

SAFETY DATA SHEET

Creation Date 11-Oct-2010 Revision Date 24-Sep-2025 Revision Number 5

1. Identification

Product Name 2-Cyanopyridine

Cat No.: AC110850000; AC110850050; AC110851000; AC110855000

CAS No 100-70-9 Synonyms Picolinonitrile

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company Acros Organics
One Reagent Lane One Reagent Lane
Fair Lawn, NJ 07410 Fair Lawn, NJ 07410

Tel: (201) 796-7100

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity Category 4
Acute dermal toxicity Category 3

Label Elements

Signal Word

Danger

Hazard Statements

Harmful if swallowed Toxic in contact with skin

2-Cyanopyridine



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

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

Skin

IF ON SKIN: Wash with plenty of soap and water

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

Remove/Take off immediately all contaminated clothing

Wash contaminated clothing before reuse

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Storage

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

3. Composition/information on Ingredients

Component	CAS No	Weight %
2-Pyridinecarbonitrile	100-70-9	>95

4. First-aid measures

General Advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In

the case of contact with eyes, rinse immediately with plenty of water and seek medical

advice.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical

attention is required.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth

method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Immediate medical attention is required.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately.

Most important symptoms and

effects

None reasonably foreseeable.

Notes to Physician Treat symptomatically

2-Cyanopyridine

5. Fire-fighting measures

Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Water mist may **Suitable Extinguishing Media**

be used to cool closed containers.

Unsuitable Extinguishing Media No information available

Flash Point 89 °C / 192.2 °F

No information available Method -

Autoignition Temperature

Explosion Limits

No information available

Upper No data available No data available Lower Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Flammable. Combustible material. Combustible material. Containers may explode when heated.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO2).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health	Flammability	Instability	Physical hazards
3	1	0	N/A

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust

formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static

discharges.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Remove Up

all sources of ignition.

	7. Handling and Storage
Handling	Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition.

Storage. Keep away from heat, sparks and flame. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents.

8. Exposure controls / personal protection

Exposure Guidelines

Component	Component ACGIH TLV		NIOSH	Mexico OEL (TWA)
2-Pyridinecarbonitrile		(Vacated) TWA: 5 mg/m ³	IDLH: 25 mg/m ³	

Legend

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers

are close to the workstation location. Ensure adequate ventilation, especially in confined

areas.

Personal Protective Equipment

Eye/face Protection 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 and body protectionWear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection 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.

Recommended Filter type: Particulates filter conforming to EN 143.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State Solid

Appearance Brown Odor Odorless

Odor Threshold

pH

No information available

No information available

No information available

26 - 28 °C / 78.8 - 82.4 °F

Softening Point No data available

Boiling Point/Range 212 - 215 °C / 413.6 - 419 °F @ 760 mmHg

Flash Point 89 °C / 192.2 °F Method - No information available

Flammability (liquid) Not applicable Solid

Flammability (solid,gas)

Explosion Limits

No information available

No data available

Autoignition Temperature No data available

Decomposition Temperature
Water Solubility
No data available
Immiscible

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Componentlog Pow2-Pyridinecarbonitrile0.45

Vapor Pressure 0.5 mmHg @ 25 °C

Density / Specific Gravity 1.0810

Bulk Density No data available

Vapor DensityNot applicableSolidViscosityNot applicableSolid

Particle characteristics No data available

Molecular Formula C6 H4 N2 Molecular Weight 104.11

Explosive Properties explosive air/vapour mixtures possible

Evaporation Rate Not applicable - Solid

2-Cyanopyridine

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stable under normal conditions. Stability

Conditions to Avoid Incompatible products. Excess heat. Avoid dust formation. Keep away from open flames,

hot surfaces and sources of ignition.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO2)

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Information on expected route of exposure

Inhalation Not an expected route of exposure. May be harmful if swallowed. Ingestion Avoid contact with eyes. Eyes

Avoid contact with skin. Harmful in contact with skin. Skin

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Pyridinecarbonitrile	Not listed	LD50 = 750 mg/kg (Rabbit)	Not listed

Toxicologically Synergistic

Products

No information available Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
2-Pyridinecarbonitrile	100-70-9	Not listed				

Mutagenic Effects No information available

No information available. **Reproductive Effects**

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known STOT - repeated exposure None known

No information available **Aspiration hazard**

Symptoms / effects,both acute and No information available

2-Cyanopyridine

delayed

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
2-Pyridinecarbonitrile	Not listed	Pimephales promelas:	EC50 = 161 mg/L 15 min	Not listed
		LC50=726 mg/L 96 h	EC50 = 314 mg/L 5 min	
			EC50 = 88.6 mg/L 30 min	

Persistence and Degradability Persistence is unlikely

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

Component	log Pow
2-Pyridinecarbonitrile	0.45

13. Disposal considerations

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN3439

Proper Shipping Name NITRILES, SOLID, TOXIC, N.O.S.

Technical Name (2-CYANOPYRIDINE)

Hazard Class 6.1
Packing Group

_TDG

UN-No UN3439

Proper Shipping Name NITRILES, TOXIC, SOLID, N.O.S.

Hazard Class 6.1 Packing Group III

IATA

UN-No UN3439

Proper Shipping Name NITRILES, SOLID, TOXIC, N.O.S.

Hazard Class 6.1 Packing Group III

IMDG/IMO

UN-No UN3439

Proper Shipping Name NITRILES, SOLID, TOXIC, N.O.S.

Hazard Class 6.1 Packing Group III

15. Regulatory Information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
2-Pyridinecarbonitrile	100-70-9	X	ACTIVE	-

2-Cyanopyridine

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)

Not applicable

TSCA 12(b) - Notices of Export

Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

	Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
2	2-Pyridinecarbonitrile	100-70-9	Х	-	202-880-3	Χ	Χ	Х	Х	Χ	-

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting threasholds
2-Pyridinecarbonitrile	100-70-9	>95	1.0 %	-

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

Component	CWA - Hazardous Substances			CWA - Priority Pollutants
2-Pyridinecarbonitrile	-	-	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors	
2-Pyridinecarbonitrile	X		-	

OSHA - Occupational Safety and

Health Administration

Not applicable

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
2-Pyridinecarbonitrile	-	X	X	X	X

2-Cyanopyridine

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant Y
DOT Severe Marine Pollutant N

U.S. Department of Homeland

Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH Not applicable

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	on Certain Dangerous	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
2-Pyridinecarbonitrile	100-70-9	-	-	-

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic	Ozone Depletion	Restriction of
			Pollutant	Potential	Hazardous Substances (RoHS)
2-Pyridinecarbonitrile	100-70-9	Listed	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities	Seveso III Directive (2012/18/EC) - Qualifying Quantities	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
		for Major Accident	for Safety Report		
		Notification	Requirements		
2-Pyridinecarbonitrile	100-70-9	Not applicable	Not applicable	Not applicable	Not applicable

16. Other Information

Prepared By Regulatory Affairs

Thermo Fisher Scientific

Email: EMSDS.RA@thermofisher.com

 Creation Date
 11-Oct-2010

 Revision Date
 24-Sep-2025

 Print Date
 24-Sep-2025

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard

replacing the current legislation under 29 CFR 1910.1200 to align with the Globally

Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information

relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS