



# UNIVERSAL CHEMICALS

413, Sarvopari Mall, Nr. Bhuyangdev Cross Road, Sola Road, Ahmedabad - 380 061. Gujarat, INDIA.  
Phone : +91 - 79 - 2929 9803, 3017 7324 • Fax : +91 - 79 - 3017 7324 • Mobile : +91 - 98253 26802  
E-mail : export@universalchemicals.in • Web : www.universalchemicals.in

## MATERIAL SAFETY DATA SHEET ALUMINIUM HYDROXIDE

### Section 1 : Chemical Product and Company Identification

**Product Name :** Aluminium Hydroxide

**CAS # :** 21645-51-2

**RTECS :** BD0940000

**TSCA :** TSCA 8 (b) inventory : Aluminum Hydroxide

**CI # :** N.A.

**Synonym :** Aluminum Hydroxide Powder Reagent;  
Aluminum Trihydroxide

**Chemical Name :** Aluminum Hydroxide Powder

**Chemical Formula :** Al(OH)<sub>3</sub>

**Contact Information :**

**Universal Chemicals**  
413, Sarvopari Mall,  
Nr. Bhuyangdev Cross Roads,  
Sola Road,  
AHMEDABAD-380 061, INDIA.  
Tel. : (O) : +91-79-29299803  
Fax. : (O) : +91-79-30177324.  
www.universalchemicals.in

### Section 2 : Composition and Information on Ingredients

**Composition :**

Name	CAS#	% by Weight
Aluminium Hydroxide	21645-51-2	100

**Toxicological Data on Ingredients :** N.A.

### Section 3 : Hazards Identification

**Potential Acute Health Effects :** Slightly hazardous in case of skin contact (irritant), of eye contact(irritant), of ingestion, of inhalation.

**Potential Chronic Health Effects :**

CARCINOGENIC EFFECTS : N.A.

MUTAGENIC EFFECTS : N.A.

TERATOGENIC EFFECTS : N.A.

DEVELOPMENT TOXICITY : N.A.

Repeated or prolonged exposure is not known to aggravate medical condition.

### Section 4 : First Aid Measures

**Eye Contact :** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

**Skin Contact :** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.



# UNIVERSAL CHEMICALS

413, Sarvopari Mall, Nr. Bhuyangdev Cross Road, Sola Road, Ahmedabad - 380 061. Gujarat, INDIA.  
Phone : +91 - 79 - 2929 9803, 3017 7324 • Fax : +91 - 79 - 3017 7324 • Mobile : +91 - 98253 26802  
E-mail : export@universalchemicals.in • Web : www.universalchemicals.in

**Serious Skin Contact :** N.A.

**Inhalation :** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation :** N.A.

**Ingestion :** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Serious Ingestion :** N.A.

## Section 5 : Fire and Explosion Data

**Flammability of the Product :** Non-flammable.

**Auto-Ignition Temperature :** N.A.

**Flash Points :** N.A.

**Flammable Limits :** N.A.

**Products of Combustion :** N.A.

**Fire Hazards in Presence of Various Substances :** N.A.

**Explosion Hazards in Presence of Various Substances :**

Risks of explosion of the product in presence of mechanical impact : N.A.

Risks of explosion of the product in presence of static discharge : N.A.

**Fire Fighting Media and Instructions :** N.A.

**Special Remarks on Fire Hazards :** A mixture of aluminum hydroxide and bismuth, coprecipitated and reduced by hydrogen @ 170 to 219 C is spontaneously flammable in air at ambient temperature.

Special Remarks on Explosion Hazards : N.A.

## Section 6 : Accidental Release Measures

**Small Spill :** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.



# UNIVERSAL CHEMICALS

413, Sarvopari Mall, Nr. Bhuyangdev Cross Road, Sola Road, Ahmedabad - 380 061. Gujarat, INDIA.  
Phone : +91 - 79 - 2929 9803, 3017 7324 • Fax : +91 - 79 - 3017 7324 • Mobile : +91 - 98253 26802  
E-mail : export@universalchemicals.in • Web : www.universalchemicals.in

**Large Spill :** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TVL on the MSDS and with local authorities.

## Section 7 : Handling and Storage

**Precautions :** Do not breathe dust. Keep away from incompatibles such as acids, alkalis.

**Storage :** Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24<sup>o</sup> C (75.2<sup>o</sup>F).

## Section 8 : Exposure Controls/Personal Protection

**Engineering Controls :** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection :** Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:**

TWA: 3 (mg/m<sup>3</sup>) from ACGIH (TLV) [United States] Inhalation Respirable.

TWA: 10 (mg/m<sup>3</sup>) from ACGIH (TLV) [United States] Inhalation Total.

Consult local authorities for acceptable exposure limits.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Solid. (crystalline powder.)

**Odor:** Odorless.

**Taste:** Not available.

**Molecular Weight:** 78 g/mole

**Color:** White. Off-white.

**pH (1% soln/water):** Not applicable.

**Boiling Point:** Not available.

**Melting Point:** 300°C (572°F)



# UNIVERSAL CHEMICALS

413, Sarvopari Mall, Nr. Bhuyangdev Cross Road, Sola Road, Ahmedabad - 380 061. Gujarat, INDIA.  
Phone : +91 - 79 - 2929 9803, 3017 7324 • Fax : +91 - 79 - 3017 7324 • Mobile : +91 - 98253 26802  
E-mail : export@universalchemicals.in • Web : www.universalchemicals.in

**Critical Temperature:** Not available.

**Specific Gravity:** 2.42 (Water = 1)

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** Not available.

**Solubility:**

Insoluble in cold water.

Insoluble in alcohol.

Soluble in Hydrochloric acid, Sulfuric acid, alkaline aqueous solutions, in strong acids in the presence of water.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials

**Incompatibility with various substances:** Reactive with acids, alkalis.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:**

Forms gels on prolonged contact with water; absorbs acids, carbon dioxide.

When exposed to heat aluminum trihydroxide decomposes forming aluminum oxide and water vapor beginning at 300° C (572° F).

Aluminum trihydroxide reacts vigorously with strong acids, and will dissolve in caustic solutions.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:**

LD50: Not available.

LC50: Not available.

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.



# UNIVERSAL CHEMICALS

413, Sarvopari Mall, Nr. Bhuyangdev Cross Road, Sola Road, Ahmedabad - 380 061. Gujarat, INDIA.  
Phone : +91 - 79 - 2929 9803, 3017 7324 • Fax : +91 - 79 - 3017 7324 • Mobile : +91 - 98253 26802  
E-mail : export@universalchemicals.in • Web : www.universalchemicals.in

## Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects:

May cause mild skin, eye and upper respiratory tract irritation.

Ingestion: May cause gastrointestinal tract irritation: May affect bones (osteomalacia), metabolism, blood, behavior (muscle contraction, spasticity, change in motor activity), liver.

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

### Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

### Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

## Section 15: Other Regulatory Information

### DSCL (EEC):

This product is not classified according to the EU regulations.

Not applicable.

### Protective Equipment:

Gloves.

Lab coat.

Dust respirator. Be sure to use an approved/certified respirator or equivalent.

Safety glasses.

## Section 16: Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we

make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Universal Chemicals be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Universal Chemicals has been advised of the possibility of such damages.



# UNIVERSAL CHEMICALS

413, Sarvopari Mall, Nr. Bhuyangdev Cross Road, Sola Road, Ahmedabad - 380 061. Gujarat, INDIA.  
 Phone : +91 - 79 - 2929 9803, 3017 7324 • Fax : +91 - 79 - 3017 7324 • Mobile : +91 - 98253 26802  
 E-mail : export@universalchemicals.in • Web : www.universalchemicals.in

## Inorganic chemicals

PRODUCTS	APPLICATION
Aluminium Hydroxide	Pharmaceutical
Barium Carbonate	Ceramic, Paint, Glass, Rubber
Basic Chromium Sulphate	Electro Plating, Paint, Rubber, Textile, Leather
Borax Deca Hydrate	Ceramic, Glass
Boric Acid	Agriculture, Ceramics, Glass, Pharmaceutical
Cobalt Sulphate	Animal Feed, Ceramic, Electroplating
Copper Sulphate	Agriculture, Animal Feed
Ferrous Carbonate	Animal Feed, Pharmaceutical
Ferrous Fumarate	Pharmaceutical
Ferrous Sulphate	Agriculture, Animal Feed, Leather, Textile
Magnesium Carbonate	Ceramic, Cosmetic, Pharmaceutical
Magnesium Chloride	Pharmaceutical, Leather, Textile
Magnesium Hydroxide	Ceramic, Glass, Pharmaceutical, Rubber
Magnesium Oxide Light / Heavy	Ceramic, Glass, Rubber
Magnesium Stearate	Pharmaceutical
Magnesium Sulphate	Animal Feed
Magnesium Trisilicate	Cosmetic, Pharmaceutical
Manganese Chloride	Leather, Textile
Manganese Oxide	Animal Feed, Pharmaceutical
Manganese Sulphate	Animal Feed
Nickel Sulphate	Electro Plating, Printing Ink
Potassium Acetate	Pharmaceutical, Textile
Potassium Dichromate	Ceramic, Textile
Sodium Dichromate	Leather, Textile, Paint, Pharmaceutical
Zinc Acetate	Ceramic, Textile
Zinc Carbonate	Ceramic, Pharmaceutical, Rubber
Zinc Sulphate	Agriculture, Animal Feed
Zinc Oxide (Animal Feed Grade)	Animal Feed, Ceramic, Glass, Pharmaceutical &
Zinc Oxide (Ceramic Grade)	Cosmetic, Paint
Zinc Oxide (Pharmaceutical & Cosmetic Grade)	
Zinc Oxide (Paint Grade)	
Zinc Oxide (Rubber Grade)	

## Food Colors

PRODUCTS	APPLICATION
Amaranth	Food Color
Brilliant Blue	Food Color
Ponceau 4R	Food Color
Sunset Yellow	Food Color
Tartrazine	Food Color

## Blended Food Colors

APPLE GREEN	BANANA	BLACK CURRENT
BOTTLE GREEN	BRIGHT BLACK	CHOCOLATE BROWN/ TAS
CHOCOLATE PN / FCF	COLA CHOCOLATE	EGG YELLOW
FALSA /GRAPE	KESAR SUPRA	KHALA KHATTA
LEMON YELLOW	ORANGE RED	PEA GREEN
RASPBERRY RED	ROSE PINK	STRAWBERRY RED
TOMATO RED	VINO	