



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 18-Sep-2026

Version 2.0

1. Identification

Product identifier

Product Name THERMA-SHIELD® 2001 Part B (Resin)

Other means of identification

Product Code 2001 (Part B)

Synonyms Polyurethane Resin

Recommended use of the chemical and restrictions on use

Recommended Use Component for the manufacture of polyurethanes

Restrictions on use Not available.

Details of the supplier of the safety data sheet

Supplier Address / Manufacturer Address Innovative Polymer Systems

4117 Capital Drive

New Albany, IN 47150

Phone: (812) 776-6727

Emergency telephone number

Emergency Telephone Call CHEMTREC Day or Night:

Within USA and Canada: 1-800 424-9300

2. Hazard Identification

Classification of the substance or mixture

GHS Classification:

Skin irritation, Category 3

Eye irritation, Category 2

GHS Labeling

Hazard Pictograms:



GHS07 (Exclamation Mark)

Signal Word Warning

Hazard Statements:

May cause skin irritation.

May cause eye irritation.

May cause respiratory irritation.

Precautionary Statements:

Do not breathe fumes/gas/mist/vapors/spray.

Wear protective gloves/eye protection/face protection.

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Other Hazards None known.

3. Composition

Substance / Mixture Mixture.

Hazardous Components

Name	CAS #	Weight %
Trans-1-Chloro-3,3,3-trifluoropropene ($\text{CF}_3\text{HC}=\text{CHCl}$ or HFO-1233zd)	102687-65-0	5-15%
Tertiary Amine Catalysts	Proprietary	3-6 %
Trans-1,2-Dichloroethylene	156-60-5	≤ 3%
Organometallic catalyst	Proprietary	<0.5%

4. First Aid Measures

Inhalation Move to fresh air if symptoms develop. If breathing is difficult, give oxygen and call a physician.

Eye Contact Flush with water for at least 15 minutes. See a physician if irritation develops.

Ingestion Do not induce vomiting unless told to do so by a medical professional.

Most important symptoms and effects, acute and delayed May cause skin or eye irritation upon contact. Avoid breathing vapors. The dense vapors can displace and reduce breathing air in confined or unventilated spaces causing asphyxiation. Overexposure may cause tremors, confusion, irritation, and may result in cardiac sensitization.

Indication of immediate medical attention and special treatment, if applicable N/A

Skin Contact Wash with soap and water at first opportunity.

5. Fire-Fighting Measures

Suitable extinguishing media Water, dry chemicals, CO_2 .

Unsuitable extinguishing media None.

Special hazards arising from the chemical Overheated containers may rupture due to pressure produced by $\text{CF}_3\text{HC}=\text{CHCl}$. $\text{CF}_3\text{HC}=\text{CHCl}$ burns to form acids and noxious gases.

Precautions for fire-fighters A self-contained breathing apparatus should be worn to protect against toxic and irritating vapors.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleanup Absorb with sawdust, etc., and shovel into container. Waste material should be disposed of under conditions which meet federal, state, and local environmental regulations.

7. Handling and Storage

Precautions for safe handling Store between 65°F and 85°F out of sunlight. Relieve pressure slowly when opening container. Under no circumstances should empty drums be burned or cut open with an electric or gas torch.

Conditions for safe storage, including any incompatibilities Keep tightly sealed.

8. Exposure Controls and PPE

Exposure Limits

Component	Type	Value
Trans-1-Chloro-3,3,3-trifluoropropene ¹ (CF ₃ HC=CHCl or HFO-1233zd)	TWA	300 ppm recommended.
Tertiary Amine Catalysts ¹		None established.
Organometallic Catalysts ¹		None established.

¹Not listed as a carcinogen (NTA, IARC, OSHA).

Exposure Controls

Respiratory Protection The specific respirator selected must be based on contamination levels of this material found in the workplace and the working limits of the respirator. A supplied air, full-face mask, positive pressure or continuous flow respirator or a supplied air hood is required when airborne concentrations are unknown or exceed threshold limit values. A positive pressure, self-contained breathing apparatus can be used in emergencies or other unusual situations. Full-face air purifying respirators equipped with organic vapor cartridges can be used in certain situations, see OSHA standard 29CFR 1910.134. All equipment must be NIOSH approved and maintained.

Hand, eye, skin, body protection Wear goggles or chemical safety glasses and chemically resistant rubber or plastic gloves. Avoid eye and skin contact. Eye wash system and showers should be available.

9. Physical and Chemical Properties

Basic chemical and physical properties

Property	Value
Appearance	Liquid.
Color	Amber.
Odor	Ethereal odor.
Odor threshold	N/A
pH	N/A
Melting pt/freezing pt	<32°F
Boiling pt/boiling range	66°F
Flash point	>200°F
Evaporation rate	Slower than ether.
Flammability	N/A
Upper/lower flammability or explosive limits	N/A
Vapor pressure	N/A
Vapor density	N/A
Relative density	1.20 g/mL
Solubility(ies)	Highly soluble in water.
Partition coefficient (n-octanol/water)	N/A
Auto-ignition temperature	>500°F
Decomposition temperature	>500°F

10. Stability and Reactivity

Chemical stability Stable.

Possibility of hazardous reactions N/A

Conditions to avoid N/A

Incompatible materials Isocyanates and other chemicals that react with hydroxyl groups.

Hazardous decomposition products When burned, CO, CO₂, NO_x aliphatic fragments, halogens, halogen acids, and possibly carbonyl halides.

11. Toxicological Information

Acute toxicity May cause skin irritation.

Chronic toxicity Not available.

Likely routes of exposure Skin.

Symptoms related to physical, chemical and toxicological characteristics May cause skin irritation.

Delayed and immediate effects and chronic effects from short and long-term exposure May cause skin irritation. Avoid contact with eyes.

Numerical toxicity measures Not available.

12. Ecological Information

Ecotoxicity Not a marine pollutant.

Persistence and degradability No known significant effects.

Bioaccumulative potential Does not bioaccumulate.

13. Disposal

Waste disposal B component drums can be sent to drum reconditioners or disposed of as ordinary industrial waste in compliance with pertinent regulations.

14. Transport

UN number Not regulated.

UN Proper shipping name Not regulated.

Transport Hazard class(es) Not regulated.

Packing group, if applicable Not regulated.

Marine pollutant No.

Special precautions None.

15. Regulatory

Relevant safety, health, and environmental regulations

Inventory Status All components TSCA listed.

US Regulations No ingredients listed.

US Superfund Amendments and Reauthorization Act (SARA) Title III Section 313 information No ingredients listed.

16. Other information

Prepared By IPS Technical Service Department.

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Disclaimer

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END OF SAFETY DATA SHEET