ADVANCED MATERIALS

Safety Data Sheet

Martinal® TM-2550

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

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Martinal® TM-2550
Chemical Name	Aluminum Hydroxide
Pure substance/mixture	Mixture
Aluminum Hydroxide	
CAS Number	21645-51-2
Weight-%	-
Surface treatment	
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
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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
Signal Word	None

Precautionary Statements

Prevention	Employ good industrial hygiene practice Wash hands thoroughly after handling
Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing IF ON SKIN: Wash with plenty of soap and water
Spills and Leaks	Collect spillage
Storage	Store in a dry place Store away from incompatible materials.
Disposal	Dispose in accordance with local, state and national regulations
General Advice	None When in doubt or if symptoms are observed, get medical advice Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves

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 When in doubt or if symptoms are observed, get medical advice Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If irritation persists, call a physician
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
Expected acute symptoms and delayed symptoms	None known

Section 5: FIRE FIGHTING MEASURES

Flammable Properties	None known
Suitable Extinguishing Media	Water spray (fog) Foam Dry chemical Carbon dioxide (CO2)
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	Ensure adequate ventilation Use personal protection recommended in Section 8 Avoid dust formation Keep unauthorized personnel away
Environmental Precautions	Avoid runoff to waterways and sewers
Methods for cleaning up	Large Spill: Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust Small Spill: Vacuum or sweep material and place in a disposal container
Other Information:	None known

Section 7: HANDLING AND STORAGE

Handling Minimize dust generation and accumulation. Provide local exhaust ventilation. 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 exhaustion at critical locations

Aluminum Hydroxide

ACGIH	TLV/TWA 8-hr: 1 mg/m³ (respirable fraction)
NIOSH	TWA: 5 mg/m³ (respirable dust); 10 mg/m³ TWA (total dust)
OSHA	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/cm3, 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 (Al2O3) Aerosol Maximum attainable concentration
IARC	Not Listed

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. Avoid release to the environment.

Persistence/Degradability:	Not readily biodegradable.
Bioaccumulative Potential	No data available.
Partition coefficient	Not applicable
Bioconcentration factor (BCF)	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.
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

Global Inventories

Chemical Name	CAS Number	EC No	EU REACH registration number	Australia (AIIC)	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	01-2119529246-39	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) IUCLID (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)

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End of Safety Data Sheet