



# Safety Data Sheet

Version 1.0  
Revision Date: 26/05/2025

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **Poly(3-Trifluoromethyl styrene)**  
Product abbreviation: 3FMeS  
Product use: For laboratory research purposes.  
Supplier / Manufacturer: Polymer Source, Inc.  
Address: 124 Avro street, Dorval (Montreal), Quebec H9P 2X8, Canada  
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## 2. HAZARDS IDENTIFICATION

Emergency overview: WHMIS classification: Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)  
GHS classification: In accordance with Hazardous Products Regulations (HPR) (SOR/2015-17).  
Flammable liquids (Category 3), H226  
Skin irritation (Category 2), H315  
Eye irritation (Category 2A), H319  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

GHS Label elements

Pictogram



Signal Word Warning

Hazard Statements

H226 Flammable liquid and vapor.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary Statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P242 Use non-sparking tools.  
P243 Take action to prevent static discharges.  
P261 Avoid breathing mist or vapors.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.

|                           |             |                                   |
|---------------------------|-------------|-----------------------------------|
| Potential health effects: | Inhalation: | May cause respiratory irritation. |
|                           | Skin:       | Causes skin irritation.           |
|                           | Eyes:       | Causes serious eye irritation.    |
|                           | Ingestion:  | May be harmful if swallowed.      |

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

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|                      |                                 |
|----------------------|---------------------------------|
| Formula:             | Poly(3-Trifluoromethyl styrene) |
| Concentration:       | ≤ 100%                          |
| CAS registry number: | 402-24-4                        |

### 4. FIRST AID MEASURES

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|                                  |                                                                                                                                                                                                                                        |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If inhaled:                      | If breathed in, fresh air.                                                                                                                                                                                                             |
| In case of skin contact:         | Take off immediately all contaminated clothing. Rinse skin with water/ shower.                                                                                                                                                         |
| In case of eye contact:          | rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.                                                                                                                                                        |
| If swallowed:                    | Immediately make victim drink water (two glasses at most). Consult a physician. Show this material safety data sheet to the doctor in attendance.                                                                                      |
| Most important symptoms/effects: | None reasonably foreseeable. Inhalation of high vapor concentrations may causesymptoms like headache, dizziness, tiredness, nausea and vomiting:<br>Symptomsof overexposure may be headache, dizziness, tiredness, nausea and vomiting |

## 5. FIRE-FIGHTING MEASURES

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|                                                |                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conditions of flammability:                    | Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel tosourceof ignition and flash back.<br><br>Flash Point 42 °C / 107.6 °F                                                                                                                                                                                                      |
| Suitable extinguishing media:                  | Use Water Foam Carbon dioxide (CO2) Dry powder.                                                                                                                                                                                                                                                                                                                                            |
| Special protective equipment for firefighters: | Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.<br><br>Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. |
| Hazardous combustion products:                 | Carbon oxides, Hydrogen fluoride, Combustible.<br><br>Vapors are heavier than air and may spread along floors.<br><br>Forms explosive mixtures with air at elevated temperatures.<br><br>Development of hazardous combustion gases or vapours possible in the event of fire.                                                                                                               |
| Explosion data:                                | Sensitivity to mechanical impact: no data available<br>Sensitivity to static discharge: no data available                                                                                                                                                                                                                                                                                  |

## 6. ACCIDENTAL RELEASE MEASURES

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|                                                        |                                                                                                                                                                                                                            |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions:                                  | Do not breathe vapors, aerosols.<br>Avoid substance contact.<br>Ensure adequate ventilation.<br>Keep away from heat and sources of ignition.<br>Evacuate the danger area, observe emergency procedures, consult an expert. |
| Environmental precautions:                             | Do not let product enter drains. Risk of explosion.                                                                                                                                                                        |
| Methods and materials for containment and cleaning up: | Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions. Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.                                             |

## 7. HANDLING AND STORAGE

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- Precautions for safe handling:      Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.
- Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
- Conditions for safe storage:        Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.
- Storage class (TRGS 510): 3: Flammable liquids

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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Personal protective equipment:

- Respiratory protection:      Recommended Filter type: Filter type ABEK  
  
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.  
  
These measures have to be properly documented. required when vapours/aerosols are generated.  
  
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.
- Hand protection:            Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- Eye protection:              Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses. Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.
- Skin and body protection:    Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Hygiene measures:            Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.
- Specific engineering controls: Risk of explosion. Use mechanical exhaust or laboratory fume hood to avoid exposure. Do not let product enter drains. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering

control measures such as the isolation or enclosure of the process, the introduction of processor equipment changes to minimize release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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|              |                                         |                                    |
|--------------|-----------------------------------------|------------------------------------|
| Appearance:  | Form:                                   | liquid                             |
|              | Colour:                                 | colorless                          |
| Safety data: | pH:                                     | no data available                  |
|              | Melting point / Freezing point:         | no data available                  |
|              | Boiling point:                          | 64.5 °C 148.1 °F at 53 hPa - lit.  |
|              | Flash point:                            | 42 °C (108 °F) - closed cup        |
|              | Ignition temperature:                   | no data available                  |
|              | Auto-ignition temperature:              | no data available                  |
|              | Lower explosion limit:                  | no data available                  |
|              | Upper explosion limit:                  | no data available                  |
|              | Vapour pressure:                        | no data available                  |
|              | Density:                                | 1.161 g/mL at 25 °C (77 °F) - lit. |
|              | Water solubility:                       | no data available                  |
|              | Partition coefficient: n-octanol/water: | no data available                  |
|              | Relative vapour density:                | no data available                  |
|              | Odour:                                  | no data available                  |
|              | Odour threshold:                        | no data available                  |
|              | Evaporation rate:                       | no data available                  |

## 10. STABILITY AND REACTIVITY

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|                                     |                                                                                                                                                 |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Chemical stability:                 | The product is chemically stable under standard ambient conditions (room temperature)                                                           |
| Possibility of hazardous reactions: | no data available                                                                                                                               |
| Conditions to avoid:                | Keep away from open flames, hot surfaces and sources of ignition. Incompatible products. Vapor/air-mixtures are explosive at intense warming.   |
| Materials to avoid:                 | Strong oxidizing agents.                                                                                                                        |
| Hazardous decomposition products:   | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Gaseous hydrogen fluoride (HF)<br><br>Other decomposition products: no data available. |

## 11. TOXICOLOGICAL INFORMATION

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|                 |             |                   |
|-----------------|-------------|-------------------|
| Acute toxicity: | Oral:       | no data available |
|                 | Inhalation: | no data available |

|                                    |                                      |                                                                      |
|------------------------------------|--------------------------------------|----------------------------------------------------------------------|
|                                    | Dermal:                              | no data available                                                    |
|                                    | Other information on acute toxicity: | no data available                                                    |
| Skin corrosion/irritation:         | no data available                    |                                                                      |
| Serious eye damage/eye irritation: | no data available                    |                                                                      |
| Respiratory or skin sensitization: | no data available                    |                                                                      |
| Germ cell mutagenicity:            | no data available                    |                                                                      |
| Carcinogenicity:                   | no data available                    |                                                                      |
| Reproductive toxicity:             | no data available                    |                                                                      |
| Teratogenicity:                    | no data available                    |                                                                      |
| Specific target organ toxicity:    | Single exposure:                     | Inhalation - May cause respiratory irritation.                       |
|                                    | Repeated exposure:                   | no data available                                                    |
| Aspiration hazard:                 | no data available                    |                                                                      |
| Potential health effects:          | Inhalation:                          | Single exposure-Respiratory system.<br>Repeated exposure-none known. |
|                                    | Ingestion:                           | May be harmful if swallowed.                                         |
|                                    | Skin:                                | Cause skin irritation.                                               |
|                                    | Eyes:                                | Cause serious eye irritation.                                        |
| Synergistic effects:               | no data available                    |                                                                      |
| Additional information:            | not available                        |                                                                      |

## 12. ECOLOGICAL INFORMATION

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|                                |                                                                                             |
|--------------------------------|---------------------------------------------------------------------------------------------|
| Toxicity:                      | no data available                                                                           |
| Persistence and degradability: | no data available                                                                           |
| Bioaccumulative potential:     | no data available                                                                           |
| Mobility in soil:              | no data available                                                                           |
| PBT and vPvB assessment:       | PBT/vPvB assessment not available as chemical safety assessment not required/not conducted. |
| Other adverse effects:         | no data available                                                                           |

## 13. DISPOSAL CONSIDERATIONS

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|                         |                                                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product:                | Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. |
| Contaminated packaging: | Handle uncleaned containers like the product itself.                                                                                                          |

## 14. TRANSPORT INFORMATION

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|      |                 |          |                    |
|------|-----------------|----------|--------------------|
| DOT  | UN number: 1993 | Class: 3 | Packing group: III |
| TDG: | UN number: 1993 | Class: 3 | Packing group: III |

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|       |                                                                                                                                                   |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Proper shipping name: FLAMMABLE LIQUID, N.O.S. (3-(Trifluoromethyl)styrene)                                                                       |
|       | Labels: 3                                                                                                                                         |
|       | ERG Code: 128                                                                                                                                     |
|       | Marine pollutant: no                                                                                                                              |
| IMDG: | UN number: 1993    Class: 3    Packing group: III EMS-No: F-E, S-E<br>Proper shipping name: FLAMMABLE LIQUID, N.O.S. (3-(Trifluoromethyl)styrene) |
| IATA: | UN number: 1993    Class: 3    Packing group: III                                                                                                 |

## 15. REGULATORY INFORMATION

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WHMIS classification:      Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## 16. OTHER INFORMATION

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Date of the latest revision:    27 May 2025

Further information:      The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Polymer Source, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.polymersource.ca](http://www.polymersource.ca) for additional terms and conditions of sale.