



## 3-Hydroxy-2-methylpyridine

### Safety Data Sheet

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

Date of Compilation	: December 06, 2011
Date of Revision	: March 12, 2024
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## 3-Hydroxy-2-methylpyridine

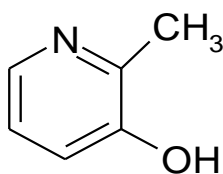
### Safety Data Sheet

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

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

### 1.1 Product Identifier

Product name	: 3-Hydroxy-2-methylpyridine
CAS RN	: 1121-25-1
EC#	: 214-327-3
Synonyms	: 2-methyl-3-pyridinol, 3-Hydroxy-2-picoline
Systematic name	: 2-Methylpyridin-3-ol
Molecular formula	: C <sub>6</sub> H <sub>7</sub> NO
Structural formula	:



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

1.2.1 **Relevant identified uses:** It is used as an intermediate in the pharmaceutical industry for the manufacture of Febrifugine (an antimalarial agent), Halofuginone (antifibrotic agent) etc.

1.2.2 **Uses advised against:** None

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

#### 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](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

Acute Toxicity: Category 4

Skin Corrosion/Irritation: Category 2

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Eye damage/irritation: Category 1

Specific target organ toxicity (Single exposure): Category 3

## 2.2 Label Elements

Hazard Pictogram: GHS05 & GHS07

Signal Word: Danger!



## 2.3 Hazard and Precautionary Statements:

### HAZARD STATEMENTS

H302: Harmful if swallowed.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

### PRECAUTIONARY STATEMENTS

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312: 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.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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.

P310: Immediately call a POISON CENTER or doctor/physician.

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 the container as per local norms and regulations.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance	CAS Number	EC Number	Purity
3-Hydroxy-2-methylpyridine	1121-25-1	214-327-3	> 98% w/w



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#### 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. Do not use mouth-to-mouth methods 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.
- **Ingestion:** If swallowed call a poison center if you feel unwell. Rinse mouth. Make victim drink plenty of water and induce vomiting. Seek medical attention. Do NOT induce vomiting by use of emetics. Seek medical attention.

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

###### Acute effects

- It is irritating in contact with eyes, respiratory system and skin.

###### Chronic effects

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

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

- **Note to the Physician:** Treat symptomatically.

#### SECTION 5: FIRE-FIGHTING MEASURES

##### 5.1 : Extinguishing media

- Dry chemical powder, chemical foam, and alcohol resistant foam. Do not use water jet or fog (spray) to extinguish. Water can be effective in cooling down the fire-exposed containers. Use water spray to knock down fire fumes if possible.

##### 5.2 : Special hazards arising from the substance or mixture

- Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

##### 5.3 : Advice for firefighters

- As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

###### Minor Spills

- Clean up all spills immediately following relevant Standard Operating Procedures.



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- Avoid contact with skin and eyes.
- 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.
- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus (SCBA), as may be deemed appropriate.
- 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.
- Clean up all tools and equipment.
- Inform authorities in event of contamination of any public sewers, drains or water bodies.

#### 6.2 : Environmental precautions

- Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release. Do not let product enter drains.

#### 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

- 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 dry and well ventilated place.



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- Store away from incompatible materials.
- Keep only in original container.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 : Control parameters

- 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 : Exposure Limits Values

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
3-Hydroxy-2-methylpyridine	None listed	None listed	None listed

### 8.3 : Exposure Limits (International)

- No information available

### 8.4 : Derived No-Effect-Levels (DNEL) Predicted No-Effect-concentration (PNEC)

- No information available

### 8.5 : 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.

### 8.6 : Personal Protection

- **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.

**Eyes:** Use goggles and/or 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.

**Hands:** Wear appropriate protective gloves and clothing to prevent skin exposure.

### 8.7 : Occupational hygiene

- Take heed of usual occupational hygiene measures when handling chemical substances, especially wash the skin with soap and water before breaks and at the end of work and apply fatty skin-care products after washing.
- Avoid contact with eyes. In case of contact rinse the affected eye(s).
- Change clothing that has become wet and do not reuse until completely dry.



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- Increased risk of combustion from wicking.

#### 8.8 : Additional Information

- 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.

#### 8.9 : 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	Beige-brown powder
2	Odor	Odorless
3	Odor Threshold	Not available
4	Melting point	168 - 169 °C (334 - 336 °F)
5	Boiling point	204.59°C (Estimated)
6	Flash point	Not available
7	Evaporation rate (n-BuAc=1)	Not available
8	Explosive limits	Not Available
9	Vapor pressure	Not Available
10	Vapor density (air=1)	Not Available
11	Specific gravity (water=1)	1.1143(Estimated)
12	Solubility (g/100ml)	Soluble
13	pH	7-8 in (2%w/w) aqueous solution
14	Log Kow (octanol/water)	0.87 (estimated)
15	Auto-ignition temperature	Not available
16	Decomposition temperature	Not available
17	Viscosity	Not available
18	Molecular Weight	109.13
19	pKa (@25°C)	Not Available
20	Flammable material	No
21	Oxidizer	No
22	Corrosive material	No
23	Explosive material	No



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#### SECTION 10: STABILITY AND REACTIVITY

- **Stability:** Stable under normal conditions of temperature and pressure.
- **Conditions to avoid:** Incompatible chemicals
- **Incompatible chemicals:** Strong oxidizing agents.
- **Hazardous decomposition:** Thermal decomposition may produce carbon monoxide, carbon dioxides and nitrogen oxides.
- **Hazardous Polymerization:** Not reported.

#### SECTION 11: TOXICOLOGICAL INFORMATION

##### 11.1 : Information on toxicological effects

To the best of our knowledge the chemical, physical and toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.

##### (a) Acute Toxicity

- RTECS # Unlisted
- LD50 oral Rat- >300 mg/kg (Estimated)

(b) Skin Corrosion/Irritation: It is irritating to skin.

(c) Serious Eye Damage/Irritation: It is irritating to eyes.

(d) Respiratory or Skin Sensitization: No information available.

(e) Germ Cell Mutagenicity: No information available.

(f) Carcinogenicity: Not listed by NTP, IARC and OSHA. Not present on the EU CMR list.

(g) Reproductive Toxicity: No information available.

h) STOT-single exposure: May cause respiratory irritation.

i) STOT- repeated exposure: No data available.

j) Aspiration Hazard: No information available.

#### SECTION 12: ECOLOGICAL INFORMATION

##### 12.1 : Toxicity

No experimental information is available for the Ecotoxicity. Environmental models may be used to predict the Ecotoxicity of the chemical substance. On the basis of the available information from the environmental models it is not expected to be toxic to fish and other aquatic organisms.

- Fathead minnow LC<sub>50</sub> (96 hr)=213.05 mg/l (Predicted Fathead minnow LC50 (96 hr) from Consensus method)
- Daphnia magna LC<sub>50</sub> (48 hr)=35.63 mg/l (Predicted Fathead minnow LC50 (96 hr) from Consensus method)





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#### 12.2 : Persistence and degradability

3-Hydroxy-2-methylpyridine	
Persistence and degradability	It is expected to be biodegradable in aerobic and anaerobic conditions.

#### 12.3 : Bio accumulative potential

3-Hydroxy-2-methylpyridine	
Bio accumulative potential (PREDICTED)	BCF = 3.162 Log Kow =0.87 Based on the Log Kow and Bioconcentration factor value it is expected to have negligible potential to concentrate in fatty tissue of fish and aquatic organisms relative to its surroundings.

#### 12.4 : Mobility in soil

3-Hydroxy-2-methylpyridine	
Soil Adsorp. Coeff. (Estimated Koc)	Koc=56.17. Moderate absorption in soil. Log Kow =0.87. Low potential to bioaccumulate.
Henry's Law Constant	Henry's Law constant: 8.10E-010 atm-m3/mole

#### 12.5 : Other adverse effects

Based on the environmental modeling, this material has a low potential to get absorbed in the organic matter of soil and non-volatile from water bodies. It is also expected to be found in water but not in sediment. It has low potential to bioaccumulate and does not biodegrade readily

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 : 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.

### SECTION 14: TRANSPORT INFORMATION

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

	ADR/ RID/ DOT	IMDG	IATA
<b>14.1 UN number</b>	Not applicable	Not applicable	Not applicable



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<b>14.2 UN proper shipping name</b>	Not applicable	Not applicable	Not applicable
<b>14.3 Transport hazard class(es)</b>	Not applicable	Not applicable	Not applicable
<b>14.4 Packing group</b>	Not applicable	Not applicable	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable	Not applicable	Not applicable

## SECTION 15: REGULATORY INFORMATION

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

#### Hazards Class and Category:

Acute Toxicity: Category 4, Skin Corrosion/irritation: Category 2, Eye damage/irritation: Category 1

Specific target organ toxicity (Single exposure): Category 3

Hazard Statements: H302, H315; H318, H335

Chemical Inventory Lists:	Status
TSCA:	Not Listed
EC Inventory	Listed (209-514-1)
Canada(DSL/NDSL):	Not Listed
China Catalog of Hazardous chemicals 2015	Not Listed
New Zealand Inventory of Chemicals (NZIoC)	Listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed
Inventory of Existing and New Chemical Substances (ENCS)	Listed
Japan ISHL Existing Substances List (ISHL)	Listed
China: IECSC	Not Listed
Existing Chemicals List (KECI)	Not Listed
Australian Inventory of Chemical Substances (AICS)	Not Listed
Chemical Substance Inventory in Taiwan, China (TCSI)	Listed

### US information

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):** 3-Hydroxy-2-methylpyridine not listed

**SARA 302/304 :** 3-Hydroxy-2-methylpyridine not listed

**SARA 311/312 :** See section 2 for more information

**California Prop. 65:** 3-Hydroxy-2-methylpyridine not listed

**CAA (Clean Air Act):** 3-Hydroxy-2-methylpyridine not listed

**CWA (Clean Water Act):** 3-Hydroxy-2-methylpyridine not listed

### 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:** 3-Hydroxy-2-methylpyridine not listed

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#### SECTION 16: OTHER INFORMATION

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

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Revision due date	: February 2027
Revision Number	: 10
Version Name	: 0079Gj Ghs10 Div 3 sds 3-Hydroxy-2-methylpyridine
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##### b) A key or legend to aberrations and acronyms used in the safety data sheet

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.
RTECS	= Registry of Toxic Effects of Chemical Substances.
IARC	= International Agency for Research on Cancer.
TSCA	= Toxic Substances Control Act.
DSL/NDSL	= Domestic/Non-Domestic Substances List.
TLV	= Threshold Limit Value.
ACGIH	= American Conference of Governmental Industrial Hygienists.
REACH	= Registration, Evaluation .Authorization and Restriction of Chemicals.
CLP	= Classification, Labeling and Packaging.
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

- Globally Harmonized System of Classification and Labelling of Chemicals.
- CLP REG (regulation) (EC) no. 1272/2008, last modification by regulation (EC) no. 790/2009
- REG (EC) no. 1907/2006, last modification by REG (EC) Nr. 830/2015

###### 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.*



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(End of Safety Data Sheet)

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