

As per Globally Harmonized System (GHS)

Product Identification: 5-Bromo-2-methoxypyridine

0647Am Ghs06 Div.3 sds 5-Bromo-2methoxypyridine

Date of issue: February 26, 2021

Date of Compilation	: August 30, 2013	
Date of Revision	: February 26, 2021	
Due Date of Revision	: January, 2024	
Revision Number	: 06	
Version Number	: 0647Am Ghs06 Div.3 sds 5-Bromo-2-methoxypyridine	
Supersedes date	: October 31, 2019	
Supersedes version	: 0647Am Ghs05 Div.3 sds 5-Bromo-2-methoxypyridine	



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SECTION 1.:	IDENTIFICATION		
PRODUCT NAME	5-Bromo-2-methoxypyridine		
CAS RN	13472-85-0		
EC#	603-856-9		
SYNONYM:	PYRIDINE, 5-BROMO-2-METHOXY-;2- 5-BROMOPYRIDINE;5-BROMO-2- METHOXYPYRIDINE;5-BROMO-2- METHOXYPRIDINE;2-METHOXY-5- BROMOPYRIDINE; 5-BROMO-2-METH PYRIDINE;5-Bromo-2-methoxypyridine		
SYSTEMATIC NAME	5-Bromo-2-methoxypyridine		
MOLECULAR FORMULA	$C_6H_6BrNO.$		
STRUCTURAL FORMULA Br			
FACTORY ADDRESS:	Jubilant Ingrevia Limited. B-34, M.I.D.C. Vadolgaon Ambernath (W) - 421501 Maharashtra, India Phone No.: +91-251-2610588 Fax: +91-251- 2610078		
HEAD OFFICE			
Emergency telephone:	Jubilant Ingrevia Limited Plot 1-A, Sector 16-A, Institutional Area, Noida, Uttar Pradesh -201301 India. PHONE NO: +91-120-4361000 FAX NO :+91-120-4234881/84/85/ Email: <u>support@jubl.com</u> Website: <u>www.jubilantingrevia.com</u>	' 87 / 95 / 96	



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CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBERS :

North America: 1-800-255-3924 International: +1-813-248-0585 India: 000-800-100-4086 Brazil: 0-800-591-6042 Mexico: 01-800-099-0731

Product Uses:

• 5-Bromo-2-methoxypyridine is an organic intermediate used in the manufacture of other advanced organic fine chemicals.5-Bromo-2-Methoxypyridine has also number of uses in API Industries.

SECTION 2:

HAZARDS IDENTIFICATION

Skin corrosion / irritant: Category 2 Serious eye damage/eye irritation: Category 2A Specific target organ toxicity: Category 3 (After single exposure)

Hazard Pictogram: GHS 07 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

Prevention

- P264: Wash hands thoroughly after handling.
- 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 a well-ventilated area.

Response

- P302+352: IF ON SKIN: Wash with plenty of soap and water.
- P332+313: If skin irritation occurs: Get medical advice/attention.
- P362: Take off contaminated clothing and wash before reuse.
- P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do continue rinsing.
- P337+P313: If eye irritation persists: Get medical advice attention.





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- P304+340: 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.

Storage

- P403+233: Store in a well ventilated place. Keep container tightly closed.
- P405: Store locked up.

Disposal

• P501: Dispose of contents/container to local/regional/national/international regulations.

SECTION 3:

COMPOSITION / INFORMATION ON INGERDIENTS

Sr.No.	Chemical	CAS #	EC#	Purity
1.	5-Bromo-2-methoxypyridine	13472-85-0	603-856-9	>99%

SECTION 4:

FIRST AID MEASURES

Key symptoms

Acute effects:

• 5-Bromo-2-methoxypyridine is irritating to skin and respiratory system. It causes serious eye irritation. It is irritating to tissues of the mucous membranes and upper respiratory tract. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Chronic effects:

- Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions. **FIRST AID:**
 - **Eyes**: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses if easy to do so. Continue rinsing. If irritation persists, seek medical attention.
 - **Skin:** Immediately take off all contaminated clothing. Quickly and gently blot or brush away excess chemical. Wash thoroughly with lukewarm, gently flowing water and non-abrasive soap for 15-20 minutes. Wash contaminated clothes before reuse. If irritation persists, obtain medical advice.
 - **Inhalation**: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if you feel unwell. If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.
 - **Ingestion**: If swallowed call a poison center if you feel unwell. Rinse mouth. INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-



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mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive

SECTION 5 :

FIRE-FIGHTING MEASURES

Flash Point: 96°C Extinguishing media:

Flammability: Non Flammable

• *Appropriate extinguishing media*: Dry chemical powder, carbon dioxide, and alcohol resistant foam. Water may also be used, 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 nonflammable mixtures fog or alcohol-resistant foam by directing streams to the periphery of the fires to prevent spread.

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.
- Do not get water inside the containers.
- Fire fighters must wear Self Contained Breathing Apparatus (SCBA) and full protective clothing.
- Report any run-off of fire waters 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, Carbon di-oxide, halogenated compounds. WARNING: Highly toxic HCl gas is produced during combustion.
- 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.



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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.
- 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 in a well ventilated place. Keep container tightly closed.
- Store locked up
- Store away from incompatible materials.

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters Exposure Limits Values



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Chemical name	ACGIH TLV	OSHA PEL	NIOSH
5-Bromo-2-methoxypyridine	Not established	Not established	Not established

Exposure Limits (International):

• Not available.

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.

For emergency situations, wear a positive pressure, pressure-demand, full face piece selfcontained 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.

ſ	Sr.No.	Parameter	Typical value
	1	Appearance	Colourless to pale yellow liquid
	2	Odor	Sweet



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3	Odor Threshold	Not available
4	Melting point	Not available
5	Boiling point	80°C at 16 hPa (12 mmHg) -lit.
6	Flash point	96°C - closed cup
7	Evaporation rate (n- BuAc=1)	Not available
8	Explosive limits	Not available
9	Vapor pressure	Not available
10	Vapor density (air=1) at 20 ⁰ C	Not available
11	Specific gravity (water=1)/Density	1.53 (at 20 °C)
12	Solubility	In soluble in water. Soluble in organic solvents
13	рН	6.5-7.5 (16g/l water @20 °C)
14	Log Kow (octonol/water)	2.23 (Estimated)
15	Auto-ignition temperature	Not available
16	Decomposition temperature	Not available
17	Viscosity	Not available
18	Molecular Weight	188.02
21	Flammability	Non Flammable
22	Oxidizer	Not available
23	Corrosive material	Not available

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24 Explosive material

Not available

SECTION 10:

STABILITY AND REACTIVITY

- Stability: Stable under specified condition of temperature and pressure.
- **Conditions to avoid:** Keep away from heat, moisture and incompatible chemicals. Avoid excessive heat and light.
- Incompatible chemicals: Oxidizing agents.
- **Hazardous decomposition products:** Thermal decomposition may produce carbon monoxide, nitrogen oxide and carbon di-oxide, Hydrogen chloride, and irritating and toxic fumes.
- Hazardous Polymerization: Not reported.

SECTION 11:

TOXICOLOGICAL INFORMATION

- a) Acute toxicity
- 5-Bromo-2-methoxypyridine is irritating to skin and respiratory system. It causes serious eye irritation. It is irritating to tissues of the mucous membranes and upper respiratory tract. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

RTECS#: Not listed. **LD50/LC 50:** Not available.

- b) Skin corrosion/irritation
 - Causes skin irritation.
- c) Serious eye damage/irritation
 - Causes serious eye irritation.
- d) Respiratory or skin sensitization
 - May cause irritation to respiratory system.
- e) Germ cell Mutagenicity
 - No data is available.
- f) Carcinogenicity
 - Not available.
- g) Reproductive toxicity
 - No data is available.
- h) STOT-single exposure
 - No data is available.
- i) STOT- repeated exposure

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- No data available.
- *j)* Aspiration Hazards
 - No data available.

SECTION 12:

ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity:

• The Ecotoxicity data is not available.

Persistence and degradability:

• Not available.

Bio accumulative potential

- BCF = 10.41 (Estimated)
- Log Kow = 2.23 (Estimated) Low potential to bio accumulate.

Mobility in soil

- Log Koc = 2.280 (Estimated).
- Henry's Law Constant = : 5.650E-005 atm-m3/mole
- Log Kow = 2.23((Estimated) Low 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 not 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/ARD/RID/IMO/IMDG.

Environmental hazards:

• Marine pollutant: Not available.

SECTION 15:

REGULATORY INFORMATION

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European Union Information

Classification as per CLP Regulation 1272/2008:

- Hazards Class and Category: Skin Irrit Cat. 2 ; Eye Irrit Cat 2 ; STOT SE Cat. 3
- Hazard Statements: H315;H319; H335

Chemical Inventory Lists:	Status
TSCA:	Not Listed
EINECS:	Listed
Canada(DSL/NDSL):	Not Listed
Japan:	Not listed
Korea:	Not listed
Australia:	Not listed
China: IECSC	Not Listed

US Information:

EPA

- CAS# 13472-85-0 is not listed on the EPA inventory. This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:
- These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.
- (ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on an MSDS sheet.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

SECTION 16:

OTHER INFORMATION

Compilation information of safety data sheet Chemical: 5-Bromo-2-methoxypyridine CAS #: 13472-85-0 File Name: 0647Am Ghs06 Div.3 sds 5-Bromo-2-methoxypyridine Revision Number: 06 Date of Issue: February 26, 2021 Revision Due Date: January, 2024

(a) 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.



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- 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.
- 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 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

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



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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)