

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

Prepared in accordance with GB/T 16483-2008, GB/TGB/T 24774-2009, GB 13690 – 2009, GB/T 17519–2013  
Globally Harmonized System (GHS)

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**Section 1: PRODUCT AND COMPANY IDENTIFICATION**

|                               |   |
|-------------------------------|---|
| <b>Product Name:</b>          | Martinal® OL-104C; Martinal® OL-107C  |
| <b>Chemical Name</b>          | Aluminum Hydroxide (surface modified)   |
| <b>Pure substance/mixture</b> | Mixture   |
| <b>Recommended Use</b>        | Additive : Flame retardant  |
| <b>Uses advised against</b>   | No information available  |
| <b>Company:</b>               | MARTINSWERK GmbH<br>Kölner Strasse 110<br>50127 Bergheim<br>Germany<br>Tel. : +49-2271-90.22.78<br>Fax. : +49-2271-90.27.17 |
| <b>Emergency Telephone</b>    | CHEMTREC: 1 800 424 9300 or International +1 703 527 3887   |
| <b>E-mail</b>                 | hubermaterials@huber.com  |
| <b>Internet</b>               | www.hubermaterials.com  |

**Section 2: HAZARDS IDENTIFICATION**

|  |                                  |
|--|----------------------------------|
| <b>GHS Classification</b>              | Not classified                   |
| <b>Physical Hazard</b>                 | Not classified                   |
| <b>Health Hazard</b>                   | Not classified                   |
| <b>Environmental Hazard</b>            | Not classified                   |
| <b>Label Elements</b>                  |                                  |
| <b>Symbols/Pictograms</b>              | None                             |
| <b>Signal Word</b>                     | None                             |
| <b><u>Precautionary Statements</u></b> |                                  |
| <b>Prevention</b>                      | Avoid release to the environment |

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Observe good industrial hygiene practices.  
Avoid breathing dust.  
Use mechanical ventilation (dilution and local exhaust) to control exposure

**Response**

Wash hands thoroughly after handling  
IF ON SKIN: Wash with plenty of soap and water  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

**Spills and Leaks**

Collect spillage

**Storage**

Store in a dry place

**Disposal**

Dispose in accordance with local, state and national regulations

**General Advice**

None

**Additional Information:**

None.

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Pure substance/mixture**

Mixture

**Section 4: FIRST AID MEASURES**

**General Advice**

None

**Eye Contact**

Hold eyelids apart and flush eyes with a steady, gentle stream of water for several minutes.

**Skin Contact**

Wash skin with soap and water

**Inhalation**

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

**Ingestion**

Rinse mouth with water. Do not induce vomiting.

**Notes to Physician**

Treat symptomatically

**Personal Protective Equipment  
For First Aid Responders**

Wear suitable protective clothing  
IF exposed or concerned: Get medical advice/attention

**Expected acute symptoms and  
delayed symptoms**

None known

## Section 5: FIRE FIGHTING MEASURES

|  |   |
|--|---|
| <b>Flammable Properties</b>                                  | None known  |
| <b>Suitable Extinguishing Media</b>                          | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| <b>Unsuitable extinguishing media:</b>                       | None known  |
| <b>Specific Hazards Arising from the Chemical</b>            | None known  |
| <b>Unusual fire &amp; explosion hazards:</b>                 | None  |
| <b>Protective measures:</b>                                  | Use protective equipment that is appropriate for surrounding materials.                                 |
| <b>Protective Equipment and Precautions for Firefighters</b> | Wear self-contained breathing apparatus and protective suit   |

## Section 6: SPILLAGE, ACCIDENTAL RELEASE MEASURES

|                                  |  |
|----------------------------------|--|
| <b>Personal Precautions</b>      | Avoid dust formation. When exposed to high concentrations of airborne dust, wear a SCBA in accordance with national legislation                            |
| <b>Environmental Precautions</b> | This product does not present any particular risk to the environment. Refer to applicable national, state and local regulations prior to washing in drain. |
| <b>Methods for cleaning up</b>   | Pick up mechanically and / or by rinsing with water.<br>Avoid dry sweeping and use a sprinkler system or exhaust ventilation to prevent dust formation.    |
| <b>Other Information:</b>        | None known   |

## Section 7: HANDLING AND STORAGE

|                 |  |
|-----------------|--|
| <b>Handling</b> | Avoid dust formation. Avoid breathing dust. Handle in accordance with good industrial hygiene and safety practice. |
| <b>Storage</b>  | Store in a dry area. Keep containers closed and protect from physical damage.                                      |

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

|                        |   |
|------------------------|---|
| <b>Exposure Limits</b> | Provide adequate ventilation as well as local exhaust at critical locations |
|------------------------|---|

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|---|---|
| <b>Engineering Measures</b>                 | Do not handle until all safety precautions have been read and understood<br>Ensure adequate ventilation, especially in confined areas<br>Provide a good standard of controlled ventilation (10 to 15 air changes per hour)<br>Use exhaust ventilation to keep airborne concentrations below exposure limits<br>In case of insufficient ventilation, wear suitable respiratory equipment |
| <b><u>Personal Protective Equipment</u></b> |   |
| <b>Eye/Face Protection</b>                  | Wear safety glasses with side shields (or goggles)  |
| <b>Skin and Body Protection</b>             | Wear suitable protective clothing   |
| <b>Hand Protection</b>                      | Impervious gloves   |
| <b>Respiratory Protection</b>               | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  |
| <b>Hygiene Measures</b>                     | Handle in accordance with good industrial hygiene and safety practice<br>Handle in accordance with good industrial hygiene and safety practice  |
| <b>Environmental Exposure Controls</b>      | Dispose of in accordance with local regulations   |

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### Appearance:

|  |  |
|--|--|
| <b>Physical State</b>                          | Solid<br>Powder  |
| <b>Color</b>                                   | White  |
| <b>Odor</b>                                    | Odorless   |
| <b>Odor Threshold</b>                          | No information available                               |
| <b>pH:</b>                                     | +/- 9 ( 10% Water )                                    |
| <b>Melting point / Freezing point</b>          | ~ 300 °C / 572 °F (1013 hPa)                           |
| <b>Initial boiling point and boiling range</b> | > 2900 °C / 5252 °F (1013 hPa)                         |
| <b>Flash Point:</b>                            | Not applicable. Product/Substance is inorganic. Solid. |
| <b>Evaporation Rate</b>                        | Not applicable   |
| <b>Flammability (solid, gas)</b>               | No information available                               |
| <b>Upper flammability limit:</b>               |  |
| <b>Lower flammability limit:</b>               |  |
| <b>Vapor Pressure</b>                          | Not applicable   |
| <b>Vapor Density</b>                           | Not applicable   |
| <b>Relative Density</b>                        | +/- 2.42 g/cm <sup>3</sup> (20 °C)                     |
| <b>Water Solubility</b>                        | Insoluble  |
| <b>Solubility in other solvents</b>            | No information available                               |
| <b>Partition coefficient</b>                   | Not applicable Product/Substance is inorganic          |
| <b>Autoignition Temperature</b>                | No information available                               |
| <b>Decomposition Temperature</b>               | No information available                               |
| <b>Dynamic viscosity</b>                       | Not applicable Solid                                   |
| <b>Explosive Properties</b>                    | None   |
| <b>Oxidizing Properties</b>                    | None   |

No data available

**Section 10: STABILITY AND REACTIVITY**

|   |                                |
|---|--------------------------------|
| <b>Stability</b>                        | Stable under normal conditions |
| <b>Conditions to avoid:</b>             | None known                     |
| <b>Incompatible materials</b>           | Strong acids                   |
| <b>Hazardous decomposition products</b> | None under normal processing   |
| <b>Hazardous Reactions</b>              | None under normal processing   |
| <b>Hazardous polymerization:</b>        | None under normal processing   |

**Section 11: TOXICOLOGICAL INFORMATION**

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

**Product Information****Information on Likely Routes of Exposure**

|                          |  |
|--------------------------|--|
| <b>Eyes</b>              | Avoid contact with eyes<br>Dust contact with the eyes can lead to mechanical irritation                                  |
| <b>Skin</b>              | Avoid prolonged or repeated contact with skin<br>Contact with dust can cause mechanical irritation or drying of the skin |
| <b>Inhalation</b>        | Do not breathe dust  |
| <b>Ingestion</b>         | Ingestion is not a likely route of exposure  |
| <b>Aspiration hazard</b> | Not an expected route of exposure.   |
| <b>Symptoms</b>          | Low hazard for usual industrial or commercial handling   |

**11.1. Information on toxicological effects**

|                              |   |
|------------------------------|---|
| <b>Reproductive Effects</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>       | Based on available data, the classification criteria are not met. |

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**Specific target organ toxicity - Single exposure** - No information available.

**Specific target organ toxicity - Repeated exposure** - No information available.

### Section 12: ECOLOGICAL INFORMATION

|   |  |
|---|--|
| <b>Ecotoxicity</b>                        | Very low solubility. Not considered to be harmful to aquatic life.                       |
| <b>Persistence/Degradability:</b>         | The methods for determining biodegradability are not applicable to inorganic substances. |
| <b>Bioaccumulative Potential</b>          | Not likely to bioaccumulate.   |
| <b>Partition coefficient</b>              | Not available  |
| <b>Bioconcentration factor (BCF)</b>      | No data available.   |
| <b>Mobility in soil</b>                   | No information available.  |
| <b>Results of PBT and vPvB assessment</b> | This substance does not meet the criteria for classification as PBT or vPvB.             |
| <b>Other Adverse Effects</b>              | No information available   |

### Section 13: DISPOSAL CONSIDERATIONS

|  |  |
|--|--|
| <b>Waste from Residues/Unused Products</b> | Dispose of in accordance with local regulations  |
| <b>Contaminated Packaging:</b>             | Empty containers should be taken to an approved waste handling site for recycling or disposal. |

### Section 14: TRANSPORT INFORMATION

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

|                 |               |
|-----------------|---------------|
| <b>DOT</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

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**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

**Section 15: REGULATORY INFORMATION**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Global Inventories**

**Legend**

X / Y: Complies , - / N: Not Listed , Exempt

## Section 16: OTHER INFORMATION

|                                   |  |
|-----------------------------------|--|
| <b>Prepared by</b>                | Huber Engineered Materials Global Regulatory Affairs<br>email: regulatory.affairs@huber.com  |
| <b>Reason for Revision</b>        | GB/T 16483-2008<br>GB/T 24774-2009<br>GB 13690 – 2009<br>GB/T 17519–2013   |
| <b>GHS Classification</b>         | Not classified   |
| <b>Physical Hazard</b>            | Not classified   |
| <b>Health Hazard</b>              | Not classified   |
| <b>Environmental Hazard</b>       | Not classified   |
| <b>Label Elements</b>             |  |
| <b>Symbols/Pictograms</b>         | None   |
| <b>Signal Word</b>                | None   |
| <b>Abbreviations and acronyms</b> | <p>International Agency for Research on Cancer (IARC)<br/> International Air Transport Association (IATA)<br/> International Maritime Dangerous Goods (IMDG)<br/> International Uniform Chemical Information Database (IUCLID)<br/> Workplace Hazardous Materials Information System (WHMIS) status and classification<br/> EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification<br/> DOT (Department of Transportation)<br/> OSHA (Occupational Safety and Health Administration of the US Department of Labor)<br/> TWA - Time-Weighted Average<br/> Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)<br/> The Classification, Labeling and Packaging of Substances and Mixtures (CLP) Regulation (EC 1272/2008)<br/> PPE - Personal Protection Equipment<br/> NIOSH - National Institute for Occupational Safety and Health<br/> TDG (Transport of Dangerous Goods) Canada<br/> CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)<br/> Reportable Quantity (RQ) (RQ/% in mixture)<br/> STEL - Short Term Exposure Limit<br/> TLV® - Threshold Limit Value<br/> Derived No Effect Level (DNEL)<br/> SVHC: Substances of Very High Concern for Authorization:<br/> Land transport (ADR/RID)<br/> Biochemical oxygen demand (BOD)<br/> Chemical oxygen demand (COD)<br/> ICAO (air)<br/> (IMDG) International Maritime Dangerous Goods<br/> Positive Pressure Self-Contained Breathing Apparatus (SCBA)<br/> Predicted No Effect Concentration (PNEC)<br/> Globally Harmonized System (GHS)</p> |



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**End of Safety Data Sheet**