

Martinal® ONS

According to WHS Act and the Work Health and Safety Regulations (the WHS Regulations), Section 274.
New Zealand HSNO Chemical Classification
GHS (Globally Harmonized System)

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SECTION 1: Identification: Product identifier and chemical identity**1.1. Product identifier**

Product Name: Martinal® ONS

Pure substance/mixture Substance

Aluminum Hydroxide

CAS Number 21645-51-2
Weight-% >99

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

Recommended Use Additive : Flame retardant

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
In Asia Pacific: +65 6491 9100

SECTION 2: Hazard(s) Identification**2.1. Classification of the substance or mixture**

Physical Hazards Not classified

Health Hazards Not classified

Environmental Hazards Not classified

Symbols/Pictograms None

Signal Word None

Hazard Statements None

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Precautionary Statements

Prevention	Employ good industrial hygiene practice Wash hands thoroughly after handling
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	Keep in a dry place 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 and Information on Ingredients

Pure substance/mixture

Substance

Chemical Name	CAS Number	Australia (AIC)	New Zealand	Hazardous Substances	TSCA: United States	REACH registration number	Weight-%
Aluminum Hydroxide	21645-51-2	Y	Y	Not classified	A	01-2119529246-39	>99

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 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.
Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
Ingestion	Rinse mouth thoroughly with water.

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Aspiration hazard	Not an expected route of exposure.
Notes to Physician	Treat symptomatically.
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.

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.

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- 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 and personal protection

8.1. Control parameters

Occupational exposure limits

Aluminum Hydroxide

ACGIH
OSHATLV/TWA 8-hr: 1 mg/m³ (respirable fraction)
TWA: 15 mg/m³ Total Dust
5 mg/m³ Respirable Dust

8.2. Exposure controls

Engineering Measures

Do not handle until all safety precautions have been read and understood
Ensure adequate ventilation, especially in confined areas
Provide a good standard of controlled ventilation (10 to 15 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. Wear suitable gloves tested to EN 374.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Recommended filter type:
(FFP2)
(FFP3)

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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)
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
Partition coefficient	Not applicable Product/Substance is inorganic
Decomposition Temperature	200 °C (392 °F)
Dynamic viscosity	Not applicable Solid
Explosive Properties	None
Oxidizing Properties	None

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity	No data available
10.2. Chemical stability	Stable under normal conditions
10.3. Possibility of hazardous	None under normal processing

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reactions

10.4. Conditions to avoid Decomposition Temperature < / =0.3% : Al₂O₃ 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.

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.

11.1. Information on toxicological effects**Aluminum Hydroxide**

Oral LD50 > 2000 mg/kg Rat
Inhalation LC50 Rat > 2.3 mg/l (Al₂O₃) 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.

SECTION 12: Ecological information

12.1. Ecotoxicity Very low solubility. Not considered to be harmful to aquatic life.

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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.

12.6. Other adverse effects No information available

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

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- 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

SECTION 15: Regulatory Information

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

Global Inventories

Pure substance/mixture Substance

Chemical Name	CAS Number	Australia (AIC)	Canada (DSL)	China (IECSC)	REACH registration number	EC No	Japan	S. Korea (KECL)	Mexico	New Zealand	Philippines (PICCS)	Taiwan	TSCA: United States
Aluminum Hydroxide	21645-51-2	Y	Y	Y	01-211952 9246-39	244-492-7	(1)-17 (ENCS); ISHL	KE-00980	Y	Y	Y	Y	A

Legend

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

SECTION 16: Other information

- Prepared by** Huber Engineered Materials Global Regulatory Affairs
 email: regulatory.affairs@huber.com
- Reason for Revision** According to WHS Act and the Work Health and Safety Regulations (the WHS Regulations), Section 274. New Zealand HSNO Chemical Classification.
- GHS Classification** This product is not classified as hazardous according to the UN GHS guideline and labeling is not required
- Hazards identification**
Physical Hazards Not classified

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Health Hazards Not classified

Environmental Hazards Not classified

Symbols/Pictograms None

Signal Word None.

Hazard Statements None.

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)
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
PNEC (Predicted No Effect Concentration)
GHS (Globally Harmonized System)
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