



>>Entry Name: Aluminium hydroxide, JAN, USAN
ENTRY UNDER REVIEW

CAS Registry Number: 21645-51-2
Related CAS Registry Numbers(s): 37317-08-1
Extra CAS Registry Numbers(s): 12252-70-9

$\text{Al}(\text{OH})_3$

Molecular Formula: AlH_3O_3
Molecular Weight: 78.003
Accurate Mass: 77.989759
Percentage Composition: Al 34.59%; H 3.88%; O 61.53%
Use/Importance: Commercially available. Antacid. Used as a phosphate-binding agent in patients with renal failure
Physical Description: White solid (H_2O)
Solubility: Proc. insol. H_2O ; sol. conc. aq. acids and alkalis
Other Data: Forms gel on prolonged contact with H_2O
Hazard & Toxicity: Gastrointestinal disturbances by ingestion

Fluka: 6240
Sigma: A4274

>>Variant: Gel-form
Synonym(s): Algeldrate. Aluminium hydroxide hydrate. W 4600

CAS Registry Number: 1330-44-5

Molecular Formula: AlH_3O_3
Molecular Weight: 78.003
Accurate Mass: 77.989759
Percentage Composition: Al 34.59%; H 3.88%; O 61.53%
Use/Importance: Antacid
Aldrich: 23918-6

>>Variant: Mineral-form
Synonym(s): Gibbsite. Hydragillite

CAS Registry Number: 14762-49-3
Molecular Formula: AlH_3O_3
Molecular Weight: 78.003
Accurate Mass: 77.989759
Percentage Composition: Al 34.59%; H 3.88%; O 61.53%
General Statement: Double layer of close packed OH of held by H bonds with Al in 2/3 octahedral holes
Source/Synthesis: Widespread mineral occurs as an alteration product of aluminium bearing minerals (Norway)
Physical Description: Colourless hexagonal platelets

>>Variant: Mineral-form
Synonym(s): Bayerite

CAS Registry Number: 20257-20-9
Molecular Formula: AlH_3O_3
Molecular Weight: 78.003
Accurate Mass: 77.989759
Percentage Composition: Al 34.59%; H 3.88%; O 61.53%
General Statement: Layer struct. with O approx. hcp and Al octahedrally coord.
Source/Synthesis: Synth. from aq. AlCl_3 and $[\text{NH}_4]\text{OH}$ at pH 8. Mineral occurs in sedimentary rock at sites in Israel and Britain
Physical Description: White powder, colourless monoclinic cryst.