

# 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS MSDS

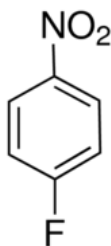
CAS-No.: 350-46-9 MSDS

## MATERIAL SAFETY DATA SHEET (MSDS)

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

#### 1.1. Product identifier

Product form : Substance  
:  
CAS-No. : 350-46-9  
Product code : 3858D  
Formula : C<sub>6</sub>H<sub>4</sub>FNO<sub>2</sub>  
Chemical structure :



Synonyms : p-Fluoronitrobenzene, p-Nitrofluorobenzene

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

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only

##### 1.2.2. Uses advised against

No additional information available

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

SPAN LAB  
UNIT NO. 14, SKY INDUSTRIAL ESTATE, WALIV, VASAI (E)  
401208 Mumbai - INDIA  
PH: +91 9820509929  
[info@spanlab.in](mailto:info@spanlab.in) [www.spanlab.in](http://www.spanlab.in)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), H302  
Category 4  
Acute toxicity (dermal), H312  
Category 4  
Acute toxicity (inhalation:gas) Category  
3

# 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

Specific target organ toxicity — Repeated exposure, Category 2 H373

Full text of H statements : see section 16

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xn; R20/21/22  
R33

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS06

GHS08

Signal word (CLP) : Danger

Hazard statements (CLP) : H302+H312 - Harmful if swallowed or in contact with skin  
H331 - Toxic if inhaled.  
H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (CLP) : P261 - Avoid breathing dust, fume, gas, spray, vapours, mist.  
P280 - Wear protective clothing, protective gloves, eye protection, face protection.  
P311 - Call a POISON CENTER/doctor

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS  
CAS-No. : 350-46-9

Full text of R- and H-statements: see section 16

### 3.2. Mixtures

Not applicable

# 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary.
- First-aid measures after skin contact : Immediately call a POISON CENTER/doctor. Specific measures (see supplemental first aid instruction on this label). Wash with plenty of water/.... Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : May cause damage to organs through prolonged or repeated exposure.
- Symptoms/effects after inhalation : Harmful if inhaled.
- Symptoms/effects after skin contact : Harmful in contact with skin.
- Symptoms/effects after ingestion : Harmful if swallowed.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Foam. Dry powder. Carbon dioxide.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.
- Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe vapours. Provide good ventilation in process area to prevent formation of vapour.

# 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Hand protection : Protective gloves  
Eye protection : Chemical goggles or safety glasses  
Skin and body protection : Wear suitable protective clothing  
Respiratory protection : [In case of inadequate ventilation] wear respiratory protection.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Molecular mass : 141.1 g/mol  
Colour : Yellow.  
Odour : No data available  
Odour threshold : No data available  
pH : No data available  
Relative evaporation rate (butylacetate=1) : No data available  
Melting point : 21 °C  
Freezing point : No data available  
Boiling point : 205 °C  
Flash point : 90 °C  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Flammability (solid, gas) : No data available  
Vapour pressure : 5.5 mm Hg at 700C  
Relative vapour density at 20 °C : > 1

# 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

|                      |                          |
|----------------------|--------------------------|
| Relative density     | : No data available      |
| Density              | : 1.34 g/cm <sup>3</sup> |
| Solubility           | : Water: Insoluble       |
| Log Pow              | : 1.8                    |
| Viscosity, kinematic | : No data available      |
| Viscosity, dynamic   | : No data available      |
| Explosive properties | : No data available      |
| Oxidising properties | : No data available      |
| Explosive limits     | : No data available      |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation:gas: Toxic if inhaled.

Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

Reproductive toxicity : Not classified  
STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

# 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

Additional information : There are potential chronic health effects to consider

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Harmful if swallowed. Harmful in contact with skin.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

##### 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS (350-46-9)

|         |     |
|---------|-----|
| Log Pow | 1.8 |
|---------|-----|

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR) : 2811  
UN-No. (IMDG) : 2811  
UN-No. (IATA) : 2811  
UN-No. (ADN) : 2811  
UN-No. (RID) : 2811

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : TOXIC SOLID, ORGANIC, N.O.S.

# 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

|                                       |   |
|---------------------------------------|---|
| Proper Shipping Name (IMDG)           | : TOXIC SOLID, ORGANIC, N.O.S.                        |
| Proper Shipping Name (IATA)           | : Toxic solid, organic, n.o.s.                        |
| Proper Shipping Name (ADN)            | : TOXIC SOLID, ORGANIC, N.O.S.                        |
| Proper Shipping Name (RID)            | : TOXIC SOLID, ORGANIC, N.O.S.                        |
| Transport document description (ADR)  | : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III, (E) |
| Transport document description (IMDG) | : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III      |
| Transport document description (IATA) | : UN 2811 Toxic solid, organic, n.o.s., 6.1, III      |
| Transport document description (ADN)  | : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III      |
| Transport document description (RID)  | : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III      |

### 14.3. Transport hazard class(es)

#### ADR

|                                  |       |
|----------------------------------|-------|
| Transport hazard class(es) (ADR) | : 6.1 |
| Danger labels (ADR)              | : 6.1 |



#### IMDG

|                                   |       |
|-----------------------------------|-------|
| Transport hazard class(es) (IMDG) | : 6.1 |
| Danger labels (IMDG)              | : 6.1 |



#### IATA

|                                   |       |
|-----------------------------------|-------|
| Transport hazard class(es) (IATA) | : 6.1 |
| Hazard labels (IATA)              | : 6.1 |



#### ADN

|                                  |       |
|----------------------------------|-------|
| Transport hazard class(es) (ADN) | : 6.1 |
| Danger labels (ADN)              | : 6.1 |



#### RID

|                                  |       |
|----------------------------------|-------|
| Transport hazard class(es) (RID) | : 6.1 |
| Danger labels (RID)              | : 6.1 |

# 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet



### 14.4. Packing group


|                      |       |
|----------------------|-------|
| Packing group (ADR)  | : III |
| Packing group (IMDG) | : III |
| Packing group (IATA) | : III |
| Packing group (ADN)  | : III |
| Packing group (RID)  | : III |

### 14.5. Environmental hazards

|                               |  |
|-------------------------------|--|
| Dangerous for the environment | : No                                     |
| Marine pollutant              | : No                                     |
| Other information             | : No supplementary information available |

### 14.6. Special precautions for user

#### - Overland transport

|   |   |
|---|---|
| Classification code (ADR)   | : T2  |
| Special provisions (ADR)  | : 274, 614  |
| Limited quantities (ADR)  | : 5kg   |
| Excepted quantities (ADR)   | : E1  |
| Packing instructions (ADR)  | : P002, IBC08, LP02, R001   |
| Special packing provisions (ADR)  | : B3  |
| Mixed packing provisions (ADR)  | : MP10  |
| Portable tank and bulk container instructions (ADR)                     | : T1  |
| Portable tank and bulk container special provisions (ADR)               | : TP33  |
| Tank code (ADR)   | : SGAH, L4BH  |
| Tank special provisions (ADR)   | : TU15, TE19  |
| Vehicle for tank carriage   | : AT  |
| Transport category (ADR)  | : 2   |
| Special provisions for carriage - Bulk (ADR)                            | : VC1, VC2, AP7   |
| Special provisions for carriage - Loading, unloading and handling (ADR) | : CV13, CV28  |
| Special provisions for carriage - Operation (ADR)                       | : S9  |
| Hazard identification number (Kemler No.)                               | : 60  |
| Orange plates   | :  |
| Tunnel restriction code (ADR)   | : E   |
| EAC code  | : 2X  |

#### - Transport by sea

|                                 |            |
|---------------------------------|------------|
| Special provisions (IMDG)       | : 223, 274 |
| Packing instructions (IMDG)     | : P002     |
| IBC packing instructions (IMDG) | : IBC08    |
| IBC special provisions (IMDG)   | : B3       |
| Tank instructions (IMDG)        | : T1       |



# 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

|                                    |   |
|------------------------------------|---|
| Tank special provisions (IMDG)     | : TP33  |
| EmS-No. (Fire)                     | : F-A   |
| EmS-No. (Spillage)                 | : S-A   |
| Stowage category (IMDG)            | : A   |
| Properties and observations (IMDG) | : Toxic if swallowed, by skin contact or by inhalation. |
| MFAG-No                            | : 154   |

### - Air transport

|  |          |
|--|----------|
| PCA Excepted quantities (IATA)               | : E1     |
| PCA Limited quantities (IATA)                | : Y645   |
| PCA limited quantity max net quantity (IATA) | : 10kg   |
| PCA packing instructions (IATA)              | : 670    |
| PCA max net quantity (IATA)                  | : 100kg  |
| CAO packing instructions (IATA)              | : 677    |
| CAO max net quantity (IATA)                  | : 200kg  |
| Special provisions (IATA)                    | : A3, A5 |
| ERG code (IATA)                              | : 6L     |

### - Inland waterway transport

|                                   |                 |
|-----------------------------------|-----------------|
| Classification code (ADN)         | : T2            |
| Special provisions (ADN)          | : 274, 614, 802 |
| Limited quantities (ADN)          | : 5 kg          |
| Excepted quantities (ADN)         | : E1            |
| Carriage permitted (ADN)          | : T             |
| Equipment required (ADN)          | : PP, EP        |
| Number of blue cones/lights (ADN) | : 0             |

### - Rail transport

|   |                           |
|---|---------------------------|
| Classification code (RID)   | : T2                      |
| Special provisions (RID)  | : 274, 614                |
| Excepted quantities (RID)   | : E1                      |
| Packing instructions (RID)  | : P002, IBC08, LP02, R001 |
| Special packing provisions (RID)  | : B3                      |
| Mixed packing provisions (RID)  | : MP10                    |
| Portable tank and bulk container instructions (RID)                     | : T1                      |
| Portable tank and bulk container special provisions (RID)               | : TP33                    |
| Tank codes for RID tanks (RID)  | : SGAH, L4BH              |
| Special provisions for RID tanks (RID)                                  | : TU15                    |
| Transport category (RID)  | : 2                       |
| Special provisions for carriage – Bulk (RID)                            | : VC1, VC2, AP7           |
| Special provisions for carriage - Loading, unloading and handling (RID) | : CW13, CW28, CW31        |
| Colis express (express parcels) (RID)                                   | : CE11                    |
| Hazard identification number (RID)                                      | : 60                      |

## 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

# 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

No REACH Annex XVII restrictions

1-FLUORO-4-NITROBENZENE FOR SYNTHESIS is not on the REACH Candidate List

1-FLUORO-4-NITROBENZENE FOR SYNTHESIS is not on the REACH Annex XIV List

### 15.1.2. National regulations

#### Germany

Reference to AwSV : Water hazard class (WGK) 1, low hazard to water (Classification according to AwSV; ID No. 6557)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

#### Denmark

Class for fire hazard : Class III-1

Store unit : 50 liter

Classification remarks : Flammable according to the Danish Ministry of Justice; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of R-, H- and EUH-statements:

|                               |  |
|-------------------------------|--|
| Acute Tox. 3 (Inhalation:gas) | Acute toxicity (inhalation:gas) Category 3                     |
| Acute Tox. 4 (Dermal)         | Acute toxicity (dermal), Category 4                            |
| Acute Tox. 4 (Oral)           | Acute toxicity (oral), Category 4                              |
| STOT RE 2                     | Specific target organ toxicity — Repeated exposure, Category 2 |
| H302                          | Harmful if swallowed.  |

# 1-FLUORO-4-NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

|           |  |
|-----------|--|
| H312      | Harmful in contact with skin.                                      |
| H331      | Toxic if inhaled.  |
| H373      | May cause damage to organs through prolonged or repeated exposure. |
| R20/21/22 | Harmful by inhalation, in contact with skin and if swallowed       |
| R33       | Danger of cumulative effects                                       |
| Xn        | Harmful  |

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*