

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 6.3

Revision Date 13.07.2020

Print Date 01.06.2022

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifiers**

Product name : 2-Bromo-5-hydroxypyrazine

Product Number : 709735

Brand : Aldrich

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. : 374063-92-0

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.
3050 SPRUCE ST
ST. LOUIS MO 63103
UNITED STATES

Telephone : +1 314 771-5765
Fax : +1 800 325-5052

1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Acute toxicity, Oral (Category 4), H302
Serious eye damage (Category 1), H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements**Labelling according Regulation (EC) No 1272/2008**

Pictogram



Signal word	Danger
Hazard statement(s)	
H302	Harmful if swallowed.
H318	Causes serious eye damage.
Precautionary statement(s)	
P280	Wear protective gloves/ eye protection/ face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements	none

2.3 Other hazards - none

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula	: C ₄ H ₃ BrN ₂ O
Molecular weight	: 174,98 g/mol
CAS-No.	: 374063-92-0

Component	Classification	Concentration
2-Bromo-5-hydroxypyrazine		
	Acute Tox. 4; Eye Dam. 1; H302, H318	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

Consult a physician. Show this material 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. 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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available



SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x), Hydrogen bromide gas

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. 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

Ingredients with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.



Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

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.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|---|-----------------------------------|
| a) Appearance | Form: solid |
| b) Odor | No data available |
| c) Odor Threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | Melting point/range: 115 - 119 °C |
| f) Initial boiling point and boiling range | No data available |
| g) Flash point | No data available |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | No data available |



k)	Vapor pressure	No data available
l)	Vapor density	6,04 - (Air = 1.0)
m)	Relative density	No data available
n)	Water solubility	No data available
o)	Partition coefficient: n-octanol/water	log Pow: 1,053
p)	Autoignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

9.2 Other safety information

Relative vapor density	6,04 - (Air = 1.0)
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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

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Hydrogen bromide gas

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available



Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No ingredient 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

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information**12.1 Toxicity**

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.



Dispose of as unused product.

14.1 UN number

ADR/RID: - IMDG: - IATA: -

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

ADR/RID: - IMDG: - IATA: -

ADR/RID: - IMDG: - IATA: -

ADR/RID: - IMDG: - IATA: -

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors	: Neither banned nor restricted
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Country	Restrictions on the marketing and use of certain dangerous substances	Other
Algeria	Neither banned nor restricted	Not applicable
Angola	Neither banned nor restricted	Not applicable
Argentina	Neither banned nor restricted	Not applicable
Armenia	Neither banned nor restricted	Not applicable
Australia	Neither banned nor restricted	Not applicable
Austria	Neither banned nor restricted	Not applicable
Azerbaijan	Neither banned nor restricted	Not applicable
Bahrain	Neither banned nor restricted	Not applicable
Bangladesh	Neither banned nor restricted	Not applicable
Barbados	Neither banned nor restricted	Not applicable
Belarus	Neither banned nor restricted	Not applicable
Belgium	Neither banned nor restricted	Not applicable
Belize	Neither banned nor restricted	Not applicable
Benin	Neither banned nor restricted	Not applicable
Bhutan	Neither banned nor restricted	Not applicable
Bolivia	Neither banned nor restricted	Not applicable
Bosnia and Herzegovina	Neither banned nor restricted	Not applicable
Brazil	Neither banned nor restricted	Not applicable
Bulgaria	Neither banned nor restricted	Not applicable
Burkina Faso	Neither banned nor restricted	Not applicable
Burundi	Neither banned nor restricted	Not applicable
Cambodia	Neither banned nor restricted	Not applicable
Cameroon	Neither banned nor restricted	Not applicable
Canada	Neither banned nor restricted	Not applicable
Cape Verde	Neither banned nor restricted	Not applicable
Casakhstan	Neither banned nor restricted	Not applicable
Cayman Islands	Neither banned nor restricted	Not applicable
Czechia	Neither banned nor restricted	Not applicable
Dominican Republic	Neither banned nor restricted	Not applicable
Dominica	Neither banned nor restricted	Not applicable
DRC	Neither banned nor restricted	Not applicable
Ecuador	Neither banned nor restricted	Not applicable
Egypt	Neither banned nor restricted	Not applicable
El Salvador	Neither banned nor restricted	Not applicable
Equatorial Guinea	Neither banned nor restricted	Not applicable
Estonia	Neither banned nor restricted	Not applicable
Ethiopia	Neither banned nor restricted	Not applicable
Fiji	Neither banned nor restricted	Not applicable
Finland	Neither banned nor restricted	Not applicable
France	Neither banned nor restricted	Not applicable
Gabon	Neither banned nor restricted	Not applicable
Gambia	Neither banned nor restricted	Not applicable
Germany	Neither banned nor restricted	Not applicable
Ghana	Neither banned nor restricted	Not applicable
Greece	Neither banned nor restricted	Not applicable
Guatemala	Neither banned nor restricted	Not applicable
Honduras	Neither banned nor restricted	Not applicable
Hong Kong	Neither banned nor restricted	Not applicable
Hungary	Neither banned nor restricted	Not applicable
India	Neither banned nor restricted	Not applicable
Indonesia	Neither banned nor restricted	Not applicable
Israel	Neither banned nor restricted	Not applicable
Italy	Neither banned nor restricted	Not applicable
Jamaica	Neither banned nor restricted	Not applicable
Japan	Neither banned nor restricted	Not applicable
Jordan	Neither banned nor restricted	Not applicable
Kazakhstan	Neither banned nor restricted	Not applicable
Kenya	Neither banned nor restricted	Not applicable
Korea	Neither banned nor restricted	Not applicable
Kuwait	Neither banned nor restricted	Not applicable
Kyrgyzstan	Neither banned nor restricted	Not applicable
Laos	Neither banned nor restricted	Not applicable
Latvia	Neither banned nor restricted	Not applicable
Lebanon	Neither banned nor restricted	Not applicable
Lesotho	Neither banned nor restricted	Not applicable
Lithuania	Neither banned nor restricted	Not applicable
Luxembourg	Neither banned nor restricted	Not applicable
Macao	Neither banned nor restricted	Not applicable
Macedonia	Neither banned nor restricted	Not applicable
Madagascar	Neither banned nor restricted	Not applicable
Malawi	Neither banned nor restricted	Not applicable
Malaysia	Neither banned nor restricted	Not applicable
Maldives	Neither banned nor restricted	Not applicable
Mali	Neither banned nor restricted	Not applicable
Malta	Neither banned nor restricted	Not applicable
Mexico	Neither banned nor restricted	Not applicable
Moldova	Neither banned nor restricted	Not applicable
Morocco	Neither banned nor restricted	Not applicable
Mozambique	Neither banned nor restricted	Not applicable
Myanmar	Neither banned nor restricted	Not applicable
Netherlands	Neither banned nor restricted	Not applicable
New Zealand	Neither banned nor restricted	Not applicable
Nicaragua	Neither banned nor restricted	Not applicable
Niger	Neither banned nor restricted	Not applicable
Nigeria	Neither banned nor restricted	Not applicable
North Macedonia	Neither banned nor restricted	Not applicable
Norway	Neither banned nor restricted	Not applicable
Oman	Neither banned nor restricted	Not applicable
Pakistan	Neither banned nor restricted	Not applicable
Panama	Neither banned nor restricted	Not applicable
Papua New Guinea	Neither banned nor restricted	Not applicable
Paraguay	Neither banned nor restricted	Not applicable
Peru	Neither banned nor restricted	Not applicable
Philippines	Neither banned nor restricted	Not applicable
Poland	Neither banned nor restricted	Not applicable
Portugal	Neither banned nor restricted	Not applicable
Romania	Neither banned nor restricted	Not applicable
Russia	Neither banned nor restricted	Not applicable
Rwanda	Neither banned nor restricted	Not applicable
Saudi Arabia	Neither banned nor restricted	Not applicable
Senegal	Neither banned nor restricted	Not applicable
Serbia	Neither banned nor restricted	Not applicable
Seychelles	Neither banned nor restricted	Not applicable
Singapore	Neither banned nor restricted	Not applicable
Slovakia	Neither banned nor restricted	Not applicable
Slovenia	Neither banned nor restricted	Not applicable
South Africa	Neither banned nor restricted	Not applicable
South Korea	Neither banned nor restricted	Not applicable
Spain	Neither banned nor restricted	Not applicable
Sri Lanka	Neither banned nor restricted	Not applicable
Sweden	Neither banned nor restricted	Not applicable
Switzerland	Neither banned nor restricted	Not applicable
Taiwan	Neither banned nor restricted	Not applicable
Tanzania	Neither banned nor restricted	Not applicable
Togo	Neither banned nor restricted	Not applicable
Tonga	Neither banned nor restricted	Not applicable
Turkey	Neither banned nor restricted	Not applicable
Turkmenistan	Neither banned nor restricted	Not applicable
Uganda	Neither banned nor restricted	Not applicable
Ukraine	Neither banned nor restricted	Not applicable
United Arab Emirates	Neither banned nor restricted	Not applicable
United Kingdom	Neither banned nor restricted	Not applicable
United States	Neither banned nor restricted	Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Neither banned nor restricted

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).	: This product does not contain substances of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 57).
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For this product a chemical safety assessment was not carried out

Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed.

H302	Harmful if swallowed.
H318	Causes serious eye damage.



Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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