTREC (USA) (24h.): (800) 424-9300
Poison Control Centre: Consult local telephone directory

EMERGENCY OVERVIEW!!!

Blue liquid. May be harmful if swallowed. This product contains a chemical known to cause reproductive and developmental effects. The product may cause respiratory tract irritation. May cause damage to kidney through prolonged or repeated exposure by ingestion.

SECTION II. COMPOSITION AND INFORMATION ON DANGEROUS INGREDIENTS

NAME	CAS #	% WEIGHT	EXPOSURE LIMIT (ACGIH)	
			TLV-TWA	TLV-STEL
Ethylene Glycol	107-21-1	0.1 - 1	100 mg/m ³	Not established

SECTION III. POTENTIAL HEALTH EFFECTS*Effects of Short-Term (Acute) Exposure***SKIN CONTACT:***Ethylene Glycol:*

Liquid may cause irritation. Human information is not available, but ethylene glycol was a mild irritant in an animal study. Ethylene glycol a mild irritant in an animal study. Ethylene glycol can be absorbed through skin damaged by eczema. Extent of absorption through undamaged skin is unknown. However, animal studies suggest that toxic effects could occur as a result of extensive and prolonged skin contact. Symptoms may be similar to those described for ingestion. (1)

EYE CONTACT:*Ethylene Glycol:*

Liquid may cause irritation. Vapour and mist may cause irritation. Human information is not available, but some animals exposed to ethylene glycol continuously for several days developed eye irritation. (1)

INHALATION:*Ethylene Glycol:*

Vapour and mist can cause irritation of the nose and throat. Vapour concentrations are normally too low at room temperature to cause significant toxic effects from vapour alone. Exposure to vapour and mists is possible, however at elevated temperatures, and adverse effects have been reported from exposure to mists. (1)

INGESTION:*Ethylene Glycol:*

Ethylene glycol can cause nausea, vomiting, abdominal pain and weakness, as well as drunkenness, dizziness, stupor, convulsions and coma (symptoms of depression of the central nervous system). Death could result from respiratory arrest or cardiovascular collapse. In humans, a dose of 100 ml may cause death. If the victim survives, kidney failure may develop within the next several days. In some instances, vision disturbances have been reported. The persistence of these lesions could not be determined. (1)

*Effects of Long-Term (Chronic) Exposure***SKIN SENSITIVITY:***Ethylene Glycol:*

Two cases of sensitization to ethylene glycol have been reported in people occupationally exposed to this chemical during polishing and cutting of glass lenses. (1)

INGESTION:*Ethylene Glycol:*

Human information is not available, but animals studies indicate that repeated ingestion can cause formation of bladder and kidney stones, as well as kidney damage. (1)

CARCINOGENICITY:*Ethylene Glycol:*

No human information. Not carcinogenic in animal studies. The International Agency for Research on Cancer (IARC) has not evaluated the carcinogenicity of this chemical. The American Conference of Governmental Industrial Hygienists (ACGIH) has designated this chemical as not classifiable as a human carcinogen (A4). The US National Toxicology Program (NTP) has not listed this chemical in its report on carcinogens. (1)

TERATOGENICITY, EMBRYOTOXICITY, FETOTOXICITY:*Ethylene Glycol:*

No human information. Embryotoxic and teratogenic in animal feeding studies at high doses which were not maternally toxic. (1)

REPRODUCTIVE TOXICITY:*Ethylene Glycol:*

No human information. In an animal study, long-term ingestion of ethylene glycol did not affect fertility of male or female rats. (1)

MUTAGENICITY:*Ethylene Glycol:*

No human information. An in-vivo animal study was negative. (1)

TOXICOLOGICALLY SYNERGISTIC MATERIALS:*Ethylene Glycol:*

Information not available.

POTENTIAL FOR ACCUMULATION:*MEthylene Glycol:*

Ethylene glycol is broken down in the body and excreted. Break-down products include glycolic acid and oxalic acid, which are thought to play a role in some of the toxic effects observed. (1)

SECTION IV. FIRST AID MEASURES**SKIN CONTACT:**

Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists, get medical attention.

EYE CONTACT:

Flush thoroughly with water for at least 15 minutes. If irritation persists, get medical attention.

INHALATION:

In case of gas or vapour inhalation, move victim to fresh air. If breathing is difficult, give oxygen. If breathing stops, give respiratory assistance. Obtain medical assistance.

SWALLOWING:

Do not induce vomiting. Immediately contact local poison control centre. Should vomiting occur, be sure to keep the victim's head below hips to avoid aspiration of vomit into the lungs. Maintain the victim at rest and obtain immediate medical attention.

SECTION V. FIRE FIGHTING MEASURES

FLAMMABILITY: Non flammable

FLASH POINT: Non flammable

AUTO-IGNITION TEMPERATURE: Not applicable

FLAMMABILITY LIMITS IN AIR: (% en volume) Not applicable

FIRE HAZARDS:

Non flammable water-based product. Concentration of alcohols is too low to create a fire hazard.

COMBUSTION PRODUCTS:

Irritating and/or toxic gases or fumes such as CO, CO₂ may be generated by thermal decomposition or combustion of the product.

FIRE FIGHTING INSTRUCTIONS:

Evacuate area. Wear self-contained breathing apparatus and appropriate protective clothing in accordance with standards. Approach fire from upwind and fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Always stay away from containers because of the risk of explosion. Stop leak before attempting to put out the fire. If leak cannot be stopped, and if there is no risk to the surrounding area, let the fire burn itself out. Move containers from fire area if this can be done without risk. Cool containers with flooding quantities of water until well after fire is out.

EXTINGUISHING MEDIA:

Foam, CO₂ powder, sand, chemical powder.

SECTION VI. ACCIDENTAL RELEASE MEASURES**RELEASE OR SPILL:**

Wear appropriate protective equipment during cleanup. Shut off source of leak if you can do it without risk. Contain the spill. Absorb with inert material such as sand or earth. Shovel into containers with lids. Cover and remove to appropriate well-ventilated area until disposal. Wash spill area with soap and water. Prevent entry into waterways, sewers or basements. Dispose of this product according to local environmental regulations.

SECTION VII. HANDLING AND STORAGE**HANDLING:**

This product is non flammable. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapours and dusts. Wash thoroughly after handling. Tightly reseal all partially used containers. Use under appropriate conditions of ventilation. Keep away from heat. Do not cut, puncture or weld empty containers.

STORAGE:

Store in a cool well-ventilated area out of direct sunlight and away from heat and ignition sources. Do not store at temperatures lower than 5°C or over than 90°C. Keep away from children.

SECTION VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

HANDS: Wear appropriate gloves (viton, nitrile, PVC, neoprene).

RESPIRATORY: If the TLV is exceeded, if use is performed in a poorly ventilated confined area, use an approved respirator in accordance with standards.

EYES: Wear chemical safety goggles in accordance with standards.

OTHERS: Eye bath and safety shower.

CONTROL OF VAPOURS: Local exhaust is needed to control vapour and dust level to below recommended limits.

SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
ODOUR AND APPEARANCE:	Blue liquid
ODOUR THRESHOLD:	Not available
VAPOUR DENSITY (air = 1):	Not available
EVAPORATION RATE (Butyl acetate = 1):	Not available
BOILING POINT (760 mm Hg):	100°C
FREEZING POINT:	0°C
SPECIFIC GRAVITY (H₂O = 1):	1 g/ml
SOLUBILITY IN WATER (20°C):	Soluble
PH:	7-9
VOLATILE ORGANIC COMPOUND CONTENT (V.O.C.):	3 g/L
VISCOSITY:	Not available

SECTION X. STABILITY AND REACTIVITY

STABILITY:	This material is stable.
CONDITIONS OF REACTIVITY:	Avoid excessive freezing and heat.
INCOMPATIBILITY:	Solution or acid emulsion.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide, nitrogen and sulphur oxide.
HAZARDOUS POLYMERISATION:	None

SECTION XI. TOXICOLOGICAL INFORMATION**TOXICOLOGICAL DATA:****Ethylene Glycol: (1)**

LD50 (oral, rat):	5.89 g/kg; 8.54 g/kg; 13.0 g/kg
LD50 (dermal, rabbit):	9.5 g/kg

Effects of Short-Term (Acute) Exposure**EYE IRRITATION:****Ethylene Glycol:**

LIQUID (rabbit): Application of 0.5 ml undiluted ethylene glycol did not cause irritation.

VAPOUR: Animals exposed to 57 mg/m³ (23 ppm) ethylene glycol, 8 hr/day, 5 days/week for 6 weeks did not develop irritation.

Rats and rabbits exposed continuously to 12 mg/m³ (4.8 ppm) ethylene glycol for several days exhibited moderate to severe irritation. Irritation was not observed in guinea pigs, monkeys or dogs. (1)

SKIN IRRITATION:**Ethylene Glycol:**

Application of 555 mg (0.5 ml) was reported to cause mild irritation (original not available). (1)

Effects of Long-Term (Chronic) Exposure**INHALATION:****Ethylene Glycol:**

Toxic effects were not observed in animals. (1)

INGESTION (rat, monkey):**Ethylene Glycol:**

Repeated ingestion of ethylene glycol caused bladder and kidney stone formation, and kidney damage. Males seemed more susceptible to toxic effects of ethylene glycol than females. (1)

CARCINOGENICITY:**Ethylene Glycol:**

Ethylene glycol did not produce tumours in rats when administered as 1% of the diet for 2 years. In other studies, ethylene glycol did not cause tumours in rats or mice when injected repeatedly under the skin. (1)

EMBRYOTOXICITY:**Ethylene Glycol:**

Embryotoxicity (for example, decreased birth weight and survival) was observed in offspring of mice given 1% ethylene glycol in their drinking water over 14 weeks, but not in offspring of rats fed 1000 mg/kg/day, over 3 generations. Parental toxicity was not significant in these studies. Embryotoxicity was seen when mice were fed 750-3000 mg/kg/day for several days during pregnancy. In a similar study with rats, embryotoxicity was seen at doses of 2500-5000 mg/kg/day but not at 1250 mg/kg/day. Maternal toxicity was not significant in these studies. Birth weight and length were decreased in offspring of rats fed 1078 or 1595 mg/kg/day for 10 days during pregnancy. Maternal toxicity was not discussed in the English abstract (translation of paper not available). (1)

SECTION XI. TOXICOLOGICAL INFORMATION

TERATOGENICITY:

Ethylene Glycol:

Malformations were seen in offspring of mice fed 750-3000 mg/kg/day and rats fed 1250-5000 mg/kg/day for several days during pregnancy. Maternal toxicity was not significant in these studies. Malformations were not seen in offspring of rats fed up to 1000 mg/kg/day for several days during pregnancy. In another study, rats were fed 253-1595 mg/kg/day for 10 days during pregnancy. Doses of 1078 and 1595 mg/kg were teratogenic (e.g. fissure in wall of abdomen, brain located outside the skull, harelip, rib malformations). Maternal toxicity was not discussed in the English abstract (translation of paper not available). (1)

FERTILITY:

Ethylene Glycol:

No effects on fertility were observed when male and female rats were fed up to 1000 mg/kg day over 3 generations. (1)

MUTAGENICITY:

Ethylene Glycol:

Not mutagenic to bacteria. Mutagenic in studies with isolated mammalian cells. Did not cause an increase in dominant lethal mutations in offspring of male rats fed 1000 mg/kg/day for approximately 14 weeks prior to mating. (1)

SECTION XII. ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS:

Do not allow product or runoff from fire control to enter storm or sanitary sewers, lakes, rivers, streams, or public waterways. Block off drains and ditches. Provincial and federal regulations may require that environmental and/or other agencies be notified of a spill incident. Spill area must be cleaned and restored to original condition or to the satisfaction of authorities. May be harmful to aquatic life.

SECTION XIII. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Consult local, state, provincial or territory authorities to know disposal methods.

SECTION XIV. TRANSPORT INFORMATION

NAME OF PRODUCT:	Elastocol Stick H ₂ O	IDENTIFICATION NUMBER:	Not regulated.
CLASSIFICATION (TDG and DOT):	Not regulated.	SHIPPING NAME:	Not regulated.
CONTAINERS FOLLOW THE STANDARDS OF:		PACKING GROUP:	Not regulated.
Canada:	CAN / CGSB-43.150-97		
USA:	CFR 49 parts 100 to 199		

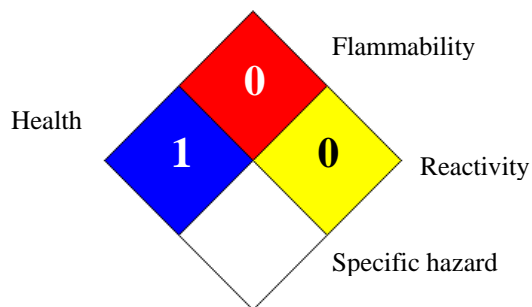
SECTION XV. REGULATORY INFORMATION

WHMIS: Class D2A: Other toxicological effects: (Teratogenicity and Embryotoxicity).
DSL: All constituents of this product are included in the Domestic Substances List (DSL – Canada)
TSCA: All constituents of this product are included in the Toxic Substances Control Act Inventory (TSCA – USA).

HMIS (USA):

1	HEALTH
0	FLAMMABILITY
0	REACTIVITY
B	PROTECTIVE EQUIPMENT

NFPA (USA):



SECTION XVI. OTHER INFORMATION

Glossary:

ACGIH:	American Conference of Governmental Industrial Hygienists
ANSI:	American National Standards Institute
CAS:	Chemical Abstract Services
CFR:	Code of Federal Regulations (United States)
CSA:	Canadian Standardisation Association
DOT:	Department of Transportation
DSL:	Domestic Substances List (Canada)
EPA:	Environmental Protection Agency (United States)
HMIS:	Hazardous Material Information System
IARC:	International Agency of Research on Cancer
ICBR:	Industrial and Commercial Buildings Regulations
LC50:	(Lethal concentration ₅₀) Concentration of a substance in air that causes death of 50 % mortality of a defined animal population
LD50:	Lethal dose ₅₀) Single dose of a substance that, when administered by a defined route in an animal assay, is expected to cause the death of 50 % of a defined animal population
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health (United States)
N.S.A.:	Not Specified Otherwise
NTP:	National Toxicology Program (United States)
OSHA:	Occupational Safety & Health Administration (United States)
RCRA:	Resource Conservation and Recovery Act (United States)
RTECS:	Registry of Toxic Effects of Chemical Substances
TDG:	Transportation of Dangerous Goods (Canada)
TLV-TWA:	Threshold Limit Value – Time-weighted Average
TSCA:	Toxic Substances Control Act
WHMIS:	Workplace Hazardous Materials Information System (Canada)

References:

- (1) CHEMINFO (2007) Canadian Centre of Organisational Health and Safety, Hamilton (Ontario) Canada

This MSDS has been prepared by: Michel Galtier

For more information: SOPREMA Canada 1-800-567-1492

The Material Safety Data Sheets of SOPREMA Canada are available on Internet at the following site: <http://www.soprema.ca>

Justification of the update:

- Modification of the symbols Protective equipment (HMIS) and Specific hazard (NFPA). (Section XV)

This MSDS contains all the information required by ANSI Z400.1 standard (United States), by regulation 29 CFR Part. 1910-1200 of the Hazard Communication Standard of OSHA and is in accordance with standard DORS/88-66 of WHMIS (Canada).

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier or any of its subsidiaries assumes any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole 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 exist.