



ADVANCED MATERIALS

Safety Data Sheet

Martinal® OL-104 LEO B

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)

Issue Date 29/Mar/2023
Print Date 31/May/2023

Revision Number 1.1
Page 1 of 11

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

1.1. Product identifier

Product Name: Martinal® OL-104 LEO B

Pure substance/mixture Substance

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

Recommended Use Additive : Flame retardant

Industrial use

- Production substance
- Polymer processing
- Production of plastics and rubber compounds
- Formulation flame retardant preparation
- Compounds used in transport industry
- Compounds used in electrical application
- Compounds used in electronic application
- Compounds used in Wire & Cable
- Abrasive for glass industry, ceramics and stones
- Textile coating
- Production of corrosion inhibitors
- Fuels
- Deacidification agent for paper
- pH Regulating agent
- Use in coatings, inks, paints and roofing
- Use as corrosion inhibitor of gas turbines and boilers
- Use in cleaning agents
- Use in oil field operations
- Use in lubricants
- Use in metal working fluids
- Use in blowing agents
- Use in binders and release agents
- Use in textile
- Use in functional fluids
- Use in agrochemicals
- Use in water treatment chemicals
- Use in mining chemicals
- Recycling plastics
- White pigment for paper and board, filler, etc.

Safety Data Sheet

Martinal® OL-104 LEO B**Issue Date** 29/Mar/2023**Print Date** 31/May/2023**Revision Number** 1.1**Page** 2 of 11**Professional use**

Polymer processing
Use in Adhesives and/or sealants
Use in coatings, inks, paints and roofing
Use in agrochemicals
Use in cleaning agents
Use in oil field operations
Use in lubricants
Use in metal working fluids
Use in binders and release agents
Use in propellants
Use in textile
Use in explosives
Use in water treatment chemicals
Use in functional fluids
For use by laboratories for research
Fuels
De-icing & anti-icing applications
Road and construction applications

Consumer use

Use in coatings, inks, paints and roofing
Use in cleaning agents
Use in lubricants
Use in propellants
Fuels
Use in functional fluids
De-icing & anti-icing applications
Cosmetic additive
Use in water treatment chemicals

1.3. Details of the supplier of the safety data sheet**Company:**

J.M. Huber Corporation
3100 Cumberland Boulevard, Suite 600
Atlanta, GA 30339 USA
Tel: +1 678 247-7300

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

Safety Data Sheet

Martinal® OL-104 LEO B**Issue Date** 29/Mar/2023**Print Date** 31/May/2023**Revision Number** 1.1**Page** 3 of 11**Health Hazards** Not classified**Environmental Hazard** Not classified**2.2. Label elements****Symbols/Pictograms** None**Signal Word** None**Hazard Statements** None**Hazard Statements** None**Precautionary Statements**

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

Substance

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	--	>99

Legend

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Safety Data Sheet

Martinal® OL-104 LEO B**Issue Date** 29/Mar/2023**Print Date** 31/May/2023**Revision Number** 1.1**Page** 4 of 11

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 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	Not an expected route of exposure.
4.2. Most important symptoms and effects, both acute and delayed	Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin.
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.

Safety Data Sheet

Martinal® OL-104 LEO B

Issue Date 29/Mar/2023

Print Date 31/May/2023

Revision Number 1.1

Page 5 of 11

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protection recommended in Section 8.
Avoid dust formation. 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

Minimize dust generation and accumulation. Provide local exhaust ventilation.
Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Store away from incompatible materials. 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

Safety Data Sheet

Martinal® OL-104 LEO B

Issue Date 29/Mar/2023

Print Date 31/May/2023

Revision Number 1.1

Page 6 of 11

DNEL (Derived No Effect Level) No information available**Biological Limit Values** None**8.2. Exposure controls**

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 Solid Powder

Color White

Odor Odorless

Odor Threshold No information available

pH: +/- 9 (10% Water)

Melting point / Freezing point ~ 300 °C / 572 °F (101.3 hPa)

Initial boiling point and boiling range > 2900 °C / 5252 °F (101.3 hPa)

Freezing Point 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

Density No data available

Relative Density +/- 2.42 g/cm³ (20 °C)

Safety Data Sheet

Martinal® OL-104 LEO B**Issue Date** 29/Mar/2023**Print Date** 31/May/2023**Revision Number** 1.1**Page** 7 of 11

Water Solubility	Insoluble
Solubility in other solvents	No information available
Partition coefficient	No information available Not applicable Product/Substance is inorganic
Autoignition Temperature	No data available
Decomposition Temperature	200 °C (392 °F)
Viscosity	No information available.
Kinematic viscosity	Not applicable
Dynamic viscosity	Not applicable Solid
Explosive Properties	None
Oxidizing Properties	None
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 < / =0.3% : Al ₂ O ₃ Water
10.5. Incompatible materials	None known
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

Safety Data Sheet

Martinal® OL-104 LEO B

Issue Date 29/Mar/2023

Print Date 31/May/2023

Revision Number 1.1

Page 8 of 11

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.

Information on Likely Routes of Exposure**Inhalation**

Do not breathe dust

Ingestion

Ingestion is not a likely route of exposure

SkinAvoid 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**Aspiration hazard**

Not an expected route of exposure.

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

Aluminum Hydroxide**WGK Classification (AwSV)** 5220 WGK: nwg**12.2. Persistence and degradability**

The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Not likely to bioaccumulate.

Bioconcentration factor (BCF)

No data available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the criteria for classification as PBT or vPvB.

Safety Data Sheet

Martinal® OL-104 LEO B**Issue Date** 29/Mar/2023**Print Date** 31/May/2023**Revision Number** 1.1**Page** 9 of 11**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

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**14.6. Special precautions for user** Not applicable**14.7. Maritime transport in bulk according to IMO instruments**

HUBER

Safety Data Sheet

Martinal® OL-104 LEO B

Issue Date 29/Mar/2023

Print Date 31/May/2023

Revision Number 1.1

Page 10 of 11

Not applicable

SECTION 15: Regulatory information

Global Inventories

Pure substance/mixture

Substance

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

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

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

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

Safety Data Sheet

Martinal® OL-104 LEO B**Issue Date** 29/Mar/2023**Print Date** 31/May/2023**Revision Number** 1.1**Page 11 of 11**

SECTION 16: Other information

Prepared by	Huber Engineered Materials (HEM) Global Regulatory Affairs regulatory.affairs@huber.com
Issue Date	29/Mar/2023
Print Date	31/May/2023
Revision Number	1.1
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	IARC (International Agency for Research on Cancer) IATA (International Air Transport Association) IMDG (International Maritime Dangerous Goods) IUCID (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)
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