



**ADVANCED MATERIALS**

# Safety Data Sheet

## Martinal® TM-2550

Japan-JIS Z 7253:2019  
Occupational Safety and Health Act  
GHS (Globally Harmonized System)

Issue Date 21/Feb/2023

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Revision Number 1.2

Page 1 of 8

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Martinal® TM-2550
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
Internet	<a href="http://www.hubermaterials.com">www.hubermaterials.com</a>
E-mail	<a href="mailto:hubermaterials@huber.com">hubermaterials@huber.com</a>
Emergency Telephone Number	CHEMTREC: +1 800 424 9300 or International +1 703 527 3887 +81 03-3560-7316

### 2. HAZARD IDENTIFICATION

Japan GHS Classification	
Physical Hazards	Not classified
Health Hazard	Not classified
Environmental Hazards	Not classified
GHS label elements	
Symbols/Pictograms	None
Signal Word	None
Hazard statements	Based on available data, the classification criteria are not met
Precautionary Statements	

# Safety Data Sheet

Martinal® TM-2550

Issue Date 21/Feb/2023  
Print Date 21/Feb/2023

Revision Number 1.2  
Page 2 of 8

<b>Prevention</b>	Do not handle until all safety precautions have been read and understood Employ good industrial hygiene practice Do not breathe dust
<b>Response</b>	IF exposed or concerned: Get medical advice/attention Wash with plenty of soap and water
<b>Storage</b>	Store away from incompatible materials. Keep in a dry place
<b>Disposal</b>	Dispose of contents/container to an approved waste disposal plant

Additional Information: None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture Mixture

Chemical Name	CAS Number	Japan	Japan GHS Classification	EU REACH registration number	Weight-%
Aluminum Hydroxide	21645-51-2	(1)-17 (ENCS); ISHL	Not classified	01-2119529246-39	-
Surface Treatment	--	Y		Registered	1-2

## 4. FIRST AID MEASURES

<b>If inhaled:</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing
<b>IF ON SKIN:</b>	Wash with plenty of soap and water Take off contaminated clothing and wash before reuse
<b>IF IN EYES:</b>	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes Call a physician if irritation develops and persists
<b>If swallowed:</b>	Rinse mouth thoroughly with water
<b>Self-Protection of the First Aider</b>	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves
<b>Notes to Physician</b>	Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Water spray (fog) Foam Dry chemical Carbon dioxide (CO2)
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**Issue Date** 21/Feb/2023  
**Print Date** 21/Feb/2023

**Revision Number** 1.2  
**Page 3 of 8**

**Unsuitable Extinguishing Media** Do not use water jetstream

**Special hazards arising from the substance or mixture** Avoid dust formation

**Fire-fighting measures** In case of fire and/or explosion do not breathe fumes  
Water mist may be used to cool closed containers  
Keep unauthorized personnel away

**Special Protective Equipment for Firefighters** Wear self-contained breathing apparatus and protective suit

## 6. ACCIDENTAL RELEASE MEASURES

**Protective Equipment and Precautions for Firefighters** Avoid dust formation  
Ensure adequate ventilation  
Use personal protection recommended in Section 8  
Avoid contact with eyes and skin. Wear suitable personal protection equipment.  
Keep unauthorized personnel away

**Environmental Precautions** Keep out of drains, sewers, ditches and waterways  
Disposal considerations  
See section 13 for more information

**Methods and material for containment and 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 Minimize use of water during clean-up  
Recommended filter type: High efficiency particulate air filter (HEPA filter)

**Other Information** Not applicable

## 7. HANDLING AND STORAGE

### Handling

**Technical measures** Provide adequate ventilation as well as local exhaust at critical locations  
Ensure adequate ventilation  
Use personal protection equipment  
See section 8 for more information

**Advice on safe handling** Minimize dust generation and accumulation

**Conditions for safe storage, including any incompatibilities** Keep containers tightly closed in a cool, well-ventilated place

**Hygiene Measures** Wash hands thoroughly after handling

### Storage

**Packaging compatibilities** Keep/store only in original container

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits** Provide adequate ventilation as well as local exhaust at critical locations

Issue Date 21/Feb/2023  
Print Date 21/Feb/2023

Revision Number 1.2  
Page 4 of 8

**Aluminum Hydroxide**  
Japan

TWA: 2 mg/m<sup>3</sup>

**Engineering Measures** Ensure adequate ventilation, especially in confined areas

**Personal Protective Equipment**

**Respiratory Protection** In case of inadequate ventilation wear respiratory protection

**Hand protection** For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn

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

**Skin and Body Protection** Wear suitable protective clothing.  
Chemical resistant apron.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice  
Wash thoroughly after handling  
Avoid contact with eyes and skin  
Do not breathe dust

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

## 10. STABILITY AND REACTIVITY

Issue Date 21/Feb/2023  
Print Date 21/Feb/2023

Revision Number 1.2  
Page 5 of 8

Reactivity	Stable under normal conditions
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	None known
Conditions to avoid	Decomposition Temperature < / =0.3% : Al <sub>2</sub> O <sub>3</sub> Water
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	None known

## 11. TOXICOLOGICAL INFORMATION

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

### Information on Likely Routes of Exposure

Inhalation	Avoid inhalation of the product
Skin	Avoid contact with skin and clothing Prolonged exposure may cause skin irritation
Eyes	Avoid contact with eyes Dust contact with the eyes can lead to mechanical irritation
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 <sub>2</sub> O <sub>3</sub> ) 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

**Issue Date** 21/Feb/2023  
**Print Date** 21/Feb/2023**Revision Number** 1.2  
**Page 6 of 8**

<b>Skin Sensitization</b>	Based on available data, the classification criteria are not met
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductive Toxicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
<b>Target Organ Effects</b>	No information available.
<b>Specific target organ toxicity - Single exposure</b>	No information available.
<b>Specific target organ toxicity - Repeated exposure</b>	No information available.
<b>Mixture versus substance information</b>	No information available.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Based on available data, the classification criteria are not met
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulation</b>	No data available.
<b>Mobility in soil</b>	No data available
<b>Hazardous to the ozone layer</b>	No data available

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal</b>	Dispose of in accordance with federal, state and local regulations
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal

## 14. TRANSPORT INFORMATION

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

<b>ADR</b>	Not regulated
<b>RID</b>	Not regulated
<b>ADN</b>	Not regulated
<b>IATA</b>	Not regulated
<b>IMDG/IMO</b>	Not regulated
<b>ICAO</b>	Not regulated

**14.1. UN number** None**14.2. UN proper shipping name** None

Issue Date 21/Feb/2023

Print Date 21/Feb/2023

Revision Number 1.2

Page 7 of 8

**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**15. REGULATORY INFORMATION****Global Inventories****Pure substance/mixture**

Mixture

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	01-211952 9246-39	Y	Y	Y	(1)-17 (ENCS); ISHL	KE-00980	Y	Y	Y	Y	A
Surface Treatment	--	--	Registered	Y	Y	Y	Y	Y	Y	Y	Y	Y	A

**Legend**

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

KECL - Korean Existing and Evaluated Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

TSCA (Toxic Substances Control Act)

DSL (Domestic Substance List)

NDL (Non-Domestic Substances List)

Japan - ISHL Notifiable Substances

ENCS - Japan Existing and New Chemical Substances

**16. OTHER INFORMATION****Prepared by**Huber Engineered Materials Global Regulatory Affairs  
email: regulatory.affairs@huber.com**Reason for Revision**

This SDS complies with the requirements of JIS Z 7250:2010 and JIS Z 7252:2009 (Japan)

**Bibliography**

NITE GHS Classified list

Japan Society for occupational health (2015) recommendation of allowable concentrations, etc.

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value

**Abbreviations and acronyms**

IARC (International Agency for Research on Cancer)

HUBER

## Safety Data Sheet

Martinal® TM-2550

Issue Date 21/Feb/2023

Print Date 21/Feb/2023

Revision Number 1.2

Page 8 of 8

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)  
ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
RID (Agreement Concerning the International Carriage of Dangerous Goods by Rail)  
SCBA (Self-Contained Breathing Apparatus) Positive Pressure  
PNEC (Predicted No Effect Concentration)  
GHS (Globally Harmonized System)  
TSCA (Toxic Substances Control Act)

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**