

## H-30 Alumina Trihydrate Product Data Sheet

### Product Characteristics

H-30 is a high purity alumina trihydrate produced by the Bayer process. It is a dry free flowing coarse powder. Noranda Alumina's unique crystallization process produces a product recognized throughout the industry as one of the most desirable raw materials for grinding. This same process imparts properties that lead to rapid dissolution in strong acid or strong bases.

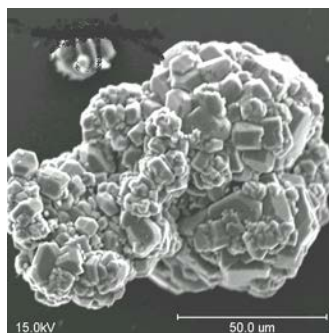
### Health Safety and Environmental

Information concerning health, safety and environmental issues are contained in Material Safety Data Sheet KDS-85.

### Nomenclature

H-30 is known by a number of common names. Some of them are: Alumina Trihydrate, Hydrate, Hydrated Alumina, Gibbsite, Aluminum Hydrate, Aluminum Hydroxide, Aluminum Trihydroxide, and bauxite ore concentrate. Chemical formulas for this product traditionally have been expressed in one of two forms:

$\text{Al}(\text{OH})_3$  or  $\text{Al}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$



### **H30**

### Chemical Properties

| <u>Chemical Analysis</u>        | <u>Typical Range</u> | <u>Specification</u> |      |
|---------------------------------|----------------------|----------------------|------|
| $\text{Al}(\text{OH})_3$        | 99.6 - 99.8          | 99.4                 | Min. |
| $\text{SiO}_2$                  | .007-.012            | .015                 | Max. |
| $\text{Fe}_2\text{O}_3$         | .003 - .008          | .02                  | Max. |
| $\text{Na}_2\text{O}$ Total     | .27 - .39            | .40                  | Max. |
| Leachable $\text{Na}_2\text{O}$ | .004 -.011           | .015                 | Max. |
| Caustic Insoluble               | .08 - .19            | .3                   | Max. |
| Acid Insoluble                  | .03 - .09            | .18                  | Max. |
| Moisture                        | .01 -.07             | .20                  | Max. |

All values are weight percent on a dry Alumina Trihydrate basis.

### Particle Size Distribution (Cumulative)

| <u>Screen</u> | <u>Typical Range</u> | <u>Specification</u> |
|---------------|----------------------|----------------------|
| % on 100 Mesh | 1-10                 | 15 Max               |
| % on 200 Mesh | 69-83                | 60 Min               |
| % on 325 Mesh | 92-97                | 85 Min               |

### Physical Properties

|                     |                          |
|---------------------|--------------------------|
| Typical Reflectance | 75 % Min                 |
| Bulk Density        | 61-65 lb/ft <sup>3</sup> |
| Specific Gravity    | 2.42                     |
| Index of Refraction | 1.57                     |
| L value             | 67 Min                   |
| A value             | 3.5 Min                  |
| B value             | 8.6 Min                  |

### Product Applications

|                        |                   |
|------------------------|-------------------|
| Iron Free Alum         | Functional Filler |
| Detergent Zeolite      | Catalyst          |
| Sodium Aluminate       | Aluminum Fluoride |
| Flame Retardant/ Smoke |                   |

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