MATERIAL SAFETY DATA SHEET

Section 1 - Chemical Product and Company Identification

MSDS Name: 2-(4-Aminophenyl)ethylamine, 95%
Catalog Numbers: AC153840000, AC153840050, AC153840100, NC9234176, NC9245887
Synonyms: 4-Aminophenethylamine; 4-(2-Aminoethyl)aniline.
Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 13472-00-9
Chemical Name: 2-(4-Aminophenyl)ethylamine
%: 95
EINECS#: 236-739-2

Hazard Symbols: C

Risk Phrases: 20/21/22 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Causes eye and skin burns. Causes digestive and respiratory tract burns. May be harmful if swallowed, inhaled, or absorbed through the skin. Impairs the oxygen carrying capacity of the blood. Target Organs: Blood, respiratory system, gastrointestinal system, eyes, skin.

Potential Health Effects

Eye: Causes eye burns.

Skin: Causes skin burns. May be harmful if absorbed through the skin.

Ingestion: Causes gastrointestinal tract burns. May be harmful if swallowed. Overexposure may cause methemoglobinemia. Aniline acts through an intermediate to change hemoglobin to methemoglobin. In one subject, 65 mg of aniline increased the methemoglobin level by 16% within 2 hours. Intense methemoglobinemia may lead to asphyxia severe enough to injure the cells of the central nervous system. Pathologic findings in acute fatalities from aniline include chocolate color of the blood; injury to the kidney, liver and spleen; and hemolysis.

Inhalation: May cause burns to the respiratory tract. Inhalation of aniline causes anoxia due to the formation of methemoglobin.

Chronic: May cause methemoglobinemia, which is characterized by chocolate-brown colored blood, headache, weakness, dizziness, breath shortness, cyanosis (bluish skin due to deficient oxygenation of blood), rapid heart rate, unconsciousness and possible death.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Antidote: Methylene blue, alone or in combination with oxygen is indicated as a treatment in nitrite induced methemoglobinemia.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Autoignition Temperature: Not available

Flash Point: > 112 deg C (> 233.60 deg F)

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 3; flammability: 1; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
2-(4-Aminophenyl)et	none listed	none listed	none

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listed      |
| hylamine           |                    |                    |
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OSHA Vacated PELs: 2-(4-Aminophenyl)ethylamine: None listed

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: solid or liquid
Color: clear very slight yellow
Odor: amine-like
pH: Not available
Vapor Pressure: Not available
Vapor Density: 4.70
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: 103 deg C @ .3mm Hg (217.40°F)
Freezing/Melting Point: 28-31 deg C
Decomposition Temperature: Not available
Solubility in water: Not available
Specific Gravity/Density: Not available.
Molecular Formula: C8H12N2
Molecular Weight: 136.20

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions. Amines absorb carbon dioxide from the air to form carbamate salts.

Conditions to Avoid: Excess heat, prolonged exposure to air.

Incompatibilities with Other Materials Strong oxidizing agents, acids, acid chlorides, acid anhydrides, chloroformates.

Hazardous Decomposition Products Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 13472-00-9: None listed

LD50/LC50: RTECS: Not available.

Carcinogenicity: 2-(4-Aminophenyl)ethylamine - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive: No information found

Neurotoxicity: No information found

Mutagenicity: No information found

Other: Not available

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed.

Section 14 - Transport Information

US DOT
Shipping Name: AMINES, SOLID, CORROSIVE, N.O.S.
Hazard Class: 8
UN Number: UN3259
Packing Group: III
Canada TDG
Shipping Name: Amines, Solid, Corrosive, N.O.S.
Hazard Class: 8
UN Number: UN3259
Packing Group: III

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 13472-00-9 is not listed on the TSCA Inventory. It is for research and development use only.

Health & Safety Reporting List	None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules	None of the chemicals in this product are under a Chemical Test Rule.
Section 12b	None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule	None of the chemicals in this material have a SNUR under TSCA.
CERCLA Hazardous Substances and corresponding RQs	None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances	None of the chemicals in this product have a TPQ.
Section 313	No chemicals are reportable under Section 313.
Clean Air Act:	This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:	None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:	
STATE	2-(4-Aminophenyl)ethylamine is not present on state lists from CA, PA, MN, MA, FL, or NJ.
California Prop 65	
California No Significant Risk Level:	None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 34 Causes burns.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 13472-00-9: Not available

Canada

Canadian WHMIS Classifications: E

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 13472-00-9 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997

Revision #6 Date 12/02/2004