



FIRE RETARDANT ADDITIVES

Safety Data Sheet

Martinal® TM-2650

Prepared in accordance with GB/T 16483-2008, GB/T 24774-2009, GB 13690 – 2009, GB/T 17519–2013
GHS (Globally Harmonized System)

Issue Date 28/Oct/2021
Print Date 29/Oct/2021

Revision Number 1.1
Page 1 of 10

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Martinal® TM-2650
Chemical Name	Aluminum Hydroxide
Pure substance/mixture	Mixture
<u>Aluminum Hydroxide</u>	
CAS Number	21645-51-2
Weight-%	-
<u>Surface Treatment</u>	
CAS Number	-
Weight-%	1-2
Recommended Use	Flame retardant Smoke suppressant
Uses advised against	None known
Company:	J.M. Huber Corporation 3100 Cumberland Boulevard, Suite 600 Atlanta, GA 30339 USA Tel: +1 678 247-7300
Emergency Telephone	CHEMTREC: 1 800 424 9300 or International +1 703 527 3887
E-mail	hubermaterials@huber.com
Internet	www.hubermaterials.com

Section 2: HAZARDS IDENTIFICATION

GHS Classification	Not classified
Physical Hazard	Not classified
Health Hazard	Not classified
Environmental Hazard	Not classified
Label Elements	
Symbols/Pictograms	None

HUBER

Safety Data Sheet

Martinal® TM-2650

Issue Date 28/Oct/2021
Print Date 29/Oct/2021

Revision Number 1.1
Page 2 of 10

Signal Word None

Precautionary Statements

Prevention None

Response None

Spills and Leaks Collect spillage

Storage Store in a dry place

Disposal Dispose in accordance with local, state and national regulations

General Advice None

Additional Information: None.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture Mixture

Chemical Name	CAS Number	China (IECSC)	China classification	TSCA: United States	EU REACH registration number	Weight-%
Aluminum Hydroxide	21645-51-2	Y	Not classified	A	01-2119529246-39	-
Surface Treatment	-	Y		A	Registered	1-2

Section 4: FIRST AID MEASURES

General Advice None

Eye Contact Hold eyelids apart and flush eyes with a steady, gentle stream of water for several minutes.

Skin Contact Wash skin with soap and water

Inhalation IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

Ingestion Rinse mouth with water. Do not induce vomiting.

Notes to Physician Treat symptomatically

Personal Protective Equipment For First Aid Responders Wear suitable protective clothing
IF exposed or concerned: Get medical advice/attention

Issue Date 28/Oct/2021
Print Date 29/Oct/2021

Revision Number 1.1
Page 3 of 10

Expected acute symptoms and delayed symptoms None known

Section 5: FIRE FIGHTING MEASURES

Flammable Properties	None known
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media:	None known
Specific Hazards Arising from the Chemical	None known
Unusual fire & explosion hazards:	None
Protective measures:	Use protective equipment that is appropriate for surrounding materials.
Protective Equipment and Precautions for Firefighters	Wear self-contained breathing apparatus and protective suit

Section 6: SPILLAGE, ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid dust formation. When exposed to high concentrations of airborne dust, wear a SCBA in accordance with national legislation
Environmental Precautions	This product does not present any particular risk to the environment. Refer to applicable national, state and local regulations prior to washing in drain.
Methods for cleaning up	Pick up mechanically and / or by rinsing with water. Avoid dry sweeping and use a sprinkler system or exhaust ventilation to prevent dust formation.
Other Information:	None known

Section 7: HANDLING AND STORAGE

Handling	Avoid dust formation. Avoid breathing dust. Handle in accordance with good industrial hygiene and safety practice.
Storage	Store in a dry area. Keep containers closed and protect from physical damage.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits	Provide adequate ventilation as well as local exhaust at critical locations
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Safety Data Sheet

Martinal® TM-2650

Issue Date 28/Oct/2021
Print Date 29/Oct/2021

Revision Number 1.1
Page 4 of 10

ACGIH
NIOSH
OSHA

TLV/TWA 8-hr: 1 mg/m³ (respirable fraction)
TWA: 5 mg/m³ (respirable dust); 10 mg/m³ TWA (total dust)
TWA: 15 mg/m³ Total Dust
5 mg/m³ Respirable Dust

Engineering Measures Ensure adequate ventilation, especially in confined areas
Provide a good standard of controlled ventilation (10 to 15 air changes per hour)

Personal Protective Equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles)

Skin and Body Protection Wear suitable protective clothing

Hand Protection Impervious gloves

Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice Handle in accordance with good industrial hygiene and safety practice

Environmental Exposure Controls Dispose of in accordance with local regulations

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Physical State	Solid
Color	White
Odor	Odorless
Odor Threshold	No information available
pH:	Not available
Melting point / Freezing point	Not applicable
Boiling Point	No information available
Flash Point:	Non-combustible.
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not applicable
Upper flammability limit:	
Lower flammability limit:	
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Relative Density	2.4 g/cm ³ , 20° C
Water Solubility	Insoluble
Solubility in other solvents	No information available
Partition coefficient	Not applicable Not applicable Product/Substance is inorganic
Autoignition Temperature	Not applicable
Decomposition Temperature	200 °C (392 °F)
Viscosity	Not applicable.
Explosive Properties	Not applicable
Oxidizing Properties	Not oxidizing

VOC Content (%) Not applicable

Section 10: STABILITY AND REACTIVITY

Stability	Stable under normal conditions
Conditions to avoid:	None known
Incompatible materials	Strong acids
Hazardous decomposition products	None under normal processing
Hazardous Reactions	None under normal processing
Hazardous polymerization:	None under normal processing

Section 11: TOXICOLOGICAL INFORMATION

General Information Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Product Information**Information on Likely Routes of Exposure**

Eyes	Avoid contact with eyes Dust contact with the eyes can lead to mechanical irritation
Skin	Avoid contact with skin and clothing Prolonged exposure may cause skin irritation
Inhalation	Avoid inhalation of the product
Ingestion	Ingestion is not a likely route of exposure
Aspiration hazard	Not an expected route of exposure.
Symptoms	Low hazard for usual industrial or commercial handling

11.1. Information on toxicological effects**Aluminum Hydroxide**

Oral LD50	> 2000 mg/kg Rat
Inhalation LC50	Rat > 2.3 mg/l (Al ₂ O ₃) Aerosol Maximum attainable concentration
IARC	Not Listed

Issue Date 28/Oct/2021
Print Date 29/Oct/2021

Revision Number 1.1
Page 6 of 10

Acute Toxicity	Based on available data, the classification criteria are not met
Chronic Toxicity	Based on available data, the classification criteria are not met.
Chronic Effects	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met
Respiratory Sensitization	Based on available data, the classification criteria are not met
Skin Corrosion/Irritation	Prolonged or repeated contact may dry skin and cause irritation
Skin Sensitization	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Reproductive Toxicity	Based on available data, the classification criteria are not met.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Target Organ Effects	No information available.
Specific target organ toxicity - Single exposure	No information available.
Specific target organ toxicity - Repeated exposure	No information available.
Mixture versus substance information	No information available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity	Not considered to be harmful to aquatic life.
Persistence/Degradability:	Not readily biodegradable.
Bioaccumulative Potential	No data available.
Partition coefficient Bioconcentration factor (BCF)	Not applicable Not available.
Mobility in soil	None.
Results of PBT and vPvB assessment	This substance does not meet the criteria for classification as PBT or vPvB.

HUBER

Safety Data Sheet

Martinal® TM-2650

Issue Date 28/Oct/2021
Print Date 29/Oct/2021

Revision Number 1.1
Page 7 of 10

Other Adverse Effects None known

Section 13: DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products Dispose of in accordance with local regulations

Contaminated Packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14: TRANSPORT INFORMATION

Mode of Transportation (Road, Water, Air, Rail)

DOT	Not regulated
ADR	Not regulated
RID	Not regulated
ADN	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated
ICAO	Not regulated

14.1. UN number None

14.2. UN proper shipping name None

14.3. Transport hazard class(es) None

14.4. Packing group None

14.5. Environmental hazards No

14.6. Special precautions for user Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

HUBER

Safety Data Sheet

Martinal® TM-2650

Issue Date 28/Oct/2021

Print Date 29/Oct/2021

Revision Number 1.1

Page 8 of 10

Global Inventories

Chemical Name	CAS Number	EC No	EU REACH registration number	Australia (AIC)	Canada (DSL)	China (IECSC)	Japan	S. Korea (KECL)	Mexico	New Zealand	Philippines (PICCS)	Taiwan	TSCA: United States
Aluminum Hydroxide	21645-51-2	244-492-7	01-211952924-6-39	Y	Y	Y	(1)-17 (ENCS); ISHL	KE-00980	Y	Y	Y	Y	A
Surface Treatment	-	Y	Registered	Y	Y	Y	Y	Y	Y	Y	Y	Y	A

Legend

X / Y: Complies ; A: Active ; - / N: Exempt / Not Listed

Section 16: OTHER INFORMATION

Prepared by	Huber Engineered Materials Global Regulatory Affairs email: regulatory.affairs@huber.com
Reason for Revision	GB/T 16483-2008 GB/T 24774-2009 GB 13690 – 2009 GB/T 17519–2013
GHS Classification	Not classified
Physical Hazard	Not classified
Health Hazard	Not classified
Environmental Hazard	Not classified
Label Elements	
Symbols/Pictograms	None
Signal Word	None
Abbreviations and acronyms	IARC (International Agency for Research on Cancer) IATA (International Air Transport Association) IMDG (International Maritime Dangerous Goods) IUCIID (International Uniform Chemical Information Database) WHMIS (Workplace Hazardous Materials Information System) DOT (Department of Transportation) OSHA (Occupational Safety and Health Administration of the US Department of Labor) TWA (Time-Weighted Average) CLP (The Classification, Labeling and Packaging of Substances and Mixtures Regulation (EC 1272/2008)) PPE (Personal Protection Equipment) NIOSH (National Institute for Occupational Safety and Health) TDG (Transport of Dangerous Goods) Canada CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) RQ (Reportable Quantity) (RQ/% in mixture) STEL (Short Term Exposure Limit) TLV® (Threshold Limit Value) DNEL (Derived No Effect Level) SVHC (Substances of Very High Concern) BOD (Biochemical oxygen demand) COD (Chemical oxygen demand) ICAO (International Civil Aviation Organization) IMDG (International Maritime Dangerous Goods) SCBA (Self-Contained Breathing Apparatus) Positive Pressure GHS (Globally Harmonized System) ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road) RID (Agreement Concerning the International Carriage of Dangerous Goods by Rail) SARA (Superfund Amendments and Reauthorization Act of 1986) TSCA (Toxic Substances Control Act)

HUBER

Safety Data Sheet

Martinal® TM-2650

Issue Date 28/Oct/2021

Print Date 29/Oct/2021

Revision Number 1.1

Page 10 of 10

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End of Safety Data Sheet