

# Material Safety Data Sheet

## 2-Aminopyridine

ACC# 96955

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 2-Aminopyridine

**Catalog Numbers:** AC104540000, AC104541000, AC104545000, AC401060000, AC401061000

**Synonyms:** alpha-Aminopyridine; Amino-2-pyridine; 1,2-Dihydro-2-iminopyridine; alpha-Pyridinamine; 2-Pyridinamine; alpha-Pyridylamine.

**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
504-29-0	2-Aminopyridine	> 99	207-988-4

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: beige powder. Flash Point: 92 deg C.

**Danger!** May be fatal if inhaled, absorbed through the skin or swallowed. Causes eye, skin, and respiratory tract irritation. Aspiration hazard if swallowed. Can enter lungs and cause damage. Material is a solid at room temperature that melts upon moderate heating into a combustible liquid with a flash point below 200°F(93.3°C).

**Target Organs:** Central nervous system.

#### Potential Health Effects

**Eye:** Causes eye irritation. Causes redness and pain.

**Skin:** Causes skin irritation. May be fatal if absorbed through the skin. Substance is rapidly absorbed through the skin. Causes symptoms similar to those of inhalation. Causes redness and pain.

**Ingestion:** May be fatal if swallowed. May cause irritation of the digestive tract. Poison by ingestion. May cause effects similar to those for inhalation exposure. An oral dose of 590 mg/kg of 4-aminopyridine in a man produced shortness of breath, nausea, vomiting, hallucinations and distorted perception. Affects the CNS to produce tremor, excitability and convulsions.

**Inhalation:** Causes respiratory tract irritation. May cause severe headaches, nausea, increased blood pressure, weakness, convulsions, and a stuporous state.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

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

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically and supportively.

### 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. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Containers may explode in the heat of a fire. Combustible solid.

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

**Flash Point:** 92 deg C ( 197.60 deg F)

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 2; Instability: 0

### Section 6 - Accidental Release Measures

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

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood.

**Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Poison room locked.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use only under a chemical fume hood.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
2-Aminopyridine	0.5 ppm TWA	0.5 ppm TWA; 2 mg/m3 TWA 5 ppm IDLH	0.5 ppm TWA; 2 mg/m3 TWA

**OSHA Vacated PELs:** 2-Aminopyridine: 0.5 ppm TWA; 2 mg/m3 TWA

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Powder

**Appearance:** cream - beige

**Odor:** Faint, characteristic odor

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 204 - 210 deg C @ 760 mm Hg

**Freezing/Melting Point:** 59 - 60 deg C

**Decomposition Temperature:** Not available.

**Solubility:** soluble

**Specific Gravity/Density:** Not available.

**Molecular Formula:** C<sub>5</sub>H<sub>6</sub>N<sub>2</sub>

**Molecular Weight:** 94.12

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Ignition sources, dust generation.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids.

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

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

### RTECS#:

CAS# 504-29-0: US1575000

### LD50/LC50:

CAS# 504-29-0:

Dermal, guinea pig: LD50 = 500 mg/kg;

Oral, mouse: LD50 = 145 mg/kg;

Oral, rat: LD50 = 200 mg/kg;

TCLo (Inhalation, Human) = 5

### Carcinogenicity:

CAS# 504-29-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** No information found  
**Neurotoxicity:** No information found  
**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** Fish: Bluegill/Sunfish: LC50 = 2.82 - 7.56 mg/L; 96 Hr.; 12-22 degrees C Bacteria: Phytobacterium phosphoreum: EC50 = 248-284 mg/L; 5, 15, 30 minutes; Microtox test; 15 degrees C Bioaccumulation: none or low

**Environmental:** Leaching in soil may be possible prior to the occurrence of the slower bonding reactions. Based upon aqueous screening tests that used soil for inocula and soil grab sample data, both aerobic and anaerobic biodegradation of 2-aminopyridine is expected to be slow in soil. An estimated bioconcentration factor (log BCF) of 0.14 indicates 2-aminopyridine should not bioconcentrate among aquatic organisms. Based upon aqueous screening tests and soil grab sample data, both aerobic and anaerobic biodegradation of 2-aminopyridine is expected to be slow.

**Physical:** The rate constant for 2-aminopyridine was estimated to be  $4.79 \times 10^{-11}$  cu cm/molecule-sec at 25 deg C, which corresponds to an atmospheric half-life of about 8 hours at an atmospheric concn of  $5 \times 10^{-5}$  hydroxyl radicals per cu cm.

**Other:** Based upon a log Kow of 0.49, a bioconcentration factor (log BCF) of 0.14 for 2-aminopyridine has been calculated using a recommended regression-derived equation. This BCF value indicates 2-aminopyridine should not bioconcentrate among aquatic organisms.

## 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	Canada TDG
<b>Shipping Name:</b>	AMINOPYRIDINES	AMINOPYRIDINES
<b>Hazard Class:</b>	6.1	6.1
<b>UN Number:</b>	UN2671	UN2671
<b>Packing Group:</b>	II	II

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 504-29-0 is listed on the TSCA inventory.

#### 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.

#### SARA Codes

CAS # 504-29-0: immediate.

#### 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 depleters.

This material does not contain any Class 2 Ozone depleters.

#### 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:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 504-29-0 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

#### 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:

T

**Risk Phrases:**

R 25 Toxic if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

**Safety Phrases:**

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

S 38 In case of insufficient ventilation, wear suitable respiratory equipment.

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

S 28B After contact with skin, wash immediately with plenty of water and soap.

**WGK (Water Danger/Protection)**

CAS# 504-29-0: No information available.

**Canada - DSL/NDSL**

CAS# 504-29-0 is listed on Canada's DSL List.

**Canada - WHMIS**

not available.

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.

**Canadian Ingredient Disclosure List**

CAS# 504-29-0 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information
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**MSDS Creation Date:** 7/19/1999

**Revision #4 Date:** 3/04/2004

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