**ALUMINIUM**

**REACH**

##### CONSORTIUM

**Joint initiative of European Aluminium**

**and IAI** (International Aluminium Institute)

**Substance Identity Profile (SIP) and analysis necessary.**

**Identification:**

Substance name: **Aluminium hydroxide**

IUPAC name: aluminum;trihydroxide

Other trade names: Alumina hydrate, Alumina trihydrate

Molecular formula: Al(OH)3

Molar mass: 78,004

CAS No.: 21645-51-2

EINECS No.: 244-492-7

**Substance definition:**

The substance to be registered is Aluminium hydroxide as a mono-constituent substance.

**Composition:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter** | **CAS No.** | **EC No.** | **Name** | **Concentration****Range** | **Concentration****Typical** |
| Constituent | 21645-51-2 | 244-492-7 | Aluminium hydroxide | > 95% | 99,7 |
|  |  |  |  |  |  |
| Impurities | 1313-59-3 | 215-208-9 | Sodium oxide | > 0,05 to < 0,4% | 0,25 |
|  | 7631-86-9 | 231-545-4 | Silica | > 0,003 to < 0,02% | 0,01 |
|  | 1305-78-8 | 215-138-9 | Calcium oxide | > 0,005 to 0,05% | 0,01 |
|  | 1345-25-1 | 215-721-8 | Iron oxide | > 0,005 to 0,02%  | 0,01 |

**Technological process:**

Aluminium hydroxide oxide is produced from bauxite in the Bayer process. The bauxite is treated with hot caustic soda to dissolve the aluminium contacting minerals. Hydrate is then precipitated from the solution and filtered from the remaining solution

**Classification & Labelling:**

Aluminium hydroxide is not classified under Regulation (EC) 1272/2008.

**Recommendation for analytical methods for substance identification and determination of composition/purity:**

- Identify the substance by XRD (X-Ray diffraction) Alternatively ICP can be used.

- Determine composition by XRF (X-Ray Fluorescence)