



3-Acetylpyridine

Safety Data Sheet

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

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3-Acetylpyridine

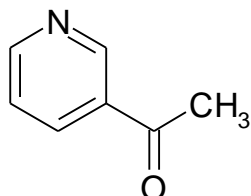
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product identification	: 3-Acetylpyridine
CAS RN	: 350-03-8
EC#	: 206-496-7
Trade name	: 3-Acetylpyridine
Systematic Name	: Methyl 3-pyridyl ketone, 1-(pyridin-3-yl) ethan-1-one
Synonyms	: 3-Acetylpyridine, 3-Acetylpyridine, 3-Pyridyl methyl Ketone, 1-(pyridin-3-yl)ethan-1-one
Molecular Formula	: C ₇ H ₇ NO
Structural Formula:	



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

1.2.1. Relevant identified uses

3-Acetylpyridine is used as an intermediate in the pharmaceutical industry for the manufacture of Imatinib Mesylate which is used in the treatment of chronic myeloid leukemia, Metyrapone which is used for diagnosing pituitary functioning, Telithromycin which is a ketolide antibiotic, Ridogrel which is classified as antiplatelet therapy etc. It is also used for the synthesis of Pyridine-3-acetic acid which is used for the synthesis of Risedronate which is a drug used for osteoporosis. It is also used to make sunscreen compositions. It may also be used as a flavorant in food and perfumery.

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 irritation: Category 2	H315
Acute toxicity oral: category 3	H301

2.2. Label elements

GHS-US classification





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Pictograms: GHS 06-Toxic, GHS07-Exclamation

Signal word: Danger!

Hazard and precautionary statements:

Hazard Statements

- H301: Toxic if swallowed.
- H315: Causes skin 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.
- P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P330: Rinse mouth
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P332+P313: If skin irritation occurs: Get medical advice/attention.
- P362: Take off contaminated clothing and wash before reuse.
- P405: Store locked up.
- P501: Dispose of contents/container to local/regional/national/international regulations.

2.3 Other Hazards

- Substance is not classified as PBT nor as vPvB. For further details see section 12.

SECTION 3 : Composition/information on ingredients

3.1. Substance

Substance	CAS No.	EINECS No.	Purity
3-Acetylpyridine	350-03-8	206-496-7	≥ 98%

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures.

4.1.1 *Route of exposure:* Inhalation, skin, eye and ingestion.

4.1.2 *Advice*

- Rinse eyes cautiously with water for at least 15 minutes. Remove contact lenses if easy to do so. Continue rinsing. Seek medical attention.
- Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Call a POISON CENTER or doctor/physician if you feel unwell.

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

- **Acute effects:**
Redness
- **Chronic effects:**
To the best of our knowledge, the chronic health effects of this product have not been fully investigated.

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

- **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. Toxic vapours may be released on thermal decomposition including nitrogen oxides, carbon monoxide and cyanide.
- **Ingestion:** If swallowed call a poison center if you feel unwell. Rinse mouth. Do NOT induce vomiting by use of emetics. Seek medical attention.



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SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media.

- *Appropriate extinguishing media:* Dry chemical, CO₂ or water spray. Consult with local fire authorities before attempting large scale fire fighting operations

5.2. Special hazards arising from the substance or mixture.

- Toxic vapors may be released on thermal decomposition including nitrogen oxides and carbon oxides.
- Closed containers may explode from heat of a fire.

5.3. Advice for firefighters

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

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 (SCBA), as may be deemed appropriate.
- Avoid breathing vapors and contact with skin and eyes.
- Decontaminate all equipment.
- Alert Emergency Responders and tell them location and nature of hazard.
- Shut off all possible sources of ignition and increase ventilation.
- Stop leaks if possible.
- Clean up all spills immediately following relevant Standard Operating Procedures.

6.2. Environmental precautions.

- Clean up all spills immediately following relevant Standard Operating Procedures.
- Inform authorities in event of contamination of any public sewers, drains or water bodies.
- Wipe up.
- 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.

6.3. Methods and material for containment and cleaning up.

- Clean up all tools and equipment.
- Decontaminate all equipment.

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



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- Store at ambient temperature in a dry and ventilated place.
- Keep protected from direct sunlight.
- Store away from incompatible materials.
- Keep securely closed when not in use.
- Keep container tightly closed when not in use.
- Store locked up.
- Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Avoid prolonged storage periods.

7.3. Specific end use(s)

- It is used as an intermediate in the pharmaceutical industries, particularly in the production of antihistamines and piroxicam. It is also used as an intermediate in the agrochemical industries.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters:

8.1.1 Exposure Limits Values

Chemical name	ACGIH	OSHA-Final PELs	NIOSH
3-Acetyl Pyridine	None listed	None listed	None listed

8.1.2 Exposure Limits (International):

- **OSHA Vacated PELs:** 3-Acetylpyridine: No OSHA Vacated PELs are listed for this chemical.

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

- DNEL and PNEC data not available.

8.2. Exposure controls

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:** Nitrile rubber applied on knitted cotton for mechanical stress. Because this glove is used only for mechanical protection, the minimum breakthrough time and thickness are not relevant to safety.

For short-term exposure (splash protection):

Nitrile rubber gloves.
Minimum breakthrough time / gloves: 30 min
Minimum thickness / gloves 0,3 mm

For long-term exposure:

Butyl rubber gloves.
Minimum breakthrough time / gloves: > 8 h
Minimum thickness / gloves 0,5 mm

- **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.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties.

Sr.No.	Parameter	Typical value
1.	Appearance	Clear brown liquid
2.	Odor	Characteristic



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3.	Odor Threshold	Not available
4.	pH	6.5-7.5@20°C
5.	Melting point/Freezing point	12 - 13 deg C
6.	Boiling Point	220 deg C @ 760.00mm Hg
7.	Flash point	104 deg C (219.20 deg F)
8.	Evaporation rate (n-BuAc=1)	Not available
9.	Flammability	Non Flammable
10.	Upper/lower flammability or Explosive limits	1.3%-8.7%
11.	Vapor pressure	0.003 mbar @20 deg
12.	Vapor density (air=1)	4.17
13.	Relative density	1.1020g/cm3
14.	Solubility	Soluble in water 28 g/L @ 25 °C
15.	Partition coefficient : n-(Octonol / water)	0.34 (at 13 °C)
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

10.1. Reactivity

- No data available.

10.2. Chemical stability

- Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

- Hazardous Polymerization: Not reported.

10.4. Conditions to avoid

- Keep away from heat, sparks, flame, high temperature and incompatible chemicals, Not compatible with strong oxidizing agents, strong reducing agents, strong acids.

10.5. Incompatible materials

- Strong oxidizing agents, strong reducing agents, strong acids.

10.6. Hazardous decomposition products

- Thermal decomposition may produce carbon monoxide, carbon dioxide, oxides of nitrogen, irritating and toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

a) Acute toxicity

- RTECS#: OB5425000
- ACUTE ORAL LD50(RAT) = 51 mg/kg
- ACUTE ORAL LD50 (Bird) = 178 mg/kg
- INTRAPERITONEAL MOUSE LD50 = 182mg/kg

b) Skin corrosion/irritation

- Causes skin irritation.

c) Serious eye damage/irritation



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- No data available.

d) Respiratory or skin sensitization

- No data available.

e) Germ cell Mutagenicity

Type of Test	Route of Exposure	Species Observed	Dose Data
Sex chromosome loss and nondisjunction		Yeast – Saccharomyces cerevisiae	5000 ppm

f) Carcinogenicity

- Not listed by NTP, IARC and OSHA.
- Not present on the EU CMR list.
- According to information presently available 3-Acetyl Pyridine 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

12.1.Toxicity

12.1.1Ecotoxicity:

Short-term toxicity to aquatic invertebrates

- EC50 / LC50 for freshwater invertebrates-109.4 mg/L

Toxicity to aquatic algae and cyanobacteria

- EC50 for freshwater algae- 399.78 mg/L
- EC10 or NOEC for freshwater algae-12 mg/L

12.2. Persistence and degradability

- Readily biodegradable in water.

12.3. Bio accumulative potential

- No data available.

12.4. Mobility in soil

- Will likely be mobile in the environment due to its water solubility

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 environmental modeling, this material is not expected to be persistent in the environment and is not expected to bioaccumulate. Since this is an estimated result, necessary guidelines should be followed before disposing off the material in to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

- Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.
- 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.




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SECTION 14: TRANSPORT INFORMATION

- This substance is considered to be Hazardous for transport by Air/Rail/Road and Sea and thus regulated by IATA/ICAO/ARD/RID/IMO/IMDG.

ADR/ RID	IMDG	IATA
14.1. UN number		
2810	2810	2810
14.2. UN proper shipping name		
Toxic liquid, organic, N.O.S (3-Acetylpyridine).	Toxic liquid, organic, N.O.S (3-Acetylpyridine).	Toxic liquid, organic, N.O.S (3-Acetylpyridine)
14.3. Transport hazard class(es)		
6.1	6.1	6.1
14.4. Packing group		
III	III	III
14.5. Environmental hazards (Hazard Label)		
	 Marine pollutant : 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.
- European Labelling in Accordance with EC Directives.

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

- Hazards Class and Category:** Acute Tox Oral Cat.3, Skin Irrit. Cat.2,
- Hazard Statements:** H301;H315

<u>Chemical Inventory Lists:</u>	<u>Status</u>
TSCA:	Listed
EC/ List No.	206-496-7
Canada(DSL/NDSL):	Listed (DSL)
Japan (ENCS):	Listed(5-3706)
Korea:	Not Listed
Australia:	Listed
China: IECSC	Listed
Taiwan	Listed
Philippines	Listed



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New Zealand

Listed

US information

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act): 3-Acetylpyridine not listed

SARA 302/304 : 3-Acetylpyridine not listed

SARA 311/312 : See section 2 for more information

California Prop. 65: 3-Acetylpyridine not listed

CAA (Clean Air Act): 3-Acetylpyridine not listed

CWA (Clean Water Act): 3-Acetylpyridine not listed

EU Information

Water hazard class (WGK): WGK 1 (Slightly Hazardous to water)

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

SECTION 16: OTHER INFORMATION

(a) Compilation information of safety data sheet

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Chemical : 3-Acetyl Pyridine
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(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
- 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
- CERCLA= Comprehensive Environmental Response, Compensation, and Liability Act
- SARA= Superfund Amendments and Reauthorization Act
- 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 .Authorisation and Restriction of Chemicals
- CLP = Classification, Labelling and Packaging
- LD / LC = Lethal Doses / Lethal Concentration
- GHS = Globally Harmonised System
- ADR = Accord europeen relative au transport international de marchandises
- IMDG-Code = International Maritime Code for Dangerous Goods
- EmS = Emergency measures on Sea
- ICAO = International Civil Aviation Organization



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IATA/DGR= International Air Transport Association/Dangerous

Goods Regulation

(c) Key Literature reference and sources for data

Hazards Statements	
	<ul style="list-style-type: none">• H315: Causes skin irritation.• H301: Toxic if swallowed.

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.

(d) List of hazard statement

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)