

SAFETY DATA SHEET

SECTION – 1 : Identification of the substance/mixture and of the company/undertaking

1.1. Product identified

Product name : Benzotrifluoride
Hazardous ingredients : Benzotrifluoride
Synonym : (Trifluoromethyl)benzene
REACH substance Name : Not applicable

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

Suitable uses : Chemical

1.3. Details of the supplier of the Safety data sheet

Supplier : M/s GUJARAT FLUORO-CHEMICALS LIMITED
 Survey No 16/3, 26, 27, Ranjitnagar Pin-389 380,
 Tal. Ghoghamba, Dist. Panchmahals, Gujarat , India
 Phone :+91 – 2678 – 248107, 248152
 Fax : +91 – 2678 – 248153
 E-mail:

1.4 Emergency telephone number : +91 – 2678 – 248107

SECTION – 2 : Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No.1272/2008 (CLP/GHS)

Classification : Flammable liquid, Category 2, H225
 Long-term (chronic) aquatic hazard, Category 2, H411
 For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to Directive 67/548/EEC (DSD)

Classification : XI
Human health hazards : Harmful in contact with skin. Irritating to eyes, respiratory system and skin.

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Hazard pictograms :



Signal word : Danger
Hazard statements: : H225 – Highly flammable liquid and vapour
 H411 - Toxic to aquatic life with long lasting effects.
Additional warning phrases : Not applicable.
Precautionary statements

P210- Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P273-Avoid release to the environment.

P260-Do not breathe vapours.

Prevention : Use personal protective equipment as required. Wear protective gloves/ protective clothing/eye protection/face protection.

Response : IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3 Other Hazards : No

**Substance meets the criteria for PBT
According to Regulation (EC) No.
1907/2006, Annex XIII.**

**Other hazards which do not
Result in classification.** : No data available.

SECTION – 3 : Composition/information on ingredients

Product definition (REACH): Mono-constituent substance

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC)No 1272/2008 (CLP)	
α,α,α -trifluorotoluene	CAS: 98-08-8 EC-No. 202-635-0	>99	Xi; R36/37/38 See Section 16 for the full text of the R-phrases declared above.	Flammable liquid, Category 2, H225 Long-term (chronic) aquatic hazard, Category 2, H411 See Section 16 for the full text of the H statements declared above.	[A]

Occupational exposure limits, if available, are listed in Section 8.

Type

[A] Constituent

[B] Impurity

[C] Stabilising additive

SECTION – 4 : FIRST AID MEASURES (ACTION)

4.1 Description of first aid measures

Inhalation

: Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion

: Get medical attention immediately. Wash out mouth with water. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

: Get medical attention immediately. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Eye contact

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

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 1 for more detailed information on health effects and symptoms.

SECTION – 5 : FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing

: In case of fire dry powder or CO₂ media.

Unsuitable extinguishing

: Water, Foam.

5.2 Special Hazards arising from the substance or mixture

Hazards from the substance or mixture

: Carbon oxides, Carbon dioxide, Hydrogen fluoride

Hazardous combustion Products	: Decomposition products may include the following materials: Carbon oxides, , Hydrogen fluoride. Caution! in contact with water product releases: corrosive vapours. Forms explosive mixtures with air at ambient temperatures. Vapours are heavier than air and may spread along floors
5.3 Advice for firefighters Special precautions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective Equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self contained Breathing apparatus (SCBA) with a full face- piece operated in positive pressure mode.
Remarks	: Remove container from danger zone and cool with water. Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION – 6 : ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, Protective equipment and emergency procedures	: Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation Evacuate personnel to safe areas. Avoid breathing dust. : Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8)
6.2 Environmental Precautions	: Avoid dispersal of spilt material and runoff 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 materials for containment and cleaning up	: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
6.4 Reference to other Sections.	: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION – 7 : HANDLING AND STORAGE SECTION

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 hands and face before eating, drinking and smoking. Do not breathe vapour or mist. Do not ingest. avoid contact with eyes, skin and clothing. Use only with adequate ventilation. wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.
7.2 Conditions for safe Storage, including any incompatibilities.	: Store in accordance with local regulations. 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 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s) : Not available.

Recommendations

Industrial sector specific
Solutions.

SECTION – 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION

8.1 Control parameters

Exposure limit values : Not available.

Recommended monitoring
Procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) reference to national guidance documents for methods for the determination of hazardous substances will also be required.

8.2 Exposure controls

Risk management measures

Occupational exposure controls

Technical measure

: 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

Personal protection measures

Respiratory protection

: 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
Recommended: Full mask with type ABEK filter / Wear breathing apparatus with separate air supply (compressed air respirator, tube apparatus) at higher concentrations.

Hand Protection

: 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. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations.
Recommended: (< 1 hour) butyl rubber, Polyvinyl chloride - PVC, viton®

Eye protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Recommended: safety glasses with side- shields.

Skin protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a

- specialist before handling this product.
- Recommended:** Wear protective clothing
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and 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.
- Environmental exposure controls :**
- Technical measures** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION – 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General information

Appearance	: Liquid
Colour	: Colourless
Molecular Weight	: 146.11 g/mol
Molecular formula	: C ₇ H ₅ F ₃

Important health, safety and environmental information

Boiling point °C	: 100-103 °C
Melting point °C	: -29
Density	: 1.197 g/cm ³ (20°C)
Flash point	: 12°C
Water solubility	: 0.45 g/L at 20°C (Hydrolysis)
Relative vapour density	: 5.04
Vapour pressure	: 53hPa at 25°C
Lower explosion limit	: 1.4% (V)
Upper explosion limit	: 9.3%(V)

9.2 Other information

Ignition temperature	: 650°C
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SECTION – 10 : STABILITY AND REACTIVITY

- 10.1 Reactivity** : Hydrolysis.
Vapors may form explosive mixture with air.
- 10.2 Chemical stability** : Sensitive to moisture.
- 10.3 Possibility of hazardous Reactions** : Generates dangerous gases or fumes in contact with: Water
Violent reactions possible with : Strong oxidizing agents, strong reducing agents, Strong bases
- 10.4 Conditions to avoid** : Moisture, Warming.

- 10.5 Incompatible materials** : Strong oxidizing agents, Strong bases
- 10.6 Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen fluoride
Other decomposition products - No data available

SECTION – 11 : TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

- Acute toxicity** : Acute oral toxicity
LD50 Rat: 15,000 mg/kg
- Skin corrosion/irritation** : Acute dermal toxicity
LD50 Rat: > 2,000 mg/kg
- Serious eye damage/eye irritation** : No data available
- Respiratory or skin sensitisation** : No data available
- Germ cell mutagenicity** : No data available
- Carcinogenicity** : No data available
- Reproductive toxicity** : No data available

SECTION – 12 : ECOLOGICAL INFORMATION

12.1 Harmfulness

- Concision/Summary** : Toxicity to fish LC50 Danio rerio (zebra fish): 212 mg/l; 96 h
OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates
EC50 Daphnia magna (Water flea): 7 - 11 mg/l; 24 h
DIN 38412
Toxicity to bacteria EC5 activated sludge: 10 - 100 mg/l; 24 h
(IUCLID).

12.2 Persistence and degradability

- Concision/Summary** : Biodegradability 100 %; 15 d OECD Test Guideline 301C
Readily biodegradable

- 12.3 Bioaccumulative potential** : Not available.

12.4 Mobility in soil

- Soil/water partition coefficient (K_{oc})** : Not available.

- Mobility** : Not available.

12.5 Results of PBT and vPvB assessment

- PBT** : PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
- vPvB**

12.6 Other adverse effects

- Other adverse effects** : Not available.
- AOX** : The product contains organically bound halogens and can contribute to the AOX value in waste water.
- Remarks** : Do not allow to enter drains or watercourses. Ecoharmfulological data are not available.

SECTION – 13 : DISPOSAL CONSIDERATIONS

13.1 Waste treatment method

Product

Methods of disposal

: Product may be burned in an incinerator equipped with afterburner and scrubber. Excess and expired materials are to be offered to a licensed hazardous material disposal company. Ensure that all Federal and Local regulations regarding the disposal and destruction of this material are followed.

Hazardous waste

Packaging

Methods of disposal

: The classification of the product may meet the criteria for a hazardous waste.

: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration

Special precautions

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, water ways, drains and sewers.

SECTION – 14 : TRANSPORT INFORMATION

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	2338	2338	2338	2338
14.2 UN proper shipping name	BENZOTRIFLUORIDE	BENZOTRIFLUORIDE	BENZOTRIFLUORIDE	BENZOTRIFLUORIDE
14.3 Transport hazard class(es)/Marks	3	3	3	3
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	Yes	Yes	Yes	Yes
14.6 Special precautions for user/Additional information	Yes Tunnel restriction code:D/E	None	Yes EmS F-E S-D	None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Hazard notes:
Highly harmful.
Keep separated from foodstuffs.

SECTION – 15 : REGULATORY INFORMATION

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XVII List of substances subject to authorisation

Substances of very high concern

Annex XVII : National legislation Storage class 3
Restrictions on the : Not applicable.
manufacture, placing on
the market and use of
certain dangerous
substances, mixtures
and articles

Danger criteria

: Not available

15.2 Chemical Safety Assessment Assessment

: This product contains substances for which Chemical Safety
Assessments are still required.

SECTION – 16 : OTHER INFORMATION

Abbreviations and acronyms

:
CLP = Classification, Labeling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Full text of abbreviated H Statements

:
H225 – Highly flammable liquid and vapour.
H411 - Toxic to aquatic life with long lasting effects.

Full text of R-phrases referred to in sections 2 and 3

:
: R36/37/38- Irritating to eyes, respiratory system and skin

Remarks

: The Safety Data Sheet is valid for: Internal use.

History

Date of issue : 24.06.2020
Date of previous issue : No previous validation
Version : 0

Indicates information that has changed from previously issued version.

Notice to reader

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet and its Annex [if required according to Regulation (EC) 1907/2006 (REACH)] is to describe the products in terms of their safety requirements. The given details do not imply any guarantee concerning the composition, properties or performance.