

Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



SAFETY DATA SHEET (SDS)

ALUMINIUM HYDROXIDE / ALUMINIUM TRIHYDRATE (ATH)

1. Identification

Item	Information
Product name	Aluminium Hydroxide / Aluminium Trihydrate (ATH)
Chemical name	Aluminium hydroxide
CAS No.	21645-51-2
EC No.	244-492-7
Recommended use	Flame retardant and smoke suppressant filler for industrial polymer, adhesive, sealant and coating formulations
Supplier	Polymer Add (Thailand) Co., Ltd
Office Address	106, Chalarempriakiat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250
Factory Address	188/3, Moo 8, Bangpu Mai, Muang Samut Prakan, Samutprakan, Thailand 10280
Mobile (Thai)	0804531391
Mobile (English)	0839415475
Email	contact@polymeradd.co.th

2. Hazard identification

GHS classification: Not classified as hazardous on the basis of available information for aluminium hydroxide.

Signal word, pictograms and hazard statements: None required on that basis.

Other hazards: Handling the micronised powder can generate airborne dust. Dust may cause mechanical irritation of the eyes or respiratory tract. Avoid breathing dust and minimise its accumulation.

3. Composition / information on ingredients

Component	CAS No.	Concentration
Aluminium hydroxide, $\text{Al}(\text{OH})_3$	21645-51-2	$\geq 99.5\%$

Minor constituents may include the oxides identified in the product TDS. This SDS assumes the powder has **no added surface treatment**; revise this section if a coating or processing additive is present.

4. First-aid measures

- Inhalation:** Move the person to fresh air. Obtain medical advice if coughing or breathing discomfort persists.

Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



- **Eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses if easy to do. Seek medical advice if irritation persists.
- **Skin contact:** Wash with water and soap. Remove contaminated clothing.
- **Ingestion:** Rinse the mouth with water. Obtain medical advice if symptoms occur.
- **Most important effects:** Airborne dust may cause coughing or mechanical eye irritation.

5. Fire-fighting measures

Flammability: The powder is not combustible. Use extinguishing media appropriate for the surrounding fire, such as water spray, foam, dry powder or carbon dioxide. At elevated temperatures, aluminium hydroxide decomposes and releases water vapour, leaving aluminium oxide. Firefighters should use appropriate protective equipment for the surrounding fire.

6. Accidental release measures

Avoid generating airborne dust. Restrict access as needed and wear the protection described in Section 8. Collect spilled powder using a suitable industrial vacuum or damp cleaning method. Place it in a closed container for reuse or disposal. Avoid release to drains and waterways.

7. Handling and storage

Handle with local exhaust ventilation where powder is transferred or mixed. Avoid breathing dust and contact with the eyes. Keep containers closed when not in use. Store in a dry, ventilated area away from strong acids. Wash hands after handling and before eating or drinking.

8. Exposure controls / personal protection

Engineering controls: Use enclosed transfer or local exhaust ventilation to control airborne dust. Apply the occupational exposure limits for aluminium compounds or nuisance dust that govern the workplace; limits vary by country and by whether total or respirable dust is measured.

Protection	Recommendation
Eyes	Safety glasses with side shields; goggles if dust levels are high
Hands	Suitable work gloves for repeated handling
Skin	Standard protective work clothing
Respiratory	A properly selected particulate respirator when ventilation does not adequately control dust

9. Physical and chemical properties

Property	Information
Physical state	Solid powder
Appearance	White powder
Odour	Odourless
Molecular formula	$\text{Al}(\text{OH})_3$

Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalaremprikat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



Molecular weight	78.00 g/mol
Particle size, D50	3–5 µm
Moisture	≤0.5%
Water solubility	Practically insoluble
Flammability	Non-combustible
Flash point	Not applicable
Vapour pressure	Not applicable to the solid
Decomposition	Releases water on substantial heating; decomposition can begin around 200°C, depending on conditions
pH, bulk density and specific gravity	Not established for this product grade

The particle size and moisture entries are product specifications from your TDS; the decomposition

10. Stability and reactivity

Stable under normal storage and handling conditions. Avoid conditions that generate excessive dust and temperatures that cause decomposition during processing. **Incompatible materials:** Strong acids. On substantial heating, releases water vapour and forms aluminium oxide. Hazardous polymerisation will not occur.

11. Toxicological information

Likely routes of exposure are inhalation of dust and eye contact. High airborne dust concentrations may irritate the respiratory tract; direct dust contact may mechanically irritate the eyes or dry the skin. Based on available information, aluminium hydroxide is not classified for acute toxicity, skin or respiratory sensitisation, carcinogenicity, mutagenicity or reproductive toxicity.

12. Ecological information

Aluminium hydroxide is an inorganic substance; conventional biodegradation does not apply. It is not expected to be readily mobile as an undissolved solid. Avoid large uncontrolled releases to water or soil. Product-specific aquatic toxicity and environmental fate data have not been supplied.

13. Disposal considerations

Recover uncontaminated material where practical. Dispose of waste powder and contaminated packaging according to applicable local regulations. The appropriate waste classification depends on how the material was used and whether it became contaminated.

14. Transport information

Item	Status
UN number	Not assigned
UN proper shipping name	Not applicable

Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalaremprikat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



Transport hazard class	Not applicable
Packing group	Not applicable
Marine pollutant	Not identified
ADR/RID, IMDG and IATA	Not regulated as dangerous goods on the basis of available information

Keep packages closed and protected from moisture during transport.

15. Regulatory information

CAS No.: 21645-51-2. **EC No.:** 244-492-7. Hazard classification and any inventory, food-contact, REACH or other market-specific status should be verified for the actual supplier and destination market. This SDS makes **no food-contact or regional registration claim**.

16. Other information

Document basis: Product identity and grade properties from the supplied TDS; general safety guidance cross-checked against published aluminium hydroxide substance information and a comparable fine ATH SDS.

Disclaimer: This document provides guidance for safe handling of the identified product. It is not a quality specification or a guarantee of performance. The supplier should verify the final composition, emergency contact details, applicable workplace exposure limits and destination-market requirements before issuing it as an official SDS.

Prepared: September 2026

Revision: 1.0