Creation Date: 08 August, 2021 **Revision Date:** 08 August, 2021 **Revision Number:** 01

1.IDENTIFICATION

Product Name: PVDF(Polyvinylidene Fluoride; poly(1,1-difluoroethane))

Synonyms: Inoflar™ 1005, Inoflar™ 1011, Inoflar™ 1020, Inoflar™ 1125, Inoflar™ 1150, Inoflar™ 5125

Recommended Use: Resin for molding and/or extrusion, membrane, coating, binder

Uses Advised Against: No information available

Details of the Supplier of the Safety Data Sheet

Company

Gujarat Fluorochemicals Ltd.
12/A Dahej Industrial Estate, Taluka Vagra,
Distt. Bharuch-392130, Gujarat, India

Telephone	+91-2641-618031 (Admin) / 618041-50 (Purchase) / 618086-87(Security)
Fax	+91-2641-618012
E-mail address	contact@gfl.co.in
Website	www.gfl.co.in

Emergency Telephone Number

Emergency telephone number: +91-2641-618080-81

2.Hazard(s) Identification

GHS classification in accordance with 29 CFR 1910.1200
Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Based on available data, the classification criteria are not met.

GHS Label elements

None required

Hazards not otherwise classified(HNOC)
None Identified

3. Composition/information on Ingredients

Chemical name	CAS-No	Weight %
1,1-Difluoroethylene polymer	24937-79-9	<=100

4. First aid measures

First-aid measures

Eye contact: Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. If irritation still persists, get medical attention.

Skin contact: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes.Get medical attention immediately if symptoms occur immediately.

Ingestion: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. If signs/symptoms continue, get medical attention.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects: The most important known symptoms and effects are described in labelling (See section 2) and/or in section 11.

Indication of immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically and supportively.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: None Known.

Special hazards arising from the substance or mixture

Special Hazard: Thermal decomposition can lead to release of toxic/irritating gases and vapor.

Hazardous combustion products: Carbon Monoxide (CO), Carbon dioxide (CO_2), Hydrogen fluoride

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.Keep storage containers cool with water spray. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Do not scatter spilled material with high-pressure water streams. Stay away from the ends of tanks. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products.

NFPA Ratings

Health	Flammability	Instability	Physical/Hazard
0	1	0	N/A

Hazard Scale: 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Wear personal protective clothing and equipment, see Section 8. Avoid dust formation. Avoid contact with skin, eyes and clothing. Keep unprotected persons away. Do not eat, drink or smoke while using this product. Use respiratory protective device against the effects of fumes/dust/aerosol. Transfer to a disposal or recovery container. Avoid release to the environment.

Environmental precautions: Prevent from reaching lakes, streams, ponds and sewer drains. Sweep up and shovel into suitable container. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment: Sweep up or vacuum up spillage and collect in suitable container for disposal. Place in a suitable, labelled container for waste disposal. Keep in suitable, closed containers for disposal.Wash area and prevent runoff into drains. Local authorities should be advised if significant spillages cannot be contained.

Reference to other sections: Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

7. Handling and Storage

Precautions for safe handling

Handling: Wear suitable personal Protective Equipment when handling and spraying. Avoid contact with skin and eyes. Minimize dry sweeping to avoid generation of dust clouds. Minimize airborne dust and eliminate all ignition sources.Do not breathe dust/fumes/gas/mist/ Vapours/spray. Ensure adequate ventilation. While using do not eat drink or smoke. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using toilet or applying cosmetics.Empty containers may contain hazardous residues. Handle in accordance with good industrialhygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage: Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Store locked up.Do not store material near food, feed or drinking water. Keep away from heat and sources of ignition.Store away from incompatible material.

Incompatible materials: Strong oxidizing agents

8. Exposure Controls/Personal Protection

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

Component	CAS Number	ACGIH	OSHA PEL	NIOSH IDLH
1,1-Difluoroethylene polymer	24937-79-9	-	-	-

Legend
ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health
TEEL: Temporary Emergency Exposure Limits

Engineering controls: Ensure adequate ventilation, especially in confined areas. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Try to minimize airborne dust. Ifexposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Eye/Face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described byOSHA's eye and face protection regulations in 29 CFR 1910.133 or European StandardEN166.

Skin and body protection: Wear impervious protective clothing, including boots, gloves, apron or coveralls, as appropriate, to prevent skin exposure.

Suitable glove material:
Nitrile rubber
Neoprene
Natural rubber
PVC

Respiratory protection: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use approved positive flow mask if significant quantities of dust become airborne.Use a positive pressure air supplied respirator if there is any potential for uncontrolledrelease, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hygiene Measure: Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance:	Solid
Physical state:	Solid
Odor:	Odorless
Color:	No information available
Odor threshold:	No information available

Property	**VALUES**	**Remarks/ Method**
Ph:	No information available	
Melting point/freezing point:	155 – 170 °C	
Boiling Point/Range:	No information available	
Flash Point:	Not Applicable	
Flammability (solid, gas):	No information available	
Flammability or Explosive limit		
Upper:	No information available	
Lower:	No information available	
Relative density (Water = 1):	No information available	
Vapor density (Air = 1):	No information available	
Vapor pressure:	No information available	
Water solubility:	Insoluble	
Solubility in Other Solvents:	No information available	
Partition coefficient: n-octanol/water	No information available	
Auto-ignition temperature:	No information available	
Decomposition temperature:	No information available	
Viscosity:	Not Applicable	

Oxidizing properties:	No information available
Explosive properties:	No information available
Volatile component:	No information available

OTHER INFORMATION

Surface tension:	No information available
Molecular Formula:	(-CH2 CF2-)

10. Stability and Reactivity

Reactivity

None known, based on available information

Chemical stability

Stable under recommended storage conditions. See Section (7)

Possibility of hazardous reaction

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Strong oxidizing agents

Hazardous decomposition products

Thermal decomposition can lead to release of toxic/irritatinggases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous decomposition products formed under fire conditions:
Hydrogen fluoride, Carbon monoxide (CO), Carbon dioxide (CO_2)

11. Toxicological Information

Information on Toxicological Effects

Component Toxicity:

Component	CAS number	LD50 – Oral	LD50 – Dermal	LC50 - Inhalation
1,1-Difluoroethylene polymer	24937-79-9	No data available	No data available	No data available

Product Information

Oral LD 50: Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg
Dermal LD 50: Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg
Inhalation LD 50: Based on ATE data, the classification criteria are not met. ATE >5 mg/l

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation: No data available

Sensitization: No data available

Carcinogenicity:

Component	CAS number	IARC	NTP	OSHA
1,1-Difluoroethylene polymer	24937-79-9	Not Listed	Not Listed	Not Listed

Mutagenic effect: No data available
Developmental effect: No data available
Tetragonality: No data available
STOT - Single Exposure: No data available
STOT - repeated exposure: No data available
Aspiration hazard: No Applicable, Solid
Endocrine Disruptor Information: No information available
Other adverse effect: The toxicological properties have not been fully investigated.

12. Ecological Information

Ecotoxicity

No data available.

Component Toxicity

Component	CAS number	LC50 – Fish	EC50 – Daphnia	EC50-Alga
1,1-Difluoroethylene polymer	24937-79-9	No data available	No data available	No data available

Persistence and Degradability

No information available

Bioaccumulative Potential

No information available

Mobility in soil

Spillage unlikely to penetrate in soil. The product is insoluble and sinks in water is not likely mobile in the environment due to low water solubility.

Other Adverse Effects

No information available.

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method: Chemical waste generators must determine whether a discarded chemical is classified as ahazardous waste. Chemical waste generators must also consult local, regional, andnational hazardous waste regulations to ensure complete and accurate classification.

Contaminated packaging: Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use Empty containers.

14. Transport Information

DOT (US): Not regulated as dangerous goods

IMDG/IMO: Not regulated as dangerous goods

IATA/ICAO: Not regulated as dangerous goods

15. Regulatory Information

Safety, health and environmental regulations / legislation specific for the substance or mixture

U.S. Federal Regulations

Component	CAS-No	TSCA	TSCA Inventory notification – Active/Inactive	TSCA- EPA Regulatory Flags
1,1-Difluoroethylene polymer	24937-79-9	Listed	Active	XU

Legend:

TSCA – Toxic Substances Control Act, (40 CFR Part 710)

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data BaseProduction and Site Reports (40 CFR 710(B)

SARA 311/312 Hazard Categories

Acute Health Hazard:	No
Chronic Health Hazard:	No
Fire Hazard:	No
Sudden Release of Pressure Hazard:	No
Reactive Hazard:	No

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS TPQ.

SARA 313

This material does not contain any chemical components withknown CAS numbers that exceed the threshold (De Minimis)reporting levels established by SARA Title III, Section 313.

CLEAN WATER ACT (CWC)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40CFR 122.42)

State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations
This product does not contain any substances regulated by state right-to-know regulations

Creation Date: 08 August, 2021 **Revision Date:** 08 August, 2021 **Revision Number:** 01

International Inventories

TSCA:	Y
EINECS/ELINCS:	N
DSL:	Y
NDSL:	N
PICCS:	Y
ENCS:	Y
IENCS:	Y
AICS:	Y
KECL:	Y

Legend
Y:All ingredients are on theinventory
N : Not determined or one or more ingredients are not on the inventory and are not exempt from listing.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

16. Other Information

Preparation Date:	08-August-2021
Revision date:	08-August- 2021
Revision Summary:	01

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at thedate of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage,transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any othermaterials or in any process, unless specified in the text.

End of Safety Data Sheet