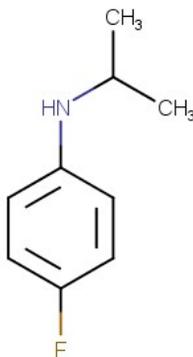


1. General Statement

p-Fluoro-N-Isopropylaniline is a pale yellow coloured clear liquid used as intermediate in the chemical industry.

2. Chemical identity

Name : p-Fluoro-N-Isopropylaniline
 CAS number(s) : 70441-63-3
 EC number : 448-100-7
 Molecular formula : C₉H₁₂FN
 Structure :



3. Uses and Benefits

4-Fluoro-N-isopropylaniline is an intermediate used in the synthesis of Flufenacet, a herbicide.

4. Physical / chemical properties

Property	Value
Physical state :	Liquid
Colour :	Colourless to pale yellow
Odour :	No data available
pH :	No data available
Melting point	< -50 °C
Boiling point :	208.4 °C Atm. press.: 101,3 kPa
Flash point :	87 °C
Density :	1.03 Type: 'relative density' Temp.: 20 °C (Relative density)

GPS Safety Summary

p-Fluoro-N-Isopropylaniline

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Solubility in Water:	No data available
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5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Harmful if swallowed,Harmful if inhaled.
Irritation / corrosion Skin / eye/ respiratory tract	Causes skin irritation.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Toxicity after repeated exposure Oral / inhalation / dermal	NA
Genotoxicity / Mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	Not classified
Toxicity for reproduction	NA

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	Yes
Fate and behavior	Result
Persistence and degradability	No additional information available
Bioaccumulative potential	No additional information available

7. Exposure

Human health

The substance may cause an allergic skin reaction, Suspected of causing genetic defects.

The most likely route of human exposure (workers) is through skin.In industrial settings, ingestion is not an anticipated route of exposure. Workers may be exposed during (un)loading, mixing, sampling, analysis or maintenance operations and particularly in case of batch processes.The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers. Careless handling or accidental spillage of the chemical could result in exposure to potentially hazardous levels of chemicals.the substance is handled in closed systems, and it is usual for operators to wear impervious suits and self-contained breathing apparatus for operations involving the transfer of dimethyl sulfate, where there is the possibility of greater exposure.

Industrial workers should ensure that they follow the advice found in the extended safety data sheet (SDS).

Environment

Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. Spillage shall be quickly collected in the event of an accidental release. More information about release measures and accidental release measures are available in the extended safety data sheet.

8. Risk Management Recommendations

Human health measures

Organizational	A basic standard of occupational hygiene is recommended. Ensure operatives are well informed of the hazards and trained to minimise exposures. Ensure regular inspection and maintenance of equipment and machines. Handle and store according to the indications of the Safety Data Sheet.	
Protection	Eye protection:	Safety glasses
	Skin and body protection:	Wear suitable protective clothing (Avoid inhalation or skin contact)
	Respiratory protection:	High concentration or prolonged activity: self contained breathing apparatus.
Engineering controls	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the work station.	
Environment protective measures		
Product must not be released into water without pre-treatment. Neutralize wastewater before release.		

9. First-aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse eyes with water as a precaution. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Call a poison center or a doctor if you feel unwell. If swallowed, seek medical advice immediately and show this container or label.

10. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : NA

Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : On burning: release of toxic and corrosive gases/vapours (nitrous vapours, hydrofluoric acid, carbon monoxide - carbon dioxide).

Advice for firefighters

Precautionary measures fire : Eliminate all ignition sources if safe to do so. Keep the container closed when not in use. Keep the container tightly closed and away from heat, sparks and flame.

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter a fire area without proper protective equipment, including respiratory protection.

11. Accidental release measures

Protective equipment :Wear Safety glasses. Self-contained breathing apparatus. Total impervious protective suits,gloves, and boots must be worn to prevent any contact with the product. Wear recommended personal protective equipment.

Environmental precautions: Prevent entry to sewers and public waters. Avoid discharge to the atmosphere. Do not allow entering drains or water courses.

For containment : Stop leak without risks if possible. Collect spillage. Do not touch or walk on the spilled product.

12. Disposal consideration

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Hazardous waste shall not be mixed together with other waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.

13. Handling and storage

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

14. Classification and Labeling

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

Hazard pictograms (CLP)



Signal word (CLP)

Hazard statements (CLP)

Precautionary statements (CLP)

: Warning
: H302+H332 - Harmful if swallowed or if inhaled.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H341 - Suspected of causing genetic defects.
H411 - Toxic to aquatic life with long lasting effects.
: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.

15. Conclusion

p-Fluoro-N-Isopropylaniline is pale yellow coloured clear liquid. The substance may cause an allergic skin reaction, Suspected of causing genetic defects. Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.

16. Contact Information within company

Manufacturer

Aarti Industries Limited
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400080 Mumbai - India

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p-Fluoro-N-Isopropylaniline

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This GPS safety summary is intended to give general information about the health, safety and environmental and not intended to provide in-depth details. To obtain the most accurate and current information, consult the appropriate Safety Data Sheet (SDS) prior to use of the material named herein.