





Section 1 : Identification	
Product name : Putty series A 324 RM	Others means of identification :
Recommended use of the chemical and restrictions on use : Polyester resin formulated to be used in composites and fibreglass industry.	Supplier's details : Polynt Composites Canada Inc. 2650, rue Thérèse Casgrain Drummondville, Québec Canada, J2A 4J5 Tel. : (819)-477-4516 or 1-800-363-2000
EMERGENCY PHONE NUMBER (24h) Canutec : 613-996-6666	

Section 2 : Hazard Identification				
Classification of the substance	Pictograms	Signal words	Hazard statement	Precautionary statement
Flammable liquid, Category 3		Warning	H226 Flammable liquid and vapor	P210 Keep away from heat/sparks/open flames/hot surface. No smoking. P233 Keep container tightly closed. P235 Keep cool. P240 Ground/Bond container and receiving equipment. P242 Use only non-sparkling tools. P243 Take precautionary measures against static discharge.
Acute toxicity – inhalation, Category 4		Warning	H332 Harmful if inhaled H302 Harmful if swallowed.	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in well-ventilated area. P312 Call a POISON CENTER or a doctor if you feel unwell P330 Rinse your mouth.
Acute toxicity – Oral, Category 5		Warning	H315 Causes skin irritation H317 May Causes skin allergic reactions H319 Causes eye irritation H351 (dust) Suspected of causing cancer H361d Suspected of damaging the unborn child H373 May cause damage to organs through prolonged exposure	P352 P302 Wash skin with soap and water P310 Seek a doctor P337 If irritation persists: seek medical advice P201 Obtain special instruction before use. P202 Do no handle until all safety precautions have been read and understood. P260 Do not breathe dust/fumes/gas/mist/vapours/sprays P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/clothing and personal protective equipment. P284 Wear respiratory protection.

WHMIS symbols		Other hazards	
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Section 3 : Composition /Information on ingredients

Chemical identity of the substance	CAS Number	Percentage (%)
Styrene Monomer	000100-42-5	20-26

Section 4 : First-aid measures

Inhalation	Remove victim to fresh air, give artificial respiration or give oxygen. Call a physician immediately. Risk of pulmonary aspiration in case of serious accident.
Eye contact	Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses if applicable. Diphoterine type solutions can replace water. A constant feeling of sand grain or persistent redness requires specialized medical advice. Call a physician.
Skin contact	Depending on the degree of gravity, wash with soap and water. Remove contaminated clothing. If irritation develops, consult a physician. Treat severe redness by Biafine type products. Consult a physician.
Ingestion	Do not induce vomiting, rinse mouth. Consult a physician.

Section 5 : Fire-fighting measures

Suitable extinguishing media : foam, carbon dioxide, dry chemicals.
Specific hazards arising from the chemical : On combustion, styrene releases carbon, carbon monoxide and carbon dioxide.
Special protective actions for fire-fighter : Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat.

Section 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures : Remove all sources of ignition (flames, hot surfaces and electrical, static, or friction sparks). Avoid breathing vapours. Ventilate area. Attention ! Contaminated absorbent or used absorbent may heat and ignite a fire. Keep it outside and put some water in the container.
Environmental precautions : When there is a spill, in presence of water, the styrene will float because specific gravity is lower than water. Styrene is weakly soluble in water. However, resin and gelcoat have specific gravity higher than 1.
Methods and materials for containment and cleaning up : Contain and remove with inert absorbent and non-sparking tools.

Section 7 : Handling and Storage

Precautions for safe handling : Do not store above 100°F (37.8°C). Keep away from heat, sparks and flame. Keep containers closed when not in use and upright to prevent leakage. Wash hands after using and before smoking or eating.
Conditions for safe storage, including any incompatibilities : Containers should be grounded when pouring. Wash hands after using and before smoking or eating. Emptied containers may retain hazardous residue and explosive vapours. Keep away from heat, sparks and flames. Do not cut, puncture or weld on or near emptied containers. Follow all hazard precautions given in this data sheet until container is thoroughly cleaned or destroyed. Do not mix residues of this product with any other petroleum wastes.



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Section 8 : Exposure controls/ personal protection

Product	CAS number	Quebec (CSST)		Ontario		Manitoba (ACGIH)		Nova Scotia (ACGIH)	
		Exposure 8h/day	Exposure 15 min/day	Exposure 8h/day	Exposure 15min/day	Exposure 8h/day	Exposure 15min/day	Exposure 8h/day	Exposure 15min/day
Styrene monomer	100-42-5	50 ppm	100 ppm	35 ppm	100 ppm	20 ppm	40 ppm	20 ppm	40 ppm
Methanol	67-56-1	200 ppm	250 ppm	200 ppm	250 ppm	200 ppm	250 ppm	N/D	N/D

Appropriate engineering controls : Use this product with good ventilation to keep vapour concentration at 50 ppm or less mean concentration for 8 hours.

Individual protection measures, such as personal protective equipment (PPE)

Respiratory protection : Wear a cartridge or autonomous respirator if the concentration in ppm exceeds recommended exposure standard. These devices, however, require that the user has received appropriate training.

Skin protection : Wear long-sleeved overalls or coveralls.

Gloves: Wear gloves of butyl or nitrile.

Eye/face protection : Use safety eyewear with splash guards or side shields, chemical goggles or face shields.

Section 9 : Physical and chemical properties

Physical properties

Appearance	transparent liquid
Odour	aromatic
Viscosity	N/D

Chemical properties

Partition coefficient: n-octanol/water	0,00112	Melting point	-30.6°C
Relative density g/cm cube	1.1 à 1.3	Odour threshold	0.14 ppm
Vapour density	3,6	Initial boiling Point	145°C
Explosibility	Vapors may form an explosive mixture with air.	Flash point	32°C (Pensky-Marten (styrene))
Flammability	Flammable liquid	Solubility(ies)	0.29 g/litre @ 20°C 0.32 g/litre @ 25°C
Lower flammability limit	1.1% by volume	Evaporation rate	N/A
Upper flammability limit	6.1% by volume	Vapour pressure	4.5 mm Hg à 20°C (0.600 kPa)
pH	N/A	Auto-ignition temperature	490°C
Freezing Point	N/A	Decomposition temperature	N/A

Section 10 : Stability and reactivity

Reactivity	The product is not considered self-reactive
Possibility of hazardous reactions	Hazardous polymerization : may occur with an exothermic reaction
Chemical stability	Unstable under certain conditions.



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Conditions to avoid	elevated temperatures. Improper addition of promoter and/or catalyst. Avoid direct contact of methylethylketone peroxide catalyst (MEKP) with accelerator(cobalt, calcium, potassium's salts). If an accelerator such as cobalt drier has to be added, mix this accelerator with base material before adding catalyst.
Incompatible materials	oxidizers, peroxides, strong acids
Hazardous decomposition products	thermal decomposition or combustion can produce fumes containing organic acids, carbon dioxide and carbon monoxide.

Section 11 : Toxicological information


Information on the likely routes of exposure : Can be absorbed through the respiratory, digestive, skin and eyes.		
Acute exposition effects : May cause central nervous system depression causing headache, nausea, vomiting, drowsiness, dizziness and muscle weakness. Inhalation of high concentrations can lead to convulsions, coma and death.		
Chronic exposition effects : Can cause damage to the brain and nervous system such as dizziness, headache and nausea, if exposure continues, loss of consciousness occurs with possible damage to the liver and kidneys.		
Irritation : May cause lesions to skin, redness and pain in eyes.		
Sensitization: May rarely cause occupational asthma. Skin sensitization is also very rare.		
Carcinogenicity : Group B . Possibly carcinogenic to humans		
Reproductive toxicity : N/A		
Mutagenicity : N/A		
Interactive effects: . A synergic effect between styrene and diethyl maleate and an antagonistic effect between styrene and methionine had been observed.		
Acute toxicity :	LD50, species, tract	LC50,duration, species
Styrene Monomer	oral : 4,37 g/kg (rat) dermal : 5g/kg(rabbit)	5000 ppm/ 8 hours (rat)
Methanol	Rat, oral: 5,045 mg/kg Rabbit, dermal : 12,800 mg/kg	Rat : 16 000 ppm

Section 12 : Ecological information

Acute aquatic toxicity	<u>Seaweed</u> (Scenedesmus capricornutum) : CEc50 (72h)=4,9 mg/litre	<u>Micro-shellfish</u> (Daphnia magna) : CE50 (48h) = 4,7 mg/litre	<u>Fish</u> (Pimephales promelas) : CL50 (96h) = 4,02 mg/litre	<u>Bacteria</u> (Pseudomonas fluorescens) : NOEC (16h) = 72 mg/litre/	<u>Annelides</u> (Eisenia foetida) : CL50 (14j) = 120 mg/kg
Chronic aquatic toxicity	N/A				
Terrestrial toxicity	It is readily biodegradable in soil under aerobic conditions.				
Persistence and degradability	Freshwaters half-life: 15 days. Groundwater half-life: 4 to 30 weeks. Marine waters half-life (estimate): 45 days. In the presence of sea water, styrene will be reduced by volatilization, photo-oxidation and biotransformation.				
Bioaccumulative potential	<u>Octanol-water partition coefficient :</u> Log Kow = 3,02		<u>Bioconcentration factor :</u> Fish= 74 Crab= 12 Goldfish =13,5		
Mobility in soil	Moderate	Other adverse effects	N/A		

Section 13 : Disposal considerations

Disposal methods	Dispose of in accordance with local, provincial and federal regulations. Do not incinerate closed containers. Incinerate in approved facility. Liquid residue must be treated as hazardous waste and disposed in accordance with environmental regulations.
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Section 14 : Transport information	
UN Number	UN1866
Proper Shipping Name	RESIN SOLUTION, flammable
Placard	
Transport hazard class(es)	3
Packing Group	III
Environmental hazards	Not considered as a marine pollutant
Transport in bulk	Possible
Maximum quantity we can ship considering limited quantity exemption Article 1.17 of Canadian TDG Regulation	5.0 litres for packing group III

Section 15 : Regulatory information	
W.H.M.I.S. CLASSIFICATION	B2 D2A D2B F
NFPA CLASSIFICATION (NFPA 30-2008)	1C
National Building Code of Canada	1C

Section 16 : Other information
<p>The information contained in this data sheet is given only as a guide. This data sheet had been prepared in good faith using reliable sources. From our point of view, the information is correct, but not guaranteed. The data sheet is non-exclusive as manipulation and use can vary from one application to another. There is no guarantee and Polynt Composites will not be responsible for losses, faults or damages resulting of the use of the information given in this data sheet.</p> <p>In date of : 2015-09-28</p>