

**Martifin® OL-104LE; Martifin® OL-107; Martifin® OL-111; Martifin® ON-313**

Japan-JIS Z 7253:2012
Occupational Safety and Health Act
Globally Harmonized System (GHS)

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Martifin® OL-104LE; Martifin® OL-107; Martifin® OL-111; Martifin® ON-313
Pure substance/mixture	Substance
Aluminum Hydroxide	
CAS Number	21645-51-2
Weight-%	>99
Recommended Use	Additive : Flame retardant
Company:	MARTINSWERK GmbH Kölner Strasse 110 50127 Bergheim Germany Tel. : +49-2271-90.22.78 Fax. : +49-2271-90.27.17
Internet	www.hubermaterials.com
E-mail	hubermaterials@huber.com
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	
Prevention	Do not handle until all safety precautions have been read and understood Employ good industrial hygiene practice Do not breathe dust
Response	IF exposed or concerned: Get medical advice/attention

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Wash with plenty of soap and water

StorageStore away from incompatible materials.
Keep in a dry place**Disposal**

Dispose of contents/container to an approved waste disposal plant

Additional Information:

None

3. COMPOSITION/INFORMATION ON INGREDIENTS**Pure substance/mixture****Substance**

Chemical Name	CAS Number	Japan	Japan GHS Classification	TSCA: United States	REACH registration number	Weight-%
Aluminum Hydroxide	21645-51-2	(1)-17 (ENCS); ISHL	Not classified	A	01-2119529246-39-0016	>99

4. FIRST AID MEASURES**If inhaled:**

Remove victim to fresh air and keep at rest in a position comfortable for breathing

IF ON SKIN:Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse**IF IN EYES:**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**If swallowed:**

Rinse mouth thoroughly with water

Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**Water spray (fog)
Foam
Dry chemical
Carbon dioxide (CO₂)**Unsuitable Extinguishing Media** Do not use water jetstream**Special hazards arising from the** Avoid dust formation

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substance or mixture**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

Aluminum Hydroxide

Japan

TWA: 2 mg/m³

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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

Appearance:

Physical State	Solid Powder
Color	White
Odor	Odorless
Odor Threshold	No information available
pH:	+/- 9 (10% Water)
Melting point / Freezing point	Not applicable
Initial boiling point and boiling range	Not applicable
Flash Point:	Not applicable. Product/Substance is inorganic. Solid.
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not flammable
Upper flammability limit:	
Lower flammability limit:	
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Relative Density	+/- 2.42 g/cm ³ (20 °C)
Water Solubility	Insoluble
Solubility in other solvents	No information available Not applicable Product/Substance is inorganic No information available
Decomposition Temperature	~ 200 °C
Dynamic viscosity	Not applicable Solid
Explosive Properties	None
Oxidizing Properties	None

Other information: No data available

10. STABILITY AND REACTIVITY

Reactivity Stable under normal conditions

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Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	None known
Conditions to avoid	Incompatible materials. Dust formation. Decomposes at 200 °C. Al ₂ O ₃ .
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	None

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	Do not breathe dust
Skin	Avoid prolonged or repeated contact with skin Contact with dust can cause mechanical irritation or drying of the skin
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 ₂ O ₃) Aerosol Maximum attainable concentration
IARC	Not Listed

Reproductive Toxicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Based on available data, the classification criteria are not met
Persistence and degradability	No data available
Bioaccumulation	No data available.
Mobility in soil	No data available

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Hazardous to the ozone layer No data available

13. DISPOSAL CONSIDERATIONS

Disposal Dispose of in accordance with federal, state and local regulations

Contaminated packaging 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)

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

15. REGULATORY INFORMATION

Global Inventories

Pure substance/mixture Substance

Chemical Name	CAS Number	EC No	REACH registration number	Australia (AICS)	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 9246-39-0 016	Y	Y	Y	(1)-17 (ENCS); ISHL	KE-00980	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

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AICS - Australian Inventory of Chemical Substances
TSCA (Toxic Substances Control Act)
DSL (Domestic Substance List)
NDSL (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	International Agency for Research on Cancer (IARC) International Air Transport Association (IATA) International Maritime Dangerous Goods (IMDG) International Uniform Chemical Information Database (IUCLID) Workplace Hazardous Materials Information System (WHMIS) status and classification EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification DOT (Department of Transportation) OSHA (Occupational Safety and Health Administration of the US Department of Labor) TWA - Time-Weighted Average The Classification, Labeling and Packaging of Substances and Mixtures (CLP) 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) Reportable Quantity (RQ) (RQ/% in mixture) STEL - Short Term Exposure Limit TLV® - Threshold Limit Value Derived No Effect Level (DNEL) SVHC: Substances of Very High Concern for Authorization: Land transport (ADR/RID) Biochemical oxygen demand (BOD) Chemical oxygen demand (COD) ICAO (air) (IMDG) International Maritime Dangerous Goods Positive Pressure Self-Contained Breathing Apparatus (SCBA) Predicted No Effect Concentration (PNEC) Globally Harmonized System (GHS)
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