



# SAFETY DATA SHEET

Creation Date March 01, 2024

## 1. Identification

|                      |                                                |
|----------------------|------------------------------------------------|
| Product Name         | Lead(II) bromide                               |
| SKU No. :            | SP24017                                        |
| CAS No               | 10031-22-8                                     |
| 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

Accurate Atom, Inc.  
1425 W. Lincoln HWY  
DeKalb, Illinois, 60115  
www.accurateatom.com  
Tech@accurateatom.com

#### Emergency Telephone Number

Emergency Contact:  
Accurate Atom  
Telephone:(630) 659-5999

## 2. Hazard(s) identification

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                                                              |             |
|--------------------------------------------------------------|-------------|
| Acute oral toxicity                                          | Category 4  |
| Acute Inhalation Toxicity - Dusts and Mists                  | Category 4  |
| Reproductive Toxicity                                        | Category 1A |
| Specific target organ toxicity - (repeated exposure)         | Category 2  |
| Target Organs - Central nervous system (CNS), Blood, Kidney. |             |

### Label Elements

#### Signal Word

Danger

#### Hazard Statements

May damage the unborn child. Suspected of damaging fertility

## Lead(II) bromide

May cause damage to organs through prolonged or repeated exposure Harmful if swallowed or if inhaled



### Precautionary Statements

#### Prevention

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood Use personal protective equipment as required  
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 Do not breathe dust/fume/gas/mist/vapors/spray

#### Response

IF exposed or concerned: Get medical attention/advice Get medical attention/advice if you feel unwell

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell

#### Ingestion

Rinse mouth

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

#### Storage

Store locked up

#### Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects WARNING.

Cancer - <https://www.p65warnings.ca.gov/>.

## 3. Composition/Information on Ingredients

| Component                         | CAS No     | Weight % |
|-----------------------------------|------------|----------|
| Lead bromide (PbBr <sub>2</sub> ) | 10031-22-8 | 99.999   |

## 4. First-aid measures

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

#### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

#### Inhalation

Remove to fresh air. If breathing is difficult, give oxygen. 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.

#### Ingestion

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

#### Most important symptoms and

No information available.

## Lead(II) bromide

### effects

#### Notes to Physician

Treat symptomatically

## 5. Fire-fighting measures

### Unsuitable Extinguishing Media

No information available

#### Flash Point

No information available

#### Method -

No information available

### Autoignition Temperature

No information available

### 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

Do not allow run-off from fire-fighting to enter drains or water courses.

### Hazardous Combustion Products

None known.

### 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.

### NFPA

Health  
3

Flammability  
1

Instability  
0

Physical hazards  
N/A

## 6. Accidental release measures

### Personal Precautions

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Avoid dust formation.

### Environmental Precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage.

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Use spark-proof tools and explosion-proof equipment.

## 7. Handling and storage

### Handling

Wear personal protective equipment/face protection. Do not breathe dust. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing.

### Storage.

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

## 8. Exposure controls / personal protection

### Exposure Guidelines

| Component                         | ACGIH TLV                   | OSHA PEL | NIOSH                                                       | Mexico OEL (TWA)            |
|-----------------------------------|-----------------------------|----------|-------------------------------------------------------------|-----------------------------|
| Lead bromide (PbBr <sub>2</sub> ) | TWA: 0.05 mg/m <sup>3</sup> |          | IDLH: 100 mg/m <sup>3</sup><br>TWA: 0.050 mg/m <sup>3</sup> | TWA: 0.05 mg/m <sup>3</sup> |

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists

## Lead(II) bromide

OSHA - Occupational Safety and Health Administration

NIOSH - NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protective Equipment

|                                 |                                                                                                                                                                                                                                                   |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye/face Protection</b>      | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.                                                                       |
| <b>Skin and body protection</b> | Wear appropriate protective gloves and clothing to prevent skin exposure.                                                                                                                                                                         |
| <b>Respiratory Protection</b>   | 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. |
| <b>Recommended Filter type:</b> | Particulates filter conforming to EN 143.                                                                                                                                                                                                         |
| <b>Hygiene Measures</b>         | When using do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product.                                                                                                                              |

## 9. Physical and chemical properties

|                                        |                          |
|----------------------------------------|--------------------------|
| Physical State                         | Powder Solid             |
| Appearance                             | Off-white                |
| Odor                                   | No information available |
| Odor Threshold                         | No information available |
| pH                                     | Not applicable           |
| Melting Point/Range                    | 373 °C / 703.4 °F        |
| Boiling Point/Range                    | 916 °C / 1680.8 °F       |
| Flash Point                            | No information available |
| Evaporation Rate                       | Not applicable           |
| Flammability (solid,gas)               | No information available |
| Flammability or explosive limits       |                          |
| Upper                                  | No data available        |
| Lower                                  | No data available        |
| Vapor Pressure                         | No information available |
| Vapor Density                          | Not applicable           |
| Specific Gravity                       | 6.660                    |
| Solubility                             | 5 g/l (20 C)             |
| Partition coefficient; n-octanol/water | No data available        |
| Autoignition Temperature               | No information available |
| Decomposition Temperature              | No information available |
| Viscosity                              | Not applicable           |
| Molecular Formula                      | Br2 Pb                   |
| Molecular Weight                       | 367.01                   |

## 10. Stability and reactivity

|                                         |                                            |
|-----------------------------------------|--------------------------------------------|
| <b>Reactive Hazard</b>                  | None known, based on information available |
| <b>Stability</b>                        | Stable under normal conditions.            |
| <b>Conditions to Avoid</b>              | Incompatible products.                     |
| <b>Incompatible Materials</b>           | Strong oxidizing agents                    |
| <b>Hazardous Decomposition Products</b> | None under normal use conditions           |

## Lead(II) bromide

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

### 11. Toxicological information

#### Acute Toxicity

#### Product Information

#### Component Information

**Toxicologically Synergistic** No information available

#### Products

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

No information available

**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     |
|-----------------------------------|------------|------------|------------------------|-------|------|------------|
| Lead bromide (PbBr <sub>2</sub> ) | 10031-22-8 | Not listed | Reasonably Anticipated | A3    | X    | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** Central nervous system (CNS) Blood Kidney

**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

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. **Persistence and**

**Degradability** Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

### 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                | UN2291                            |
| Proper Shipping Name | Lead compound, soluble, n.o.s.    |
| Technical Name       | Lead bromide (PbBr <sub>2</sub> ) |
| Hazard Class         | 6.1                               |
| Packing Group        | III                               |

**TDG**

|                      |                                |
|----------------------|--------------------------------|
| UN-No                | UN2291                         |
| Proper Shipping Name | Lead compound, soluble, n.o.s. |
| Hazard Class         | 6.1                            |
| Packing Group        | III                            |

**IATA**

|                      |                                |
|----------------------|--------------------------------|
| UN-No                | UN2291                         |
| Proper Shipping Name | Lead compound, soluble, n.o.s. |
| Hazard Class         | 6.1                            |
| Packing Group        | III                            |

**IMDG/IMO**

|                      |                                |
|----------------------|--------------------------------|
| UN-No                | UN2291                         |
| Proper Shipping Name | Lead compound, soluble, n.o.s. |
| Hazard Class         | 6.1                            |
| Packing Group        | III                            |

## 15. Regulatory information

**United States of America Inventory**

| Component                         | CAS No     | TSCA | TSCA Inventory notification -<br>Active-Inactive | TSCA - EPA Regulatory Flags |
|-----------------------------------|------------|------|--------------------------------------------------|-----------------------------|
| Lead bromide (PbBr <sub>2</sub> ) | 10031-22-8 | X    | ACTIVE                                           | -                           |

**Legend:**

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'- Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)**

Not applicable

TSCA 12(b) - Notices of Export

Not applicable

**International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component                         | CAS No     | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|-----------------------------------|------------|-----|------|-----------|-------|------|------|------|-------|----------|
| Lead bromide (PbBr <sub>2</sub> ) | 10031-22-8 | -   | X    | 233-084-4 | X     | -    |      | X    | X     | KE-21900 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372. Note that PBT chemicals are not eligible for the de minimis exemption. For these chemicals, supplier notification limits are provided.

&gt; 0 % = no low concentration cut-off set, supplier notification limit applies.

| Component | CAS No | Weight % | SARA 313 - Threshold | SARA 313 - Reporting |
|-----------|--------|----------|----------------------|----------------------|
|-----------|--------|----------|----------------------|----------------------|

## Lead(II) bromide

|                                   |            |        | Values % | thresholds  |
|-----------------------------------|------------|--------|----------|-------------|
| Lead bromide (PbBr <sub>2</sub> ) | 10031-22-8 | 99.999 | > 0 %    | RT = 100 lb |

### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

### CWA (Clean Water Act)

| Component                         | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|-----------------------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Lead bromide (PbBr <sub>2</sub> ) | -                          | -                           | X                      | -                         |

### Clean Air Act

| Component                         | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|-----------------------------------|-----------|-------------------------|-------------------------|
| Lead bromide (PbBr <sub>2</sub> ) | X         |                         | -                       |

OSHA - Occupational Safety and Health Administration

OSHA - United States Occupational Safety and Health Administration

| Component                         | Specifically Regulated Chemicals                           | Highly Hazardous Chemicals |
|-----------------------------------|------------------------------------------------------------|----------------------------|
| Lead bromide (PbBr <sub>2</sub> ) | 30 µg/m <sup>3</sup> Action Level 50 µg/m <sup>3</sup> TWA | -                          |

### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### California Proposition 65

This product contains the following Proposition 65 chemicals.

| Component                         | CAS No     | California Prop. 65 | Prop 65 NSRL | Category   |
|-----------------------------------|------------|---------------------|--------------|------------|
| Lead bromide (PbBr <sub>2</sub> ) | 10031-22-8 | Carcinogen          | -            | Carcinogen |

### U.S. State Right-to-Know Regulations

| Component                         | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-----------------------------------|---------------|------------|--------------|----------|--------------|
| Lead bromide (PbBr <sub>2</sub> ) | X             | X          | X            | X        | X            |

### U.S. Department of Transportation

Reportable Quantity (RQ): N  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

### U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

### Other International Regulations

#### Mexico - Grade

No information available

### Authorisation/Restrictions according to EU REACH

| Component                         | CAS No     | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|-----------------------------------|------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Lead bromide (PbBr <sub>2</sub> ) | 10031-22-8 | -                                                                   | Use restricted. See item                                                      | -                                                                                                     |

## Lead(II) bromide

|  |  |  |                                                                                                                                                                                       |  |
|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |  |  | 30.<br>(see link for restriction details)<br>Use restricted. See item 63.<br>(see link for restriction details)<br>Use restricted. See item 75.<br>(see link for restriction details) |  |
|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

### REACH links

<https://echa.europa.eu/substances-restricted-under-reach>

### 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) |
|-----------------------------------|------------|----------------|------------------------------|---------------------------|--------------------------------------------|
| Lead bromide (PbBr <sub>2</sub> ) | 10031-22-8 | Not applicable | Not applicable               | Not applicable            | Not applicable                             |

### Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

### Other International Regulations

| 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) |
|-----------------------------------|------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------|------------------------------------|
| Lead bromide (PbBr <sub>2</sub> ) | 10031-22-8 | Not applicable                                                                            | Not applicable                                                                           | Not applicable             | Annex I - Y31                      |

## 16. Other information

### Prepared By

Accurate Atom  
Email: Tech@AccurateAtom.com

### 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**