

Material Safety Data Sheet

Pyridine

ACC# 04395

Section 1 - Chemical Product and Company Identification

MSDS Name: Pyridine

Catalog Numbers: AC131780000, AC131780010, AC131780025, AC131780500, AC290860000, AC339420000 AC339420000, AC339420010, AC339421000, AC364420000, AC364420010, AC364421000 AC364421000, AC386560000, AC386560010, AC386560250, AC386562500, AC418530000 AC418530000, AC418530010, AC418532500, AC418540000, AC418545000

Synonyms:

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
110-86-1	Pyridine	>99%	203-809-9

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Not available. Appearance: colorless clear liquid. Flash Point: 17 deg C.

Not available.

Target Organs: Kidneys, heart, central nervous system, liver, bone marrow.

Potential Health Effects

Eye: Contact with eyes may cause severe irritation, and possible eye burns.

Skin: Causes skin irritation. Harmful if absorbed through the skin. Causes symptoms similar to those of inhalation.

Ingestion: Harmful if swallowed. May cause central nervous system depression, kidney damage, and liver damage. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause effects similar to those for inhalation exposure.

Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. Prolonged exposure may result in dizziness and general weakness.

Chronic: Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. May cause liver and kidney damage.

Section 4 - First Aid Measures

Eyes: 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. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

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

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. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire.

Extinguishing Media: Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. Water may be ineffective.

Flash Point: 17 deg C (62.60 deg F)

Autoignition Temperature: 482 deg C (899.60 deg F)

Explosion Limits, Lower:1.8 Vol %

Upper: 12.4 Vol %

NFPA Rating: (estimated) Health: 3; Flammability: 3; 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. Remove all sources of ignition. Use a spark-proof tool.

Section 7 - Handling and Storage

Handling: Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Use only in a chemical fume hood.

Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Pyridine	1 ppm TWA	5 ppm TWA; 15 mg/m ³ TWA 1000 ppm IDLH	5 ppm TWA; 15 mg/m ³ TWA

OSHA Vacated PELs: Pyridine: 5 ppm TWA; 15 mg/m³ TWA

Personal Protective Equipment

Eyes: Not available.

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: Clear liquid

Appearance: colorless

Odor: fish-like

pH: 8.5 (15 g/l aq. solution)

Vapor Pressure: 20mbar @20 deg C

Vapor Density: 2.73 (Air=1)

Evaporation Rate: Not available.

Viscosity: 0.95 mPa s @20 deg C

Boiling Point: 115 - 116 deg C @760mmHg

Freezing/Melting Point: -42 deg C

Decomposition Temperature: Not available.

Solubility: Soluble.

Specific Gravity/Density: 0.978

Molecular Formula: C₅H₅N

Molecular Weight: 79.1

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Oxidizing agents, acids, acid chlorides, chloroformates, formamide, iodine, sulfur trioxide.

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

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 110-86-1: UR8400000

LD50/LC50:

CAS# 110-86-1:

Dermal, guinea pig: LD50 = 1 gm/kg;

Draize test, rabbit, skin: 500 mg/24H Mild;

Inhalation, rat: LC50 = 28500 mg/m³/1H;

Oral, mouse: LD50 = 1500 mg/kg;

Oral, rat: LD50 = 891 mg/kg;

Skin, rabbit: LD50 = 1121 mg/kg;

Carcinogenicity:

CAS# 110-86-1:

- **ACGIH:** A3 - Confirmed animal carcinogen with unknown relevance to humans
- **California:** carcinogen, initial date 5/17/02
- **NTP:** Not listed.
- **IARC:** Not listed.

Epidemiology: A low number of injection-site tumors were found in rats that received subcutaneous injections of pyridine at doses up to 100 mg/kg/day, twice weekly for a year; however, there were no indications of real oncogenic potential.

Teratogenicity: No studies in mammals were found. Tests in the hydra did not suggest the material should be tested in mammals.

Reproductive Effects: No data available.

Mutagenicity: Pyridine's mutagenicity potential is equivocal. It was reported to be both positive and negative in *Salmonella typhimurium* strains. It was not mutagenic in tests for chromosome aberrations, but did give weak positive results in tests that detect sister chromatid exchanges.

Neurotoxicity: No data available.

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. Log POW = 0.8 (calc.)

Environmental: No information available.

Physical: No information available.

Other: No information 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:

CAS# 110-86-1: waste number U196.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	PYRIDINE	PYRIDINE
Hazard Class:	3	3
UN Number:	UN1282	UN1282
Packing Group:	II	II
Additional Info:		FLASHPOINT 17C

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 110-86-1 is listed on the TSCA inventory.

Health & Safety Reporting List

CAS# 110-86-1: Effective 10/4/82, Sunset 10/4/92

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

CAS# 110-86-1: 1000 lb final RQ; 454 kg final RQ

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 110-86-1: acute, chronic, flammable.

Section 313

This material contains Pyridine (CAS# 110-86-1, >99%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

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# 110-86-1 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California Prop 65

The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:

WARNING: This product contains Pyridine, a chemical known to the state of California to cause cancer.
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:

XN F

Risk Phrases:

R 11 Highly flammable.

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

Safety Phrases:

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

S 28A After contact with skin, wash immediately with plenty of water.

WGK (Water Danger/Protection)

CAS# 110-86-1: 2

Canada - DSL/NDSL

CAS# 110-86-1 is listed on Canada's DSL List.

Canada - WHMIS

This product does not have a WHMIS classification.

Canadian Ingredient Disclosure List

CAS# 110-86-1 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 1/16/2002

Revision #1 Date: 6/14/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.