

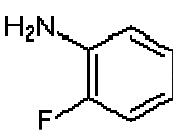
| | | |
|----------------------------------|--|--|
| NAVIN FLUORINE INTERNATIONAL LTD |  | web: http://www.nfil.in mailto: speciality@nfil.in |
| | | 2nd Floor, Sunteck Centre, 37/40, Subash Road, Vile Parle (East), Mumbai-400057. India. |

| PRODUCT SPECIFICATION | |
|---|---|
| Title: 2-AMINO FLUORO BENZENE (C ₆ H ₆ FN) | Document No. : NFIL/QC /SPEC/FP/010/00 Effective Date : 05/11/2008 |

Material Code : SPE005002

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 : 111.11

Molecular Weight : C₆H₆FN

Synonyms : O-Fluoro Aniline

| Sr. No. | TEST | SPECIFICATION |
|-------------------------------|--------------------------|--|
| Product Specification: | | |
| 1 | Appearance / Description | Clear Colourless to pale yellow liquid |
| 2 | Moisture (By KF)by w/w | 00.20% Max. |
| 3 | Purity (By GC) | 99.50% Min. |
| 4 | Para isomer | 00.20% Max. |
| 5 | Meta isomer | 00.20% Max. |
| 6 | Total impurity | 00.50% Max |

- Customer should discuss with business unit at speciality@nfil.in for the other requirements than specified.
- Analytical Method No. **NFIL/QC/WI/FP/010**.



NAVIN FLUORINE
INTERNATIONAL LIMITED

MATERIAL SAFETY DATA SHEET (MSDS)

Ortho fluoro aniline

1. CHEMICAL IDENTITY

| | |
|---------------|---|
| Chemical Name | Ortho fluoro aniline |
| Synonym | 1-amino 2-fluoro benzene, 2 fluoro aniline. |
| Formula | C ₆ H ₆ FN |

2. COMPOSITION / INFORMATION ON INGREDIENTS

| | |
|---|---------------------------------------|
| Ingredients name: Ortho fluoro aniline, | C.A.S. No 348-54-9 EC No:206-478-9 |
|---|---------------------------------------|

3. PHYSICAL / CHEMICAL DATA

| | | | |
|---------------------------|-------------------------|------------------------------|------------------------------|
| Boiling Point | 182 - 183 °C @760mmHg | Vapour Pr. at 20 °C | 1 hpa |
| Melting Point | -29 °C | Solubility in water at 20 °C | 17gm/litr |
| Vapour Density, (Air = 1) | NA | Appearance | Clear to pale yellow liquid. |
| Specific Gravity/Density | 1.151 g/cm ³ | Odour | Non reportable |
| pH (5% Soln.) | NA | Other | ---- |
| Physical state | Liquid | | |

4 FIRE / EXPLOSION HAZARD DATA

| | | | |
|---|------------------------|------------------|-------------------|
| Flammability: Combustible liquid | LEL% | NA | Flash Point: 60°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. |
| 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: May cause irritation of the digestive tract. May be harmful if swallowed. 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 | NA |
| Permissible Exposure Limit | None listed |

8. ECOLOGICAL INFORMATION

Not 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. | |
| 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 several 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 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. Clean up spills immediately. | |
| 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: XI Risk Phrases: R 36/38 Irritating to eyes and skin. Safety Phrases: S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 37/39 Wear suitable gloves and eye/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 | |
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