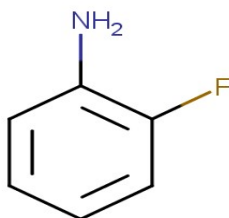


1. General Statement

2-fluoroaniline is a clear liquid with a mild sweet odor. Sinks in and mixes slowly with water. 2-fluoroaniline is a derivative of aniline in which the hydrogen at position 2 has been substituted by fluorine.

2. Chemical identity

Name : 2-fluoroaniline
CAS number(s) : 348-54-9
EC number : 206-478-9
Molecular formula : C₆H₆FN
Structure :



3. Uses and Benefits

It is used as a pharmaceutical intermediate. It is a primary arylamine and a fluoroaniline.

4. Physical / chemical properties

Property	Value
Physical state :	Liquid.
Colour :	Light yellow.
Odour :	mild sweet odor
pH :	No data available
Melting point	-29 °C
Boiling point :	182 °C
Flash point :	61 °C
Density :	1150 kg/m ³
Solubility in Water:	Insoluble in water.

GPS Safety Summary

2-Fluoroaniline

CL-4: PUBLIC

5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Toxic if swallowed,contact with skin & if inhaled.
Irritation / corrosion Skin / eye/ respiratory tract	Causes serious eye damage.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Toxicity after repeated exposure Oral / inhalation / dermal	Causes damage to organs through prolonged or repeated exposure.
Genotoxicity / Mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	Suspected of causing cancer.
Toxicity for reproduction	No

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	Yes
Fate and behavior	Result
Persistence and degradability	Biodegradability in soil: no data available. Not readily biodegradable in water.
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

7. Exposure

Human health

The substance May cause cancer ,Suspected of causing genetic defects. Cause serious eye damage and also it may cause an allergic skin reaction.Inhalation or ingestion causes bluish tint to fingernails, lips and ears indicative of cyanosis; headache, drowsiness, and nausea, followed by unconsciousness. Liquid can be absorbed through skin and cause similar symptoms. Contact with eyes causes irritation.

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

GPS Safety Summary

2-Fluoroaniline

CL-4: PUBLIC

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, Face shield (EN 166)
	Skin and body protection:	Wear suitable protective clothing, Protective clothing (EN 14605 or EN 13034)
	Respiratory protection:	High gas/vapour concentration: full face mask with filter type A.
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 victim into fresh air. Immediately consult a doctor/medical service.

First-aid measures after skin contact : If possible, wipe up/dry remove chemicals. Then rinse/shower immediately for 30 minutes with (lukewarm) water. Cut clothing; never remove burnt clothing from the wound. Do not give any pain medication. Consult a doctor/medical service.

First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a doctor/medical service.

First-aid measures after ingestion : Rinse mouth with water. Immediately consult a doctor/medical service. Do not wait for symptoms to occur to consult the Poison Center.

GPS Safety Summary

2-Fluoroaniline

CL-4: PUBLIC

10. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO2 extinguisher. Class B foam (not alcohol-resistant).

Unsuitable extinguishing media : Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

Special hazards arising from the substance or mixture

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

Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.

Firefighting instructions : Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

11. Accidental release measures

Protective equipment : Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Large spills/in enclosed spaces: self-contained breathing apparatus (EN 136 + EN 137). Large spills/in enclosed spaces: gas-tight suit (EN 943).

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

For containment : Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Heat exposure: dilute toxic gas/vapour with water spray.

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. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste

GPS Safety Summary

2-Fluoroaniline

CL-4: PUBLIC

shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery.

13. Handling and storage

Precautions for safe handling : At temperature > flashpoint: use spark-/explosion proof appliances. Keep away from naked flames/heat. In a finely divided state: use spark-/explosion proof appliances. Finely divided: keep away from ignition sources/sparks. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Clean contaminated clothing. Keep the container tightly closed. Do not discharge the waste into the drain.

Hygiene measures : Observe very strict hygiene - avoid contact.

14. Classification and Labeling

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H341 - Suspected of causing genetic defects.
H351 - Suspected of causing cancer.
H372 - Causes damage to organs through prolonged or repeated exposure.
H400 - Very toxic to aquatic life.

Precautionary statements (CLP)

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe vapours, mist.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.

GPS Safety Summary

2-Fluoroaniline

CL-4: PUBLIC

15. Conclusion

2-fluoroaniline is a clear liquid with a mild sweet odor. The substance May cause cancer , cause serious eye damage and also it may cause an allergic skin reaction. 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

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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.