



# Safety Data Sheet

As per Globally Harmonized System (GHS)

**Product Identification:** Pyridine Hydrochloride      0041Gj Ghs12 Div.3 sds Pyridine Hydrochloride

Date of issue: March 29, 2024

Date of Compilation : March 14, 2013  
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Supersedes date : January 02, 2024  
Supersedes version : 0041Gj Ghs11 Div.3 sds Pyridine Hydrochloride

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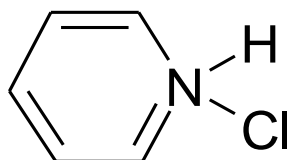
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## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>PRODUCT NAME</b>	Pyridine Hydrochloride
<b>CAS RN</b>	628-13-7
<b>EC#</b>	211-027-4
<b>SYNONYM</b>	Pyridine hydrochloride, Pyridinium chloride, Pyridinium monochloride
<b>SYSTEMATIC NAME</b>	Pyridine, hydrochloride, Pyridinium chloride.
<b>MOLECULAR FORMULA</b>	C <sub>5</sub> -H <sub>5</sub> -N.Cl-H
<b>STRUCTURAL FORMULA</b>	



### 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)

#### Emergency telephone numbers:

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

#### Product Uses:

- Pyridine hydrochloride is used as an intermediate in the manufacture of pharmaceutical products like, Amiodarone, Clarithromycin, Norethandrolone, Tamoxifen.

## SECTION 2: HAZARDS IDENTIFICATION

#### GHS CLASSIFICATION

Acute toxicity, oral: Category 4  
Skin corrosion / irritant: Category 2  
Eye Damage/Irritation: Category 2A

**Hazard Pictogram:** GHS 07





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**Signal Word:** Warning!

## **HAZARD AND PRECAUTIONARY STATEMENTS:**

### **HAZARD STATEMENTS**

- H302: Harmful if swallowed.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.

### **PRECAUTIONARY STATEMENTS**

- P264: Wash clothes thoroughly after handling.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P270: Do not eat, drink or smoke when using this product.
- 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.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P332+P313: If skin irritation occurs: Get medical advice/attention.
- P337+ P313: If eye irritation persists: Get medical advice/attention.
- P362: Take off contaminated clothing and wash before reuse.
- P501: Dispose of contents/container to local/regional/national/international regulations.

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

Sr.No.	Chemical	CAS #	EC#	Purity	GHS Classification
1.	Pyridine Hydrochloride	628-13-7	211-027-4	>98%	Acute toxicity, oral: Category 4 Skin corrosion / irritant: Category 2 Eye damage/irritation: Category 2A

## **SECTION 4: FIRST AID MEASURES**

### **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.
- **Ingestion:** If swallowed call a poison center if you feel unwell. Rinse mouth. Do NOT induce vomiting by use of emetics. Seek medical attention.

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

#### **Key symptoms**

- **Acute effects:**



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Pyridine hydrochloride is Harmful if swallowed. Causes eye & skin irritation. It is irritating to the mucous membranes and upper respiratory tract.

- **Chronic effects:**  
It affects kidneys and liver.

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

- Treat symptomatically

## SECTION 5: FIRE-FIGHTING MEASURES

### Extinguishing media:

- *Appropriate extinguishing media:* Dry chemical powder, carbon dioxide, and alcohol resistant foam. Water may be in effective. Do not use water jet or fog (spray) to extinguish. 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 non-flammable mixtures fog or alcohol-resistant foam by directing streams to the periphery of the fires to prevent spread. Do not get water inside containers.

### 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).
- Report any run-off of firewater's contaminated with this chemical as per local and federal procedures applicable.

### Unusual fire and explosion hazard:

- Toxic vapors may be released on thermal decomposition including nitrogen oxides, carbon monoxide and cyanide.
- 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

### 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.



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- 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.

## SECTION 7: HANDLING AND STORAGE

### 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.

### Storage

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

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

### Exposure Limits Values

Chemical name	ACGIH TLV	NIOSH	OSHS-FINAL PELs
Pyridine Hydrochloride	None listed	None listed	None listed

### Exposure Limits (International):

- No OSHA Vacated PELs are listed for this chemical.

### 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.



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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:

- 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.

Sr. No.	Parameter	Typical value
1.	Appearance	White Solid
2.	Odor	Characteristic
3.	Odor Threshold	Not available
4.	pH	Not Available
5.	Melting point/Freezing point	140 - 147°C
6.	Boiling Point	222 to 224°C @ 760 mmHg
7.	Flash point	Not available
8.	Evaporation rate (n-BuAc=1)	Not available
9.	Flammability	Not available
10.	Upper/lower flammability or Explosive limits	Not available
11.	Vapor pressure	Not available
12.	Vapor density (air=1)	Not available
13.	Relative density	Not available
14.	Solubility	85 g/100 g(Freely Soluble in water)
15.	Partition coefficient : n-(Octonol / water)	-2.06
16.	Auto-ignition temperature	Not available
17.	Decomposition temperature	Not available
18.	Viscosity	Not available
19.	Explosive property	No
20.	Oxidizing property	No

## SECTION 10: STABILITY AND REACTIVITY

- **Stability:** Stable under normal temperature and pressures.
- **Conditions to avoid:** Keep away from heat, sparks, flame, high temperature and incompatible chemicals, dust generation, u.v. light, strong oxidants.



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- **Incompatible chemicals:** Strong-oxidizing agents, strong bases.
- **Hazardous decomposition products:** Thermal decomposition may produce carbon monoxide and oxides of nitrogen, carbon dioxide & nitrogen, Hydrogen chloride, hydrogen cyanide and irritating and toxic fumes.
- **Hazardous Polymerization:** Not reported.

## SECTION 11: TOXICOLOGICAL INFORMATION

### a) **Acute toxicity**

Pyridine Hydrochloride is harmful if swallowed or absorbed through skin. Causes eye & skin irritation. It is irritating to the mucous membranes and upper respiratory tract.

**RTECS#:** UT4375000

**ORL RAT LD50:** 1600 mg/kg

**SKN GPG LD50:** 2500 L/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 Pyridine Hydrochloride is not found to be carcinogenic.

### g) **Reproductive toxicity**

No data is available.

### h) **STOT-single exposure**

No data is available.

### i) **STOT- repeated exposure**

No data available.

### j) **Aspiration Hazards**

No data available.

## SECTION 12: ECOLOGICAL INFORMATION

**Toxicity:**

**Ecotoxicity:**

- The Ecotoxicity data is not available.

**Persistence and degradability**

- It is not expected to be readily biodegradable in aerobic and anaerobic conditions.

**Bio accumulative potential**

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- BCF = 3.2
- Log Kow= -2.06

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.

### Mobility in soil

- Log Koc= 1.72 (estimated). Low sorption.
- Henry's Law Constant  $7.05 \times 10^{-12}$  atm/m<sup>3</sup> mole at 25 degrees. It is non-volatile from aqueous bodies.
- Log Kow= -2.06 (estimated). Negligible potential to bio accumulate.

### 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. Since this is an estimated result it is recommended that the material should be disposed into the environment. The material should never be disposed into the sewage

## SECTION 13: DISPOSAL CONSIDERATIONS

- 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.

Transport	Agency	Class	UN Number
Land Transport	DOT	Not Dangerous good	Not Applicable
Maritime Transport	IMDG	Not Dangerous good	Not Applicable
Air Transport	IATA	Not Dangerous good	Not Applicable

### Environmental hazards:

- Marine pollutant: No

## SECTION 15: REGULATORY INFORMATION

### European Union Information

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

- **Hazards Class and Category:** Acute Tox Oral Cat.4, Skin Irrit. Cat.2, Eye Irrit, Cat 2
- **Hazard Statements:** H302; H315, H319

Chemical Inventory Lists:	Status
TSCA:	Present
EINECS	211-027-4
Canada(DSL/NDSL):	Listed/NDSL





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<b>Japan:</b>	Not listed
<b>Korea:</b>	Not listed
<b>Australia:</b>	Not listed
<b>China: IECSC</b>	Listed
<b>Taiwan</b>	Listed
<b>New Zealand</b>	Listed
<b>Philippines</b>	Listed

## US information

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):** Pyridine Hydrochloride not listed

**SARA 302/304 :** Pyridine Hydrochloride not listed

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

**California Prop. 65:** Pyridine Hydrochloride not listed

**CAA (Clean Air Act):** Pyridine Hydrochloride not listed

**CWA (Clean Water Act):** Pyridine Hydrochloride 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:** Pyridine Hydrochloride not listed

## SECTION 16: OTHER INFORMATION

### Compilation information of safety data sheet

**Chemical:** Pyridine Hydrochloride

**CAS #:** 628-13-7

**File Name:** 0041Gj Ghs12 Div.3 sds Pyridine Hydrochloride

**Revision Number:** 12

**Date of Issue of SDS:** March 29, 2024

**Revision Due Date:** February, 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.
- 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.
- UEL= Upper Explosive Limit.
- LEL= Lower Explosive Limit.
- 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.



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- DSL/NDSL= Domestic/Non-Domestic Substances List.
- 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, Labelling 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.

## (b) 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. 878/2020.

### Internet

- 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)