



2-Chloro-3-hydroxypyridine

Safety Data Sheet

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

Date of Compilation:	October 19, 2004
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2-Chloro-3-hydroxypyridine

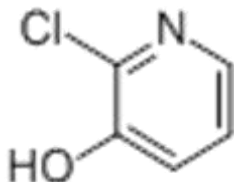
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product identification	: 2-Chloro-3-hydroxypyridine;
CAS RN	: 6636-78-8
EC#	: 229-635-3
Trade name	: 2-Chloro-3-hydroxypyridine
Systematic name	: 2-chloropyridin-3-ol
Synonyms	: 2-chloro-3-pyridinol; 2-CHLOROPYRIDIN-3- OL; 3-Pyridinol, 2-chloro-; 2- CHLORO-PYRIDINE-3-OL; 3-Hydroxy-2-chloropyridine
Molecular Formula	: C ₅ H ₄ ClNO
Structural Formula	



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

1.2.1. Relevant identified uses

- 2-Chloro-3-hydroxypyridine is used as an intermediate in the preparation of pharmaceutical products
- **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 - 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: Hazards identification

2.1. Classification of the substance or mixture

GHS US CLASSIFICATION

Skin corrosion / irritant: Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritant: Category 2A	H319	Causes serious eye irritation
Specific target organ toxicity (Single exposure): Category 3	H335	May cause respiratory irritation

2.2. Label elements

GHS US CLASSIFICATION

Hazard Pictogram: GHS 07



Signal Word: *Warning!*



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Hazard and precautionary statements:

Hazard Statements

- H315: Causes skin irritation.
- H319: Causes serious eye irritation
- H335: May cause respiratory irritation.

PRECAUTIONARY STATEMENTS

- P261: Avoid breathing dust/fume/gas/mist/vapors/sprays.
- P271: Use only outdoors or in well-ventilated place.
- P264: Wash hands, eyes and face thoroughly after handling.
- P280: Wear protective gloves/clothing and eye/face protection.
- P362: Take off contaminated clothing and wash before reuse.
- P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
- P304+P340: 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.
- P332 + P313: If skin irritation occurs: Get medical advice/attention.
- P305 + P351 + P338: IF IN EYES, Rinse cautiously 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.
- 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

2.3 Other Hazards

- Not available. For further details see section 12.

SECTION 3 : Composition/information on ingredients

Substance	CAS No.	EINECS No.	Purity	GHS US CLASSIFICATION
2-Chloro-3-hydroxypyridine	6636-78-8	229-635-3	≥ 98%	Skin corrosion / irritant: Category 2 Serious eye damage/eye irritant: Category 2 STOT(Single Exposure): Category 3

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

- **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. Monitor for respiratory distress. Apply artificial respiration if not breathing.
- **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: 2-Chloro-3-hydroxypyridine causes skin irritation and serious eye irritation. It can be irritating to mucous membranes and upper respiratory tract.

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

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

- Treat Symptomatically

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media.

- *Appropriate extinguishing media:* Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- *Unsuitable Extinguishing Media :* No information available

5.2. Special hazards arising from the substance or mixture.

- Thermal decomposition can lead to release of irritating gases and vapors.
- **Hazardous Combustion Products:** Carbon monoxide (CO), Carbon dioxide (CO₂), Hydrogen chloride gas, Nitrogen oxides (NO_x).



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5.3. Advice for firefighters.

- Use water spray or fog; do not use straight streams.
- Dike fire-control water for later disposal; do not scatter the material.
- Containers may explode when heated. Move containers from fire area if you can do it without risk.
- 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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures.

- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus.
- Alert Emergency Responders and tell them location and nature of hazard.
- Shut off all possible sources of ignition and increase ventilation.
- Avoid breathing vapors and contact with skin and eyes.
- Avoid dust formation.
- Keep people away from and upwind of spill/leak.
- Evacuate personnel to safe areas.

6.2. Environmental precautions.

- Clean up all spills immediately and prevent, by spillage from entering drains or water and watercourses.
- Inform authorities in event of contamination of any public sewers, drains or water bodies.

6.3. Methods and material for containment and cleaning up.

- Collect recoverable product into labeled containers for recycling, recovery or disposal.
- Spread area with lime or absorbent material, and leave for at least 1 hour before washing.

6.4. Reference to other sections.

- For more information please refer to section 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

- Do not breathe 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. Conditions for safe storage, including any incompatibilities

- Store at ambient temperature in a dry and well ventilated place.
- Keep protected from direct sunlight.
- Store away from incompatible materials.
- Keep securely closed when not in use.

7.3. Specific end use(s)

- No data available..

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters:

8.1.1 Exposure Limits Values

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
2-Chloro-3-hydroxypyridine	Not Listed	Not Listed	Not Listed

8.1.2 Exposure Limits (International):

- Not available.

8.1.3 Derived No-Effect-Levels (DNEL) / Predicted No-effect-concentration (PNEC)

- DNEL and PNEC data not available.

8.2. Exposure controls



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8.2.1 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.

8.2.2. 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 or as described below.

In full contact:

Glove Material: Nitrile rubber
Layer Thickness: 0.11 mm
Breakthrough time: > 480 Min

In splash contact:

Glove Material: nitrile rubber
Layer Thickness: 0.11 mm
Breakthrough time: > 480 Min

- **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).

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties.

Sr.No.	Parameter	Typical value
1.	Appearance	Off white to light beige powder
2.	Odor	Odorless
3.	Odor Threshold	Not available
4.	pH	4.0 to 5.0 (2% Aqueous solution)
5.	Melting point/Freezing point	168-172 °C
6.	Boiling Point	212.23 °C (Estimated)
7.	Flash point	No information available
8.	Evaporation rate (n-BuAc=1)	Not applicable (As it is a solid)
9.	Flammability	No information available
10.	Upper/lower flammability or Explosive limits	No information available
11.	Vapor pressure	0.071 mm Hg at 25 °C(Estimated)
12.	Vapor density (air=1)	No information available
13.	Specific gravity (water=1)/Bulk density	0.2g/ml (Bulked density Tapped)
14.	Solubility	Slightly soluble in water
15.	Partition coefficient : n-(Octonol / water)	0.97
16.	Auto-ignition temperature	No information available
17.	Decomposition temperature	No information available
18.	Viscosity	No information available
19.	Explosive property	Product does not present an explosion hazard .
20.	Oxidizing property	No information available



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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

- None known, based on information available.

10.2. Chemical stability

- Stable under normal condition of temperature and pressure.

10.3. Possibility of hazardous reactions

- Hazardous Polymerization: Will not occur.

10.4. Conditions to avoid

- Avoid moisture. Keep away from heat, sparks, flame, high temperature and incompatible chemicals.

10.5. Incompatible materials

- Strong oxidizing agents. Strong acids, Acid chlorides, Acid anhydrides

10.6. Hazardous decomposition products

- Thermal decomposition may produce Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrogen chloride gas. Nitrogen oxides (NO_x).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

a) Acute toxicity

RTECS#: UU7707000

ACUTE ORAL LD₅₀ (Rat) = Not available

LD50 Intravenous-Rabbit->2mg/kg;

LD50 Intramuscular-Mouse->4mg/kg;

LD50: Intravenous (Rodent mouse):180mg/kg

b) Skin corrosion/irritation

- Causes skin irritation.

c) Serious eye damage/irritation

- Causes serious eye irritation.

d) Respiratory or skin sensitization

- No data is available.

e) Germ cell Mutagenicity

- No data is available.

f) Carcinogenicity

- Not listed by NTP, IARC and OSHA.
- Not present on the EU CMR list.
- According to information presently, available 2-chloro-3-hydroxypyridine is not found to be carcinogenic.

g) Reproductive toxicity

- No data is available.

h) STOT-single exposure

- May cause respiratory irritation.

i) STOT- repeated exposure

- No data available.

j) Aspiration Hazards

- No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1 Ecotoxicity:

- Fathead minnow LC50 (96 hr) : 143.01 mg/L (Predicted Fathead minnow LC50 (96 hr) from Consensus method by US EPA Test Tool)
- Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 622 mg/l - 96 h

12.2. Persistence and degradability

- It is not expected to be readily biodegradable in aerobic and anaerobic conditions.
- "Persistence is not expected (log Kow<4)

12.3. Bioaccumulative potential

- BCF = 3.2 (Estimated)
- Log Kow = 0.97

2-chloro-3-hydroxypyridine is not expected to bioaccumulate in the food chain because it does not exceed the BCF criteria..

12.4. Mobility in soil

2-Chloro-3-hydroxypyridine (6636-78-8)	
Log Koc	150 (Estimated).
Henry's Law constant	3.43E-008 atm-m ³ /mole.
Log Kow	0.97. Low potential to bioaccumulate



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12.5. Results of PBT and vPvB assessment

- The substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII

12.6. 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 it is expected to have very high mobility in soil. 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

- Dissolve or mix the material with a combustible solvent and burn in a regulated, chemical incinerator equipped with after burner 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 not considered to be non-Hazardous for transport by Air/Rail/Road and Sea and thus it is not regulated by IATA/ICAO/ARD/RID/IMO/IMDG/ US DOT.

ADR/ RID	IMDG	IATA
14.1. UN number		
Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name		
Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No
No supplementary information available		

SECTION 15: REGULATORY INFORMATION

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.**
- European/International Regulations.

Classification (as per Regulation (EC) No 1272/2008):

- Hazards Class and Category:** Skin irrit Cat 2 ; Eye irrit Cat 2 ; STOT(Single exp.) Cat 3
- Hazard Statements:** H315;H319;H335

Chemical Inventory Lists:	Status
TSCA:	Not Listed
EINECS:	229-635-3
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-Chloro-3-hydroxypyridine not listed

SARA 302/304 : 2-Chloro-3-hydroxypyridine not listed

SARA 311/312 : See section 2 for more information

California Prop. 65: 2-Chloro-3-hydroxypyridine not listed

CAA (Clean Air Act): 2-Chloro-3-hydroxypyridine not listed

CWA (Clean Water Act): 2-Chloro-3-hydroxypyridine not listed



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EU Information

Water hazard class (WGK): WGK 3 (Severe hazards to water)

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006: 2-Chloro-3-hydroxypyridine not listed

SECTION 16: OTHER INFORMATION

(a) Compilation information of safety data sheet

Date of Compilation : October 19, 2004
Chemical : 2-Chloro-3-hydroxypyridine
CAS # : 6636-78-8
File Name : 009Gj Ghs07 Div.3 sds 2-Chloro-3-hydroxypyridine
Revision Number : 07
Date of Issue of SDS : March 07, 2024
Revision Due Date : February, 2027
Supersedes date : January 02, 2024

(b) 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
- 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
- NFPA= National Fire Protection Association
- WHIMS= Workplace Hazardous Materials Information System
- DSL/NDL= 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 .Authorization and Restriction of Chemicals
- CLP = Classification, Labeling and Packaging
- LD / LC = Lethal Doses / Lethal Concentration
- GHS = Globally Harmonized System
- ADR = Accord European 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

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

(d) List of hazard statements

Hazards Statements	
	<ul style="list-style-type: none">• H315: Causes skin irritation.• H319: Causes serious eye irritation.• H335: May cause respiratory irritation..

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)