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

Catalogue Number	CS-O-35320
Product Name	Aluminium Oxide activated (Neutral)
CAS No.	1344-28-1
Category	Fine Chemicals
Synonyms	Alumina
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:

Not available

2.2 Label Elements

Signal Word: Warning

Not available

Hazard Statement(s)

Code	Statement
H335	Not available
H372	Not available

Precautionary Statement(s)

Code	Statement
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P319	Get medical help if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio
P260	Not available
P264	Wash hands thoroughly after handling.
P270	Not available

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Aluminium Oxide activated (Neutral)
CAS Number : 1344-28-1
Molecular Formula : Al2O3
Molecular Weight : 101.96
Parent Chemical : Not available
Synonyms : Alumina
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
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: 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) For more Human Toxicity Excerpts (Complete) data for Aluminum oxide (29 total), please visit the HSDB record page.
- 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: 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) A4: Not classifiable as a human carcinogen. /Aluminum metal and insoluable compounds/
- Reproductive toxicity: No data available.
- STOT-single exposure: 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)
- STOT-repeated exposure: /SIGNS AND SYMPTOMS/ Aluminium oxide refinery workers exposed to some low temperature transitional aluminas demonstrated little evidence of pulmonary fibrosis and pneumoconiosis. The noted adverse effects were consistent with non-specific chronic industrial bronchitis associated with excessive, prolonged exposures to nuisance dust. /SIGNS AND SYMPTOMS/ Effects of short-term exposure: Inhalation of high concentrations of dusts of this substance may cause eyes and upper respiratory tract irritation. Effects of long-term exposure: The substance may have effects on the central nervous system.
- Aspiration hazard: No data available.

Likely routes of exposure
- 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)

Symptoms related to the physical, chemical and toxicological characteristics
- 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)

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

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