Date of Compilation	: June 08, 2007
Date of Revision	: February 26, 2024
Due Date of Revision	: January, 2027
File Name	: 0384Gj Ghs05 Div.3 sds 5-bromo-2-nitropyridine
Version Number	: 05
Supersedes date	: January 02, 2024
Supersedes version	: 0384Gj Ghs04 Div.3 sds 5-bromo-2-nitropyridine

5-bromo-2-nitropyridine

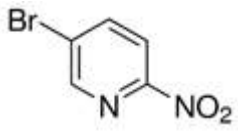
Safety Data Sheet

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	: 5-Bromo-2-nitropyridine
CAS RN	: 39856-50-3
EC#	: 609-748-8
SYNONYMS	: 2-Nitro-5-bromopyridine
TECHNICAL NAME	: Pyridine,5-bromo-2-nitro-
MOLECULAR FORMULA	: $C_5H_3BrN_2O_2$
STRUCTURAL FORMULA	



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

1.2.1. Relevant identified uses

5-bromo-2-nitropyridine is used as an intermediate in the 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 - 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

Skin Corrosion/irritation: Category 2	H315	Causes skin irritation.
Eye damage/irritation: Category 2	H319	Causes serious eye irritation.
Specific Target organ Toxicity: Category 3 (Single Exposure)	H335	May cause respiratory irritation.

2.2. Label Elements

GHS-US Classification

Hazard Pictogram: GHS 07.

GHS 07: Exclamation Mark

Signal Word: Warning!

HAZARD AND PRECAUTIONARY STATEMENTS:

HAZARD STATEMENTS

- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.

PRECAUTIONARY STATEMENTS

- P264: Wash hands, eyes and face thoroughly after handling.
- P280: Wear protective gloves/clothing and eye/face protection.
- P271: Use only outdoors or in a well-ventilated area.
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- 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.
- P305 + P351 + P338: IF IN EYES, Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rising.
- P337 + P313: If eye irritation persists: Get medical advice/attention.
- P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P403+P233: Store in a well-ventilated place. Keep container tightly closed.
- P501: Dispose of contents/container to local/regional/national/international regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical	CAS #	EC#	Purity
5-bromo-2-nitropyridine	39856-50-3	609-748-8	99% w/w

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

- Consult a physician. Show this safety data sheet to the doctor in attendance.
- **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:** Remove contaminated clothing. Wash off with plenty of water. Wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.
- **Inhalation:** Take affected persons into the open air and position comfortably. Supply fresh air. If required, provide artificial respiration. Keep patient warm. With symptoms: Seek medical treatment.
- **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

Acute effects:

- 5-bromo-2-nitropyridine is irritating to skin, eyes and may cause irritation to mucous membrane and upper respiratory tract.

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

- No data available

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

- *Appropriate extinguishing media*: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from substance

- If this product is involved in a fire, carbon monoxide, carbon dioxide, nitrogen dioxides, hydrogen bromide and possibly hydrogen cyanide maybe released.

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) and full protective clothing. The chemical is harmful in contact with skin.
- Report any run-off of fire waters 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

- Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.
- Avoid dust formation. Avoid breathing vapors, mist or gas.
- Avoid contact with skin and eyes.
- Wear protective clothing, boots, impervious gloves and safety glasses.
- Alert Emergency Responders and tell them location and nature of hazard.

6.2. Environmental precautions

- Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.
- Prevent, by any means available, spillage from entering drains or water and watercourses.
- Collect recoverable product into labeled containers for recycling, recovery or disposal.

6.3. Methods and materials for containment and cleaning up

- 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.
- 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.

6.4. Reference to other sections

- For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

- Wear protective gloves/clothing and eye/face protection.
- Wash thoroughly after handling.
- 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.
- Avoid contact with skin and eyes.
- Provide appropriate exhaust ventilation at the workplace.

7.2. Storage

- Store at ambient temperature.
- Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits Values

Chemical name	STEL (ppm)	NIOSH	OSHA	ACGIH
5-bromo-2-nitropyridine	None available	None available	None available	None available

Exposure Limits (International):

- Not available.

8.2. 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.

8.3. Personal Protection

- **Eye/face protection: Safety goggles/ Chemical Safety glasses and Face shield.**
- **Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

- **Body 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.
- **Respiratory protection:** For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

General Hygiene and general comments:

- 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	Light yellow crystalline powder
2.	Molecular weight	203
3.	Odor	Not Available
4.	Odor Threshold	Not Available
5.	pH	Not Available
6.	Melting point/Freezing point	148-150 °C
7.	Boiling Point	292.3 °C
8.	Flash point	130.6 °C
9.	Evaporation rate (n-BuAc=1)	Not Available
10.	Flammability	Not Available
11.	Upper/lower flammability or Explosive limits	Not Available
12.	Vapor pressure	Not Available
13.	Vapor density (air=1)	Not Available
14.	Relative density	1.84
15.	Solubility	Insoluble in water
16.	Partition coefficient : n-(Octonol / water)	1.25
17.	pKa (@250C)	Not Available
18.	Log Koc	428 L/Kg
19.	Auto-ignition temperature	Not Available
20.	Decomposition temperature	Not Available
21.	Viscosity	Not Applicable
22.	Explosive property	No

9.2 Other safety information

- No data available.

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

- Strong oxidizing agents, high temperature, flames and sparks.

10.5 Incompatible materials

- Strong oxidizing agents, Strong acids, Strong bases.

10.6 Hazardous decomposition products

- Other decomposition products - Thermal decomposition may produce carbon monoxide and oxides of nitrogen, carbon dioxide & hydrogen bromide.
- **In the event of fire: see section 5**

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

- 5-bromo-2-nitropyridine is irritating to skin, eyes and may cause irritation to mucous membrane and upper respiratory tract.

RTECS#: Unlisted

LD50/LC50: Not available

Skin corrosion/irritation	:	Causes skin irritation.
Eye damage/irritation	:	Causes serious eye irritation.
Respiratory or skin sensitization	:	No data available
Germ cell Mutagenicity	:	No data Available
Carcinogenicity	:	Not listed by IARC and OSHA. IARC : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC
Reproductive toxicity	:	No data available
STOT-single exposure	:	May cause irritation to respiratory system.
STOT- repeated exposure	:	No data available.
Aspiration Hazards	:	No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

- No data available.

12.2. Persistence and degradability

- No data available.

12.3. Bio accumulative potential

5-bromo-2-nitropyridine (39856-50-3)	
Log Kow	1.25 (estimated).
Bio concentration Factor	12.4

12.4. Mobility in soil

5-bromo-2-nitropyridine (39856-50-3)	
Log koc	428 L/Kg (Moderate absorption in soil)
Henry's Law Constant	6.05e-6 atm-m^3/mole
Log Kow	1.25 (estimated). Low potential to bio accumulate.

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 reinstates.

Contaminated packaging

- Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

- This substance is not considered to be Hazardous for transport by Air/Rail/Road and Sea and thus not regulated by IATA/ICAO/ARD/RID/IMO/IMDG.

ADR/ RID/ DOT	IMDG	IATA
14.1. UN number		
Not dangerous goods	Not dangerous goods	Not dangerous goods
14.2. UN proper shipping name		
Not Applicable	Not Applicable	Not Applicable
14.3. Transport hazard class(es)		
Not Applicable	Not Applicable	Not Applicable
14.4. Packing group		
Not Applicable	Not Applicable	Not Applicable
14.5. Environmental hazards		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No
No supplementary information available		

SECTION:15.REGULATORY INFORMATION

Classification as per GHS HazCom 2012:

- **Hazards Class and Category:** Skin Irrit.cat.2, Eye irrit.cat.2A, STOT SE cat 3.
- **Hazard Statements:** H315; H319; H335.

Chemical Inventory Lists:	Status
TSCA:	Not listed
EC/ List No.	609-748-8
Canada(DSL/NDSL):	Not listed
Korea:	Not listed
Australia:	Not listed
Taiwan	Listed (Taiwan Chemical Substance Inventory) (TCSI)
New Zealand	Not listed
Philippines	Not listed
China: IECSC	Not listed

US information

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):
5-bromo-2-nitropyridine is not listed
SARA 302/304 : 5-bromo-2-nitropyridine is not listed
SARA 311/312 : See section 2 for more information
California Prop. 65: 5-bromo-2-nitropyridine is not listed
CAA (Clean Air Act): 5-bromo-2-nitropyridine is not listed
CWA (Clean Water Act): 5-bromo-2-nitropyridine 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: 5-bromo-2-nitropyridine is not listed

SECTION 16: OTHER INFORMATION

a) Compilation information of safety data sheet

Date of compilation	: June 08, 2007
Chemical	: 5-bromo-2-nitropyridine
CAS #	: 39856-50-3
File Name	: 0384Gj Ghs05 Div.3 sds 5-bromo-2-nitropyridine
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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.
- 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.
- WHIMS= Workplace Hazardous Materials Information System.
- DSL/NDSL= Domestic/Non-Domestic Substances List.
- BCF = Bio Concentration Factor.
- TLV = Threshold Limit Value.
- 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.
- ADR = Accord European relative au transport international de merchandises.
- 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.
- 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) No. 830/2015.

Internet

- Pubchem

d) List of hazard statements

Hazards Statements	• H315: Causes skin irritation. • H319: Causes serious eye irritation. • H335: May cause respiratory irritation.

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)