

Safety Data Sheet

Martinal® ONS

Japan-JIS Z 7253:2012 Occupational Safety and Health Act GHS (Globally Harmonized System)

Issue Date: 19/Aug/2021 Revision Number: 1.3.1

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Martinal® ONS

Pure substance/mixture Substance

Aluminum Hydroxide

Print Date: 19/Aug/2021

CAS Number 21645-51-2

Weight-% >99

Recommended Use Additive: Flame retardant

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2. HAZARD IDENTIFICATION

Japan GHS Classification

Physical Hazards Not classified

Health Hazard Not classified

Environmental Hazards Not classified

GHS label elements

Symbols/Pictograms None

Signal Word None

Hazard statements Based on available data, the classification criteria are not met

Precautionary Statements

Prevention Do not handle until all safety precautions have been read and understood

Employ good industrial hygiene practice

Do not breathe dust

Response IF exposed or concerned: Get medical advice/attention

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Wash with plenty of soap and water

Storage Store away from incompatible materials.

Keep in a dry place

Disposal Dispose of contents/container to an approved waste disposal plant

Additional Information: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture Substance

| Chemical Name | CAS Number | Japan | Japan GHS Classification | REACH registration number | Weight-% |
|--------------------|------------|---------------------|-----------------------------|---------------------------|----------|
| Aluminum Hydroxide | 21645-51-2 | (1)-17 (ENCS); ISHL | Not classified | 01-2119529246-39 | >99 |

4. FIRST AID MEASURES

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing

IF ON SKIN: Wash with plenty of soap and water

Take off contaminated clothing and wash before reuse

IF IN EYES: In case of eye contact, remove contact lens and rinse immediately with plenty of

water, also under the eyelids, for at least 15 minutes Call a physician if irritation develops and persists

If swallowed: Rinse mouth thoroughly with water

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved and take

precautions to protect themselves

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Water spray (fog)

Media Foam

Dry chemical

Carbon dioxide (CO2)

Unsuitable Extinguishing Media Do not use water jetstream

Special hazards arising from the Avoid dust formation

substance or mixture

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Fire-fighting measures In case of fire and/or explosion do not breathe fumes

Water mist may be used to cool closed containers

Keep unauthorized personnel away

Special Protective Equipment

for Firefighters

Wear self-contained breathing apparatus and protective suit

6. ACCIDENTAL RELEASE MEASURES

Protective Equipment and Precautions for Firefighters

Avoid dust formation

Ensure adequate ventilation

Use personal protection recommended in Section 8

Avoid contact with eyes and skin. Wear suitable personal protection equipment.

Keep unauthorized personnel away

Environmental Precautions

Keep out of drains, sewers, ditches and waterways

Disposal considerations

See section 13 for more information

Methods and material for containment and cleaning up

Large Spill: Do not dry sweep dust. Wet dust with water before sweeping or use a

vacuum to collect dust

Small Spill: Vacuum or sweep material and place in a disposal container Minimize

use of water during clean-up

Recommended filter type: High efficiency particulate air filter (HEPA filter)

Other Information Not applicable

7. HANDLING AND STORAGE

Handling

Technical measures Provide adequate ventilation as well as local exhaustion at critical locations

Ensure adequate ventilation
Use personal protection equipment
See section 8 for more information

Advice on safe handling Minimize dust generation and accumulation

Conditions for safe storage,

including any incompatibilities

Keep containers tightly closed in a cool, well-ventilated place

Hygiene Measures Wash hands thoroughly after handling

Storage

Packaging compatibilities Keep/store only in original container

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits Provide adequate ventilation as well as local exhaustion at critical locations

Aluminum Hydroxide

Japan TWA: 2 mg/m³

Engineering Measures Ensure adequate ventilation, especially in confined areas

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Personal Protective Equipment

Respiratory Protection In case of inadequate ventilation wear respiratory protection

Hand protection For operations where prolonged or repeated skin contact may occur, impervious

gloves should be worn

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

Skin and Body Protection Wear suitable protective clothing.

Chemical resistant apron.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

Wash thoroughly after handling Avoid contact with eyes and skin

Do not breathe dust

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Color

Physical State Solid

Powder White 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 > 2900 °C / 5252 °F (101.3 hPa)

range

Odor

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
Vapor Density

Not applicable
Not applicable

Relative Density +/- 2.42 g/cm³ (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

Other information: No data available

10. STABILITY AND REACTIVITY

Reactivity Stable under normal conditions

Chemical stability Stable under normal conditions

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Possibility of hazardous

reactions

None known

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

Incompatible materials Strong oxidizing agents

Hazardous decomposition

products

None known

11. TOXICOLOGICAL INFORMATION

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

equivalent values.

Information on Likely Routes of Exposure

Do not breathe dust Inhalation

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.

Symptoms Low hazard for usual industrial or commercial handling

11.1. Information on toxicological effects

Aluminum Hydroxide

Oral LD50 > 2000 mg/kg Rat

Rat > 2.3 mg/l (Al2O3) Aerosol Maximum attainable concentration Inhalation LC50

IARC Not Listed

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

Based on available data, the classification criteria are not met. Carcinogenicity

12. ECOLOGICAL INFORMATION

Based on available data, the classification criteria are not met **Ecotoxicity**

Persistence and degradability No data available

No data available. Bioaccumulation

Mobility in soil No data available

Hazardous to the ozone layer No data available

13. DISPOSAL CONSIDERATIONS

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Disposal Dispose of in accordance with federal, state and local regulations

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling

or disposal

14. TRANSPORT INFORMATION

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

IATA Not regulated IMDG/IMO Not regulated ICAO Not regulated

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 Not applicable

user

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION

Global Inventories

Pure substance/mixture Substance

| Chemical Name | CAS Number | EC No | REACH registrati on number | Australia (AIIC) | Canada (DSL) | China (IECSC) | Japan | S. Korea (KECL) | Mexico | - | Philippine s (PICCS) | Taiwan | TSCA: United States |
|-----------------------|----------------|-----------|-------------------------------------|---------------------|-----------------|------------------|---------------------------|--------------------|--------|---|-------------------------|--------|---------------------------|
| Aluminum Hydroxide | 21645-51- 2 | 244-492-7 | 01-211952 9246-39 | Y | Y | Υ | (1)-17 (ENCS); ISHL | KE-00980 | Y | Y | Y | Υ | Α |

Legend

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

KECL - Korean Existing and Evaluated Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

TSCA (Toxic Substances Control Act)

DSL (Domestic Substance List)

NDSL (Non-Domestic Substances List)

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Japan - ISHL Notifiable Substances

ENCS - Japan Existing and New Chemical Substances

16. OTHER INFORMATION

Huber Engineered Materials Global Regulatory Affairs Prepared by

email: regulatory.affairs@huber.com

This SDS complies with the requirements of JIS Z 7250:2010 and JIS Z 7252:2009 (Japan) Reason for Revision

NITE GHS Classified list **Bibliography**

Japan Society for occupational health (2015) recommendation of allowable concentrations,

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit

Value

IARC (International Agency for Research on Cancer) Abbreviations and acronyms

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)

The information provided in this Safety Data Sheet is correct to the best of our knowledge, **Disclaimer**

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End of Safety Data Sheet