

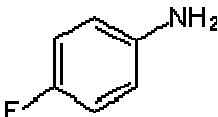
NAVIN FLUORINE INTERNATIONAL LTD		web: http://www.nfil.in mailto: speciality@nfil.in
		2nd Floor, Sunteck Centre, 37/40, Subash Road, Vile Parle (East), Mumbai-400057. India.

PRODUCT SPECIFICATION	
Title: 4-AMINO FLUORO BENZENE (C ₆ H ₆ FN)	Document No. : NFIL/QC /SPEC/FP/012/00 Effective Date : 05/11/2008

Material Code : SPE005003

Major Packing : UN-Certified /MS-HDPE drum 200 / 250Kg

Storage Specifications : Stored in dry condition at room temperature in well closed container.

Structural Formula : 

Molecular Formula : C₆H₆FN

Molecular Weight : 111.11

Synonyms : p-Fluoro Aniline

Sr. No.	TEST	SPECIFICATION
Product Specification:		
1	Appearance / Description	pale yellow to red brown colour liquid
2	Purity (By GC)	99.00% Min.
3	Moisture (By KF)	00.20% Max.
4	Ortho isomer	00.10% Max.
5	Meta isomer	00.15% Max.
6	Total Impurities	01.00% Max.

- Customer should discuss with business unit at speciality@nfil.in for the other requirements than specified.
- Analytical Method No. **NFIL/QC/WI/FP/012**

Para-fluoro aniline

1. CHEMICAL IDENTITY

Chemical Name	Para fluoro aniline
Synonym	4-fluorobenzeneamine, 4 fluoroaniline.
Formula	FC6H4NH2

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients name: Para fluoro aniline.	C.A.S. No 371-40-4 EC No.206-735-5
--	------------------------------------

3. PHYSICAL / CHEMICAL DATA

Boiling Point	187 °C @760mmHg	Vapour Pr. at 20 °C	1 hpa
Melting Point	-1.9 °C	Solubility in water at 20 °C	33 g/l in water (20°C), soluble
Vapour Density, (Air = 1)	NA	Appearance	Pale yellow to red brown liquid.
Specific Gravity/Density	1.157 g/cm3	Odour	Non available
pH (5% Soln.)	NA	Other	----
Physical state	Liquid		

4 FIRE / EXPLOSION HAZARD DATA

Flammability: Combustible	LEL%	NA	Flash Point: 73°C
Auto Ignition Temperature: > 600 °C.	UEL%	NA	
TDG Flammability	Not available		
Explosion Sensitivity to Impact	NA		
Explosion Sensitivity to static electricity	NA		
Hazardous Combustion Product	NA		
Hazardous Polymerization	Has not been reported.		
Combustible liquid	Yes	Oxidizer	NA
Flammable material	Yes.	Organic Peroxide	NA
Pyrophoric material	NA	Corrosive	NA
Explosive material	NA	Other	---

5. STABILITY & REACTIVITY DATA

Chemical stability	Stable under normal temperature and pressure.
Incompatibility	Acid- acid chlorides, acid anhydrides-chloroformates, strong oxidizing agent.
Conditions to avoid	Incompatible materials, light.
Hazardous reaction products	Nitrogen oxides, carbon monoxide, carbon dioxide, hydrogen fluoride, nitrogen.

6. HEALTH HAZARD DATA

Route of entry	Skin, Eyes, Inhalation, Ingestion.
Effects of exposure/ Symptoms	Eye: Causes eye irritation Skin: Causes skin irritation. May be harmful if absorbed through the skin. Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. Inhalation: May cause respiratory tract irritation. May be harmful if inhaled. Chronic: Absorption into the body leads to the formation of methemoglobin which in sufficient concentrations causes cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood).

7. TOXICOLOGICAL INFORMATION

LD 50 / LC50	Draize test, rabbit, eye: 250 ug/24H Severe; Draize test, rabbit, eye: 10 uL Moderate; Draize test, rabbit, skin: 2 mg/24H Severe; Oral, rat: LD50 = 417 mg/kg;
Permissible Exposure Limit	Not Listed

8. ECOLOGICAL INFORMATION		
No data / information available		
9. PREVENTIVE MEASURES/EXPOSURE CONTROL/PERSONAL PROTECTION		
Engineering Controls	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.	
Personal Protective Equipments	Protective gloves, protective goggles, lab coat, aprons, respirators	
10. HANDLING & STORAGE		
Normal Handling	Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.	
Storage Recommendation	Keep away from sources of ignition. Store in a cool, dry place. Do not store in direct sunlight. Store in a tightly closed container away from oxidizing agents.	
11. EMERGENCY / FIRST AID MEASURE		
Fire	Fire extinguishing medium	In case of fire, use water, dry chemical, chemical foam, or alcohol resistant foam
Exposure/first aid measures	Inhalation	Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
	Eyes/ Skin	Eye: Flush eyes with running water for 15 minutes, while keeping the eyelids wide open. Skin: Remove contaminated shoes, socks and clothing; wash the affected skin with plenty of water.
	Ingestion	Get medical aid. Wash mouth out with water.
Special procedure	Use approved self contained positive pressure breathing apparatus with full face piece and protective clothing.	
12. ACCIDENTAL RELEASE MEASURES		
General Information	Use proper personal protective equipment as indicated in section 9	
Spills / Leaks	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.	
13. DISPOSAL CONSIDERAIONS:		
Dispose of in a manner consistent with federal, state, and local regulations.		
14. TRANSPORT INFORMATION		
US (DOT) Shipping Name: FLUOROANILINES Hazard Class: 6.1 UN Number: 2941 Packing Group : III Hazard Label: 		
15. REGULATORY INFORMATION		
European/International Regulations European Labeling in Accordance with EC Directives Hazard Symbols: XN Risk Phrases: R22-Harmful if swallowed R36/38-Irritating to eyes and skin Safety Phrases: S26-In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39- were suitable gloves, eye and face protection.		

16. NAME OF FIRM: NAVIN FLUORINE INTERNATIONAL LIMITED

Mailing address	Post Office - Bhestan, Surat, PIN 395 023, Gujarat, India
Telephone	+91-261-2890325 to 2890329
Fax	+91-261-2890288

DISCLAIMER

Information contained in this Material Safety Data Sheet is believed to be reliable but no representation; guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the user / distributor to ensure that the information contained in the material safety data sheet is relevant to the product manufactured / handled or sold by him as the case may be. There would be no warranties expressed or implied in the respect of the adequacy of this document for any particular purpose.