



3-Amino-4-methylpyridine

Safety Data Sheet

According to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of Compilation : July 23, 2018

Date of Revision : February 23, 2024

Due Date of Revision : January 2027

Revision Number : 04

Version Number : 0709Gj Ghs04 Div.03 sds 3-Amino-4-methylpyridine

Supersedes date : December 07, 2022

Supersedes version : 0709Gj Ghs03 Div.03 sds 3-Amino-4-methylpyridine

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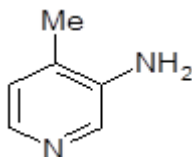
Safety Data Sheet

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

PRODUCT NAME	: 2-Amino-4-methylpyridine
CAS RN	: 3430-27-1
EC#	: 608-968-1
SYNONYMS	: 3-Amino-4-methylpyridine
SYSTEMATIC NAME	: 3-Amino-4-methylpyridine
MOLECULAR FORMULA	: C ₆ H ₈ N ₂
STRUCTURAL FORMULA	



1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

2-Amino-4-methylpyridine is used as intermediate in pharmaceutical industries.

Uses advised against: None

1.3. Details of the supplier of the safety data sheet

Jubilant Ingrevia Limited

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T+91-5924-267437, +91-5924-267438

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T +91-120-4361000 - F +91-120-4234881 / 84 / 85 / 87 / 95 / 96 support@jubl.com - www.jubilantingrevia.com

1.4. Emergency telephone number

For Chemical Emergency ONLY (in the case of fire, leak, spill, exposure or accident)

Call Chemtrec: 1-800-424-9300 (US), 1-703-527-3887 (Outside U.S.)

Chemtrec (India) : 000-800-100-7141

For ALL other emergencies call Emergency Control Room Gajraula at 99970 22412

SECTION 2: HAZARD(S) IDENTIFICATION

GHS CLASSIFICATION

Acute toxicity Oral: Category 3

Skin corrosion / irritant: Category 2

Serious eye damage/eye irritation: Category 1

Specific target organ toxicity: Category 3

(After single exposure)

2.2. Label Elements

Hazard Pictogram: GHS 05, GHS 06

Signal Word: Danger!

HAZARD AND PRECAUTIONARY STATEMENTS:

HAZARD STATEMENTS

- H301: Toxic if swallowed.
- H315: Causes skin irritation.
- H318: Causes serious eye damage.
- H335: May cause respiratory irritation.

PRECAUTIONARY STATEMENTS

- P264: Wash hands thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.



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- P271: Use only outdoors or in a well-ventilated area.
- P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- P310: Immediately call a POISON CENTER or doctor/physician.
- P302+352: IF ON SKIN: Wash with plenty of soap and water.
- P332+313: If skin irritation occurs: Get medical advice/attention.
- P362: Take off contaminated clothing and wash before reuse.
- P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P330: Rinse mouth.
- P312: Call a POISON CENTER or doctor/physician if you feel unwell.
- P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P403+P233: Store in a well-ventilated place. Keep container tightly closed.
- P405: Store locked up.
- P501: Dispose of contents/container to local/regional/national/international regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical	CAS #	EC#	Purity w/w
2-Amino-4-methylpyridine	3430-27-1	608-968-1	>98%

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

- Remove affected person from danger area. Do not leave affected persons unsupervised. Seek medical treatment. First aid personnel should pay attention to their own safety. Take off all contaminated clothing immediately
- **Eyes:** If in eyes rinse cautiously with water for at least 15 minutes. Remove contact lenses if easy to do so. Continue rinsing. Seek medical attention.
- **Skin:** Immediately take off all contaminated clothing. Wash thoroughly with water for at least 15 minutes. Wash contaminated clothes before reuse. Seek immediate medical attention.
- **Inhalation:** Remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if you feel unwell.
- **Ingestion:** If swallowed call a poison center if you feel unwell. Rinse mouth. Do NOT induce vomiting by use of emetics. Seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed

- To the best of our knowledge of this compound have not been fully investigated.

4.3. Indication of any immediate medical attention and special treatment needed.

- Treat symptomatically

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

- Dry chemical powder, chemical foam, and alcohol resistant foam. Water may also be used. Water sprays can be effective in cooling down the fire-exposed containers and knocking down the vapors. Water jets may be used to flush spills away and dilute the same to non-flammable mixtures.

5.2. Special hazards arising from the substance or mixture

- **Fire hazard:** emits toxic fumes under fire conditions.
- **Explosion hazard:** Risk of explosion with vapours in confined spaces, drainage and sewage system.
Potential for Dust explosion: 2-Amino-4-methylpyridine has a low Minimum Ignition Energy (MIE) of around 5 mJ. Stringent precautions against static ignition are required when handling this dust.
- **Special Flammability Hazards:**
Stringent precautions against static ignition are required when handling this dust.
All other sources of ignition (welding, cutting etc.) must be controlled by permit to work systems.
Personnel must be grounded by means of conductive footwear and flooring wherever explosive concentrations are possible.
Personnel must be prevented from smoking and using unapproved electrical equipment in the area.
- **Reactivity in case of fire:** Thermal decomposition generates: Toxic vapours which could include nitrogen oxides, carbon monoxide and carbon dioxide.
- **Hazardous decomposition products in case of fire:** Hazardous decomposition products may be released during prolonged heating like smokes, carbon dioxide, nitrogen oxides.

5.3. Advice for firefighters

- **Precautionary measures fire:** Appropriate self-contained breathing apparatus may be required.



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- **Firefighting instructions:** Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. In case of major fire, evacuate area.
- **Protective equipment for firefighters:** Do not enter fire area without proper protection equipment, including respiratory protection

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

- Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.
- Avoid dust formation. Avoid breathing vapours, mist or gas. Avoid contact with skin and eyes.
- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus (SCBA), as may be deemed appropriate

6.2. Environmental precautions

- Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release

6.3. Methods and materials for containment and cleaning up

- Clean up all spills immediately following relevant Standard Operating Procedures.
- Wipe up spillage or collect spillage using a high-efficiency vacuum cleaner. Avoid breathing dust.
- Place spillage in appropriately labeled container for disposal. Wash spill site.

6.4. Reference to other sections

- For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

- Do not breathe dust, vapor or mist.
- Wear protective gloves/clothing and eye/face protection.
- Wash thoroughly after handling.
- Ground and secure containers when dispensing or pouring product.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Launder contaminated clothing before re-use.
- If on skin or hair, IMMEDIATELY remove all contaminated clothing and rinse/shower with plenty of water.
- Use in a well-ventilated place/Use protective clothing commensurate with exposure levels.

7.2. Storage

- Store at ambient temperature in a well-ventilated place. Keep container tightly closed when not in use.
- Store away from incompatible materials
- Keep away from all heat sources, including direct sun-light, open flame, source of ignition, sparks etc.
- Keep only in original container.

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

- **Exposure Limits Values**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
2-Amino-4-methylpyridine	Not established	Not established	Not established

Exposure Limits (International):

- Not available.

OSHA Vacated PELs:

- No OSHA Vacated PELs are listed for this chemical.

8.2. Exposure controls

Appropriate Engineering Controls:

- General industrial hygiene practice.
- Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. Local ventilation is usually preferred. Ensure that eyewash stations and safety showers are close to the workstation location.

8.3. Personal Protection

- **Hand Protection:** Wear suitable gloves resistant to chemical penetration
- **Eye Protection:** Chemical safety goggles
- **Body Protection:** Wear suitable protective clothing.
- **Respiratory protection:** Wear respirators to reduce or control occupational exposure, use NIOSH-approved respiratory protection and have an effective respirator program in place.

Additional Information

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- Only use protective equipment in accordance with national/international regulations. Follow the national regulation about wearing personal protective equipment and the warranty given.
- Apply skin protective barrier cream
- Do not inhale substances, work under hood.

Control of environmental exposure

- Do not let product enter drains.
- Wash hands and face after working with the substance.
- Under no circumstances eat or drink at the workplace.
- Do not inhale substances, work under hood.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

- Information on basic physical and chemical properties.

Sr.No.	Parameter	Typical value
1.	Appearance	Brown colored powder.
2.	Molecular weight	108.14
3.	Odor	Un pleasant
4.	Odor Threshold	Not available
5.	pH	6 to 7 (16g/l water @20 °C))
6.	Melting point	102 – 106 °C
7.	Boiling point	261.3°C Press: 760 Torr (Estimated)
8.	Flash point	135.8±9.0 °C (Estimated)
9.	Evaporation rate (n-BuAc=1)	Not available.
10.	Flammability (Liquid)	Non Flammable
11.	Upper/lower flammability or Explosive limits	Not available.
12.	Vapor pressure	0.144 mmHg at 25 °C (Estimated)
13.	Vapor density (air=1)	Not available.
14.	Density	1.068 g/cm ³
15.	Solubility	Soluble in water and in organic solvents like MDC, MeOH, Acetone etc.
16.	Partition coefficient (Octonol /water)	0.43(Estimated)
17.	Auto-ignition temperature	Not available.
18.	Decomposition temperature	Not available.
19.	Viscosity	Not available.
20.	Explosive property	Not available
21.	Oxidizing property	Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

- No information available

9.2.2. Other safety characteristics

- **DSC result:** The thermogram shows endotherm onset at 84°C may be due to melting, no apparent exothermic decomposition till 400°C.

SECTION 10: STABILITY AND REACTIVITY

- **Reactivity:** No data available
- **Chemical Stability:** Stable under recommended storage condition
- **Conditions to avoid:** Keep away from heat, sparks, flame, high temperature, incompatible materials, water/moisture & strong oxidants.
- **Incompatible chemicals:** Strong oxidizing agents, moisture/water
- **Hazardous decomposition:** Toxic vapors may be released on thermal decomposition including nitrogen oxides, carbon monoxide and carbon dioxide, irritating and toxic fumes.
- **Hazardous Polymerization:** Not reported

SECTION 11: TOXICOLOGICAL INFORMATION

a) Acute toxicity:

- Irritating to eyes and skin on contact. It causes irritation of the lungs and respiratory system.



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LD50: 267.74 mg/kg bw (rat) (Predicted Oral rat LD50 from Consensus method)

- b) **Skin corrosion/irritation**
 - Causes skin irritation.
- c) **Serious eye damage/irritation**
 - Causes serious eye damage.
- d) **Respiratory or skin sensitization**
 - No data available.
- e) **Germ cell Mutagenicity**
 - No data available.
- f) **Carcinogenicity**
 - Not listed by NTP, IARC and OSHA.
 - Not present on the EU CMR list.
 - According to information presently available 3-Amino-4-methylpyridine is not found to be carcinogenic.
- g) **Reproductive toxicity**
 - No data available.
- h) **STOT-single exposure**
 - May cause respiratory irritation.
- i) **STOT-repeated exposure**
 - No data available.
- j) **Aspiration Hazards**
 - No data available.

RTECS#: Not listed.

Symptoms/Effects

- **Eyes:** If the eyes have come in contact with 3-Amino-4-methylpyridine then irritation, pain, swelling, corneal erosion, and blindness may result.
- **Skin:** Dermal exposure may result in dermatitis (red, inflamed skin), severe burns, and pain. Skin irritation may result from repeated or prolonged exposure or photosensitivity.
- **Ingestion:** Signs and symptoms of acute ingestion of 3-Amino-4-methylpyridine may include Nausea, headache, insomnia and nervousness, and low back or abdominal discomfort with urinary frequency. Lung congestion may occur.
- **Inhalation:** Acute inhalation exposure may result in sneezing, hoarseness, choking, laryngitis, dyspnea (shortness of breath), respiratory tract irritation, and chest pain. Bleeding of nose and gums, ulceration of the nasal and oral mucosa, pulmonary edema, chronic bronchitis, and pneumonia may also occur.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity :

Ecotoxicity:

Fathead minnow LC₅₀ (96 hr) =320.39 mg/l (Predicted Oral rat LC50 from Consensus method)

- It is estimated that 3-Amino-4-methylpyridine is not chronically toxic to fish. It is important to note that these results do not suggest that 3-Amino-4-methylpyridine will not be toxic to all aquatic organisms. Some aquatic organisms, such as daphnids, may be more sensitive to both acute and chronic exposures to 3-Amino-4-methylpyridine. To help assess the toxicity of 3-Amino-4-methylpyridine to other aquatic organisms.

Persistence and degradability

- It is estimated that 3-Amino-4-methylpyridine is expected to be found predominantly in soil and its persistence estimate is based on its transformation in this medium. Its half-life in soil, 75 days, exceeds the EPA criteria of >= 2 months (and <= 6 months). Therefore, 3-Amino-4-methylpyridine is estimated to be persistent in the environment. 3-Amino-4-methylpyridine is not readily biodegradable.

Bio accumulative potential

- BCF = 3.162
- Log Kow = 0.43, Low potential to bio accumulate.
The estimated bio concentration factor (BCF) for 3-Amino-4-methylpyridine, 3.162, does not exceed the EPA bio concentration criteria. 3-Amino-4-methylpyridine is not expected to bio accumulate in the food chain.

Mobility in soil

- Log Koc = 57 (predicted). Moderate absorption in soil.
- Henry's Law Constant = 2.75E-009 atm-m³/mole at 25 degrees.
- Log Kow = 0.43 Low potential to bio accumulate.

Other adverse effects.

- **Environment Fate:**
- Based on the environmental modeling, this material has a low potential to get moderate absorbed in the organic matter of soil and persistent in the environment. Since this is an estimated result it is recommended that the material should not be disposed into the environment. The material should never be disposed into the sewage.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

- Dispose of this material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws. Note that disposal regulations may also apply to empty containers and equipment rinsates.



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SECTION 14: TRANSPORT INFORMATION

- This substance is considered to be Hazardous for transport by Air/Rail/Road and Sea and thus regulated by IATA/ICAO/ARD/RID/IMO/IMDG.

S.No	Agency	UN Number	Proper Shipping name	Hazard Class	Packing Group
Land Transport	ADR/RIC	UN 2811	TOXIC, SOLID, ORGANIC N.O.S.	6, (6.1)	III
Maritime Transport	IMDG	UN 2811	TOXIC, SOLID, ORGANIC N.O.S.	6 ,(6.1)	III
Air Transport	IATA	UN 2811	TOXIC, SOLID, ORGANIC N.O.S.	6, (6.1)	III
Hazard Label		Toxic			

Environmental hazards:

- Marine pollutant: No

SECTION 15: REGULATORY INFORMATION

Classification as per CLP Regulation 1272/2008:

- Hazards Class and Category:** Eye dam Category 1; *Acute toxicity Oral 3, Skin irrit Cat 2, STOT SE Category 3*
- Hazard Statements:** H318,H301, H315, H335

Chemical Inventory Lists:	Status
TSCA:	Not Listed
EINECS:	Not Listed
Canada(DSL/NDSL):	Not Listed
Japan:	Not Listed
Korea:	Not Listed
Australia:	Not Listed
China: IECSC	Not Listed

US information

US information

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

Hazardous substance RQs: 3-Amino-4-methylpyridine is not listed

SARA 302/304 : 3-Amino-4-methylpyridine not listed

SARA 311/312 : See section 2 for more information

California Prop. 65: 3-Amino-4-methylpyridine is not listed

CAA (Clean Air Act): 3-Amino-4-methylpyridine is not listed

CWA (Clean Water Act): 3-Amino-4-methylpyridine is not listed.

EU Information

Water hazard class (WGK) : Not available

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006: 3-Amino-4-methylpyridine is not listed.

SECTION 16: OTHER INFORMATION

Compilation information of safety data sheet

Chemical: 3-Amino-4-methylpyridine

CAS #: 3430-27-1

File Name: 0709Gj Ghs04 Div. 03 sds 2-Amino-4-methylpyridine

Revision Number: 04

Date of Revision: February 23, 2024

Revision Due Date: January, 2027

(a) A key or legend to aberrations and acronyms used in the safety data sheet;

- PBT =Persistent Bioaccumulative and Toxic.
- vPvB= Very Persistent and Very Bioaccumulative.
- SCBA= Self Contained Breathing Apparatus.



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- NIOSH REL= National Institute for Occupational Safety and Health Recommended Exposure Limit. OSHA PEL=Occupational Safety and Health Administration Permissible Exposure Limit.
- OELTWA= Occupational Exposure Limit Time Weighted Averages.
- IDLH= Immediately Dangerous to Life or Health.
- UEL= Upper Explosive Limit.
- LEL= Lower Explosive Limit.
- RTECS= Registry of Toxic Effects of Chemical Substances.
- NTP=National Toxicology Programm.
- IARC= International Agency for Research on Cancer.
- EPA=Environmental Protection Agency.
- TSCA= Toxic Substances Control Act.
- CERCLA= Comprehensive Environmental Response, Compensation, and Liability Act.
- SARA= Superfund Amendments and Reauthorization Act.
- NFPA= National Fire Protection Association.
- WHIMS= Workplace Hazardous Materials Information System.
- DSL/NDSL= Domestic/Non-Domestic Substances List.
- CSR=Chemical Safety Report.
- BCF = Bio Concentration Factor.
- DNEL = Derived No Effect Level.
- PNEC = Predicted No Effect Concentration.
- TLV = Threshold Limit Value.
- ACGIH = American Conference of Governmental Industrial Hygienists.
- REACH = Registration, Evaluation .Authorisation and Restriction of Chemicals.
- CLP = Classification, Labelling and Packaging.
- LD / LC = Lethal Doses / Lethal Concentration.
- GHS = Globally Harmonised System.
- ADR = Accord europeen relative au transport international de marchandises.
- IMDG-Code = International Maritime Code for Dangerous Goods.
- EmS = Emergency measures on Sea.
- ICAO = International Civil Aviation Organization.
- IATA/DGR= International Air Transport Association/Dangerous Goods Regulation.

(b) Key Literature reference and sources for data

Biographical reference and data sources

- CLP REG (regulation) (EC) no. 1272/2008, last modification by regulation (EC) no. 790/2009
- DIR 67/548/EWG, last modification by DIR 2009/2/EC
- REG (EC) no. 1907/2006, last modification by REG (EC) Nr. 453/2009

Company's Declaration:

Information contained in this SDS is believed to be correct but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. This SDS shall be used as a guide only. Jubilant Ingrevia Limited makes no warranties expressed or implied of the adequacy of this document for any particular purpose.

(End of Safety Data Sheet)