

Material Safety Data Sheet


MPSI

 Mineral and Pigment
Solutions, Inc.

Alumina - Hydrated / Aluminum Hydroxide -
C.A.S. Number: 21645-51-2 / MSDS C.A.S. Code: 0730

PRODUCT/MATERIAL: HYDRATED ALUMINA

MANUFACTURER/DISTRIBUTOR: MINERAL AND PIGMENT SOLUTIONS, INC.
ADDRESS: 1000 COOLIDGE STREET
 SOUTH PLAINFIELD, N.J. 07080
TELEPHONE NUMBER: (908) 561-6100

SECTION I - PRODUCT IDENTIFICATION:
TRADE NAME: HYDRATED ALUMINA
CHEMICAL NAME: ALUMINUM HYDROXIDE
CHEMICAL FORMULA: $Al_2O_3 \cdot 3H_2O$
CAS NUMBER: 21645-51-2
HMIS RATING: HEALTH 1
 FLAMMABILITY 0
 REACTIVITY 1

SECTION II - COMPOSITION:
ALUMINUM HYDRATE: 64.5 to 67 OSHA PEL: 15 mg/m³ (Total)
 5 mg/m³ (Respirable)
LOSS ON IGNITION: 34.5% ACGIH TLV: 10 mg/m³ (Total-TWA)

SECTION III - HAZARDS IDENTIFICATION:
EMERGENCY OVERVIEW: NO UNUSUAL FIRE OR SPILL HAZARD. CAN CAUSE MILD IRRITATION TO EYES, SKIN, AND UPPER RESPIRATORY TRACT.
POTENTIAL HEALTH EFFECTS: MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE TO THE PRODUCT: ASTHMA, CHRONIC LUNG DISEASE, AND SKIN RASHES.

ALUMINA IS A LOW HEALTH RISK BY INHALATION AND SHOULD BE TREATED AS A NUISANCE DUST AS SPECIFIED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH). THIS PRODUCT CONTAINS TOTAL SILICON AT <1% BY WEIGHT. TOTAL SILICON CONTENT INCLUDES METAL SILICATES, AMORPHOUS AND CRYSTALLINE SILICA. NO ANALYTICAL METHOD EXISTS TO DETECT AND

Information presented herein is believed to be accurate and reliable but is not intended to meet any specification and does not imply any guarantee or warranty by Mineral and Pigment Solutions, Inc. (MPSI). For more information and assistance, contact Technical Services at 1 (908) 561-6100.

• Mineral and Pigment Solutions, Inc. • 1000 Coolidge St. • South Plainfield, NJ 07080 •



MATERIAL SAFETY DATA

DIFFERENTIATE BETWEEN AMORPHOUS AND CRYSTALLINE SILICA AND OTHER SILICATES AT <1% BY WEIGHT. BASED ON THE CHEMISTRY OF BAUXITE DERIVED PRODUCTS, CRYSTALLINE SILICA IS NOT EXPECTED TO BE PRESENT IN THIS PRODUCT.

MEDICAL CONDITIONS AGGREGATED BY EXPOSURE TO THE PRODUCT: ASTHMA, CHRONIC LUNG DISEASE, AND SKIN RASHES.

SECTION IV - FIRST AID MEASURES:

EYES: FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

SKIN: WASH WITH SOAP AND WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

INHALATION: REMOVE TO FRESH AIR. CHECK FOR CLEAR AIRWAY, BREATHING, AND PRESENCE OF PULSE. PROVIDE CPR FOR PERSONS WITHOUT PULSE OR RESPIRATION. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION: IF SWALLOWED, DILUTE WITH LARGE AMOUNTS OF WATER. DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO A CONVULSING OR UNCONSCIOUS PERSON. CONSULT A PHYSICIAN.

SECTION V - FIRE FIGHTING MEASURES:

FLAMMABLE PROPERTIES: NON-FLAMMABLE

FLASH POINT - NONE

FLAMMABLE LIMITS - NOT APPLICABLE

AUTO-IGNITION TEMPERATURE - NOT APPLICABLE

HAZARDOUS COMBUSTION PRODUCTS: NONE

PRODUCTS OF DECOMPOSITION: (> 392 °F) ALUMINA AND WATER.

EXTINGUISHING MEDIA: USE EXTINGUISHING AGENT APPLICABLE TO SURROUNDING FIRE.

FIRE FIGHTING INSTRUCTIONS: FIRE FIGHTERS SHOULD WEAR NIOSH APPROVED, POSITIVE PRESSURE, SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING WHEN APPROPRIATE.

SECTION VI - ACCIDENTAL RELEASE MEASURES:

SMALL/LARGE SPILL: CLEAN UP USING DRY PROCEDURES; AVOID OUSTING. COLLECT IN CONTAINERS OR BAGS. IF REUSE OR RECYCLING IS NOT POSSIBLE, MATERIAL MAY BE DISPOSED OF AT A SANITARY LANDFILL.

SECTION VII - HANDLING AND STORAGE:

HANDLING: ENSURE GOOD VENTILATION/EXHAUST AT THE WORKPLACE. PREVENT FORMATION OF DUST. PROVIDE SUCTION EXTRACTORS IF DUST IS FORMED.

• Mineral and Pigment Solutions, Inc. • 1000 Coolidge St. • South Plainfield, NJ 07080 •
Technical Services Department • Phone: 1 (908) 561-6100 • Fax: 1 (908) 561-5823

MATERIAL SAFETY DATA

STORAGE: KEEP MATERIAL DRY.

SECTION VIII - EXPOSURE CONTROLS:

ENGINEERING CONTROLS: USE WITH ADEQUATE VENTILATION TO MEET EXPOSURE LIMITS LISTED IN SECTION II.
RESPIRATORY PROTECTION: NIOSH APPROVED DUST RESPIRATOR IF OVEREXPOSURE POTENTIAL EXISTS.
SKIN PROTECTION: APPROPRIATE IMPERVIOUS GLOVES.
EYE PROTECTION: SAFETY GLASSES RECOMMENDED.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE: WHITE OR OFF WHITE, CRYSTALLINE POWDER.
BOILING POINT: 2,980 +/- 60 °C
MELTING POINT: 2,040 °C
VAPOR PRESSURE: NOT APPLICABLE
VAPOR DENSITY: NOT APPLICABLE
SOLUBILITY IN WATER: INSOLUBLE; SOLUBLE IN CONCENTRATED ACIDS AND ALKALIES.
SPECIFIC GRAVITY: 2.4
pH: 8.5 TO 10.2 (20% SOLUTION)
ODOR: NONE
ODOR THRESHOLD: NOT APPLICABLE
COEFFICIENT OF WATER/OIL DISTRIBUTION: NOT APPLICABLE
ORGANIC SOLVENTS: NONE
WATER: 0.0 to 1.0%
SOLIDS CONTENT: 99.0%

SECTION X - STABILITY AND REACTIVITY:

CHEMICAL STABILITY: STABLE.
INCOMPATIBILITY: NONE
HAZARDOUS DECOMPOSITION PRODUCTS: NONE
HAZARDOUS POLYMERIZATION: NONE
REACTIVITY WITH HEAT: WHEN EXPOSED TO FIRE OR HEAT, HYDRATED ALUMINA LOSES ITS WATER OF CRYSTALLIZATION BEGINNING AT 392 °F (200 °C).

SECTION XI - TOXICOLOGICAL INFORMATION:

• Mineral and Pigment Solutions, Inc. • 1000 Coolidge St. • South Plainfield, NJ 07080 •
Technical Services Department • Phone: 1 (908) 561-6100 • Fax: 1 (908) 561-5823

MATERIAL SAFETY DATA

NO LD₅₀ OR LC₅₀ FOUND FOR ORAL, DERMAL OR INHALATION ROUTES OF ADMINISTRATION.

PRIMARY IRRITANT EFFECT: CAN CAUSE MILD IRRITATION TO SKIN.
CAN CAUSE MILD IRRITATION TO THE EYES, ESPECIALLY WHEN WET.
CAN CAUSE MILD UPPER RESPIRATORY TRACT IRRITATION.
CAN CAUSE MILD IRRITATION IF INGESTED.

SECTION XII - ECOLOGICAL INFORMATION:

WATER HAZARD CLASS 0 (GERMAN REGULATION): GENERALLY NOT HAZARDOUS FOR WATER (SELF-ASSESSMENT).

SECTION XIII - DISPOSAL CONSIDERATIONS:

COLLECT IN CONTAINERS, BAGS, OR COVERED DUMPSTER BOXES. IF REUSE OR RECYCLING IS NOT POSSIBLE, MATERIAL MAY BE DISPOSED OF AT AN INDUSTRIAL LANDFILL.

RCRA HAZARDOUS WASTE NUMBER: NOT FEDERALLY REGULATED.

SECTION XIV - TRANSPORTATION INFORMATION:

U.S. DOT: NOT REGULATED - ENTER THE PROPER FREIGHT CLASSIFICATION ON THE SHIPPING PAPERWORK, "MSDS NUMBER", AND "PRODUCT NAME" FOR SHIPPING PURPOSES.

CANADIAN TDG HAZARD CLASS & PIN: NOT REGULATED.

MARITIME TRANSPORT IMDG: NOT CLASSIFIED AS A MARINE POLLUTANT.

SECTION XV - REGULATORY INFORMATION:

FOR INVENTORY REPORTING PURPOSES, CAS NO. 1344-28-1 WAS ASSIGNED FOR ALL FORMS OF ALUMINUM OXIDE INSTEAD OF THE CAS NUMBER 21645-51-2 AS INDICATED IN SECTION II.

TSCA STATUS: COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

CERCLA REPORTABLE QUANTITY: NONE

SARA TITLE III

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: NONE.

SECTION 311/312 HAZARDOUS CATAGORIES: NONE

SECTION 313 TOXIC CHEMICALS: NONE

CLEAN AIR ACT OF 1990: THIS MATERIAL DOES NOT CONTAIN NOR WAS IT MANUFACTURED USING OZONE DEPLETING CHEMICALS.

INTERNATIONAL REGULATIONS:

CANADIAN DSL - COMPONENTS ARE LISTED.

CANADIAN WHMIS - NOT A CONTROLLED SUBSTANCE.

EUROPEAN COMMUNITY - LISTED ON ECOIN, THE EUROPEAN CORE INVENTORY.

AUSTRALIA- ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE AICS INVENTORY.

JAPAN- ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE MITI INVENTORY.

• Mineral and Pigment Solutions, Inc. • 1000 Coolidge St. • South Plainfield, NJ 07080 •
Technical Services Department • Phone: 1 (908) 561-6100 • Fax: 1 (908) 561-5823

SECTION XVI - OTHER INFORMATION:

SHELF LIFE: THIS MATERIAL WILL REMAIN STABLE INDEFINITELY IF STORED IN A CLEAN DRY AREA IN THE ORIGINAL UNOPENED PACKAGING.

“Although the information and recommendations set forth herein (hereinafter “Information”) are presented in good faith and believed to be correct as of the date hereof, Mineral and Pigment Solutions, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Mineral and Pigment Solutions, Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, THAT THE PRODUCTS TO WHICH THE INFORMATION REFERS MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS, OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS. IN NO CASE SHALL THE INFORMATION BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE.”

Issued: 2/03

Supersedes: 12/00