



ADVANCED MATERIALS

Safety Data Sheet

Martifin® OL-004

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03
Canadian Workplace Hazardous Material Information System (WHMIS) 2015
Mexico NOM-018-STPS-2000; NOM-018-STPS-2015
GHS (Globally Harmonized System)

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Revision Number 1.1.1
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name: Martifin® OL-004
Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Additive : White pigment for paper and board, filler, etc.
Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

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

1.4. Emergency telephone number CHEMTREC: +1 800 424 9300 or International +1 703 527 3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

OSHA Regulatory Status This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Physical Hazards Not classified

Health Hazards Not classified

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Prevention Employ good industrial hygiene practice
Do not handle until all safety precautions have been read and understood
Do not breathe dust
Wear protective gloves/protective clothing/eye protection/face protection

Response IF ON SKIN: Wash with plenty of soap and water

Storage Store away from incompatible materials

Disposal Dispose of contents/containers in accordance with local regulations

Additional Information: None.

Hazards not otherwise classified (HNOC) Not classified.

SECTION 3: Composition/information on ingredients

Pure substance/mixture Mixture

Chemical Name	CAS Number	TSCA: United States	Canada (DSL)	Mexico	EU REACH registration number	OSHA Regulatory Status	WHMIS	Weight-%
Aluminum Hydroxide	21645-51-2	A	Y	Y	01-211952924-6-39	Not classified	--	66 - 69

Legend

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General Advice 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

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protect themselves.

Eye Contact

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin Contact

Wash with plenty of soap and water.

Ingestion

Rinse mouth thoroughly with water.

Inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Aspiration hazard

No information available.

4.2. Most important symptoms and effects, both acute and delayed

Treat symptomatically.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment should be symptomatic and supportive.

SECTION 5: Firefighting measures

5.1. Extinguishing media**Suitable Extinguishing Media**Water spray (fog). Foam. Dry chemical. Carbon dioxide (CO₂).**Unsuitable Extinguishing Media**

None known.

5.2. Special hazards arising from the substance or mixture

None known.

5.3. Advice for firefighters**Special protective equipment for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

Fire-fighting measures

In case of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

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Ensure adequate ventilation. Use personal protection recommended in Section 8.
Keep unauthorized personnel away.

For non-emergency personnel

Keep unauthorized personnel away.

For emergency responders

Keep unauthorized personnel away. Use personal protection recommended in Section 8.

6.2. Environmental precautions

Avoid runoff to waterways and sewers.

6.3. Methods and material for containment and cleaning up

Methods for Containment : Prevent further leakage or spillage if safe to do so

Methods for Clean-up : Sweep up and shovel into suitable containers for disposal

6.4. Reference to other sections

Section 8: Exposure controls and personal protection. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Provide local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed and dry.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters**Occupational exposure limits****Aluminum Hydroxide**

OSHA

TWA: 15 mg/m³ Total Dust

ACGIH

5 mg/m³ Respirable Dust

Canada - Nova Scotia - OEL - TWA

TLV/TWA 8-hr: 1 mg/m³ (respirable fraction)1 mg/m³ TWA (respirable fraction)**PNEC (Predicted No Effect Concentration)**

No information available

DNEL (Derived No Effect Level)

No information available

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Engineering Measures Provide a good standard of controlled ventilation (5 to 10 air changes per hour). Use exhaust ventilation to keep airborne concentrations below exposure limits. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal protective equipment

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

Skin and Body Protection Wear suitable protective clothing.

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

Respiratory Protection In case of inadequate ventilation wear respiratory protection.

Thermal hazards None known.

Hygiene Measures Follow general hygiene considerations recognized as common good workplace practices. The worker should wash daily at the end of each work shift, and prior to eating, drinking, smoking, etc.

Environmental Exposure Controls Dispose of in accordance with local regulations.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties**Appearance:**

Physical State	Liquid (suspension)
Color	White
Odor	Odorless
Odor Threshold	No information available
pH:	9-10
Melting point / Freezing point	$\leq 0\text{ }^{\circ}\text{C}$ / $32\text{ }^{\circ}\text{F}$ (Water)
Initial boiling point and boiling range	$\geq 100\text{ }^{\circ}\text{C}$ / $212\text{ }^{\circ}\text{F}$ (Water)
Freezing Point	Not applicable
Flash Point	No data available
Evaporation Rate	No data available.
Flammability (solid, gas)	Not flammable
Upper flammability limit:	No data available
Lower flammability limit:	No data available
Vapor Pressure	ca 25 mbar (Water)
Vapor Density	No data available
Density	No data available
Relative Density	+/- 1.6 g/cm ³ (20 °C)
Water Solubility	Insoluble (Solid)
Solubility in other solvents	No information available

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Partition coefficient	No information available No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No information available.
Kinematic viscosity	No data available
Dynamic viscosity	No data available ca 150 mPa.s (Epprecht Rheometer)
Explosive Properties	None
Oxidizing Properties	No data available
Particle Size	No information available
VOC Content (%)	Not applicable

9.2. Other information**9.2.1. Information with regard to physical hazard classes**

Not applicable

9.2.2. Other safety characteristics

Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity	No data available
10.2. Chemical stability	Stable under normal conditions
10.3. Possibility of hazardous reactions	None under normal processing
10.4. Conditions to avoid	Decomposition Temperature Al ₂ O ₃ Water +/- pH
10.5. Incompatible materials	No information available
10.6. Hazardous decomposition products	None known

SECTION 11: Toxicological information

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

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Acute Toxicity	Low hazard for usual industrial or commercial handling
Carcinogenicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - Single exposure	No information available.
Specific target organ toxicity - Repeated exposure	No information available.

Information on Likely Routes of Exposure

Inhalation	Avoid breathing vapor or mist
Ingestion	Ingestion is not a likely route of exposure
Skin	Avoid prolonged or repeated contact with skin
Eyes	Avoid contact with eyes
Aspiration hazard	No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties	This product does not contain any known or suspected endocrine disruptors
11.2.2. Other information	Not applicable

SECTION 12: Ecological information

12.1. Toxicity	Not considered to be harmful to aquatic life
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Aluminum Hydroxide**WGK Classification (AwSV)** 5220 WGK: nwg

12.2. Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances.
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12.3. Bioaccumulative potential	Not likely to bioaccumulate.
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Bioconcentration factor (BCF)	No data available.
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12.4. Mobility in soil	No information available.
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12.5. Results of PBT and vPvB	This substance does not meet the criteria for classification as PBT or vPvB.
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assessment

12.6. Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal Methods

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not reuse container.

Waste codes

Waste codes should be assigned by the user based on the application for which the product was used

Aluminum Hydroxide

European Waste Catalog

060299

WGK Classification (AwSV)

5220 WGK: nwg

SECTION 14: Transport information

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

TDG -Canada

Not regulated

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 or ID 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

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14.6. Special precautions for user Not applicable

14.7. Maritime transport in bulk according to IMO instruments
Not applicable

SECTION 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

Legend

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

US Federal Regulations

EPA

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Aluminum Hydroxide

CERCLA

Not listed

SARA 302

Not listed

SARA 311/312 Hazardous Categorization

None

CWA (Clean Water Act)

Not listed

CAA (Clean Air Act)

Not listed

U.S. State Right-to-Know Regulations

Chemical Name	CAS Number	California Proposition 65	Massachusetts	Minnesota	New Jersey	Pennsylvania
Aluminum Hydroxide	21645-51-2	N	N	N	N	N

Legend Y: Listed ; N: Not Listed

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This product does not contain any Proposition 65 chemicals

CANADA**WHMIS**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR

SECTION 16: Other information

Prepared by	Huber Engineered Materials (HEM) Global Regulatory Affairs regulatory.affairs@huber.com
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Reason for Version	OSHA (Occupational Safety and Health Administration of the US Department of Labor).
Training Advice	Do not handle until all safety precautions have been read and understood.
Abbreviations and acronyms	<p>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) 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 GHS (Globally Harmonized System) SARA (Superfund Amendments and Reauthorization Act of 1986) TSCA (Toxic Substances Control Act)</p>

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

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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