1. PRODUCT AND COMPANY IDENTIFICATION

Product name: 2-Aminooanthracene
Product Number: A38800
Brand: Aldrich
Supplier: Sigma-Aldrich
3050 Spruce Street
SAIN LOUIS MO 63103
USA
Telephone: +1 800-325-5632
Fax: +1 909-325-5052
Emergency Phone # (For both supplier and manufacturer): (314) 776-8555
Preparation Information: Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8256

2. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards
Irritant
Other hazards which do not result in classification
Photosensitizer
GHS Classification
Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3)
GHS Label elements, including precautionary statements
Pictogram
Signal word Warning
Hazard statement(s)
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
Precautionary statement(s)
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P261 P251 + P255 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
HMIS Classification
Health hazard: 2
Flammability: 0
Physical hazards: 0
NFPA Rating
Health hazard: 2

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: 2-Anthramine
Formula: C14H11N
Molecular Weight: 193.24 g/mol
Component
Concentration
2-Anthramine
CAS-No: 613-13-8
EC-No: 210-330-9

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Inhaled
If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Ingested
If swallowed, Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous combustion products
Hazardous decomposition products formed under fire conditions: - Carbon oxides, nitrogen oxides (NOx)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Aldrich - A38800
Delivery 084176685-500010 Purchase Order 0000000713
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
Keep container tightly closed in a dry and well-ventilated place.
Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Contains no substances with occupational exposure limit values.

Personal protective equipment
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 149) 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 respirators. For higher level protection use type CV/AG/PS9 (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).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves' outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

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

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.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Colour</td>
<td>Dark yellow</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/Range:</td>
<td>238 - 241 °C (460 - 466 °F)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
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<tr>
<td>Flash point</td>
<td>No data available</td>
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<tr>
<td>Ignition temperature</td>
<td>No data available</td>
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<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
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<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
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</tr>
<tr>
<td>Density</td>
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<tr>
<td>Water solubility</td>
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</tr>
<tr>
<td>Partition coefficient:</td>
<td>No data available</td>
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<tr>
<td>n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
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<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

- Chemical stability
  Stable under recommended storage conditions.
- Possibility of hazardous reactions
  No data available.
- Conditions to avoid
  - Strong oxidizing agents
- Materials to avoid
  - Carbon oxides, nitrogen oxides (NOx)
  - Other decomposition products: No data available.

11. TOXICOLOGICAL INFORMATION

- Acute toxicity
  - Oral LD50:
  - Inhalation LC50:
  - Dermal LD50:
  - Other information on acute toxicity:
    - LD50 intraperitoneal - mouse: 1,500 mg/kg
- Skin corrosion/irritation
  - No data available
- Serious eye damage/eye irritation
  - No data available
- 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
  - 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.
Carcinogenicity - rat - Skin
Tumorigenic: Carcinogenic 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 or 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 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.
Reproductive toxicity
Reproductive toxicity - mouse - Oral
Effects on Newborn: Germ cell effects (offspring).
no data available
Teratogenicity
no data available
Specified 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.
Eyes: Causes eye irritation.
Synergistic effects
no data available
Additional Information
RTECS: CA8275000
12. ECOCLOGICAL INFORMATION
Toxicity
no data available
Persistence and degradability
no data available
Bioaccumulative potential
no data available
Mobility in soil
no data available
PBT and vPvB assessment
no data available
Other adverse effects
no data available
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
14. TRANSPORT INFORMATION
DOT (US)
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods
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

<table>
<thead>
<tr>
<th>CAS-No.</th>
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New Jersey Right To Know Components

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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.

16. OTHER INFORMATION

Further information
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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 Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.