

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name: **Bromicharge**

Article number: SB1-Ver.4

CAS Number:

7647-15-6

EC number:

231-599-9

Registration number 01-2119490106-41

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

Product category PC37 Water treatment chemicals

Application of the substance / the mixture Sodium bromide salt for use in hot tub and spa water

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

**Groupe Gecko Alliance Inc. 450 des Canetons, Québec (Qc), G2E 5W6, Canada**

Further information obtainable from: Product Safety Department: +1.418.872.4411

1.4 Emergency telephone number:

UK National Poisons Information Service. E-mail: npis.birmingham@nhs.net; Tel: +44 (0)344 892 0111

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



STOT SE 3 H336 May cause drowsiness or dizziness.

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the GB CLP regulation.

Hazard pictograms GHS07, GHS08

Signal word Warning

Hazard-determining components of labelling:

Sodium bromide

Hazard statements

H361 Suspected of damaging fertility or the unborn child.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

(Contd. on page 2)

# Safety Data Sheet

according to 1907/2006/EC, Article 31 as amended in UK law

Printing date 25.11.2022

Revision: 25.11.2022

**Trade name: Bromicharge**

(Contd. of page 1)

· **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**  
7647-15-6 Sodium bromide
- **Identification number(s)**
- **EC number:** 231-599-9

## SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Take affected persons out into the fresh air.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Immediately rinse with water.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Check for and remove any contact lenses.  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; call for medical help immediately.  
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
- **Information for doctor:**  
In case of ingestion induce vomiting in alert patient. No specific antidote. Treat symptomatically and supportively.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.  
Unusual fire and explosion hazards: will decompose from ca. 800 °C releasing poisonous and corrosive fumes of hydrogen bromide and sodium oxide.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.  
Do not inhale explosion gases or combustion gases.
- **Additional information**  
Non-combustible solid.  
Freely soluble in water.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Avoid formation of dust.

(Contd. on page 3)

# Safety Data Sheet

according to 1907/2006/EC, Article 31 as amended in UK law

Printing date 25.11.2022

Revision: 25.11.2022

**Trade name: Bromicharge**

(Contd. of page 2)

- Ensure adequate ventilation
- **6.2 Environmental precautions:**
  - Do not allow to penetrate the ground/soil.
  - Do not allow product to reach sewage system or any water course in the undiluted form.
- **6.3 Methods and material for containment and cleaning up:**
  - Pick up mechanically.
  - Send for recovery or disposal in suitable receptacles.
- **6.4 Reference to other sections** No dangerous substances are released.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
  - Do not mix with acids.
  - Prevent formation of dust.
  - Ensure high housekeeping standards to remove build of dust.
  - Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** Protect from heat.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
  - Prevent any seepage into the ground.
  - Store in the dark.
- **Information about storage in one common storage facility:**
  - Store away from foodstuffs.
  - Do not store together with acids.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **DNELs**
- WORKERS
  - Acute / short-term exposure - systemic effects
    - Dermal DN(M)EL
      - DNEL (Derived No Effect Level): 47.6 mg/kg bw/day
    - Inhalation DN(M)EL
      - DNEL (Derived No Effect Level): 420 mg/m<sup>3</sup>
  - Acute / short-term exposure - local effects
    - Dermal DN(M)EL
      - DNEL (Derived No Effect Level): 119 mg/cm<sup>2</sup>
    - Inhalation DN(M)EL
      - DNEL (Derived No Effect Level): 420 mg/m<sup>3</sup>
  - Long-term exposure - systemic effects
    - Dermal DN(M)EL
      - DNEL (Derived No Effect Level): 0.68 mg/kg bw/day
    - Inhalation DN(M)EL
      - DNEL (Derived No Effect Level): 4.75 mg/m<sup>3</sup>
  - Long-term exposure - local effects
    - Dermal DN(M)EL
      - DNEL (Derived No Effect Level): 1.7 mg/cm<sup>2</sup>
    - Inhalation DN(M)EL
      - DNEL (Derived No Effect Level): 4.75 mg/m<sup>3</sup>

GENERAL POPULATION

(Contd. on page 4)

# Safety Data Sheet

according to 1907/2006/EC, Article 31 as amended in UK law

Printing date 25.11.2022

Revision: 25.11.2022

**Trade name: Bromicharge**

(Contd. of page 3)

Acute / short-term exposure - systemic effects

Dermal DN(M)EL

- DNEL (Derived No Effect Level): 33.3 mg/kg bw/day

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 147 mg/m<sup>3</sup>

Oral DN(M)EL

- DNEL (Derived No Effect Level): 42 mg/kg bw/day

Acute / short-term exposure - local effects

Dermal DN(M)EL

- DNEL (Derived No Effect Level): 83.3 mg/cm<sup>2</sup>

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 147 mg/m<sup>3</sup>

Long-term exposure - systemic effects

Dermal DN(M)EL

- DNEL (Derived No Effect Level): 0.475 mg/kg bw/day

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 1.66 mg/m<sup>3</sup>

Oral DN(M)EL

- DNEL (Derived No Effect Level): 0.475 mg/kg bw/day

Long-term exposure - local effects

Dermal DN(M)EL

- DNEL (Derived No Effect Level): 1.19 mg/cm<sup>2</sup>

Inhalation DN(M)EL

- DNEL (Derived No Effect Level): 0.475 mg/m<sup>3</sup>· **PNECs**

PNEC aqua (freshwater): 0.15 mg/L

PNEC aqua (marine water): 0.075 mg/L

PNEC STP: 100 mg/L

PNEC sediment (freshwater): No exposure of sediment expected, 0.12 mg/kg sediment dw

PNEC sediment (marine water): No exposure of sediment expected, 0.06 mg/kg sediment dw

PNEC soil: 3.2 mg/kg soil dw

PNEC oral: 3.33333 mg/kg food

· **Additional information:** The lists valid during the making were used as basis.· **8.2 Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Avoid close or long term contact with the skin.

Avoid contact with the eyes.

Do not eat, drink, smoke or sniff while working.

Do not breath dust

Ensure that eyewash stations and safety showers are close to the workstation location.

· **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

If respiratory protection is required, institute a complete respiratory protection programme including selection, fit testing, training, maintenance and inspection.

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

(Contd. on page 5)

# Safety Data Sheet

according to 1907/2006/EC, Article 31 as amended in UK law

Printing date 25.11.2022

Revision: 25.11.2022

Trade name: Bromicharge

(Contd. of page 4)

- **Body protection:**  
Protective work clothing  
Body protection must be chosen depending on product properties, activity and possible exposure.

## SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

<b>Form:</b>	Solid
<b>Colour:</b>	White
<b>Odour:</b>	Mild
<b>Odour threshold:</b>	Not determined.

· **pH-value:** Not applicable.

#### · Change in condition

<b>Melting point/freezing point:</b>	747 °C
<b>Initial boiling point and boiling range:</b>	1.39 °C

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Product is not flammable.

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Not determined.

· **Explosive properties:** Product does not present an explosion hazard.

#### · Explosion limits:

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

· **Vapour pressure:** Not applicable.

<b>Density at 20 °C:</b>	0.0032 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.

· **Solubility in / Miscibility with water at 20 °C:** >1000 g/l

· **Partition coefficient: n-octanol/water:** Not determined.

#### · Viscosity:

<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.

**Solids content:** 100.0 %

· **9.2 Other information** NOTE: The physical data presented above are typical values and should not be construed as a specification.

## SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

#### · 10.2 Chemical stability

##### · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

##### · 10.3 Possibility of hazardous reactions

Will decompose from ca. 800 °C releasing poisonous and corrosive fumes of hydrogen bromide and sodium oxide.

(Contd. on page 6)

# Safety Data Sheet

according to 1907/2006/EC, Article 31 as amended in UK law

Printing date 25.11.2022

Revision: 25.11.2022

Trade name: Bromicharge

(Contd. of page 5)

- Risk of explosion in contact with bromine trifluoride.
- The substance can react dangerously with concentrated acids.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**  
Strong acids and oxidising agents  
Bromine trifluoride
- **10.6 Hazardous decomposition products:**  
Hydrogen bromide  
Bromine, sodium oxide, oxygen, oxides of bromine, sodium bromate and hydrogen.
- **Additional information:**  
Non-combustible solid.  
Freely soluble in water.  
Hygroscopic.  
Sensitive to light.

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

### 7647-15-6 Sodium bromide

Oral	LD50	4,200 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**  
Inorganic bromides may produce a sedative effect if ingested.

Specific treatment in case of accident or poisoning:

Dehydration may need to be corrected by further administration of fluids. Experimental work has shown that the kidney preferentially retains bromide at the expense of chloride. Therefore large doses of chloride have to be given in order to increase the excretion of total halide. Recommended treatment includes: Administration of sodium chloride in doses as high as 4 g every 4 hours to those patients that can take it. Gastric irritation may necessitate reduced doses. Supplementary administration of saline solution by other routes (4000 cc per day) may also be performed. Patients in congestive failure should receive ammonium chloride to avoid excess retention of sodium.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**  
Suspected of damaging fertility or the unborn child.
- **STOT-single exposure**  
May cause drowsiness or dizziness.
- **STOT-repeated exposure**  
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

GB

(Contd. on page 7)

# Safety Data Sheet

according to 1907/2006/EC, Article 31 as amended in UK law

Printing date 25.11.2022

Revision: 25.11.2022

Trade name: Bromicharge

(Contd. of page 6)

## SECTION 12: Ecological information

### · 12.1 Toxicity

#### · Aquatic toxicity:

<b>7647-15-6 Sodium bromide</b>
EC50 >1,000 mg/kg (daphnia)

### · 12.2 Persistence and degradability

No further relevant information available.

### · Behaviour in environmental systems:

#### · Components:

Sodium bromide is not acutely toxic to aquatic organisms. Destruction or decontamination of sodium bromide is not possible but it is not considered to pose a significant risk of toxicity following infrequent accidental release to water

### · 12.3 Bioaccumulative potential

Product is not expected to bioaccumulate.

### · 12.4 Mobility in soil

No further relevant information available.

### · Additional ecological information:

#### · General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### · 12.5 Results of PBT and vPvB assessment

#### · PBT: Not applicable.

#### · vPvB: Not applicable.

### · 12.6 Other adverse effects

No further relevant information available.

## SECTION 13: Disposal considerations

### · 13.1 Waste treatment methods

#### · Recommendation

Recommended Hierarchy of Controls:

- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

#### · Uncleaned packaging:

#### · Recommendation:

Disposal must be made according to official regulations.

Container remains hazardous when empty. Continue to observe all precautions.

Containers, even those that are "empty," may contain residues that can develop hazardous gases and vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

#### · Recommended cleansing agents:

Water, if necessary together with cleansing agents.

## SECTION 14: Transport information

### · 14.1 UN-Number

#### · ADR, ADN, IMDG, IATA

Void

### · 14.2 UN proper shipping name

#### · ADR, ADN, IMDG, IATA

Void

(Contd. on page 8)

GB

# Safety Data Sheet

according to 1907/2006/EC, Article 31 as amended in UK law

Printing date 25.11.2022

Revision: 25.11.2022

Trade name: Bromicharge

(Contd. of page 7)

· <b>14.3 Transport hazard class(es)</b>	
· <b>ADR, ADN, IMDG, IATA</b>	
· <b>Class</b>	Void
· <b>14.4 Packing group</b>	
· <b>ADR, IMDG, IATA</b>	Void
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	Not dangerous according to the above specifications.
· <b>UN "Model Regulation":</b>	Void

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department.
- **Abbreviations and acronyms:**  
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 DNEL: Derived No-Effect Level (UK REACH)  
 PNEC: Predicted No-Effect Concentration (UK REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Repr. 2: Reproductive toxicity – Category 2  
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

GB