



## **(R)-3-Aminopiperidine dihydrochloride**

### **Safety Data Sheet**

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

Date of Compilation : March 20, 2013

Date of Revision : March 29, 2024

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Revision Number : 05

Version Number : 0714Gj Ghs05 Div.03 sds (R)-3-Aminopiperidine di hydrochloride

Supersedes date : January 10, 2024

Supersedes version : 0714Gj Ghs04 Div.03 sds (R)-3-Aminopiperidine di hydrochloride

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

#### 1.1. Product identifier

**PRODUCT NAME** : (R)-3-Aminopiperidine dihydrochloride

**CAS RN** : 334618-23-4

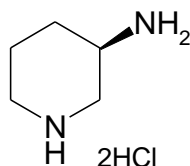
**EC/List no.** : 608-870-9

**SYSTEMATIC NAME** : (R)-3-Aminopiperidine dihydrochloride

**SYNONYMS** : (R)-piperidin-3-amine; (R)-Piperidin-3-amine di, HCl;(R)-3-Piperidinamine dihydrochloride;(R)-piperidin-3-amine dihydrochloride;(3R)-3-Aminopiperidine di hydrochloride

**MOLECULAR FORMULA** : C<sub>5</sub>H<sub>14</sub>Cl<sub>2</sub>N<sub>2</sub>

**STRUCTURAL FORMULA** :



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

##### 1.2.1. Relevant identified uses

(R)-3-Aminopiperidine di-hydrochloride is used as an intermediate in the synthesis of Active Pharmaceutical Ingredient.

**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: Category 4

Skin Corrosion/Irritation: Category 2

Serious eye damage/eye irritation: Category 1

Specific target organ toxicity: Category 3  
(After single exposure)

#### 2.2. Label Elements

**Hazard Pictogram:** GHS05 & GHS 07

**Signal Word:** Danger!

##### HAZARD AND PRECAUTIONARY STATEMENTS:

##### HAZARD STATEMENTS

- H302: Harmful if swallowed
- H315: Causes skin irritation.





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- H318: Causes serious eye damage.
- H335: May cause respiratory irritation.

### PRECAUTIONARY STATEMENTS

- P264: Wash hands thoroughly after handling.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P270: Do not eat, drink or smoke when using this product.
- P261: Avoid breathing dust/fume/gas/mist/vapors/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.
- P305+P351+P338: IF IN EYES: Rinse cautiously 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.
- 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.
- 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.
- P403+233: 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.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Sr.No.	Chemical	CAS #	EC#	Purity w/w
1.	(R)-3-Aminopiperidine dihydrochloride	334618-23-4	608-870-9	> 97 %

### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

- Remove affected person from danger area. Do not leave affected persons unsupervised. Seek medical treatment. First aid personnel should pay attention to their own safety. Take off all contaminated clothing immediately
- **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.

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

- To the best of our knowledge of this compound have not been fully investigated.

#### 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:* Dry chemical powder, carbon dioxide, and alcohol resistant foam. Water may also be used. 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.



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

- **Fire hazard:** Emits toxic fumes under fire conditions.
- **Explosion hazard:** Risk of explosion with vapours in confined spaces, drainage and sewage system.
- **Reactivity in case of fire:** Thermal decomposition generates: Toxic vapours which could include nitrogen oxides, carbon monoxide, carbon dioxide and HCl gas.
- **Hazardous decomposition products in case of fire:** Hazardous decomposition products may be released during prolonged heating like smokes, carbon dioxide, carbon monoxide, nitrogen oxides and HCl gas.

### 5.3. Advice for firefighters

- **Precautionary measures fire:** Appropriate self-contained breathing apparatus may be required.
- **Firefighting instructions:** Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. In case of major fire, evacuate area.
- **Protective equipment for firefighters:** Do not enter fire area without proper protection equipment, including respiratory protection

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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

- Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.
- Avoid dust formation. Avoid breathing vapors/mist. Avoid contact with skin and eyes.
- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus (SCBA), as may be deemed appropriate

### 6.2. Environmental precautions

- Place waste in an appropriately labeled, sealed container for disposal. Prevent further leakage or spillage if safe to do so. 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

- Do not breathe dust, vapor or mist.
- 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.
- Handle in accordance with good industrial hygiene and safety procedures. Avoid Prolonged or repeated exposure. Take precautionary measures against electrostatic discharge

### 7.2. Storage

- Store at ambient temperature in a well-ventilated place.
- Keep container tightly closed when not in use.
- Store away from incompatible materials.
- Material is hygroscopic in nature so must be stored under inert gas.

## SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure Limits Values

Chemical name	STEL (ppm)	ACGIH TLV	OSHA PEL	NIOSH
(R)-3-Aminopiperidine dihydrochloride	Not established	Not established	Not established	Not established

#### Exposure Limits (International):

- Not available.

#### OSHA Vacated PELs:

- No OSHA Vacated PELs are listed for this chemical.

### 8.2. Exposure controls

#### Appropriate Engineering Controls:

- General industrial hygiene practice.



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- 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.

#### 8.3. Personal Protection

- **Eye / Face Protection:** Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- **Hand protection:** Handle with gloves. Gloves must be inspected prior to use. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
- **Respiratory protection:** Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- **Skin protection:** Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- **Other personal protection advice:** No data is available

#### 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.

#### 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.

### SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties.

Sr. No.	Parameter	Typical value
1.	Appearance	White to off-white powder
2.	Odor	Characteristic
3.	Odor Threshold	Not available
4.	pH	Not available
5.	Melting point	190 to 195 °C
6.	Boiling Point	241.9°C at 760 mmHg (Estimated)
7.	Flash point	100.1°C (Estimated)
8.	Evaporation rate (n-BuAc=1)	Not applicable (Solid)
9.	Flammability	Not flammable
10.	Upper/lower flammability or Explosive limits	Not available
11.	Vapor pressure	Not available
12.	Vapor density (air=1)	Not applicable (Solid)
13.	Relative density	Not available



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14.	Solubility	Soluble in water, partially soluble in Dichloromethane, methanol and isopropyl alcohol
15.	Partition coefficient : n-(Octanol / water)	2.789
16.	Auto-ignition temperature	Not available
17.	Decomposition temperature	Not available
18.	Viscosity	Not applicable (Solid)
19.	Explosive property	No
20.	Oxidizing property	Not available

#### SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:** No data available

10.2 **Stability:** Stable under recommended storage condition.

10.3 **Conditions to avoid:** Keep away from humid conditions (as material is hygroscopic in nature), heat, sparks, flame, high temperature and incompatible chemicals, dust generation, oxidizing agents. Avoid loosely closed container and fluctuating temperature.

10.4 **Incompatible chemicals:** Oxidizing agents.

10.5 **Hazardous decomposition:** Thermal decomposition may produce carbon monoxide and oxides of nitrogen, carbon dioxide, HCl gas and irritating and toxic fumes.

10.6 **Hazardous Polymerization:** Not reported.

#### SECTION 11: TOXICOLOGICAL INFORMATION

##### 11.1. Information on toxicological effects

###### **Acute toxicity**

Unknown acute toxicity: No information available

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral) 500 mg/kg**

**Ld 50 (3-Aminopiperidine as free base): 547.68 mg/kg (Predicted oral rat Ld50 from Consensus method)**

###### **RTECS # Unlisted**

Skin corrosion/irritation	:	Causes skin irritation. .
Serious eye damage/irritation	:	Causes serious eye damage.
Respiratory or skin sensitization	:	Not data available.
Germ cell Mutagenicity	:	Not data available.
Carcinogenicity	:	Not listed by NTP, IARC and OSHA.
Reproductive toxicity	:	No data available.
STOT-single exposure	:	May cause respiratory irritation.
STOT- repeated exposure	:	No data available



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Aspiration Hazards

No data available.

### SECTION 12: ECOLOGICAL INFORMATION

#### 12.1. Toxicity

##### Ecotoxicity:

- Fathead minnow LD50 (96hr): 810 mg/l (3-Aminopiperidine as free base) (Predicted Fathead minnow LC50 (96hr) from consensus method)
- It has estimates that (R)-3-Aminopiperidine is not toxic to fish. It is important to note that these results do not suggest that (R)-3-Aminopiperidine di hydrochloride will not be toxic to all aquatic organisms. Some aquatic organisms, such as daphnids, may be more sensitive to both acute and chronic exposures to (R)-3-Aminopiperidine di hydrochloride.

#### 12.2. Persistence and degradability

- It has estimates that (R)-3-Aminopiperidine di hydrochloride is expected to be found predominantly in soil and its persistence estimate is based on its transformation in this medium. Its half-life in soil, 30 days, does not exceed the EPA criteria. Therefore, (R)-3-Aminopiperidine di hydrochloride is estimated not to be persistent in the environment.

#### 12.3. Bio accumulative potential

- BCF = 3.2
- Log Kow = 2.789

It has estimates that (R)-3-Aminopiperidine di hydrochloride is not expected to bioaccumulate in the food chain because it does not exceed the BCF criteria.

#### 12.4. Mobility in soil

- Koc = 54 (estimated). Moderate Sorption .
- Henry's Law Constant = 0.0000000018. atm/m<sup>3</sup> mole at 25 degrees.
- Log Kow = 2.789 (estimated). Low potential to bioaccumulate.

#### 12.5. 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, (R)-3-Aminopiperidine di hydrochloride is estimated not to be persistent in the environment. 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

- Burn in a chemical incinerator equipped with an afterburner 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 considered to be Non Hazardous for transport by Air/Rail/Road and Sea and thus not regulated by IATA/ICAO/ARD/RID/IMO/IMDG.

##### Environmental hazards:

- Marine pollutant: No

### SECTION 15: REGULATORY INFORMATION

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

- **Hazards Class and Category:** Acute Tox Cat 4; Skin Irrit. Cat.2 ; Eye irrit Cat 1; STOT SE Cat3
- **Hazard Statements:**H302; H315, H318; H335

Chemical Inventory Lists:	Status
TSCA:	Not listed
EC list no.:	608-870-9
Canada(DSL/NDSL):	Not Listed
Japan:	Not listed
Korea:	Not listed
Australia:	Not listed
China: IECSC	Not listed
Taiwan	Listed



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### US information

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):** ( R)-3-Aminopiperidine.2HCl is not listed

**SARA 302/304 :** ( R)-3-Aminopiperidine.2HCl is not listed

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

**California Prop. 65:** ( R)-3-Aminopiperidine.2HCl is not listed

**CAA (Clean Air Act):** ( R)-3-Aminopiperidine.2HCl is not listed

**CWA (Clean Water Act):** ( R)-3-Aminopiperidine.2HCl is not listed

### EU Information

**Water hazard class (WGK):** WGK 2 (moderate hazards to water).

**Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006:** ( R)-3-Aminopiperidine.2HCl is not listed

### SECTION 16: OTHER INFORMATION

#### Compilation information of safety data sheet

**Chemical:** (R)-3-Aminopiperidine dihydrochloride.

**CAS #:** 334618-23-4

**File Name:** 0714Gj Ghs05 Div.03 sds (R)-3-Aminopiperidine dihydrochloride

**Revision Number:** 05

**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.
- IDLH= Immediately Dangerous to Life or Health.
- UEL= Upper Explosive Limit.
- LEL= Lower Explosive Limit.
- RTECS= Registry of Toxic Effects of Chemical Substances.
- NTP=National Toxicology Programm.
- 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/NDSL= 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, 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.
- IATA/DGR= International Air Transport Association/Dangerous Goods Regulation.

#### (b) Key Literature reference and sources for data





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#### 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

#### Internet

- RTECS

#### Company's Declaration:

Information contained in this SDS is believed to be correct but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. This SDS shall be used as a guide only. Jubilant Ingrevia Limited makes no warranties expressed or implied of the adequacy of this document for any particular purpose.

(End of Safety Data Sheet)

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