



## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification

#### 1.1 Product identifiers

**Product Name :** Fluorobenzene  
**Cat No.:** AC119340000; AC119340025; AC119340100; AC119341000;  
AC119345000  
**CAS No. :** 462-06-6

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

**Recommended uses :** Laboratory chemicals  
**Uses advised against:** Food, drug, pesticide or biocidal product use.

#### 1.3 Details of the supplier of the safety data sheet

**Company :** Krishna Solvechem Limited.  
B/503, Sahayog, S. V. Road,  
Kandivali (West), Mumbai – 400067. India.  
**Telephone :** +91-22-6123 0222  
**Email :** exports@kscl.co.in

#### 1.4 Emergency telephone number

**Emergency Phone :** +91-8657457330

### SECTION 2: Hazards identification

#### 2.1 Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	(Category 2)
Serious Eye Damage/Eye Irritation	(Category 1)

#### 2.2 Label elements

**Pictogram :**



**Signal word**

Danger

**Hazard statement (s)**

Highly flammable liquid and vapor



Causes serious eye damage

**Precautionary statement (s)**

**Prevention**

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

Avoid breathing dust/fume/gas/mist/vapors/spray

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

**IF ON SKIN (or hair):**

If skin irritation occurs: Get medical advice/attention

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

Wash contaminated clothing before reuse

**Eyes:**

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

**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 3: Composition / information on ingredients

#### 3.1

Component	CAS-No	Weight %
Fluorobenzene	462-06-6	>95

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

<b>General Advice:</b>	If symptoms persist, call a physician.
<b>If inhalation :</b>	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
<b>In case of skin contact :</b>	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
<b>In case of eye contact :</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion :</b>	Clean mouth with water and drink afterwards plenty of water.
<b>4.2 Most important symptoms and effects :</b>	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting
<b>4.3 Notes to Physician :</b>	Treat symptomatically

### SECTION 5: Firefighting effects

#### 5.1 Extinguishing media

<b>Suitable extinguishing media :</b>	Water spray, carbon dioxide (CO <sub>2</sub> ), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.
<b>Unsuitable Extinguishing Media: :</b>	No information available
<b>5.2 Flash Point :</b>	-15 °C / 5 °F
<b>Method :</b>	No information available



<b>Autoignition Temperature:</b>	No information available								
<b>Explosion Limits:</b>									
<b>Upper</b>	No data available								
<b>Lower</b>	No data available								
<b>Sensitivity to Mechanical Impact</b>	No information available								
<b>Sensitivity to Static Discharge</b>	No information available								
<b>Specific Hazards Arising from the Chemical :</b>	Flammable. Vapors may travel to source of ignition and flash back. Vapors may form explosive mixtures with air.								
<b>Hazardous Combustion Products :</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Gaseous hydrogen fluoride(HF)								
<b>5.4 Protective Equipment and Precautions for Firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.								
<b><u>NFPA:</u></b>	<table border="1"> <thead> <tr> <th>Health</th> <th>Flammability</th> <th>Instability</th> <th>Physical hazards</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3</td> <td>0</td> <td>N/A</td> </tr> </tbody> </table>	Health	Flammability	Instability	Physical hazards	3	3	0	N/A
Health	Flammability	Instability	Physical hazards						
3	3	0	N/A						

## SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**  
 Ensure adequate ventilation. Use personal protective equipment as required. Remove all sources of ignition. Take precautionary measures against static discharges
- 6.2 Environmental precautions**  
 Do not flush into surface water or sanitary sewer system.
- 6.3 Methods and materials for containment and cleaning 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

- 7.1 Precautions for safe 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.

## 7.2 Conditions for safe 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 controls/personal protection

### 8.1 Exposure Guidelines

#### Engineering Measures

Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

### 8.2 Exposure controls

#### 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 protection and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Respiratory protection

Wear a NIOSH/MSHA or European Standard EN 149 approved full-face piece airline respirator in the positive pressure mode with emergency escape provisions.

##### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice..

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Colorless Liquid
b) Odour	Aromatic
c) Odour Threshold	No information available
d) pH	No information available
e) Melting point / freezing point	-42 °C / -43.6 °F
f) Initial boiling point and	85 °C / 185 °F @ 760 mmHg



<b>boiling range</b>	
<b>g) Flash point</b>	-15 °C / 5 °F
<b>h) Evaporation rate</b>	No information available
<b>i) Flammability (solid, gas)</b>	Not applicable
<b>j) Upper/lower flammability or explosive limits</b>	No data available No data available
<b>k) Vapour pressure</b>	83 hPa @ 20 °C
<b>l) Vapour density</b>	3.31
<b>m) Specific Gravity</b>	1.020
<b>n) Solubility</b>	Insoluble in water
<b>o) Partition coefficient: n octanol/water</b>	No data available
<b>p) Auto-ignition temperature</b>	No information available
<b>q) Decomposition temperature</b>	No information available
<b>r) Viscosity</b>	No information available
<b>s) Molecular formula</b>	C6 H5 F
<b>t) Molecular Weight</b>	96.1

### SECTION 10: Stability and Reactivity

<b>10.1 Reactive Hazard :</b>	None known, based on information available
<b>10.2 Chemical stability :</b>	Stable under normal conditions.
<b>10.3 Possibility of hazardous reactions :</b>	None under normal processing.
<b>10.4 Conditions to avoid :</b>	Keep away from open flames, hot surfaces and sources of ignition. Incompatible products.
<b>10.5 Incompatible materials:</b>	Oxidizing agents, Strong bases, Strong acids
<b>10.6 Hazardous decomposition products :</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Gaseous hydrogen fluoride (HF)
<b>10.7 Hazardous Polymerization</b>	Hazardous polymerization does not occur



## SECTION 11: Toxicological information

### 11.1

#### Information on toxicological effects

#### 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 ) 4 h

#### 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

#### Carcinogenicity :

The table below indicates whether each agency has investigated any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Fluorobenzene	462-06-6	Not listed	Not listed	Not listed	Not listed	Not listed

#### 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

### 12.1

#### Ecotoxicity:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Fluorobenzene	Not listed	LC50 = 6.6 mg/L/6h LC50 = 10.3 mg/L/96h (Rainbow trout)	Not listed	Not listed

**12.2 Persistence and degradability:** No information available

**Bioaccumulation/ Accumulation** No information available

**12.3 Mobility:** Will likely be mobile in the environment due to its volatility.  
**Log Pow :** 2.24

## SECTION 13: Disposal considerations

**13.1 Waste treatment 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

### 14.1 UN number :

DOT: UN2387      TDG: UN2387  
IATA: UN2387      IMDG: UN2387

### 14.2 UN proper shipping name

**DOT :** FLUROBENZENE

**TDG :** FLUROBENZENE

**IMDG :** FLUROBENZENE

**IATA :** FLUROBENZENE

**14.3 Transport hazard class(es)**      DOT: 3      TDG: 3      IMDG: 3      IATA: 3

**14.4 Packaging group:**      DOT: II      TDG: II      IMDG: II      IATA: II

## SECTION 15: Regulatory information

### 15.1 United states of America Inventory:

Component	CAS-No	TSCA	TSCA Inventory notification Active/Inactive	TSCA - EPA Regulatory Flags
Fluorobenzene	462-06-6	X	ACTIVE	-

**Legend:**





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

X - Listed

'-' - Not Listed

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

**International Inventories:**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Fluorobenzene	462-06-6	X	-	207-321-7	X	X	X	X	X	KE-17006

**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.

**15.2 U.S. State Right-to-Know Regulations:**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Fluorobenzene	X	X	X	-	-

**U.S. Department of Transportation**

Reportable Quantity (RQ): N



DOT Marine Pollutant N  
 DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** - This product does not contain the any DHS Chemicals.

**Other International Regulations**

**Mexico – Grade** No information available

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

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Fluorobenzene	462-06-6	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Fluorobenzene	462-06-6	Not applicable	Not applicable	Not applicable	Annex I - Y45

**SECTION 16: Other information**

**16.1 Prepared By:** Regulatory affairs  
 Krishna Solvechem Limited  
**Email:** exports@kscl.co.in  
**Creation Date:** 23-Mar-2012  
**Revision Date:** 24-Dec-2023  
**Print Date:** 24-Dec-2023  
**Revision Summary:** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 C F R 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**16.2 Disclaimer:**  
 The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as 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 other materials or in any process, unless specified in the text.