



## 4-Amino-3,5-dichloropyridine

### Safety Data Sheet

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

Date of Compilation	: April 18, 2014
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## 4-Amino-3,5-dichloropyridine

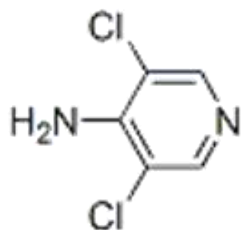
### Safety Data Sheet

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

##### Product identifier

**PRODUCT NAME** : 4-Amino-3,5-dichloropyridine  
**CAS RN** : 22889-78-7  
**EC#** : 245-304-6  
**SYNONYMS** : 3,5-Dichloropyridin-4-amine;3,5-Dichloro-4-pyridinamine;3,5-Dichloro-4-aminopyridine;4-Amino-3,5-dichloropyridine  
**SYSTEMATIC NAME** : 4-Amino-3,5-dichloropyridine  
**MOLECULAR FORMULA** : C<sub>5</sub>H<sub>4</sub>Cl<sub>2</sub>N<sub>2</sub>  
**STRUCTURAL FORMULA:**



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

###### 1.2.1. Relevant identified uses

4-Amino-3,5-dichloropyridine is used as intermediate in the manufacturing of pharmaceutical ingredients

**Uses advised against:** None

##### 1.3. Details of the supplier of the safety data sheet

###### Jubilant Ingrevia Limited

**FACTORY & REGISTERED OFFICE:** Jubilant Ingrevia Limited., Bhartiagram, Gajraula, District: Amroha, Uttar Pradesh-244223, India.  
T: +91-5924-267437, +91-5924-267438

**HEAD OFFICE:** Jubilant Ingrevia Limited, Plot 1-A, Sector 16-A, Institutional Area, Noida, Uttar Pradesh, 201301 - India  
T +91-120-4361000 - F +91-120-4234881 / 84 / 85 / 87 / 95 / 96 [support@jubl.com](mailto:support@jubl.com) - [www.jubilantingrevia.com](http://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

##### 2.1 Classification of the substance or mixture

###### GHS-US classification

Acute toxicity Oral: Category 4

Skin corrosion / irritant: Category 2

Serious eye damage/eye irritation: Category 2A

Specific target organ toxicity: Category 3

(After single exposure)

##### 2.2 Label Elements

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Hazard Pictogram: GHS 07



Signal Word: Warning!

#### HAZARD AND PRECAUTIONARY STATEMENTS:

##### HAZARD STATEMENTS

- H302: Harmful if swallowed.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation

##### PRECAUTIONARY STATEMENTS

###### Prevention

- P264: Wash hands thoroughly after handling.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- P270: Do not eat, drink or smoke when using this product.
- P271: Use only outdoors or in a well-ventilated area.
- P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P330: Rinse mouth.
- 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.
- P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- P337+P313: If eye irritation persists: Get medical advice attention.
- P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P312: Call a POISON CENTER or doctor/physician if you feel unwell.
- P403+233: 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.

#### 2.3 Other hazards

- No additional information available.

#### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical	CAS #	EC#	Purity	GHS Classification
4-Amino-3,5-dichloropyridine	22889-78-7	245-304-6	~ 99.00%	Acute toxicity Oral: Category 4 Skin corrosion / irritant: Category 2 Serious eye damage/eye irritation: Category 2A, Specific target organ toxicity: Category 3 (After single exposure)

#### SECTION 4: FIRST AID MEASURES

##### 4.1 Description of first aid measures

- **Eyes:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses if easy to do so. Continue rinsing. If irritation persists, seek medical attention.



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- **Skin:** Immediately take off all contaminated clothing. Quickly and gently blot or brush away excess chemical. Wash thoroughly with lukewarm, gently flowing water and non-abrasive soap for 15-20 minutes. Wash contaminated clothes before reuse. If irritation persists, obtain medical advice.
- **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

##### Acute effects:

- 4-Amino-3,5-dichloropyridine is irritating to skin. It causes serious eye irritation and may cause irritation to respiratory system. It is irritating to mucous membranes and upper respiratory tract, it may cause irritation of the digestive tract system and is harmful if swallowed. It may cause drowsiness or dizziness. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

##### Chronic effects:

- Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

#### SECTION 5: FIRE-FIGHTING MEASURES

**Flash Point:** Not available

**Flammability:** Non flammable

##### 5.1 Extinguishing media

- *Appropriate extinguishing media:* Dry chemical powder, carbon dioxide, and alcohol resistant foam. Water may also be used. Fight larger fire with water spray or alcohol resistant foam. Water can be effective in cooling down the fire-exposed containers and knocking down the vapours. Water jets may be used to flush spills away and dilute the same to nonflammable mixtures fog or alcohol-resistant foam by directing streams to the periphery of the fires to prevent spread

##### 5.2 Special Protective Equipment and Precautions for Fire Fighter

- Evacuate the area and fight fires from a safe distance.
- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions or as per locally valid procedures.
- Fire fighters must wear Self Contained Breathing Apparatus (SCBA) and full protective clothing. The chemical is harmful if swallowed.
- Report any run-off of fire waters contaminated with this chemical as per local and federal procedures applicable.

##### 5.3 Unusual fire and explosion hazard

- Toxic and irritating fumes of hydrogen chloride, chlorine, carbon monoxide, possible hydrogen cyanide, carbon dioxide and nitrogen oxides may be given off in fire conditions.
- High vapor concentration may result in an explosion hazard.
- Vapors are heavier than air. May travel considerable distance from source and flashback.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

##### 6.1 Personal precautions, protective equipment and emergency procedures

###### For non-emergency personnel

###### Minor Spills

- Clean up all spills immediately following relevant Standard Operating Procedures.
- Avoid breathing vapors and contact with skin and eyes.
- Shut off leak source if possible.
- Shut off all possible sources of ignition.
- Wear protective clothing, boots, impervious gloves and safety glasses.
- Wipe up.
- Decontaminate all equipment.

###### Major Spill

- Alert Emergency Responders and tell them location and nature of hazard.
- Shut off all possible sources of ignition and increase ventilation.
- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus (SCBA), as may be deemed appropriate.
- Clear area of personnel and move upwind.
- Stop leaks if possible.
- Prevent, by any means available, spillage from entering drains or water and watercourses.
- Collect recoverable product into labeled containers for recycling, recovery or disposal.
- Contain spill with sand, earth or vermiculite.
- Spread area with lime or absorbent material, and leave for at least 1 hour before washing.



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- Clean up all tools and equipment.
- Inform authorities in event of contamination of any public sewers, drains or water bodies.

#### SECTION 7: HANDLING AND STORAGE

##### 7.1 Precautions for safe handling

- Do not breathe dust 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.
- Use only a chemical fume hood.
- 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 Conditions for safe storage, including any incompatibilities

- Store at ambient temperature at dry and well ventilated place. Keep container tightly closed.
- Store away from incompatible materials and direct light.
- Keep securely closed when not in use.

#### SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

##### 8.1 Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
4-Amino-3,5-dichloropyridine	Not available	Not available	Not available

##### Exposure Limits (International):

- Not available.

##### 8.2. Exposure controls

###### Appropriate Engineering Controls:

- 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.

###### Personal Protection:

- Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
- **Hands:** Wear appropriate protective gloves to prevent skin exposure.
- **Eyes:** Safety goggles/ Chemical Safety glasses and Face shield.
- **Clothing:** Boots and clothing to prevent contact.
- **Respirator:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.
- For emergency situations, wear a positive pressure, pressure-demand, full face piece self-contained breathing apparatus (SCBA) or pressure-demand supplied air respirator with escape .SCBA and a fully-encapsulating, chemical resistant suit. (EPA, 1998).

###### General Hygiene and general comments:

- Always use in a fume hood or under mechanical local exhaust.
- Wash hands and face after working with substance.
- Immediately change contaminated clothing.
- Apply skin protective barrier cream.

#### SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

- Information on basic physical and chemical properties.



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S.No	Parameter	Typical value
1.	Appearance	Off white crystalline solid
2.	Odor	Unpleasant
3.	Odor Threshold	Not available
4.	Melting point	159-161°C
5.	Boiling point	Not available
6.	Flash point	Not available
7.	Evaporation rate (n-BuAc=1)	Not available
8.	Explosive limits	Not available
9.	Vapor pressure	0.01 mm Hg at 25 degrees C
10.	Vapor density (air=1)	Not available
11.	Specific gravity (water=1)	Not available
12.	Solubility	Solubility in water is 6600 mg/L at 25 degrees C
13.	pH	Not available
14.	Log Kow (octanol/water)	1.17
15.	Auto-ignition temperature	Not available
16.	Decomposition temperature	Not available
17.	Viscosity	Not available
18.	Molecular Weight	163
19.	Flammability	Non Flammable
20.	Oxidizer	Not available
21.	Corrosive material	Not available
22.	Explosive material	Not available

#### SECTION 10: STABILITY AND REACTIVITY

- **Reactivity:** No data available
- **Stability:** Stable under specified condition of temperature and pressure.
- **Conditions to avoid:** Keep away from heat, sparks, flame, high temperature and incompatible chemicals, dust generation. Not compatible with strong oxidizing agents, acids and reducing agents.
- **Incompatible chemicals:** Strong Oxidizing Agents, acids and reducing agents.
- **Hazardous decomposition products:** Toxic and irritating fumes of hydrogen chloride, chlorine, carbon monoxide, carbon dioxide and nitrogen oxides may be given off in fire conditions.
- **Hazardous Polymerization:** Has not been reported.

#### SECTION 11: TOXICOLOGICAL INFORMATION

##### 11.1 Information on toxicological effects

###### Acute toxicity

4-Amino-3, 5-dichloropyridine is irritating to skin. It causes serious eye irritation and may cause irritation to respiratory system. It is irritating to mucous membranes and upper respiratory tract, it may cause irritation of the digestive tract system and is harmful if swallowed. It may causes drowsiness or dizziness.

**LD50 (Rat) Oral:** H302 Harmful if swallowed. ATE oral (mg/kg) 500.0 (Ref. *Carbosynth sds*)

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: No data available.
Germ cell Mutagenicity	: No data available.



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Carcinogenicity	: No data available.
Reproductive toxicity	: No data available.
STOT-single exposure	: May cause irritation to respiratory system
STOT- repeated exposure	: No data available.
Aspiration Hazards	: No data available

### SECTION 12: ECOLOGICAL INFORMATION

#### 12.1 Eco toxicity

4-Amino-3,5-dichloropyridine (22889-78-7)	
Fathead minnow LC <sub>50</sub> (96 hr)	99.22 mg/L. (Predicted Fathead minnow LC50 (96 hr) from Consensus method)

#### 12.2 Persistence and degradability

- Not readily biodegradable

#### 12.3 Bio accumulative potential

4-Amino-3,5-dichloropyridine (22889-78-7)	
Bio concentration factor	2.8
Log Kow	1.17 Low potential to bio accumulate

4-Amino-3,5-dichloropyridine is not expected to bioaccumulate in the food chain because it does not exceed the BCF criteria.

#### 12.4 Mobility in soil

4-Amino-3,5-dichloropyridine (22889-78-7)	
Koc	93. Very low absorption
Henry's Law Constant	0.0000000014 atm/m <sup>3</sup> mole at 25 degrees
Log Kow	1.17. Low potential to bioaccumulate

#### 12.5 Other adverse effects.

- **Environment Fate:**  
Based on the environmental modeling, this material has a low potential to get absorbed in the organic matter of soil and is non-volatile from water bodies and is not expected to be bio-accumulative. It is 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

#### 13.1 Waste treatment methods

- Burn in a chemical incinerator equipped with an afterburner and scrubber.
- 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.

### SECTION 14: TRANSPORT INFORMATION

This substance is considered to be Non Hazardous for transport by Air/Rail/Road and Sea and thus it is not regulated by IATA/ICAO/IMO/IMDG/ US DOT.

S. no.	Agency	UN Number
Land Transport	DOT	Not classified as Dangerous goods
Maritime Transport	IMDG	Not classified as Dangerous goods
Air Transport	IATA	Not classified as Dangerous goods



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#### Environmental hazards

- **Marine pollutant:** No.

#### SECTION 15: REGULATORY INFORMATION

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

##### Classification as per CLP Regulation 1272/2008:

- **Hazards Class and Category:** Acute tox oral Cat 4, Skin Irrit Cat. 2 ;Eye Irrit Cat 2 ; STOT SE Cat. 3
- **Hazard Statements:** H302, H315;H 319; H335

Chemical Inventory Lists:	Status
TSCA:	Not Listed
EINECS:	245-304-6
Canada(DSL/NDSL):	Not Listed
Japan:	Not listed
Korea:	Not Listed
Australia:	Not listed
China: IECSC	Not listed
Taiwan	Listed

##### US information

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act): 2-Amino-3,5-dichloropyridine is not listed

SARA 302/304 : 2-Amino-3,5-dichloropyridine is not listed

SARA 311/312 : See section 2 for more information

California Prop. 65: 2-Amino-3,5-dichloropyridine is not listed

CAA (Clean Air Act): 2-Amino-3,5-dichloropyridine is not listed

CWA (Clean Water Act): 2-Amino-3,5-dichloropyridine is not listed

##### EU Information

Water hazard class (WGK): No Information available.

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006: 2,5-Lutidine is not listed

#### SECTION 16: OTHER INFORMATION

##### a) Compilation information of safety data sheet

**Chemical:** 4-Amino-3,5-dichloropyridine

**CAS #:** 22889-78-7

**File Name:** 0244Gj Ghs08 Div.3 sds 4-Amino-3,5-dichloropyridine

**Revision Number:** 08

**Date of Issue:** February 23, 2024

**Revision Due Date:** January, 2027

##### b) A key or legend to aberrations and acronyms used in the safety data sheet

- PBT =Persistent Bio accumulative and Toxic.
- vPvB= Very Persistent and Very Bio accumulative.
- SCBA= Self Contained Breathing Apparatus.
- 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.
- RTECS= Registry of Toxic Effects of Chemical Substances.
- NTP=National Toxicology Program.
- IARC= International Agency for Research on Cancer.
- EPA=Environmental Protection Agency.
- TSCA= Toxic Substances Control Act.
- SARA= Superfund Amendments and Reauthorization Act.
- WHIMS= Workplace Hazardous Materials Information System.
- DSL/NDSL= Domestic/Non-Domestic Substances List.
- BCF = Bio Concentration Factor.
- TLV = Threshold Limit Value.
- ACGIH = American Conference of Governmental Industrial Hygienists.
- REACH = Registration, Evaluation .Authorization and Restriction of Chemicals.





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• CLP = Classification, Labeling and Packaging.

- LD / LC = Lethal Doses / Lethal Concentration.
- GHS = Globally Harmonized System.
- IMDG-Code = International Maritime Code for Dangerous Goods.
- ICAO = International Civil Aviation Organization.
- IATA/DGR= International Air Transport Association/Dangerous Goods Regulation.

#### c) 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.
- Globally Harmonized System of Classification and Labelling of Chemicals.
- RTECS

#### SDS US (GHS HazCom 2012)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

(End of Safety Data Sheet)