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

Catalogue Number	CS-T-01761
Product Name	Aluminum Bromide
CAS No.	7727-15-3
Category	Fine Chemicals
Synonyms	Not available
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email **sales@clearsynth.com** for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Acute toxicity (Category 4)

2.2 Label Elements

Signal Word: Warning

Hazard Statement(s)

Code	Statement
H302	Harmful if swallowed.
H314	Not available

Precautionary Statement(s)

Code	Statement
P260	Not available
P264	Wash hands thoroughly after handling.
P270	Not available
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P317	Not available
P301+P330+P331	Not available
P302+P361+P354	Not available
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P354+P338	Not available
P316	Not available
P321	Specific treatment (see … on this label).
P330	Not available
P363	Not available
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Aluminum Bromide
CAS Number : 7727-15-3
Molecular Formula : Not available
Molecular Weight : Not available
Parent Chemical : Not available
Synonyms : Not available
Concentration : Not available

SECTION 4: First aid measures

Not available

SECTION 5: Firefighting measures

Not available

SECTION 6: Accidental release measures

Not available

SECTION-7: Handling and storage

Not available

SECTION 8: Exposure controls / personal protection

Not available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available

Property	Value
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

Not available

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: Bromine is a powerful oxidizing agent and is able to release oxygen free radicals from the water in mucous membranes. These free radicals are also potent oxidizers and produce tissue damage. In additon, the formation of hydrobromic and bromic acids will result in secondary irritation. The bromide ion is also known to affect the central nervous system, causing bromism. This is believed to be a result of bromide ions substituting for chloride ions in the in actions of neurotransmitters and transport systems, thus affecting numerous synaptic processes. The main target organs of aluminum are the central nervous system and bone. Aluminum binds with dietary phosphorus and impairs gastrointestinal absorption of phosphorus. The decreased phosphate body burden results in osteomalacia (softening of the bones due to defective bone mineralization) and rickets. Aluminum's neurotoxicity is believed to involve several mechanisms. Changes in cytoskeletal protein functions as a results of altered phosphorylation, proteolysis, transport, and synthesis are believed to be one cause. Aluminum may induce neurobehavioral effects by affecting permeability of the blood-brain barrier, cholinergic activity, signal transduction pathways, lipid peroxidation, and impair neuronal glutamate nitric oxide-cyclic GMP pathway, as well as interfere with metabolism of essential trace elements because of similar coordination chemistries and consequent competitive interactions. It has been suggested that aluminum's interaction with estrogen receptors increases the expression of estrogen-related genes and thereby contributes to the progression of breast cancer (A235), but studies have not been able to establish a clear link between aluminum and increased risk of breast cancer (A15468). Certain aluminum salts induce immune responses by activating inflammasomes. (L739, A235, A236, L626, L627, A543) LD50: 1068 mg/kg (Intraperitoneal, Mouse) (T14) LD50: 1623 mg/kg (Oral, Mouse) (T14)
- Skin corrosion/irritation: /SIGNS AND SYMPTOMS/ The anhydrous form /of aluminum bromide is/ corrosive to skin.
- Serious eye damage/eye irritation: Bromine vapour causes irritation and direct damage to the mucous membranes. Symptoms include lacrimation, rhinorrhoea, eye irritation with mucous secretions from the oropharyngeal and upper airways, coughing, dyspnoea, choking, wheezing, epistaxis, and headache. The bromide ion is a central nervous system depressant producing ataxia, slurred speech, tremor, nausea, vomiting, lethargy, dizziness, visual disturbances, unsteadiness, headaches, impaired memory and concentration, disorientation and hallucinations. This is called bromism. Inhalating aluminum dust causes coughing and abnormal chest X-rays. A small percentage of people are allergic to aluminium and experience contact dermatitis, digestive disorders, vomiting or other symptoms

upon contact or ingestion of products containing aluminium. (L739, L740, L626, L627)
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: No data available.
- Carcinogenicity: Bromine is a powerful oxidizing agent and is able to release oxygen free radicals from the water in mucous membranes. These free radicals are also potent oxidizers and produce tissue damage. In additon, the formation of hydrobromic and bromic acids will result in secondary irritation. The bromide ion is also known to affect the central nervous system, causing bromism. This is believed to be a result of bromide ions substituting for chloride ions in the in actions of neurotransmitters and transport systems, thus affecting numerous synaptic processes. The main target organs of aluminum are the central nervous system and bone. Aluminum binds with dietary phosphorus and impairs gastrointestinal absorption of phosphorus. The decreased phosphate body burden results in osteomalacia (softening of the bones due to defective bone mineralization) and rickets. Aluminum's neurotoxicity is believed to involve several mechanisms. Changes in cytoskeletal protein functions as a results of altered phosphorylation, proteolysis, transport, and synthesis are believed to be one cause. Aluminum may induce neurobehavioral effects by affecting permeability of the blood-brain barrier, cholinergic activity, signal transduction pathways, lipid peroxidation, and impair neuronal glutamate nitric oxide-cyclic GMP pathway, as well as interfere with metabolism of essential trace elements because of similar coordination chemistries and consequent competitive interactions. It has been suggested that aluminum's interaction with estrogen receptors increases the expression of estrogen-related genes and thereby contributes to the progression of breast cancer (A235), but studies have not been able to establish a clear link between aluminum and increased risk of breast cancer (A15468). Certain aluminum salts induce immune responses by activating inflammasomes. (L739, A235, A236, L626, L627, A543) A4: Not classifiable as a human carcinogen. /Alluminium metal and insoluble compounds/
- Reproductive toxicity: No data available.
- STOT-single exposure: Bromine is a powerful oxidizing agent and is able to release oxygen free radicals from the water in mucous membranes. These free radicals are also potent oxidizers and produce tissue damage. In additon, the formation of hydrobromic and bromic acids will result in secondary irritation. The bromide ion is also known to affect the central nervous system, causing bromism. This is believed to be a result of bromide ions substituting for chloride ions in the in actions of neurotransmitters and transport systems, thus affecting numerous synaptic processes. The main target organs of aluminum are the central nervous system and bone. Aluminum binds with dietary phosphorus and impairs gastrointestinal absorption of phosphorus. The decreased phosphate body burden results in osteomalacia (softening of the bones due to defective bone mineralization) and rickets. Aluminum's neurotoxicity is believed to involve several mechanisms. Changes in cytoskeletal protein functions as a results of altered phosphorylation, proteolysis, transport, and synthesis are believed to be one cause. Aluminum may induce neurobehavioral effects by affecting permeability of the blood-brain barrier, cholinergic activity, signal transduction pathways, lipid peroxidation, and impair neuronal glutamate nitric oxide-cyclic GMP pathway, as well as interfere with metabolism of essential trace elements because of similar coordination chemistries and consequent competitive interactions. It has been suggested that aluminum's interaction with estrogen receptors increases the expression of estrogen-related genes and thereby contributes to the progression of breast cancer (A235), but studies have not been able to establish a clear link between aluminum and increased risk of breast cancer (A15468). Certain aluminum salts induce immune responses by activating inflammasomes. (L739, A235, A236, L626, L627, A543)
- STOT-repeated exposure: Bromine vapour causes irritation and direct damage to the mucous membranes. Elemental bromine also burns the skin. The bromide ion is a central nervous system depressant and chronic exposure produces neuronal effects. This is called bromism and can result in central reactions reaching from somnolence to coma, cachexia, exicosis, loss of reflexes or pathologic reflexes, clonic seizures, tremor, ataxia, loss of neural sensitivity, paresis, papillar edema of the eyes, abnormal speech, cerebral edema, delirium, aggressiveness, and psychoses. Aluminum targets the nervous system and causes decreased nervous system performance and is associated with altered function of the blood-brain barrier. The accumulation of aluminum in the

body may cause bone or brain diseases. High levels of aluminum have been linked to Alzheimer's disease. A small percentage of people are allergic to aluminium and experience contact dermatitis, digestive disorders, vomiting or other symptoms upon contact or ingestion of products containing aluminium. (L739, L740, L625, L626, L627)
- Aspiration hazard: No data available.

Likely routes of exposure
- Bromine vapour causes irritation and direct damage to the mucous membranes. Elemental bromine also burns the skin. The bromide ion is a central nervous system depressant and chronic exposure produces neuronal effects. This is called bromism and can result in central reactions reaching from somnolence to coma, cachexia, exicosis, loss of reflexes or pathologic reflexes, clonic seizures, tremor, ataxia, loss of neural sensitivity, paresis, papillar edema of the eyes, abnormal speech, cerebral edema, delirium, aggressiveness, and psychoses. Aluminum targets the nervous system and causes decreased nervous system performance and is associated with altered function of the blood-brain barrier. The accumulation of aluminum in the body may cause bone or brain diseases. High levels of aluminum have been linked to Alzheimer's disease. A small percentage of people are allergic to aluminium and experience contact dermatitis, digestive disorders, vomiting or other symptoms upon contact or ingestion of products containing aluminium. (L739, L740, L625, L626, L627)

Symptoms related to the physical, chemical and toxicological characteristics
- Bromine is a powerful oxidizing agent and is able to release oxygen free radicals from the water in mucous membranes. These free radicals are also potent oxidizers and produce tissue damage. In additon, the formation of hydrobromic and bromic acids will result in secondary irritation. The bromide ion is also known to affect the central nervous system, causing bromism. This is believed to be a result of bromide ions substituting for chloride ions in the in actions of neurotransmitters and transport systems, thus affecting numerous synaptic processes. The main target organs of aluminum are the central nervous system and bone. Aluminum binds with dietary phosphorus and impairs gastrointestinal absorption of phosphorus. The decreased phosphate body burden results in osteomalacia (softening of the bones due to defective bone mineralization) and rickets. Aluminum's neurotoxicity is believed to involve several mechanisms. Changes in cytoskeletal protein functions as a results of altered phosphorylation, proteolysis, transport, and synthesis are believed to be one cause. Aluminum may induce neurobehavioral effects by affecting permeability of the blood-brain barrier, cholinergic activity, signal transduction pathways, lipid peroxidation, and impair neuronal glutamate nitric oxide-cyclic GMP pathway, as well as interfere with metabolism of essential trace elements because of similar coordination chemistries and consequent competitive interactions. It has been suggested that aluminum's interaction with estrogen receptors increases the expression of estrogen-related genes and thereby contributes to the progression of breast cancer (A235), but studies have not been able to establish a clear link between aluminum and increased risk of breast cancer (A15468). Certain aluminum salts induce immune responses by activating inflammasomes. (L739, A235, A236, L626, L627, A543)

SECTION 12: Ecological information

Not available

SECTION 13: Disposal considerations

Not available

SECTION 14: Transport information

Not available

SECTION 15: Regulatory information

Not available

SECTION 16: Other information

Not available

DISCLAIMER

This MSDS is system-generated. Please verify and confirm all data, statements, and values with the Support Team before use or distribution.