



## **3-Hydroxypyridine Safety Data Sheet**

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

Date of Compilation : April 20, 2020  
Date of Revision : March 12, 2024  
Revision due date : February 2027  
Revision Number : 06  
Version Name : 0211 Ghs06 Div.03 sds 3-Hydroxypyridine  
Supersedes date : January 02, 2024  
Supersedes version : 0211 Ghs05 Div.03 sds 3-Hydroxypyridine

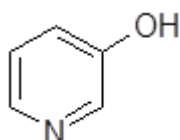
## 3-Hydroxypyridine Safety Data Sheet

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       | : <b>3-Hydroxypyridine</b>  |
| CAS RN             | : 109-00-2  |
| EC#                | : 203-637-4   |
| Synonyms           | : 3-Hydroxypyridine, 3-Oxopyridine, 3-Pyridol, 3-Pyridone, 3-Pyridyl alcohol, beta-Hydroxypyridine, m-Hydroxypyridine |
| Technical name     | : 3-Pyridinol   |
| Molecular formula  | : C <sub>5</sub> H <sub>5</sub> NO  |
| Structural formula | :   |



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

**Relevant identified uses:** It is used as an intermediate in pharmaceutical industry

**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):** Hazard category 4: (H302: Harmful if swallowed).

**Skin corrosion / irritation:** Hazard category: Skin Irrit. 2 (H315: Causes skin irritation.)

**Serious eye damage/ eye irritation:** Hazard category: Eye Irrit. 2A (H319: Causes serious eye irritation.)

**Specific target organ toxicity – single exposure:** Hazard category: STOT Single Exp. 3 (H335: May cause respiratory irritation.)

## 3-Hydroxypyridine Safety Data Sheet

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

### 2.2 Label Elements

#### Pictograms:



GHS 07

**Signal word:** Warning!

### 2.3 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

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.

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

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330: Rinse mouth.

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

P312 + P313: If skin irritation occurs: Get medical advice/attention.

P362: Take off contaminated clothing before reuse.

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.

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.

P304 + P233: Store in a well-ventilated place. Keep the container tightly closed.

P501: Dispose of contents/container to local/regional/national/international regulations.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Substance         | CAS Number | Assay/Purity    |
|-------------------|------------|-----------------|
| 3-Hydroxypyridine | 109-00-2   | 99.0% (minimum) |

### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures:

- **General advice:** Consult a physician if necessary. Never give anything by mouth to an unconscious person.
- **If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- **In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.



## 3-Hydroxypyridine Safety Data Sheet

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

- **In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- **If swallowed:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Symptoms: None reasonably foreseeable.

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

Note to physicians: Treat symptomatically

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1 : Extinguishing media

**Suitable 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

**Specific hazards:** None known.

**Hazardous combustion products:** Hazardous decomposition products formed under fire conditions. Nitrogen oxides, carbon monoxide, carbon dioxide.

### 5.3 : Advice for firefighters

As in any fire, wear a NIOSH-approved or equivalent, pressure-demand, self-contained breathing apparatus and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

**Personal precautions:** Evacuate personnel to safe areas. Control access to area. Use personal protective equipment.

### 6.2 : Environmental precautions

Prevent further leakage or spillage if safe to do so. Use appropriate container to avoid environmental contamination. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. If the product contaminates rivers and lakes or drains inform respective authorities. If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal.

### 6.3 : Methods and materials for containment and cleaning up

Clean-up methods - small spillage: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Clean-up methods - large spillage: Do not flush with water. Prevent further leakage or spillage. Use approved industrial vacuum cleaner for removal. Shovel into suitable container for disposal.

### 6.4 : Reference to other sections

## **3-Hydroxypyridine Safety Data Sheet**

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

Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

### **SECTION 7: HANDLING AND STORAGE**

#### **7.1 : Precautions for safe handling**

##### **Safe Handling:**

- Wash hands before breaks and immediately after handling the product.
- Remove and wash contaminated clothing before re-use.
- Use only clean equipment.
- Avoid contact with skin, eyes and clothing.
- Do not breathe dust, spray or mist.
- Wear personal protective equipment. For personal protection see section 8.
- Provide appropriate exhaust ventilation.

#### **7.2 : Storage**

- Keep in properly labelled containers.
- Keep containers tightly closed at ambient temperature in a dry and well-ventilated place away from incompatible materials.
- Keep away from food, drink and animal feeding stuffs.

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

#### **8.1 : Control parameters**

- This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### **8.2 : Exposure Limits Values**

- OSHA PEL: No data available.
- NIOSH REL: No data available.
- ACGIH TLV: No data available.

#### **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**

##### **General protective and hygiene measures**

- Wear protective gloves/protective clothing/eye protection/face protection.
- The standard precautionary measures should be adhered to when handling
- Wash hands during breaks and at the end of handling the material
- Immediately remove any contaminated clothing

##### **Appropriate Engineering Controls:**



## 3-Hydroxypyridine Safety Data Sheet

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

- Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Facilities storing or utilizing this material should be equipped with an eyewash fountain. Use adequate general and local exhaust ventilation to keep airborne concentrations low.

### 8.6 : Personal Protection

**Eyes:** Based on an evaluation of the eye or face hazards present, wear chemical splash-resistant safety glasses or goggles with side protection. A face shield may be appropriate in some workplaces. Use eyewear tested and approved under appropriate government standards such as OSHA 29 CFR 1910.133 or EU EN166.

**Hands:** Wear gloves selected based on an evaluation of the possible hazards to hands and skin, the duration of use, the physical conditions of the workplace, and the chemical resistance and physical properties of the glove material.

**Skin and body:** Protective clothing must be selected based on the hazards present in the workplace, the physical environment, the duration of exposure, and other factors. No fabric can provide protection against all potential hazards; therefore it is important to select the appropriate protective clothing for each specific hazard. At the minimum, wear a laboratory coat and close-toed footwear.

**Respiratory:** Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### 8.7 : Occupational hygiene

- No data available.

### 8.8 : Additional Information

- No data available.

### 8.9 : Control of environmental exposure

- Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- Information on basic physical and chemical properties.

| Sr. No. | Parameter                                    | Typical value                             |
|---------|--|---|
| 1.      | Appearance                                   | Beige to brown colored Crystalline Powder |
| 2.      | Molecular weight                             | 95.10                                     |
| 3.      | Odor   | Not available                             |
| 4.      | Odor Threshold                               | No information available                  |
| 5.      | pH   | 6 - 6.5 (3% aq soln)                      |
| 6.      | Melting point                                | 125 - 128 °C - lit.                       |
| 7.      | Boiling point                                | 180°C @ 22 mmHg<br>151-153°C @ 3 mmHg     |
| 8.      | Flash point                                  | 173°C (343°F)                             |
| 9.      | Evaporation rate (n-BuAc=1)                  | Not applicable                            |
| 10.     | Flammability                                 | Not flammable                             |
| 11.     | Upper/lower flammability or Explosive limits | No information available                  |

## 3-Hydroxypyridine Safety Data Sheet

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

| Sr. No. | Parameter                               | Typical value                                 |
|---------|---|---|
| 12.     | Vapor pressure                          | 0.552mm Hg @25°C                              |
| 13.     | Specific Gravity                        | No information available                      |
| 14.     | Density                                 | No information available                      |
| 15.     | Solubility                              | 33 g/L (20°C) in water                        |
| 16.     | Partition coefficient ( Octonol /water) | 0.48  |
| 17.     | Auto-ignition temperature               | 500 deg C ( 932.00 deg F)                     |
| 18.     | Decomposition temperature               | No information available                      |
| 19.     | Viscosity                               | Not applicable                                |
| 20.     | Explosive property                      | Product does not present an explosion hazard. |
| 21.     | Oxidizing property                      | No information available                      |

### SECTION 10: STABILITY AND REACTIVITY

- **Reactivity:** None known, based on information available
- **Chemical stability:** Stable under normal conditions
- **Possibility of hazardous reactions:** None under normal conditions of storage and use.
- **Conditions to avoid:** Incompatible materials.
- **Incompatible materials:** Strong oxidizing agents
- **Hazardous decomposition Products :** Nitrogen oxides, carbon monoxide, carbon dioxide.
- **Hazardous Polymerization:** Has not been reported.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 : Information on toxicological effects

##### Acute Toxicity:

##### LD<sub>50</sub>/TDLo #

- **Type of Test** LD50-Lethal dose, 50 percent kill.
- **Route of Exposure** Intraperitoneal
- **Species Observed** Rodent-mouse
- **Dose Data** 1822 mg/kg.
- **Toxic Effects** Only lethal dose value reported.
- **Reference** TOXIA6 Toxicon. (Pergamon Press Ltd., Headington Hill Hall, Oxford OX3 OBW, UK) V.1- 1962  
Volume (issue)/page/year: 23,815,1985
- **Type of Test** LD50-Lethal dose, 50 percent kill.
- **Route of Exposure** unreported
- **Species Observed** Mammal – species unspecified
- **Dose Data** 900 mg/kg.
- **Toxic Effects** Behavioral - altered sleep time(including change in



### 3-Hydroxypyridine Safety Data Sheet

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

- righting reflex) Behavioral - changes in motor activity  
(specific assay)
- **Reference** PCJOAU Pharmaceutical ,Chemistry Journal (English Translation). Translation of KHFZAN. (Plenum Pub. Corp., 233 Spring St., New York, NY 10013) No.1 1967- Volume (issue)/page/year: 16,259,1982
- **Type of Test** LD50-Lethal dose, 50 percent kill.
- **Route of Exposure** Oral
- **Species Observed** Bird wild bird species
- **Dose Data** 750 mg/kg.
- **Toxic Effects** Only lethal dose value reported.
- **Reference** AECTCV Archives of Environmental Contamination and Toxicology. (Springer- Verlag New York, Inc., Service Center, 44 Hartz Way, Secaucus, NJ 070944) V.1- 1973- Volume (issue)/page/year: 12,355,1983
  
- **Type of Test** TDLo –Lowest published toxic dose
- **Route of Exposure** Intraperitoneal
- **Species Observed** Rodent-mouse
- **Dose Data** 200 mg/kg.
- **Toxic Effects** Behavioral - anticonvulsant
- **Reference** FATOAO Farmakologiya iToksikologiya (Moscow).  
For English translation, see PHTXA6 and RPTOAN.  
(V/O Mezhdunarodnaya Kniga, 113095 Moscow, USSR) V.2- 1939- Volume (issue)/page/year: 49,27,1986

**Skin irritation/corrosion :** Moderate skin irritant.

**Eye damage/irritation:** Moderate eye irritant.

**Respiratory or skin sensitization:** No data available.

**Germ cell mutagenicity:** No data available

**Carcinogenicity:** No classification data on carcinogenic properties of this material is available from EPA, IARC, NTP, OSHA or ACGIH.

**Reproductive toxicity:** No data available

**Specific target organ system toxicity - repeated exposure:** No effects known.

**Specific target organ system toxicity - single exposure:** Moderate respiratory tract irritation.

**Aspiration hazard:** No data available.

**Additional information:** To the best of our knowledge, the chemical, physical and toxicological properties of this substance have not been thoroughly investigated.





## 3-Hydroxypyridine Safety Data Sheet

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

RTECS: UU7701400

### SECTION 12: ECOLOGICAL INFORMATION

#### 12.1 : Toxicity

- Fathead minnow LC50 (96 hr): 216.21 mg/L (Predicted Fathead minnow LC50 (96 hr) from Consensus method)
- Daphnia magna LC50 (48 hr): 29.91 mg/L (Predicted Daphnia magna LC50 (96 hr) from Consensus method)

#### 12.2 : Persistence and degradability

##### 3-Hydroxypyridine

|                               |                           |
|-------------------------------|---------------------------|
| Persistence and degradability | Not readily biodegradable |
|-------------------------------|---------------------------|

#### 12.3 : Bio accumulative potential

##### 3-Hydroxypyridine

|                            |                                  |
|----------------------------|----------------------------------|
| Bio accumulative potential | 3.162 (Bio concentration factor) |
|----------------------------|----------------------------------|

|         |      |
|---------|------|
| Log Kow | 0.48 |
|---------|------|

#### 12.4 : Mobility in Soil

##### 3-Hydroxypyridine

|                                     |                            |
|-------------------------------------|----------------------------|
| Soil Adsorp. Coeff. (Estimated Koc) | Koc: 34.18, log Koc: 1.534 |
|-------------------------------------|----------------------------|

|                      |                                    |
|----------------------|------------------------------------|
| Henry's Law Constant | 7.34E-010 atm-m <sup>3</sup> /mole |
|----------------------|------------------------------------|

- 3-Hydroxypyridine is non volatile from aqueous surfaces based on the estimated Henry's constant. Material is soluble in water and will have low sorption in neutral pH soils but greater sorption in acidic soils

#### 12.5 : Other adverse effects

- No data available

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 : Disposal of waste

- **Product:** In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate ponds, waterways or ditches with chemical or used container.

#### 13.2 : Disposal of packaging

- **Contaminated packaging:** Do not re-use empty containers.

### 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 |
|------|---------------|------|------|
| 14.1 | UN number     |      |      |



## 3-Hydroxypyridine Safety Data Sheet

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

|  |                         |                         |
|--|-------------------------|-------------------------|
| Not hazardous substance                | Not hazardous substance | Not hazardous substance |
| <b>14.2 UN proper shipping name</b>    |                         |                         |
| Not hazardous substance                | Not hazardous substance | Not hazardous substance |
| <b>14.3 Transport hazard class(es)</b> |                         |                         |
| Not hazardous substance                | Not hazardous substance | Not hazardous substance |
| <b>14.4 Packing group</b>              |                         |                         |
| Not hazardous substance                | Not hazardous substance | Not hazardous substance |
| <b>14.5 Environmental hazards</b>      |                         |                         |
| No                                     | No                      | No                      |

### SECTION 15: REGULATORY INFORMATION

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

Acute Toxicity Oral 4, Skin Irrit. 2, Eye Irrit. 2A, STOT Single Exp. 3

#### Hazard Statements:

H302, H315, H319, H335

| Chemical Inventory Lists:  | Status          |
|--|-----------------|
| TSCA:  | Listed (Active) |
| EC Inventory   | Listed          |
| Canada(DSL/NDSL):  | Listed (NDSL)   |
| Taiwan Chemical Substance Inventory (TCSI)                         | Listed          |
| New Zealand Inventory of Chemicals (NZIoC)                         | Listed          |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS) | Listed          |
| Inventory of Existing and New Chemical Substances (ENCS)           | Listed          |
| Japan ISHL Existing Substances List (ISHL)                         | Listed          |
| China: IECSC   | Listed          |
| Existing Chemicals List (KECI)                                     | Listed          |
| Australian Inventory of Chemical Substances (AICS)                 | Listed          |

#### US information

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

3-Hydroxypyridine is not listed

**SARA 302/304** : 3-Hydroxypyridine is not listed

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

**California Prop. 65**: 3-Hydroxypyridine is not listed

**CAA (Clean Air Act)**: 3-Hydroxypyridine is not listed

**CWA (Clean Water Act)**: 3-Hydroxypyridine is not listed

#### EU Information

**Water hazard class (WGK)**: WGK 3 (Severely hazardous to water)

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

### SECTION 16: OTHER INFORMATION

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

Date of Compilation : April 20, 2020



### 3-Hydroxypyridine Safety Data Sheet

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

Date of Revision : March 12, 2024  
Revision due date : February, 2027  
Revision Number : 06  
Version Name : 0211Gj Ghs06 Div.03 sds 3-Hydroxypyridine  
Supersedes date : January 02, 2024  
Supersedes version : 0211Gj Ghs05 Div.03 sds 3-Hydroxypyridine

#### 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.*

(End of Safety Data Sheet)