



## MATERIAL SAFETY DATA SHEET

[www.britishtscientific.com](http://www.britishtscientific.com)

Issue Date:

### 1- Chemical Product Information and Company Identification.

**Product Name:** : Fluorobenzene GC reference standard, Anstan<sup>®</sup>.  
**Synonym:** : Monofluorobenzene.  
**Product code:** : BS14357.  
**CAS Number:** : 462-06-6.  
**Company Name:** : Briti Scientific.  
**Company Address:** : Plot No:78/B/13, SY-79,Phase-VI, Jeedimetla,Hyderabad-500 055.  
Telangana, India.

### Section 2- Composition / Information on Ingredients.

CAS No.	Chemical Name	Mol. Formula
462-06-6.	Monofluorobenzene.	C <sub>6</sub> H <sub>5</sub> F.

### Section 3- Hazards Identification.

#### Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids: Category 2

Serious Eye Damage/Eye Irritation: Category 1

#### Label Elements

##### **Signal Word**

Danger

##### **Hazard Statements**

Highly flammable liquid and vapour.

Causes serious eye damage.



#### Precautionary Statements

##### **Prevention**

Wear protective gloves/protective clothing/eye protection/face protection.

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





Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.

#### **Skin**

**IF ON SKIN (or hair):** Take off immediately all contaminated clothing. Rinse skin with water/shower.

#### **Eyes**

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

#### **Fire**

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction.

#### **Storage**

Store in a well-ventilated place. Keep cool.

#### **Disposal**

Dispose of contents/container to an approved waste disposal plant.

#### **Hazards not otherwise classified (HNOC)**

Toxic to aquatic life with long lasting effects.

### **Section 4- First Aid Measures.**

**General Advice:** If symptoms persist, call a physician.

**Eye Contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.

**Skin Contact:** Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Ingestion:** Clean mouth with water and drink afterwards plenty of water.

**Most important symptoms and effects:** None reasonably foreseeable. Causes severe eye damage. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

**Notes to Physician:** Treat symptomatically

### **Section 5- Fire Fighting Measures.**

**Suitable Extinguishing Media:** Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam. Water mist maybe used to cool closed containers.

**Unsuitable Extinguishing Media:** No information available.

**Flash Point:** -15°C/5°F.





**Method -** No information available.

**Autoignition Temperature:** No information available.

**Explosion Limits**

Upper No data available

Lower No data available

**Sensitivity to Mechanical Impact:** No information available.

**Sensitivity to Static Discharge:** No information available.

**Specific Hazards Arising from the Chemical:**

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

**Hazardous Combustion Products:**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Gaseous hydrogen fluoride (HF).

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

Health	Flammability	Instability	Physical hazards
3	3	0	N/A

**Section 6- Accidental Release Measures.**

**Personal Precautions:** Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

**Environmental Precautions:** Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up:**

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

**Section 7- Handling and Storage.**

**Handling:** Ensure adequate ventilation. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

**Storage:** Flammables area. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks and flame. Incompatible Materials. Strong acids. Strong bases. Oxidizing agent.





## Section 8- Exposure Control/Personal Protection.

**Engineering Measures:** Ensure adequate ventilation, especially in confined areas.

Ensure that eye wash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment.

### **Personal Protective Equipment**

**Eye/face Protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection:** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection:** No protective equipment is needed under normal use conditions

### **Hygiene Measures:**

Handle in accordance with good industrial hygiene and safety practice

## Section 9- Physical and Chemical Properties.

<b>Appearance:</b>	Colorless to Almost colorless clear liquid.
<b>Odor:</b>	Aromatic.
<b>Odor Threshold:</b>	No information available.
<b>pH:</b>	No information available.
<b>Melting Point/Range:</b>	-42°C.
<b>Boiling Point/Range:</b>	85°C.
<b>Flash Point:</b>	-15°C.
<b>Evaporation Rate:</b>	No information available.
<b>Flammability (solid,gas):</b>	Not applicable.
<b>Flammability or explosive limits:</b>	
Upper	No information available.
Lower	No information available.
<b>Vapor Pressure:</b>	83 hPa @ 20°C.
<b>Density:</b>	1.024 g/ml.
<b>Solubility:</b>	Soluble in water.
<b>Partition coefficient; n-octanol/water:</b>	No data available.
<b>Autoignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.
<b>Molecular:</b>	C <sub>6</sub> H <sub>5</sub> F.
<b>Molecular Weight:</b>	96.10 g/mol.

## Section 10- Stability and Reactivity.

**Reactive Hazard:** None known, based on information available.

**Stability:** Stable under normal conditions.







**Conditions to Avoid:** Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

**Incompatible Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Gaseous hydrogen fluoride (HF).

**Hazardous Polymerization:** Hazardous polymerization does not occur.

**Hazardous Reactions:** None under normal processing.

## Section 11- Toxicological Information.

### Acute Toxicity

#### Product Information

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Fluorobenzene	LD50 = 4399 mg/kg (Rat)	Not listed	LC50 = 24.4 mg/L (Rat) 4h

**Toxicologically Synergistic Products:** No information available

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

**Irritation:** Causes eye burns.

**Sensitization:** No information available.

**Mutagenic Effects:** No information available.

**Reproductive Effects:** No information available.

**Developmental Effects:** No information available.

**Teratogenicity:** No information available.

STOT - single exposure None known

STOT - repeated exposure None known

**Aspiration hazard:** No information available.

**Symptoms / effects, both acute and delayed:** Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

**Endocrine Disruptor Information:** No information available.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## Section 12- Ecological Information.

**Ecotoxicity:** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Persistence and Degradability:** No information available

**Bioaccumulation/ Accumulation:** No information available.

**Mobility:** Will likely be mobile in the environment due to its volatility.





### Section 13- Disposal Considerations.

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

### Section 14- Transport Information.

#### **DOT**

UN-No: UN2387  
Proper Shipping Name: FLUOROBENZENE  
Hazard Class: 3  
Packing Group: II

#### **TDG**

UN-No: UN2387  
Proper Shipping Name: FLUOROBENZENE  
Hazard Class: 3  
Packing Group: II

#### **IATA**

UN-No: UN2387  
Proper Shipping Name: FLUOROBENZENE  
Hazard Class: 3  
Packing Group: II

#### **IMDG/IMO**

UN-No: UN2387  
Proper Shipping Name: FLUOROBENZENE  
Hazard Class: 3  
Packing Group: II

### Section 15- Regulatory Information.

#### **Legend:**

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

X - Listed

'-' - Not Listed

**TSCA 12(b)** - Notices of Export: Not applicable.

#### **U.S. Federal Regulations**

SARA 313: Not applicable.

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act): Not applicable.

**Clean Air Act:** Not applicable.





**OSHA** - Occupational Safety and Health Administration: Not applicable.

**CERCLA**: Not applicable.

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

### Section 16- Other Information.

Briti Scientific provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

