

## MATERIAL SAFETY DATA SHEET

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### SECTION – 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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**Product Name** : 1, 3-Difluorobenzene

**Synonyms** : 1, 3-Difluorobenzene

**Manufacturer/Supplier Name** : M/s GUJARAT FLUORO CHEMICALS LIMITED

**Address** : Survey No 16/3, 26, 27, Ranjitnagar Pin-389 380,  
Tal. Ghoghamba, Dist. Panchmahals, Gujarat, India

**Business Phone** : +91 – 2678 – 248107, 248152

**Business Fax** : +91 – 2678 – 248153

**Web Site** : www.gfl.co.in

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### SECTION – 2 : COMPOSITION, INFORMATION ON INGREDIENTS SECTION

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**Chemical Name** : 1, 3-Difluorobenzene

**CAS#** : 372-18-9

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### SECTION – 3 : HAZARDS IDENTIFICATION

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**Emergency Overview** : Toxic, Flammable, causes burns



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### SECTION – 4 : FIRST AID MEASURES (SYMPTOMS)

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**Eye contact** : Corneal burns may occur, may cause permanent damage.

**Skin contact** : Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

**Inhalation** : There may be shortness of breath with burning sensation in the throat. Exposure may cause coughing & wheezing

**Ingestion**

: The corrosive burns may appear around the lips. There may be bleeding from mouth or nose.  
Blood may be vomited.

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#### SECTION – 4 : FIRST AID MEASURES (ACTION)

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- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention if irritation persists, or symptoms of overexposure become apparent.
- Skin contact** : Immediately wash skin with plenty of water for at least 10 minutes, while removing contaminated clothing and shoes. Get medical attention especially, if there are burns or symptoms of poisoning.
- Inhalation** : Remove to fresh air. If not breathing, give artificial respiration or oxygen by trained personnel. Keep warm. Get immediate medical attention.
- Ingestion** : Wash out the mouth with water. Don't induce vomiting; Give a cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is ok, place in recovery position, and transfer to hospital as soon as possible.
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#### SECTION – 5 : FIRE FIGHTING MEASURES

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- Extinguishing Media** : Use dry powder or carbon dioxide when fighting a fire involving this material also appropriate foam can be used.
- Special Risks, Specific Hazards** : Flammable liquid, emits toxic fumes under fire conditions, vapor may travel considerable distance to source ignition and flash back, container explosion may occur under fire conditions.
- Protective equipment** : As in any fire, wear selfcontained breathing apparatus pressure-demand, (approved or equivalent) and full protective gear to prevent contact and eyes

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## **SECTION – 6 : ACCIDENTAL RELEASE MEASURES**

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**Person precautions** : Notify the fire brigade immediately. If outside keep bystanders upwind and away from the danger point. Mark out the contaminated area with signs and prevent access to unauthorized personal. Turn leaking containers leak side up to prevent the escape of liquid.

**Spill Cleanup Measures** : Clean up spills immediately with dry lime or soda ash, it should be dealt with only by qualified personnel absorb into dry earth or sand. Transfer to a closable, labeled salvage container disposal by appropriate method

**Environmental Precautions** : Do not allow material to enter drains or streams, contain the spillage using bunding.

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## **SECTION – 7 : HANDLING AND STORAGE SECTION**

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**Handling** : Avoid direct contact with the substance; ensure that there is sufficient ventilation of the area. Do not handle in confined space. Avoid formation of spread or mists in the air. Only use infume hood

**Hygiene Practice** : Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist,

**Storage:** Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances i.e. contact with glass, concrete and other silicon bearing material yields silicon tetrafluoride gas. Contact with cyanides and sulfides produces highly toxic gases of hydrogen cyanide and hydrogen sulfide. Reactions with carbonates produces vigorous evolution of carbon dioxide. Reaction with n-phenylazopiperidine, potassium permanagate, bismuthic acid, fluorine, metal oxides and water reactive materials. Contact with common metals produces hydrogen gas creating a fire or explosion hazard. Mixtures of hydrofluoric and nitric acid with glycerol, lactic acid or propylene glycol build up pressure in closed container. Container to be tightly closed when not in use

## **SECTION – 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION**

- Engineering Controls** : Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Where such systems are effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
- Skin Protection Description** : Wear suitable protective clothing to prevent contact with skin.
- Hand Protection Description** : Wear appropriate protective gloves. Consult glove manufacturers for glove permeability data.
- Eye/Face Protection** : Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard. Face shield should be of minimum 8inch.
- Respiratory Protection** : A NIOSH or CEN approved airpurifying respirator with an appropriate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited to airborne that are typically within 10 times the exposure limit. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where airpurifying respirators may not provide adequate protection. A respiratory protection program that meets OSHAs 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirators use.
- Other Protective** : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

## **SECTION – 9 : PHYSICAL AND CHEMICAL PROPERTIES**

### **General Information**

Appearance	PH
Physical State/Appearance	Flash Point
Color	Boiling Point

Melting Point	: Colorless liquid
Solubility in Water	: Liquid
Molecular Formula	: Colorless to yellow liquid
Molecular Weight	: NA
	: NA
	: 82°C at 760 mmHg
	: NA
	: NA
	: C6H4F2
	: 114.09

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## SECTION – 10 : STABILITY AND REACTIVITY

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<b>Conditions to Avoid</b>	: Strong oxidizing agents, Heat, flames and sparks. Extremes of temperature and direct sunlight..
	: Will not occur.

### **Hazardous Polymerization**

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## SECTION – 11 : TOXICOLOGICAL INFORMATION

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**Routes of Entry:** Inhalation, Ingestion.

**Toxicity to Animals Oral (rat) LD50, Dermal (rabbit) Ld50, Inhalation (rat) LC50:** Not available.

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:** Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

### **Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: Causes skin irritation. Eyes: Causes eye irritation. Inhalation: Causes respiratory tract and mucous membrane irritation with coughing , wheezing, laryngitis, shortness of breath. Ingestion: May cause gastrointestinal tract irritaiton with nausea, vomiting. It may affect behavior/central nervous system and cause muscle weakness, headache, change in motor activity, respiration (respiratory depression). The toxicological properties of this substance have not been fully investigated.

**Signs and symptoms of exposure** : Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

**Route of exposure** : May be harmful if absorbed through the skin, causes burns, the material is extremely destructive to the tissue of the mucous membranes and is harmful if inhaled and may be harmful if swallowed.

## SECTION – 12 : ECOLOGICAL INFORMATION

**Ecotoxicity** : No information available

**Bioaccumulation** : No information available.

**Biodegradation** : No information available.

**Environmental Stability** : No information available.

## SECTION – 13 : DISPOSAL CONSIDERATIONS

**Waste Disposal** : **Product**  
 Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging** : Dispose of as unused product.

## SECTION – 14 : TRANSPORT INFORMATION

**DOT Classification** : NA

**UN Number** : 1993

**Packing Group** : II

**Identification** : Not applicable.

**Special Provisions for Transport** : Not applicable.

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## **SECTION – 15 : REGULATORY INFORMATION**

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Classification and labeling according to EU directives indication of danger

CF : Corrosive ; Highly flammable : RPHRASES : 1135 highly flammable causes severe burns.

S – Phrases : 2636/37/3945 in case of contact with eyes , rinse immediately with plenty of water and seek medical advice . Wear suitable protective clothing gloves and eye/ face protection in case of accident or if feel unwell seek medical advice immediately.

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## **SECTION – 16 : ADDITIONAL INFORMATION**

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### **Full text of H-Statements referred to under sections 2 and 3.**

H225            Highly flammable liquid and vapour.

H332            Harmful if inhaled.

**References:** Not available.

**Other Special Considerations:** Not available.

**Last Updated:** - 16/01/2017 15:45 hrs

**Storage:** Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances i.e. contact with glass, concrete and other silicon bearing material yields silicon tetrafluoride gas. Contact with cyanides and sulfides produces highly toxic gases of hydrogen cyanide and hydrogen sulfide. Reactions with carbonates produces vigorous evolution of carbon dioxide. Reaction with n-phenylazopiperidine, potassium permanagate, bismuthic acid, fluorine, metal oxides and water reactive materials. Contact with common metals produces hydrogen gas creating a fire or explosion hazard. Mixtures of hydrofluoric and nitric acid with glycerol, lactic acid or propylene glycol build up pressure in closed container. Container to be tightly closed when not in use.