Material Safety Data Sheet

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Version 1.3
According to 91/155/EEC

1 - Product and Company Information

Product Name	2-AMINOFLUORENE, 98%
Product Number	A55500
Company	Sigma-Aldrich Pty. Ltd. 12 Anella Avenue Castle Hill NSW 2154 Australia
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2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
2-AMINOFLUORENE	153-78-6	205-817-8	None

Formula	C13H11N
Molecular Weight	181.24 AMU
Synonyms	Aminofluoren (German) * 2-Aminofluorene * 2-Fluorenamine * 9H-Fluoren-2-amine * 2-Fluoreneamine * Fluorene, 2-amino-

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Not hazardous according to Directive 67/548/EEC.

4 - First Aid Measures

AFTER INHALATION
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

AFTER EYE CONTACT
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION
If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

SPECIAL RISKS
Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Wear disposable coveralls and discard them after use.

METHODS FOR CLEANING UP
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING
Directions for Safe Handling: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE
Conditions of Storage: Keep tightly closed.

SPECIAL REQUIREMENTS: Heat and light sensitive.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS
Use only in a chemical fume hood. Safety shower and eye bath.

GENERAL HYGIENE MEASURES
Wash contaminated clothing before reuse. Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory Protection: Government approved respirator.
Hand Protection: Compatible chemical-resistant gloves.
Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance	Color: Light yellow Form: Crystals	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	124 °C	

Flash Point	N/A
Flammability	N/A
Autoignition Temp	N/A
Oxidizing Properties	N/A
Explosive Properties	N/A
Explosion Limits	N/A
Vapor Pressure	N/A
SG/Density	N/A
Partition Coefficient	N/A
Viscosity	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
Evaporation Rate	N/A
Bulk Density	N/A
Decomposition Temp.	N/A
Solvent Content	N/A
Water Content	N/A
Surface Tension	N/A
Conductivity	N/A
Miscellaneous Data	N/A
Solubility	N/A

10 - Stability and Reactivity

STABILITY
Stable: Stable.
Conditions to Avoid: Light. Heat.
Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: LL5075000

ACUTE TOXICITY

LD50
Intraperitoneal
Mouse
132 MG/KG

SIGNS AND SYMPTOMS OF EXPOSURE
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

ROUTE OF EXPOSURE
Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

TARGET ORGAN INFORMATION
Liver. G.I. System. Lungs. Ears.

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Rat
Route of Application: Oral
Exposure Time: 32W
Result: Tumorigenic:Carcinogenic by RTECS criteria. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Ear:Tumors. Skin and Appendages: Other: Tumors.

Rat
Route of Application: Skin
Exposure Time: 73W
Result: Tumorigenic:Carcinogenic by RTECS criteria. Liver:Tumors. Skin and Appendages: Other: Tumors.

Rat
Route of Application: Subcutaneous
Exposure Time: 26W
Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Blood:Leukemia

Mouse
Route of Application: Oral
Exposure Time: 47W
Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Liver:Tumors. Kidney, Ureter, Bladder:Tumors.

Mouse
Route of Application: Skin
Exposure Time: 34W
Result: Tumorigenic:Neoplastic by RTECS criteria. Lungs, Thorax, or Respiration:Tumors. Gastrointestinal:Tumors.

Mouse
Route of Application: Implant
Result: Tumorigenic:Carcinogenic by RTECS criteria. Kidney, Ureter, Bladder:Tumors.

Rat
Route of Application: Oral
Exposure Time: 23W
Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.

Rat
Route of Application: Oral
Exposure Time: 58W
Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Liver:Tumors. Kidney, Ureter, Bladder:Tumors.

Rat
Route of Application: Oral
Exposure Time: 23W
Result: Tumorigenic:Neoplastic by RTECS criteria. Liver:Tumors. Skin and Appendages: Other: Tumors.

Mouse
Route of Application: Implant
Result: Tumorigenic:Equivocal tumorigenic agent by RTECS

criteria. Kidney, Ureter, Bladder:Tumors. Tumorigenic:Tumors at site or application.

Rat
Route of Application: Skin
Exposure Time: 30W
Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Liver:Tumors.

Rat
Route of Application: Skin
Exposure Time: 30W
Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Ear:Tumors. Liver:Tumors.

CHRONIC EXPOSURE - MUTAGEN
Result: Laboratory experiments have shown mutagenic effects.

Hamster
100 MG/L (+S9)
Cell Type: lymphocyte
Mutation in microorganisms

Human
30 UMOL/L
Cell Type: lymphocyte
DNA

Human
100 NMOL/L
Cell Type: liver
Unscheduled DNA synthesis

Human
225 UMOL/L
Cell Type: HeLa cell
DNA inhibition

Human
25 UMOL/L
Cell Type: lymphocyte
Sister chromatid exchange

Rat
5 MG/L
Cell Type: Embryo
Morphological transformation.

Rat
500 NMOL/L
Cell Type: liver
Unscheduled DNA synthesis

Rat
10 MG/KG
Cell Type: S. typhimurium
Body fluid assay

Rat
50 UMOL/L
Cell Type: liver

Mutation in mammalian somatic cells.

Mouse
5400 UG/L (+S9)
Cell Type: lymphocyte
Mutation in microorganisms

Mouse
1 MG/L
Cell Type: Embryo
Morphological transformation.

Mouse
10 UG/L
Cell Type: mammary gland
Morphological transformation.

Mouse
30 UMOL/L
Cell Type: Ascites tumor
DNA

Mouse
200 MG/KG
Intraperitoneal
DNA inhibition

Mouse
100 MG/KG
Intraperitoneal
Other mutation test systems

Mouse
100 MG/KG
Intraperitoneal
Cytogenetic analysis

Mouse
2 MG/KG
Cell Type: S. typhimurium
Host-mediated assay

Mouse
2500 MG/KG
Intraperitoneal
5D
sperm

Hamster
500 UMOL/L (+S9)
Cell Type: ovary
Mutation in microorganisms

Hamster
1 MG/L
Cell Type: Embryo
Morphological transformation.

Hamster
10 UMOL/L
Cell Type: lung
Unscheduled DNA synthesis

Hamster
50 MG/KG
Oral
Sister chromatid exchange

Hamster
1 UMOL/L
30M
Cell Type: ovary
Sister chromatid exchange

Hamster
50 MG/KG
Intraperitoneal
Sister chromatid exchange

Hamster
5 MG/L
Cell Type: lung
Mutation in mammalian somatic cells.

Guinea pig
10 UMOL/L
Cell Type: lung
Unscheduled DNA synthesis

Rabbit
1 UMOL/L
Cell Type: Other cell types
Unscheduled DNA synthesis

Rabbit
100 UMOL/L
Cell Type: liver
Unscheduled DNA synthesis

Dog
1 UMOL/L
Cell Type: Other cell types
Unscheduled DNA synthesis

Rabbit
7 MG/KG
Intraperitoneal
Sister chromatid exchange

Rabbit
100 UMOL/L
30M
Cell Type: lymphocyte
Sister chromatid exchange

ZPOS
Histidine reversion (Ames)

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL
Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR
Non-hazardous for road transport.

IMDG
Non-hazardous for sea transport.

IATA
Non-hazardous for air transport.

15 - Regulatory Information

Not hazardous according to Directive 67/548/EEC.

SWITZERLAND
SWISS POISON CLASS: 1*

16 - Other Information

WARRANTY
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 and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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