

## SAFETY DATA SHEET

Revision Date 21-August-2023

Revision Number 2

### 1. Identification

**Product Name** 4-Bromo-2-iodoaniline

**Cat No. :** AC39791FL

**CAS-No** 66416-72-6  
**Synonyms** No information available

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.

#### Details of the supplier of the safety data sheet

##### Company

**Importer/Distributor**  
Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410

##### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

**WHMIS 2015 Classification** Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

|   |            |
|---|------------|
| <b>Acute oral toxicity</b>                              | Category 3 |
| <b>Skin Corrosion/Irritation</b>                        | Category 2 |
| <b>Serious Eye Damage/Eye Irritation</b>                | Category 1 |
| <b>Specific target organ toxicity (single exposure)</b> | Category 3 |
| Target Organs - Respiratory system.                     |            |

#### Label Elements

**Signal Word**  
Danger

**Hazard Statements**  
Toxic if swallowed  
Causes skin irritation

Causes serious eye damage  
May cause respiratory irritation

**Precautionary Statements****Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Use only outdoors or in a well-ventilated area  
Wear protective gloves/protective clothing/eye protection/face protection

**Response**

IF ON SKIN: Wash with plenty of soap and water  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a POISON CENTER/doctor  
Rinse mouth  
Take off contaminated clothing and wash it before reuse

**Storage**

Store locked up  
Store in a well-ventilated place. Keep container tightly closed

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Toxic to aquatic life with long lasting effects  
Light sensitive

### 3. Composition/Information on Ingredients

| Component                    | CAS-No     | Weight % |
|------------------------------|------------|----------|
| Benzenamine, 4-bromo-2-iodo- | 66416-72-6 | >95      |

### 4. First-aid measures

**General Advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**Inhalation**

Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If not breathing, give artificial respiration.

**Ingestion**

Do NOT induce vomiting. Call a physician or poison control center immediately.

**Most important symptoms/effects** Causes eye burns. Causes severe eye damage.  
**Notes to Physician** Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

**Unsuitable Extinguishing Media** No information available

**Flash Point** No information available  
**Method -** No information available

**Autoignition Temperature** Not applicable

**Explosion Limits**

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

**Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Hydrogen bromide. Hydrogen iodide.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

**NFPA**

**Health**  
3

**Flammability**  
1

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Environmental Precautions** Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

## 7. Handling and storage

**Handling** Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Do not breathe (dust, vapor, mist, gas). Avoid dust formation. Do not ingest. If swallowed then seek immediate medical assistance. Wash hands before breaks and immediately after handling the product.

**Storage.** Keep containers tightly closed in a dry, cool and well-ventilated place.

To maintain product quality. Store under an inert atmosphere. Protect from light.  
 Incompatible Materials. Strong oxidizing agents. Strong acids.

## 8. Exposure controls / personal protection

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering Measures**

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

**Personal protective equipment****Eye Protection**

Goggles

**Hand Protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

| Glove material | Breakthrough time | Glove thickness | Glove comments         |
|----------------|-------------------|-----------------|------------------------|
| Natural rubber | See manufacturers | -               | Splash protection only |
| Nitrile rubber | recommendations   |                 |                        |
| Neoprene       |                   |                 |                        |
| PVC            |                   |                 |                        |

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

**Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Recommended Filter type:** Particulates filter conforming to EN 143

When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls**

Prevent product from entering drains. Do not allow material to contaminate ground water system.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

|   |                               |
|---|-------------------------------|
| <b>Physical State</b>                         | Powder Solid                  |
| <b>Appearance</b>                             | No information available      |
| <b>Odor</b>                                   | No information available      |
| <b>Odor Threshold</b>                         | No information available      |
| <b>pH</b>                                     | No information available      |
| <b>Melting Point/Range</b>                    | 69 - 72 °C / 156.2 - 161.6 °F |
| <b>Boiling Point/Range</b>                    | No information available      |
| <b>Flash Point</b>                            | No information available      |
| <b>Evaporation Rate</b>                       | Not applicable                |
| <b>Flammability (solid,gas)</b>               | No information available      |
| <b>Flammability or explosive limits</b>       |                               |
| Upper   | No data available             |
| Lower   | No data available             |
| <b>Vapor Pressure</b>                         | No information available      |
| <b>Vapor Density</b>                          | Not applicable                |
| <b>Specific Gravity</b>                       | No information available      |
| <b>Solubility</b>                             | No information available      |
| <b>Partition coefficient; n-octanol/water</b> | No data available             |
| <b>Autoignition Temperature</b>               | Not applicable                |

|                           |                          |
|---------------------------|--------------------------|
| Decomposition Temperature | No information available |
| Viscosity                 | Not applicable           |
| Molecular Formula         | C6 H5 Br I N             |
| Molecular Weight          | 297.91                   |

## 10. Stability and reactivity

|                                  |  |
|----------------------------------|--|
| Reactive Hazard                  | None known, based on information available   |
| Stability                        | Stable under recommended storage conditions. Air sensitive. Light sensitive.   |
| Conditions to Avoid              | Incompatible products. Excess heat.  |
| Incompatible Materials           | Strong oxidizing agents, Strong acids  |
| Hazardous Decomposition Products | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> ), Hydrogen bromide, Hydrogen iodide |
| Hazardous Polymerization         | Hazardous polymerization does not occur.   |
| Hazardous Reactions              | None under normal processing.  |

## 11. Toxicological information

### Acute Toxicity

#### Product Information

#### Component Information

|                                      |                          |
|--------------------------------------|--------------------------|
| Toxicologically Synergistic Products | No information available |
|--------------------------------------|--------------------------|

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

|                 |  |
|-----------------|--|
| Irritation      | Irritating to eyes, respiratory system and skin  |
| Sensitization   | No information available   |
| Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen. |

| Component                    | CAS-No     | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|------------------------------|------------|------------|------------|------------|------------|------------|
| Benzenamine, 4-bromo-2-iodo- | 66416-72-6 | Not listed | Not listed | Not listed | Not listed | Not listed |

|  |  |
|--|--|
| Mutagenic Effects                          | No information available                                       |
| Reproductive Effects                       | No information available.                                      |
| Developmental Effects                      | No information available.                                      |
| Teratogenicity                             | No information available.                                      |
| STOT - single exposure                     | Respiratory system   |
| STOT - repeated exposure                   | None known   |
| Aspiration hazard                          | No information available                                       |
| Symptoms / effects, both acute and delayed | No information available                                       |
| Endocrine Disruptor Information            | No information available                                       |
| Other Adverse Effects                      | The toxicological properties have not been fully investigated. |

## 12. Ecological information

### Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available.

**Mobility** No information available.

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

### DOT

**UN-No** UN2811  
**Proper Shipping Name** Toxic solid, organic, n.o.s.  
**Technical Name** 4-Bromo-2-iodoaniline  
**Hazard Class** 6.1  
**Packing Group** III

### TDG

**UN-No** UN2811  
**Proper Shipping Name** Toxic solid, organic, n.o.s.  
**Hazard Class** 6.1  
**Packing Group** III

### IATA

**UN-No** UN2811  
**Proper Shipping Name** Toxic solid, organic, n.o.s.  
**Hazard Class** 6.1  
**Packing Group** III

### IMDG/IMO

**UN-No** UN2811  
**Proper Shipping Name** Toxic solid, organic, n.o.s.  
**Hazard Class** 6.1  
**Packing Group** III

## 15. Regulatory information

### International Inventories

| Component                    | CAS-No     | DSL | NDSL | TSCA | TSCA Inventory notification - Active-Inactive | EINECS | ELINCS | NLP |
|------------------------------|------------|-----|------|------|---|--------|--------|-----|
| Benzenamine, 4-bromo-2-iodo- | 66416-72-6 | -   | -    | -    | -   | -      | -      | -   |

| Component                    | CAS-No     | IECSC | KECL | ENCS | ISHL | TCSI | AICS | NZIoC | PICCS |
|------------------------------|------------|-------|------|------|------|------|------|-------|-------|
| Benzenamine, 4-bromo-2-iodo- | 66416-72-6 | -     | -    | -    | -    | X    | -    | -     | -     |

### Legend:

X - Listed '-' - Not Listed

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**ENCS** - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

**Canada**

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

**Other International Regulations****Authorisation/Restrictions according to EU REACH**

Not applicable

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

| Component                    | CAS-No     | OECD HPV       | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|------------------------------|------------|----------------|------------------------------|---------------------------|--|
| Benzenamine, 4-bromo-2-iodo- | 66416-72-6 | Not applicable | Not applicable               | Not applicable            | Not applicable                             |

| Component                    | CAS-No     | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|------------------------------|------------|---|--|----------------------------|------------------------------------|
| Benzenamine, 4-bromo-2-iodo- | 66416-72-6 | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |

**16. Other information****Prepared By**

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Thermo Fisher Scientific  
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**Revision Date**

21-August-2023

**Print Date**

21-August-2023

**Revision Summary**

This document has been updated to comply with the requirements of WHMIS 2015 to align with the Globally Harmonised System (GHS) for the Classification and Labelling of Chemicals.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**