

SAFETY DATA SHEET

NAME OF PRODUCT 2-Aminoanthracene

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product/Catalog Number(s):

32-60107	125 µg/vial
60-107	100 µg/vial
60-107.05	500 µg/vial
60-107.06	600 µg/vial
60-107.2	200 µg/vial
60-107.21	20 µg/vial
60-107.5	500 µg/vial
60-157	100 µg/vial
60-157.2	2.0 mg/vial
60-164	50 µg/vial
60-212	1.0 mg/vial

Product name: 2-aminoanthracene

Synonyms: β-Aminoanthracene, 2-Anthracenamide, Anthracene Amine, 2-Anthracine Amine, 2-Anthracylamine, 2-Anthramine, 2-Anthrylamine, 2-AA

Relevant identified uses of the substance:

Identified uses: Laboratory chemicals, Synthesis of substances

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

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



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Warning

Physical hazards

None known

Health hazards

Germ cell mutagenicity, Category 2

Skin Irritation, Category 2

Eye Irritation, Category 2A

Specific target organ toxicity - single exposure (Category 3),
Respiratory system

Environmental hazards

See eco-toxicity section 12.

Labelling

Hazard Statements

H341 Suspected of causing genetic defects

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

Precautionary Statements

P201 Receive special instructions before use

P202 Do not handle until all safety precautions are understood

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash hands thoroughly after handling

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF on skin: wash with plenty of soap and water

P304 + P340 IF INHALED: Call Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell

P321 Specific treatment (manufacturer/supplier or competent authority may specify a cleansing agent if appropriate)

P332+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P308 + P313 IF exposed or concerned: get medical advice/attention

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up

P501 Dispose of contents/container in accordance with local/regional/national/international regulations

Other hazards

Other hazards which do not result in classification

Photosensitizer.

HMIS ratings (scale 0-4; Hazardous Materials Identification System)

Health = 1

Flammability = 1

Reactivity = 1

NFPA Rating

Health hazard: 2

Fire: 1

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Reactivity Hazard: 0

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: C₁₄H₁₄N

Molecular weight: 193.24 g/mol

Hazardous Components

Component	Purpose	CAS-No	EC-No.	Concentration
2-Aminoanthracene	Biochemical used in the study of carcinogenesis	613-13-8	210-330-9	> 98%

SECTION 4. FIRST AID MEASURES

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. Never give anything by mouth to an unconscious person. 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.

Most important symptoms and effects, both acute and delayed

Acute: Ingestion - May be harmful if swallowed; Skin - May be harmful in contact with skin; Eyes - May cause irritation.

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

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

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.

Special hazards arising from the substance or mixture

Hazardous thermal decomposition products: Carbon dioxide, carbon monoxide, nitrogen oxides.

Advice for firefighters

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

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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Evacuate surrounding areas. Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas.

Environmental precautions

Do not release material into drains.

Methods and material for containment and cleaning up

Dispose contaminated material as waste according to section 13. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

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

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage, including any incompatibilities

Storage - Store according to product packaging, tightly sealed. Keep in a dry, well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Contains no substances with occupational exposure limit values.

Monitoring methods

N/A

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.

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Personal protective equipment

Eye Protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

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.

Skin and body protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection

Exposure risk assessment must be performed by a qualified Industrial Hygienist. Where risk assessment shows air purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. NIOSH approved Respiratory Protection is required by EPA. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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.

Exposure limits

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Powder, Yellow-Brown/Dark Yellow
Auto-ignition temperature	no data available
Boiling point	92.8°C (@ 9 mm Hg; sublimes)
Decomposition temperature	no data available
Evaporation Rate	no data available
Flammable limits in air	no data available
Flash point	no data available
Formula	C ₁₄ H ₁₁ N
Melting point	238-241°C (460-466°F)
Molecular weight	193.24
Odor threshold	no data available

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Osmolality	no data available
Partition coefficient	no data available
pH	no data available
Solubility in water	insoluble
Specific gravity	no data available
Vapor density	no data available
Vapor pressure	no data available
Viscosity	no data available

Other information

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive.

Chemical stability

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

Possibility of hazardous reactions

No hazardous reactions known.

Conditions to avoid

No specific data.

Incompatible materials

Oxidizing materials

Hazardous decomposition products

Carbon monoxide and carbon dioxide

Nitrogen oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Oral LD50

Inhalation LC50

Dermal LD50

no data available

Other information on acute toxicity

LD50 Intraperitoneal - mouse - 1,500 mg/kg

Skin corrosion/irritation

Causes skin irritation

Serious eye damage/eye irritation

Causes eye irritation

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Respiratory or skin sensitization

Causes photosensitivity. Exposure to light can result in allergic reactions resulting in dermatologic lesions, which can vary from sunburn-like responses to edematous, vesiculated lesions, or bullae.

Germ cell mutagenicity

Genotoxicity in vitro - rat - Liver
Sister chromatid exchange

Genotoxicity in vitro - mouse - S. typhimurium
Host-mediated assay

Genotoxicity in vitro - mouse - lymphocyte
Mutation in microorganisms

Genotoxicity in vitro - mouse - fibroblast
Micronucleus test

Genotoxicity in vitro - mouse - lymphocyte
Mutation in mammalian somatic cells.

Genotoxicity in vitro - mouse - Embryo
Morphological transformation.

Genotoxicity in vitro - Ames test - positive

Genotoxicity in vitro - rat – Liver
Unscheduled DNA synthesis

Genotoxicity in vitro - Human - HeLa cell
DNA inhibition

Genotoxicity in vitro - rat - Liver
DNA damage

Genotoxicity in vivo - rat - Oral
Sister chromatid exchange

Genotoxicity in vivo - rat - Skin
Sister chromatid exchange

Genotoxicity in vivo - rat - Intraperitoneal
Cytogenetic analysis

Genotoxicity in vivo - rat - Intraperitoneal
Sister chromatid exchange

Genotoxicity in vivo - rat - Intratracheal
DNA damage

Carcinogenicity

Carcinogenicity - rat - Oral
Tumorigenic: Carcinogenic by RTECS criteria. Gastrointestinal:Tumors. Skin and Appendages: Other: Tumors.

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Carcinogenicity - rat - Skin

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.

Tumorigenic: Tumors at site or application.

Carcinogenicity - mouse - Skin

Tumorigenic: Carcinogenic by RTECS criteria. Skin and Appendages: Other: Tumors. Tumorigenic: Tumors at site or application.

Carcinogenicity - mouse - Skin

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.

Tumorigenic: Tumors at site or application.

Carcinogenicity - mouse - Implant

Tumorigenic: Carcinogenic by RTECS criteria. Kidney, Ureter, Bladder: Tumors.

Carcinogenicity - mouse - Implant

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Kidney, Ureter, Bladder: Tumors. Tumorigenic: Tumors at site of application.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human 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 known or anticipated 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.

Reproductive toxicity

Reproductive toxicity - mouse - Oral

Effects on Newborn: Germ cell effects (in offspring).

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. Causes skin irritation.

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Eyes Causes eye irritation.

Synergistic effects

no data available

Additional toxicological information:

RTECS: CA9275000

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic ecotoxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Behavior in environment systems: No further relevant information available.

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

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

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

Maritime transport IMDG:

IMDG Class: None

Marine pollutant: No

Air transport ICAO_TI and IATA-DGR:

IOCAO/IATA Class: None

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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

Irritant

SARA 302 Components

SARA 302: No chemicals in this material are subject to the 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

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

2-Anthrylamine
CAS-No.613-13-8

New Jersey Right To Know Components

2-Anthrylamine
CAS-No.613-13-8

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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.