



## **2,3-Dichloro-5-(trifluoromethyl)pyridine**

### **Safety Data Sheet**

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

Date of Compilation : November 07, 2012  
Date of Revision : February 15, 2024  
Due Date of Revision : January, 2027  
Version Name : 0707Gj Ghs04 Div.5 sds 2,3-Dichloro-5-(trifluoromethyl)pyridine  
Version Number : 04  
Supersedes Date : January 09, 2024  
Supersedes version : 0707Gj Ghs03 Div.5 sds 2,3-Dichloro-5-(trifluoromethyl)pyridine

# 2,3-Dichloro-5-(trifluoromethyl)pyridine

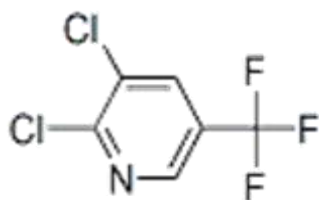
## Safety Data Sheet

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

#### 1.1 Product Identifier

Product name	: 2,3-Dichloro-5-(trifluoromethyl)pyridine
CAS RN	: 69045-84-7
EC#	: 410-340-5
Synonyms	: 3-Dichloro-5-trifluoromethylpyridine; 2,3-DICHLORO-5-TRIFLUOROMETHYL) PYRIDINE; Pyridine, 2,3-dichloro-5-(trifluoromethyl)-
Systemetic Name	: Pyridine, 2,3-dichloro-5-(trifluoromethyl)-
Molecular Formula	: C <sub>6</sub> H <sub>2</sub> Cl <sub>2</sub> F <sub>3</sub> N
Structural Formula	



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

**Use of the substance:** 2,3-Dichloro-5-(trifluoromethyl)pyridine is used as an intermediate for the synthesis of Agrochemicals product

#### 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](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**

Flammable Liquids (Category 4), H227

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Serious eye damage (Category 1), H318

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Skin sensitisation (Category 1), H317  
Chronic aquatic toxicity (Category 2), H411.

### 2.2 Label Elements

Hazard Pictogram: GHS 05, GHS 07, GHS09

Signal Word: Danger!



GHS 05



GHS 07



GHS09

### 2.3 Hazard and Precautionary Statements:

#### HAZARD STATEMENTS

- H227: Combustible liquid.
- H302: Harmful if swallowed.
- H332: Harmful if inhaled.
- H318: Causes serious eye damage.
- H317: May cause an allergic skin reaction.
- H411: Toxic to aquatic life with long lasting effects.

#### PRECAUTIONARY STATEMENTS

- P210: Keep away from flames and hot surfaces. -No smoking.
- 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 well ventilated place.
- P273: Avoid release to the environment.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P330: Rinse mouth.
- P370+P378: In case of Fire: Use ... for extinction.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P333+P313: If skin irritation or rash occurs: Get medical advice/ attention.
- P363: Wash contaminated clothing before reuse.
- P391: Collect spillage.
- P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P310: Immediately call a POISON CENTER or doctor/physician.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P403+P235: Store in well ventilated place. Keep cool.
- P501: Dispose of contents/container to local/regional/national/international regulations.

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance	CAS #	EC#	% w/w	GHS Classification
2,3-Dichloro-5-(trifluoromethyl)pyridine	69045-84-7	410-340-5	> 98.0% (GC)	Flammable Liquids (Category 4), H227 Acute toxicity, Oral (Category 4), H302 Acute toxicity, Inhalation (Category 4), H332 Serious eye damage (Category 1), H318 Skin sensitisation (Category 1), H317 Chronic aquatic toxicity (Category 2), H411.

### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

- **General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.
- 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. Take victim immediately to hospital. Consult a physician.
- In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- If swallowed: 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

- Acute: Pain. Redness.
- Delayed: May cause skin sensitization.

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

- No data available

### SECTION 5: FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

- Suitable extinguishing agents: Dry chemical, foam, water spray, carbon dioxide.
- Unsuitable extinguishing media: Solid streams of water

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

- Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.
- Hazardous combustion products include: Carbon oxides Halogenated compounds
- WARNING: Highly toxic HCl gas is produced during combustion.
- WARNING: Highly toxic HF gas is produced during combustion.

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#### **5.3 Advice for firefighters**

- Wear self-contained breathing apparatus if possible.

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

- Personal precautions: Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc
- Respiratory precaution: Wear approved mask/respirator
- Hand precaution: Wear suitable gloves/gauntlets
- Skin protection: Wear suitable protective clothing
- Eye protection: Wear suitable eye protection

#### **6.2 Environmental precautions**

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

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

- Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations

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

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

- Handling must be performed in a well ventilated place.
- Wear suitable protective equipment.
- Prevent generation of vapour or mist.
- Keep away from flames and hot surfaces.
- Take measures to prevent the build up of electrostatic charge.
- Wash hands and face thoroughly after handling.
- Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated.
- Normal measures for preventive fire protection.

#### **7.2 Conditions for safe storage, including any incompatibilities**

- Keep container tightly closed. Store in a cool, dark and well-ventilated place.
- Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Store away from incompatible materials such as oxidizing agents.
- Keep only in original container.

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

#### **8.1 Control parameters**

- No data available

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### 8.2 Exposure controls

#### Appropriate Engineering Controls:

- Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath.

### Individual protection measures, such as personal protective equipment

**Eye/face protection:** Safety glasses. A face-shield, if the situation requires

**Hand protection:** Protective gloves

**Body Protection:** Protective clothing. Protective boots, if the situation requires.

**Respiratory protection:** Vapour respirator. Follow local and national regulations.

### General hygiene considerations

- Avoid contact with skin, eyes and clothing.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- When using do not eat, drink or smoke.

### Additional Information

- No data available

### 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

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

Sr. No.	Parameter	Typical value
1.	Appearance	Clear colorless to yellow liquid
2.	Odor	Pungent, Pyridine-like odor
3.	Odor Threshold	No data available
4.	pH	No data available
5.	Melting point	> 8 - <= 9 °C
6.	Boiling Point	168-169 °C
7.	Flash point	79 °C (174 °F)
8.	pKa (@250C)	No data available
9.	Evaporation rate (n-BuAc=1)	No data available
10.	Flammability	No data available
11.	Upper/lower flammability or Explosive limits	No data available
12.	Vapor pressure	1.13 mmHg @ 25°C
13.	Vapor density (air=1)	0.015 g/l
14.	Density	1.549 g/cm <sup>3</sup> at 25 °C

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Sr. No.	Parameter	Typical value
15.	Solubility in water	380 mg/l @ 24 °C (In water) and soluble in general organic solvents like MDC, MeOH, Acetone etc.
16.	Partition coefficient : n-(Octonol / water)	log Pow: 3.45
17.	Auto-ignition temperature	510 °C
18.	Decomposition temperature	>300°C
19.	Viscosity	No data available
20.	Explosive property	Negative
21.	Oxidizing property	No data available

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity

- No data available

#### 10.2 Chemical stability

- Stable at ambient temperatures. Decomposes at temperatures > 300°C

#### 10.3 Possibility of hazardous reactions

- No data available

#### 10.4 Conditions to avoid

- Heat, flames and sparks

#### 10.5 Incompatible materials

- Strong oxidizing agents.

#### 10.6 Hazardous decomposition products

- The essential breakdown products are hydrogen chloride, hydrogen fluoride, nitrogen oxides, carbon monoxide, carbon dioxide and various chlorinated and fluorinated organic compounds.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

##### Acute toxicity:

LD50 (Rat) oral: > 500 - < 1 000 mg/kg bw

LD50 (Rabbit) Dermal: > 2 000 mg/kg bw

Acute toxicity: inhalation- Harmful if Inhaled

**Skin irritation / corrosion:** Causes severe skin burns.

**Eye irritation:** May cause severe eye irritation and may result in permanent impairment of vision, even blindness.

**Skin sensitisation:** Skin contact may cause an allergic skin reaction.

**Genetic toxicity:** No data available.



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**Carcinogenicity:** No data available.

**Reproductive and Developmental toxicity:** No data available.

**STOT-single exposure:** No data available.

**STOT- repeated exposure:** No data available.

**Aspiration Hazards:** No data available.

### SECTION 12: ECOLOGICAL INFORMATION

#### 12.1 Toxicity

- Short-term toxicity to fish-  
LC50 for freshwater fish: 3.9 mg/L
- Short-term toxicity to aquatic invertebrates  
EC50/LC50 for freshwater invertebrates: 4.9 mg/L
- Toxicity to aquatic algae and cyanobacteria  
EC50 (72 h) 3 - 10 mg/L  
NOEC (72 h) 3 mg/L  
LOEC (72 h) 10 mg/L  
EC10 (72 h) 1 - 3 mg/L
- Toxicity to microorganisms  
EC50 is higher than 10000 mg/l

#### 12.2 Persistence and degradability

Biodegradation in water: Not readily biodegradable

#### 12.3 Bio accumulative potential

No data available

#### 12.4 Mobility in Soil

Log Koc = 2.41

Koc = 259

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

##### Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

##### Contaminated packaging

- Dispose of as unused product.






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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 TDG/ US DOT/ IATA/ ICAO/ IMO/ IMDG.

ADR/ RID/ DOT	IMDG	IATA
<b>14.1 UN number</b>		
UN 3082	UN 3082	UN 3082
<b>14.2 UN proper shipping name</b>		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,3-Dichloro-5-trifluoromethyl-pyridine)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,3-Dichloro-5-trifluoromethyl-pyridine)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,3-Dichloro-5-trifluoromethyl-pyridine)
<b>14.3 Transport hazard class(es)</b>		
9	9	9
<b>14.4 Packing group</b>		
III	III	III
<b>14.5 Pictogram</b>		
		
<b>14.6 Environmental hazards</b>		
Dangerous for the environment: -Yes	Dangerous for the environment: Yes Marine pollutant: No	Dangerous for the environment: Yes
No supplementary information available		

### SECTION 15: REGULATORY INFORMATION

Chemical Inventory Lists:	Status
TSCA:	Listed (Active)
EINECS:	Listed
EC Inventory	Listed (410-340-5)
Canada(DSL/NDSL):	Not Listed
China Catalog of Hazardous chemicals 2022	Not Listed
New Zealand Inventory of Chemicals (NZIoC)	Not Listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed
Inventory of Existing and New Chemical Substances (ENCS)	Listed (MITI No. 5-5698)
Japan ISHL Existing Substances List (ISHL)	Listed
China: IECSC	Listed
Existing Chemicals List (KECI)	Listed (KE-10222)
Australian Inventory of Chemical Substances (AICS)	Not Listed



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### US information

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

2,3-Dichloro-5-trifluoromethyl-pyridine not listed

SARA 302/304 : 2,3-Dichloro-5-trifluoromethyl-pyridine not listed

SARA 311/312 : See section 2 for more information

California Prop. 65: 2,3-Dichloro-5-trifluoromethyl-pyridine not listed

CAA (Clean Air Act): 2,3-Dichloro-5-trifluoromethyl-pyridine not listed

CWA (Clean Water Act): 2,3-Dichloro-5-trifluoromethyl-pyridine 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: 2,3-Dichloro-5-trifluoromethyl-pyridine not listed

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

Date of Compilation	: November 07, 2012
Date of Revision	: February 15, 2024
Due Date of Revision	: January, 2027
Version Name	: 0947Gj Ghs02 Div.5 sds 2,3-Dichloro-5-(trifluoromethyl)pyridine
Version Number	: 02
Supersedes Date	: January 09, 2024
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#### b) A key or legend to aberrations and acronyms used in the safety data sheet

- PBT =Persistent Bio accumulative and Toxic.
- vPvB= Very Persistent and Very Bio accumulative.
- 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 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/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.



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- ACGIH = American Conference of Governmental Industrial Hygienists.
- REACH = Registration, Evaluation, Authorization and Restriction of Chemicals.
- CLP = Classification, Labeling and Packaging.
- LD / LC = Lethal Doses / Lethal Concentration.
- GHS = Globally Harmonized System.
- 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.

### c) Key Literature reference and sources for data

#### Biographical reference and data sources

- Globally Harmonized System of Classification and Labelling of Chemicals.

#### 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)