

SAFETY DATA SHEET

NAME OF PRODUCT 2-Aminofluorene

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product/Catalog Number(s):

60-104 100 ug/vial; 5 vials/pack

Product name: 2-aminofluorene
Synonyms: 2-AF; Aminofluorene; AKOS AUF02047; 2-Fluoreneamine; ASISCHEM B52713; fluoren-2-amine; 2-Fluoreylamine; 2-amino-fluoren; 2-aminofluorene
Manufacturer: Molecular Toxicology Inc.
Address: 157 Industrial Park Drive, Boone, North Carolina, 28607
Phone: (1) 828 264 9099 (8:30 – 17:00 EST)
Fax: 828 264 0103
Emergency contact (Chemtrec): Contact 1800-424-9300 (USA) or 703 527 3887 (International) at other times
Email: chemtrec@chemtrec.com; <http://www.chemtrec.com/>
Recommended use: Laboratory, For Research Only
Restrictions on use: Not for clinical use

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture per GSH and EU Directive 1272/2008



Warning

Physical hazards	None known
Health hazards	Germ cell mutagenicity (Category 2) Carcinogenicity (Category 2)
Environmental hazards	See eco-toxicity section 12.

2.1 Labelling

Hazard Statements	H351 Suspected of causing cancer H341 Suspected of causing genetic defects
Precautionary Statements	P201 Receive special instructions before use P202 Do not handle until all safety precautions are understood P281 Use personal protective equipment as required P308+313 IF exposed or concerned: Get medical advice/attention P405 Store locked up P501 Dispose of contents/container to licensed disposal company
Other hazards	Contact with metal may evolve flammable hydrogen chloride gas

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Component	Purpose	CAS-No	EC-No.	Weight %
2-Aminofluorene C ₁₃ H ₁₁ N	Biochemical used in the study of carcinogenesis	153-78-6	205-817-8	100%

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye Contact	Rinse eyes and under eyelids immediately with plenty of water. Consult a doctor.
Skin Contact	Wash off immediately with plenty of soap and water and rinse thoroughly. Seek immediate medical advice.
Ingestion	Rinse mouth with plenty of water. Seek immediate medical attention.
Inhalation	Move to fresh air. If required, provide artificial respiration. Keep patient warm. Get medical attention for any breathing difficulties.
Protection of first-aiders	Not required

In the event that symptoms develop or persists, obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Acute: No data available

Chronic: May be carcinogenic - duration and level of exposure dependent

4.3 Indication of any immediate medical attention and special treatment needed

Seek medical attention if ingested or if breathing difficulties are observed.

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Not flammable; use media suitable for extinguishing surrounding fire (carbon dioxide, extinguishing powder or water spray). Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

Hazardous thermal decomposition products: Carbon dioxide, carbon monoxide, nitrogen oxides, irritating/toxic fumes and gases

5.3 Advice for firefighters

Fire-fighters should wear fully protective impervious protective equipment and self-contained breathing apparatus (SCBA).

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Evacuate surrounding areas. Use personal protective equipment.

6.2 Environmental precautions

Do not release material into the environment without proper governmental permits.

6.3 Methods and material for containment and cleaning up

Dispose contaminated material as waste according to section 13.

6.4 Reference to other sections

Refer to Sections 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep in the original container or an approved alternate made from compatible material, kept tightly closed when not in use. Store in a cool, dry location. Ensure proper ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Storage - Store according to product packaging, tightly sealed. Store away from oxidizing agents. No special requirements for storerooms or receptacles.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits

Component does not require monitoring at the workplace.

Monitoring methods

N/A

8.2 Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimize release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source. Use of a properly operating chemical fume hood designed for hazardous chemicals is recommended.

Personal protective equipment

Eye Protection: Safety Glasses

Hand Protection

Chemical resistant gloves; nitrile rubber recommended. Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves (refer to manufacturer/supplier for information). If material is solubilized, account for solvent in glove assessment.

Remove gloves with care avoiding skin contamination.

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Skin and body protection

Appropriate laboratory work clothing; labcoat recommended

Respiratory Protection

Not necessary if used in small concentrations. If high concentrations are present or in an emergency situation utilize a suitable respirator.

Hygiene Measures - Handle in accordance with good industrial hygiene and safety practice. Wash hands, forearms and face thoroughly after handling chemical products, before smoking, eating and using lavatory, and at the end of the work period. Employ techniques to avoid contamination of clothing. Keep away from food, beverages, and feed.

Environmental exposure controls – Properly operating chemical fume hood designed for hazardous chemicals.

8.3 Exposure limits

Permissible Exposure Limits and Threshold Limit Values not specified by OSHA.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Powder or crystals, light yellow
Auto-ignition temperature	No data available
Boiling point	No data available
Decomposition temperature	No data available
Flammable limits in air	No data available
Flash point	N/A
Formula	C ₁₃ H ₁₁ N
Melting point	126-130°C (259-266°F)
Molecular weight	181.23
Odor threshold	No data available
Osmolality	No data available
pH	N/A
Partition coefficient	2.85
Solubility in water	Insoluble
Specific gravity	No data available
Vapor density	N/A
Vapor pressure	N/A
Viscosity	N/A

N/A Not applicable

9.2 Other information

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

Not reactive.

10.2 Chemical stability

Stable under normal conditions. Decomposition will not occur if used and stored appropriately.

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

Excess heat and dust formation

10.5 Incompatible materials

Oxidizing materials

10.6 Hazardous decomposition products

Carbon monoxide and carbon dioxide, Nitrogen oxides

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects**Acute toxicity*****Primary irritant effect:***

Skin: Irritant to skin and mucous membranes

Eye: Irritant

Sensitization: No sensitizing effects known

LD₅₀ intraperitoneal, rat 132 mg/kg

Other information:

Tumorigenic effects have been observed on tests with laboratory animals.

Mutagenic effects have been observed on test with bacteria.

Mutagenic effects have been observed on test with insects.

Mutagenic effects have been observed on test with laboratory animals.

Mutagenic effects have been observed on test with human lymphocytes.

Carcinogenicity

This substance is not listed as carcinogenic according to IARC, ACGIH, NTP, and OSHA classifications

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Subacute to chronic toxicity:

RTECS (Registry of Toxic Effects of Chemical Substances) reports the following effects in laboratory animals:

Behavioral – general anesthetic.

Sense Organs and Special Senses – not otherwise specified.

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Skin and Appendages – tumors
Blood – leukemia
Liver – tumors
Kidney, Ureter, Bladder – tumors
Gastrointestinal – tumors
Tumorigenic – carcinogenic by RTECS criteria.
Tumorigenic – tumors at site of application.
Tumorigenic – equivocal tumorigenic agent by RTECS criteria.
Tumorigenic – neoplastic by RTECS criteria

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Additional toxicological information:

RTECS: LL5075000

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic ecotoxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Behavior in environment systems:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Additional ecological information:

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course, or sewage system.
Do not allow material to be released to the environment without proper governmental permits.

Results of PBT and vPvB Assessment

PBT: Not applicable

vPvB: Not applicable

Other adverse effects: No further relevant information available.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of in accordance with National, Federal and Local regulations. The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. TRANSPORT INFORMATION

Not a hazardous material for transportation

DOT regulations:

Hazard class: None

Land transport ADR/RID (cross-border)

ADR/RID class: None

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Maritime transport IMDG:

IMDG Class: None

Marine pollutant: No

Air transport ICAO_TI and IATA-DGR:

ICAO/IATA Class: None

Special precautions for user: Not applicable

Transport/Additional information: Not dangerous according to the above specification.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

SECTION 15. REGULATORY INFORMATION

OSHA Hazards

No chemicals in this product are considered highly hazardous by OSHA

SARA 302 Components

SARA 302: No chemicals in this product are subject to reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Chronic Health Hazard

Massachusetts Right To Know Components

153-78-6 2-aminofluorene

Pennsylvania Right To Know Components

153-78-6 2-aminofluorene

New Jersey Right To Know Components

153-78-6 2-aminofluorene

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

153-78-6 2-aminofluorene

SECTION 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Molecular Toxicology, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See www.moltox.com and/or the invoice or packing slip for additional terms and conditions of sale.