



HINDALCO

**Specialty Hydrates for
WATER TREATMENT CHEMICALS**



**We manufacture materials that make the world
GREENER | STRONGER | SMARTER**

ASIA'S LARGEST SINGLE LOCATION INTEGRATED SPECIALITY ALUMINA CHEMICAL PLANT



Turnover

USD 26 Billion
in FY24.



50 Operations
units across
10 countries



Ranked as

**Top Performer in
Sustainability in**

the Global Aluminium
Industry by DJSI for
the fourth year in a row



71,000+
workforce

ABOUT HINDALCO

An industry leader in Aluminium and Copper, Hindalco Industries Limited is the flagship company of Aditya Birla Group. Our Specialty Alumina business with mines to Market fundamentals is at the forefront of the industry in India and is recognised as a prominent global player in specialty alumina and hydrates.



ecovadis
Business Sustainability Rating

Ecovadis overall score is 62 which puts Hindalco in the 76th percentile

Hindalco Water Treatment Chemicals Offerings



Varied applications of Alumina Tri Hydrate (ATH)

The blocky crystals of Alumina Tri Hydrate impart good reactivity. ATH can react with a base as well as an acid and finds many applications as raw material. Some of the applications are



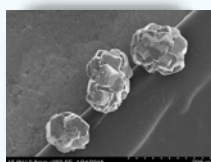
Non-Ferric Aluminium Sulphate (Alum/NFA) & Poly Aluminium Chloride (PAC):

used as a coagulant for the primary treatment of wastewater generated from households and industries.

Sodium Aluminate (SodAl) – used as a builder in detergent bars for giving it the physical shape

Aluminum Fluoride (AlF₃) – used as a flux in aluminum production because of its ability to reduce aluminum's melting point below 1000 degrees Celsius

Hindalco is one of the most sustainable mines to market manufacturer of alumina trihydrate with end to end quality control.



TRI HYDRATE (ATH)



Wet Hydrate CH1, CH2 grade

Wet, unground Alumina Tri Hydrate (ATH) is used as a raw material for Aluminum Sulphate (Alum), Poly Aluminum Chloride (PAC), Sodium Aluminate (SodAl) for Detergent bars and Aluminum Fluoride (AlF₃)



Chemical Analysis	Typical	Limit
L.O.I (RT – 110° C), %	34.5	35.0
Al(OH) ₃ by difference, %	99.7	99.6

Physical Properties	Typical	Limit
Moisture (RT – 110° C), %	4.0	6.0

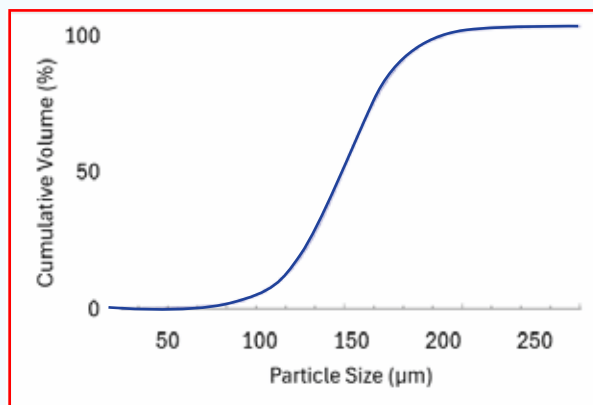
*Elemental Analysis by XRF (%)	Typical	Limit
Na ₂ O	0.20	0.35
SiO ₂	0.015	0.020
Fe ₂ O ₃	0.015	0.020

Particle Size Distribution	Typical	Limit
+150 µm ~ 100 mesh Tyler, %		20
+75 µm ~ 200 mesh Tyler, %	50 – 80	
+45 µm ~ 325 mesh Tyler, %	85 – 98	

* Reported on dry basis

Dry Hydrate (FDH Grade)

FDH grade is dry, unground Alumina Tri Hydrate (ATH) used as a raw material for Aluminum Sulphate (Alum), Poly Aluminum Chloride (PAC), Sodium Aluminate (SodAl) for Detergent bars and Aluminum Fluoride (AlF₃)



Chemical Analysis	Typical	Limit
L.O.I (RT – 110° C), %	34.5	35.0
Al(OH) ₃ by difference, %	99.7	99.6

Physical Properties	Typical	Limit
Moisture (RT – 110° C), %	0.10	0.20

*Elemental Analysis by XRF (%)	Typical	Limit
Na ₂ O	0.20	0.30
SiO ₂	0.015	0.020
Fe ₂ O ₃	0.015	0.020

Particle Size Distribution	
+75 µm ~ 200 mesh Tyler, %	50 – 85
+45 µm ~ 325 mesh Tyler, %	85-100

* Reported on dry basis



Hindalco Innovation Centre-Alumina (HIC-A)

Partners in progress

HIC-A is recognised by the Department of Scientific & Industrial Research (DSIR), Government of India. With over 25 years of experience, the Research & Development Team of expert scientists carry out research in the field of bauxite, processability studies of the Bayer Process, product development, quality control and application research for enhanced understanding of the end-usage of specialty chemicals.



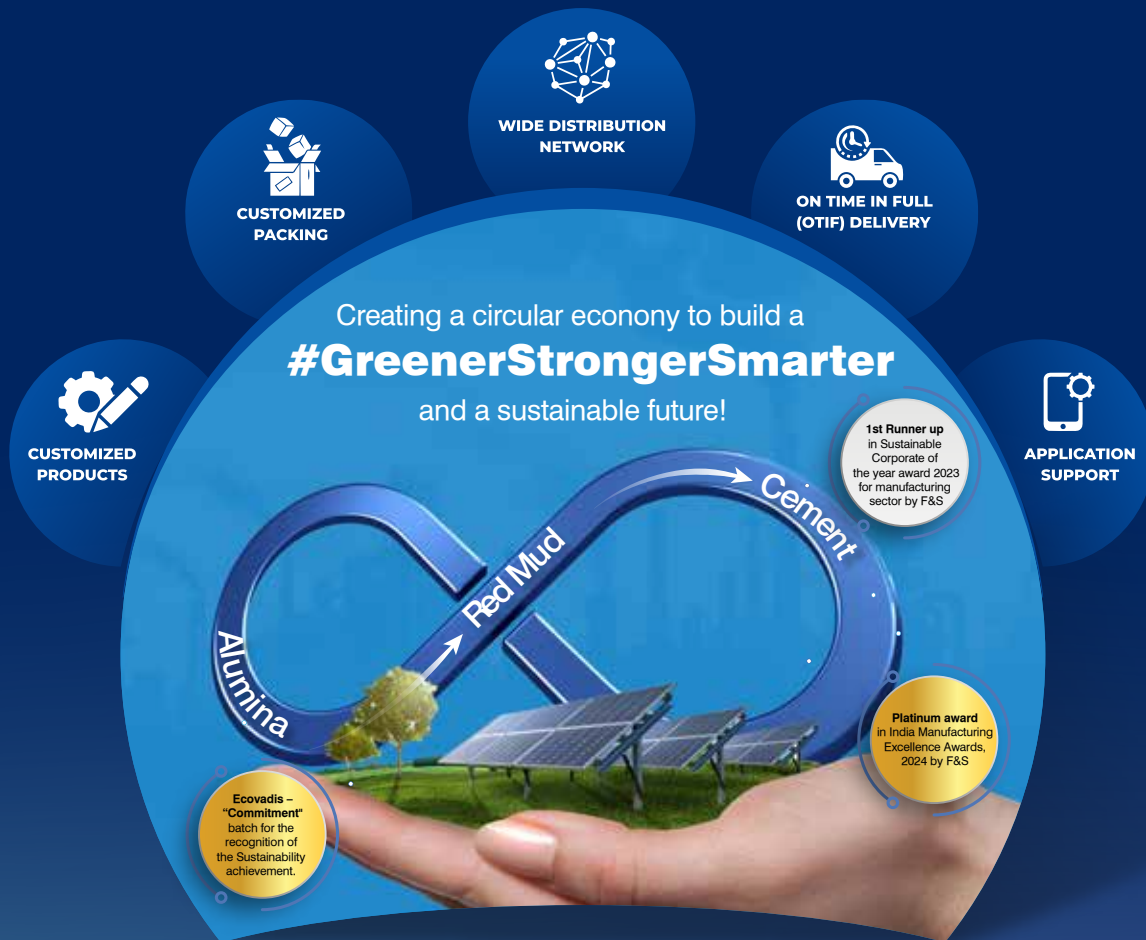
State-of-the-art Lab equipment at HIC-A includes:

- Scanning Electron Microscope for studying crystal shape and structure
- Sedigraph Particle Size Analyser
- X-Ray Fluorescence for elemental analysis
- X-Ray Diffraction for analysing phases in alumina
- Surface Area Analyser
- Infrastructure for carrying out application engineering studies and new product development.



Disclaimer: All data is based upon Hindalco standard test methods, All data listed are reference values and subjected to production tolerance. These values are applicable to the product description and no guarantee is placed on the properties. It is the responsibility of the users to test the suitability of our products in their application. Hindalco test methods can be shared on request.

CUSTOMER SERVICE WITH



GLOBAL REACH, LOCAL COMMITMENT



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