

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier: POLY CLEANER™

Product code: POLY CLEANER™

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Cleaner

Restriction on use: Do not use on plastic surfaces

1.3 Details of the supplier of the safety data sheet

Company: Polymères Technologies Inc
6330 boulevard Laurier Ouest
Saint-Hyacinthe (Québec)
Canada, J2S 9A7
1 866-799-3058

24-hour Emergency Phone number (CANUTEC): 1 888 226-8832

2. Hazards identification

2.1 Classification of the substance or mixture

Flammable liquids – Category 4 Aspiration hazard – Category 1 Skin sensitization – Category 1

Skin irritation – Category 2

See toxicological information, section 11

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word: DANGER

Hazard statement(s)

H227	Combustible liquid.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H315	Causes skin irritation.

Prevention statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No
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- smoking.
- P261 Avoid breathing mist, vapors, and spray.
- P280 Wear protective gloves, protective clothing, and eye/face protection.
- P264 Wash hands thoroughly after handling as well as any other part of the body that may have been exposed to the product.
- P272 Contaminated work clothing should not be allowed out of the workplace.

Response statement(s)

- P370+P376 In case of fire: Use an appropriate extinguisher.
- P301+P310+P331 IF SWALLOWED: Immediately call a poison center. Do not induce vomiting.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P333+P313 If skin irritation or rash occurs: Get medical advice.
- P362 Take off contaminated clothing and wash before reuse.

Disposal: Dispose of contents/container in accordance with local / regional / national / international regulations.

2.3 Other hazards: Poison by intravenous route.

3. Composition / information on ingredient(s)

Chemical noun	% (P/P)	Information	
d-Limonene. (R)-p-mentha-1,8-diene	10.00 – 30.00	CAS No: CLP classification:	5989-27-5 H227 Combustible liquid H304 May be fatal if swallowed and enters airways H317 May cause an allergic skin reaction H315 Causes skin irritation

The actual concentration range is withheld as a trade secret.

4. First-aid measures

4.1 Description of first-aid measures: Immediately contact a poison center, an emergency room, or a doctor/physician if product is swallowed or if there is irritation. The same measures are to be applied if any type/symptoms of overexposure occur during or persist after use. Make sure that the safety data sheet is available.

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention as soon as possible.

Skin contact: Remove contaminated clothing immediately. Wash the skin with soap and water. Thoroughly wet contaminated clothing. If irritation persists, consult a doctor.

Inhalation: Move exposed person to fresh air. Keep this person warm and lying down. Loosen tight clothing such as collar, tie, belt, or waistband. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed: The worker may develop cutaneous hypersensitivity, itching of the skin as well as redness of eyes and skin.

Effects (acute or delayed): Aspiration of the product into the lungs may produce chemical pneumonitis. May cause skin irritation and sensitization.

4.3 Indication of any immediate medical attention and special treatment needed: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Firefighting measures

5.1 Extinguishing media: Use dry chemical, CO₂, water spray (fog), or foam.

Unsuitable extinguishing media: Jets of water can facilitate the spread of fire.

5.2 Special hazards arising from the substance or mixture: Combustible. If heated, vapors may form explosive mixtures with air. The vapors are heavier than air and may travel to an ignition source.

Hazardous combustion products: Carbon monoxide and carbon dioxide. Sulfur oxides.

5.3 Advice for firefighters: Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-rescuers

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking, or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

6.1.2 For emergency responders

Equip the cleaning crew with adequate protection depending on the location of the product.

6.2 Environmental precautions: Avoid dispersal or runoff of spilled material and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

6.3 Methods and material for containment and cleaning up: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections:

See section 1 for emergency contacts.

See section 8 to obtain information about appropriate individual protection equipment.

See section 13 for more information on waste treatment methods.

7. Handling and storage

7.1 Precautions for safe handling: Put on appropriate personal protective equipment (see section 8). Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash their hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Avoid contact with eyes, skin, and clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear an appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material. Keep said container tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

7.2 Conditions for safe storage: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool, and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep said container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Incompatibility: Strong oxidizing agents. Oxidizers.

7.3 Specific end use(s): Not available

8. Exposure controls / personal protection

8.1 Control parameters

1 – National occupational exposure limit values

Substance	CAS No	Workplace exposure limit				Comments
d-Limonene. (R)-p-mentha- 1,8-diene	5989-27-5	Long-term exposure limit (8-hr TWA reference period)		Short-term exposure limit (15-min reference period)		The Carc, Sen and Sk notations are not exhaustive. Notations have been applied to substances identified in IOELV Directives.
		ppm	mg/m³	ppm	mg/m³	
		N/A	N/A	N/A	N/A	

2 – Union occupational exposure limit values

CAS No	Common name and synonyms	8-hour TWA		15-min occupational exposure limit (STEL)		Notes
5989-27-5	d-Limonene. (R)-p-mentha-1,8-diene	ppm	mg/m ³	ppm	mg/m ³	
		N/A	N/A	N/A	N/A	N/A

3 – US occupational exposure limit values

CAS No	Common name and synonyms	IDLH NIOSH	Regulatory limits		Recommended limits	
5989-27-5	d-Limonene. (R)-p-mentha-1,8-diene		OSHA PEL		California / OSHA PEL	NIOSH REL
			ppm	mg/m ³	8-hour TWA	Up to 10 hours
		N/A	N/A	N/A	N/A	N/A

IDLH: Immediately Dangerous to Health or Life concentrations

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limits

California / OSHA: California Division of Occupational Safety and Health

REL: Recommended Exposure Limits

ACGIH®: American Conference of Governmental Industrial Hygienists

TLV®: Threshold Limit Values

8.2 Exposure controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor, or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating and smoking, while using the lavatory, and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eyes: DO NOT WEAR CONTACT LENSES; wear anti-splash safety goggles instead.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties.

Respiratory: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying, or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator.

Others: Wear protective clothing with long sleeves and appropriate safety shoes at all times.

9. Physical and chemical properties

9.1 Basic physical and chemical properties

Physical state: Liquid

Color: Clear

Odor: Citrus

Odor threshold: Not available

pH: Not applicable

Melting/freezing point: Not available

Initial boiling point/boiling range: > 178°C (> 352.4°F)

Flash point: 88°C (190.4°F) closed cup

Flammability, in the case of solids and gases

Lower flammable/explosive limit: Not available

Upper flammable/explosive limit: Not available

Auto-ignition temperature: > 210°C (> 410°F)

Evaporation rate: Not available

Vapor pressure: Not available

Vapor density: > 1 (air=1)

Relative density: 0.993kg/L at 20°C (water=1)

Solubility: Partially in water

Partition coefficient n-octanol/water: Not available

Decomposition temperature: Not available

Viscosity: 13 mm²/s at 40°C

9.2 Other information: Not available

10. Stability and reactivity

10.1 Reactivity: Stable under recommended conditions of storage and handling.

10.2 Chemical stability: The product is chemically stable under normal conditions of use.

10.3 Possibility of hazardous reactions: No dangerous or polymerization reactions will occur under normal conditions of use. Danger of explosion when heated.

10.4 Conditions to avoid: Avoid electrical discharge. Keep away from sources of ignition, open flames, and sparks. Keep away from incompatible products (see Section 7).

10.5 Incompatible materials: This product can attack certain types of plastic, rubber, and coatings.

10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide. Sulfur oxides.

11. Toxicological information

11.1 Information on toxicological effects

ATE _{mix}	Oral	Dermal	Inhalation gases	Inhalation vapours	Inhalation dusts/mists
	22000 mg/kg	>5000 mg/kg	N/A	>20 mg/l	>5 mg/l

No	CAS No	Common name and synonyms	LD ₅₀ oral mg/kg	LD ₅₀ skin mg/kg	LC ₅₀ inhalation ppmV 4h - gases	LC ₅₀ inhalation mg/l 4h - vapours	LC ₅₀ inhalation mg/l 4h - dusts-mists
1	5989-27-5	d-Limonene. (R)-p-mentha-1,8-diene	4400	>5000	N/A	>20.00	>5.00

Information on likely routes of exposure: This product is absorbed through the respiratory tract, skin, and gastrointestinal tract.

Aspiration hazard	Yes
Skin corrosion – skin irritation	Yes
Serious eye damage – serious eye irritation	N/A
Skin sensitization	Yes
Respiratory sensitization	N/A
Specific target organ toxicity – single exposure	N/A
Specific target organ toxicity – single exposure Category 3 Narcotic effects	N/A
Specific target organ toxicity – single exposure Category 3 Respiratory tract irritation	N/A
Specific target organ toxicity – repeated exposure	N/A

No	CAS No	Common name and synonyms	IARC	ACGIH	Mutagenicity	Effect on reproduction
1	5989-27-5	d-Limonene. (R)-p-mentha-1,8-diene	3	A4	The data does not allow for an adequate assessment of mutagenic effects.	The data does not allow for an adequate evaluation of the effects on reproduction.

Cancer classification under IARC (International Agency for Research on Cancer)

- Group 1: carcinogenic to humans.
- Group 2A: probably carcinogenic to humans.
- Group 2B: possibly carcinogenic to humans.
- Group 3: not classifiable as to its carcinogenicity to humans.
- Group 4: probably not carcinogenic to humans.

Cancer classification under ACGIH (American Conference of Governmental Industrial Hygienists)

- Group A1: confirmed human carcinogen.
- Group A2: suspected human carcinogen.
- Group A3: confirmed animal carcinogen with unknown relevance to humans.
- Group A4: not classifiable as a human carcinogen.

Group A5: not suspected as a human carcinogen.

12. Ecological information

No	CAS No	Common name and synonyms	%	12.1 Aquatic ecotoxicity	12.2 Persistent	12.3 Bio-accumulation
1	5989-27-5	d-Limonene. (R)-p-mentha-1,8-diene	10.00 – 30.00	Yes	No	No

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment: Not available

12.6 Other adverse effects

No	CAS No	Common name and synonyms	%	Terrestrial ecotoxicity	Aquatic ecotoxicity short term	Aquatic ecotoxicity long term
1	5989-27-5	d-Limonene. (R)-p-mentha-1,8-diene	10.00 – 30.00	No known adverse effect to the environment.	Very toxic to aquatic life.	Very toxic to aquatic life with long-lasting effects.

13. Disposal considerations

13.1 Waste treatment methods: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non- recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

14. Transport information

	TDG	DOT	IMDG	IATA
14.1 UN number	3082			
14.2 Proper shipping name	Environmentally hazardous substance, liquid, N.O.S. (p-Mentha-1,8-diene)			
14.3 Transport hazard class(es)	9			
14.4 Packing group	III			

Transport in bulk (according to Annex II of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), and the International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code)): N/A

14.5 Environmental hazards: Yes

ADR: The identification of marine pollutant is not required for transport by ground.

IMDG: The mark 'marine pollutant' is not required when the substance is carried in quantities <= 5L or <= 5kg.

Exemption for limited quantity: 5L

14.6 Special precautions for users: Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC code: Not applicable

15. Regulatory information

CANADA

No	CAS No	Common name and synonyms	%	DSL	NDSL	NPRI
1	5989-27-5	d-Limonene. (R)-p-mentha-1,8-diene	10.00 – 30.00	X		X

UNITED STATES

No	CAS No	Common name and synonyms	%	TSCA	PROP-65	RTKHS
1	5989-27-5	d-Limonene. (R)-p-mentha-1,8-diene	10.00 – 30.00	X		

16. Other information

Abbreviations and acronyms

ATE= Acute Toxicity Estimate
 CLP= Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL= Derived Minimal Effect Level
 DNEL= Derived No Effect Level
 DSL= Domestic Substances List
 EUH statement= CLP-specific Hazard statement
 NDSL=Non-Domestic Substances List
 NPRI= National Pollutant Release Inventory
 PBT= Persistent, Bio-accumulative, and Toxic
 PNEC= Predicted No Effect Concentration
 PROP-65= Proposition 65 of the Californian OEHHA (Office of Environmental Health Hazard Assessment)
 RRN= REACH Registration Number
 RTKHS= Right-To-Know Hazardous Substances List
 TSCA= Toxic Substance Control Act
 vPvB= Very Persistent and Very Bio-accumulative

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