



**Martinal® OL-104C; Martinal® OL-107C**

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** 07/Nov/2024  
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product Name:** Martinal® OL-104C; Martinal® OL-107C  
**Pure substance/mixture** Mixture

**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.

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**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

**Uses advised against**

No information available.

**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.huberadvancedmaterials.com](http://www.huberadvancedmaterials.com)**Contact E-Mail**[www.huberadvancedmaterials.com/contact](http://www.huberadvancedmaterials.com/contact)**E-mail**[www.huberadvancedmaterials.com/contact](http://www.huberadvancedmaterials.com/contact)**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**

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**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.

**Environmental Hazard** Not classified.

## 2.2. Label elements

**Symbols/Pictograms** None

**Signal Word** 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 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

**Storage** Store away from incompatible materials  
Keep in a dry place

**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	Weight-%
Aluminum Hydroxide	21645-51-2	>98

## SECTION 4: First aid measures

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## 4.1. Description of first aid measures

<b>General Advice</b>	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.
<b>Eye Contact</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.
<b>Skin Contact</b>	Wash with plenty of soap and water.
<b>Ingestion</b>	Rinse mouth thoroughly with water.
<b>Inhalation</b>	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>Aspiration hazard</b>	Not an expected route of exposure.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin.
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>	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 (CO<sub>2</sub>).**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.

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## 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/m<sup>3</sup> (Total Dust)

5 mg/m<sup>3</sup> (Respirable Dust)

ACGIH

TLV/TWA 8-hr: 1 mg/m<sup>3</sup> (respirable fraction)

Canada - Ontario - OEL - TWA EVs

1 mg/m<sup>3</sup>

Canada - Nova Scotia - OEL - TWA

1 mg/m<sup>3</sup> TWA (respirable fraction)

#### PNEC (Predicted No Effect

No information available

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## Concentration)

**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)** No information available

**Upper flammability limit:** --

**Lower flammability limit:** --

**Vapor Pressure** Not applicable

**Vapor Density** Not applicable

**Density** No data available

**Relative Density** +/- 2.42 g/cm<sup>3</sup> (20 °C)

**Water Solubility** Insoluble

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<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available Not applicable Product/Substance is inorganic
<b>Autoignition Temperature</b>	No data available No information available
<b>Decomposition Temperature</b>	No data available No information available
<b>Viscosity</b>	No information available.
<b>Kinematic viscosity</b>	Not applicable
<b>Dynamic viscosity</b>	Not applicable Solid
<b>Explosive Properties</b>	None
<b>Oxidizing Properties</b>	None
<b>Particle Size</b>	No information available
<b>VOC Content (%)</b>	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

<b>10.1. Reactivity</b>	No data available
<b>10.2. Chemical stability</b>	Stable under normal conditions
<b>10.3. Possibility of hazardous reactions</b>	None under normal processing
<b>10.4. Conditions to avoid</b>	Incompatible materials Dust formation Decomposition Temperature : Al <sub>2</sub> O <sub>3</sub> Water
<b>10.5. Incompatible materials</b>	Incompatible with strong acids and bases
<b>10.6. Hazardous decomposition products</b>	None under normal use conditions

## SECTION 11: Toxicological information

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

### 11.1. Information on toxicological effects

#### Aluminum Hydroxide

<b>Oral LD50</b>	> 2000 mg/kg Rat
<b>Inhalation LC50</b>	Rat > 2.3 mg/l (Al <sub>2</sub> O <sub>3</sub> ) Aerosol Maximum attainable concentration
<b>IARC</b>	Not Listed

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

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

**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** Do not breathe dust

**Ingestion** Ingestion is not a likely route of exposure

**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

**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** No data available.



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(BCF)

<b>12.4. Mobility in soil</b>	No information available.
<b>12.5. Results of PBT and vPvB assessment</b>	This substance does not meet the criteria for classification as PBT or vPvB.
<b>12.6. Endocrine disrupting properties</b>	This product does not contain any known or suspected endocrine disruptors

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Disposal Methods</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated Packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not reuse container.
<b>Waste codes</b>	Waste codes should be assigned by the user based on the application for which the product was used

### Aluminum Hydroxide

<b>European Waste Catalog</b>	060299
<b>WGK Classification (AwSV)</b>	5220 WGK: nwg

## SECTION 14: Transport information

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

<b>TDG -Canada</b>	Not regulated
<b>DOT</b>	Not regulated
<b>IATA</b>	Not regulated
<b>IMDG/IMO</b>	Not regulated
<b>ICAO</b>	Not regulated

**14.2. UN proper shipping name** None

**14.3. Transport hazard class(es)** None

**14.4. Packing group** None

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14.5. Environmental hazards No

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 (AIIIC)	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

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

### US Federal Regulations

#### EPA

##### SARA 313

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

##### 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

Y: Listed ; N: Not Listed

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

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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**

<b>Prepared by</b>	Huber Engineered Materials (HEM) Global Regulatory Affairs regulatory.affairs@huber.com
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<b>Revision Number</b>	1.3.1
<b>Reason for Version</b>	OSHA (Occupational Safety and Health Administration of the US Department of Labor).
<b>Training Advice</b>	Do not handle until all safety precautions have been read and understood.
<b>Abbreviations and acronyms</b>	<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 relates only to the specific material designated and may not be valid for such material used

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in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**