



Martoxid® KMS-94

**Japan-JIS Z 7253:2019
Occupational Safety and Health Act
GHS (Globally Harmonized System)**

Issue Date 29/Dec/2025
Print Date 01/May/2026

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Martoxid® KMS-94

Chemical Name Preparation : Al₂O₃

Pure substance/mixture Mixture

Recommended Use Abrasive, Catalyst, Adsorbent(s), Chemical industry (raw material for the production of other aluminium compounds), etc

Uses advised against None known

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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 This product is not classified as hazardous according to the UN GHS guideline and labeling is not required

Precautionary Statements

Prevention Do not handle until all safety precautions have been read and understood
Employ good industrial hygiene practice
Do not breathe dust

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Response IF exposed or concerned: Get medical advice/attention
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 Mixture

| Chemical Name | CAS NUMBER: | Weight-% | Japan | Japan GHS Classification |
|----------------|-------------|----------|---------------------|--------------------------|
| Aluminum oxide | 1344-28-1 | >=86 | (1)-23 (ENCS)(ISHL) | Not classified. |

Notes The above values are not product specifications

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

Most Important Symptoms and Effects, Both Acute and Delayed Treat symptomatically

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 Media Water spray (fog)
Foam
Dry chemical
Carbon dioxide (CO₂)

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Unsuitable Extinguishing Media Do not use water jetstream

Special hazards arising from the substance or mixture Avoid dust formation

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 exhaust 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

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

Aluminum oxide

Japan

TWA: 0.5 mg/m³ (respirable dust)
2 mg/m³ (total dust)

Engineering Measures Ensure adequate ventilation, especially in confined areas

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

| | |
|--|--|
| Physical State | Solid, Powder |
| Color | White (Al ₂ O ₃) |
| Odor | Odorless |
| Odor Threshold | No information available |
| Melting Point / Melting Range | No data available |
| Boiling Point | No data available |
| Freezing Point | No information available |
| Autoignition Temperature | No data available |
| Evaporation Rate | Not applicable |
| Flammability | No information available |
| Explosive Properties | None |
| Vapor Pressure | 1 hPa (2158 °C) |
| Water Solubility | Insoluble |
| Partition coefficient | Not applicable : Product/Substance is inorganic |
| Viscosity | No data available |
| Specific Gravity | No data available |
| Oxidizing Properties | None |
| Decomposition Temperature | No data available |
| Flash Point | Not applicable. Product/Substance is inorganic. Solid. |
| pH: | +/- 9 (10 % / H ₂ O) |
| Melting point / Freezing point | 2000 °C (3632 °F) (1013 hPa) |
| Initial boiling point and boiling range | 2980 °C (5396 °F) (1013 hPa) Melting Point : > 300°C |
| Relative Vapor Density | Not applicable Melting Point : > 300°C |
| Relative Density | +/- 3.7 - 3.9 |
| Solubility in other solvents | No information available |

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Dynamic viscosity Not applicable Solid

Other information: No data available

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Reactivity | Stable under normal conditions |
| Chemical stability | Stable under normal conditions |
| Possibility of hazardous reactions | None known |
| Conditions to avoid | Dust formation. Incompatible materials. |
| Incompatible materials | Strong oxidizing agents |
| Hazardous decomposition products | None known |

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. |

Symptoms Low hazard for usual industrial or commercial handling

11.1. Information on toxicological effects

Aluminum oxide

| | |
|--|---|
| Serious eye damage/eye irritation | Non-irritant : Rabbit |
| Skin Corrosion/Irritation | Non-irritant : Rabbit |
| Mutagenicity | Based on available data, the classification criteria are not met. |
| Reproductive Effects | No indication of effects on fertility. No indication of effects on developmental toxicity. |

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| | |
|---|---|
| Acute Toxicity | Mixture Al ₂ O ₃ Repeated dose toxicity Inhalation 28-d Rat NOAEL (No observed adverse effect level) 70 mg(Al)/m ³ . Target Organs Lungs Respiratory system Repeated dose toxicity 1- Year Oral Rat NOAEL (No observed adverse effect level) >=30 mg Al/kg bw |
| Serious eye damage/eye irritation | Non-irritant : Rabbit |
| Respiratory Sensitization | Based on available data, the classification criteria are not met. |
| Skin Corrosion/Irritation | Non-irritant : Rabbit |
| Mutagenicity | Based on available data, the classification criteria are not met. |
| 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 | This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. |
| Target Organ Effects | Lungs. |
| Specific target organ toxicity - Single exposure | No information available. |
| Specific target organ toxicity - Repeated exposure | No information available. |
| Mixture versus substance information | Mixture. |

12. ECOLOGICAL INFORMATION

Aluminum oxide Aquatic toxicity

Not considered to be harmful to aquatic life

| | |
|--------------------------------------|---|
| Ecotoxicity | Based on available data, the classification criteria are not met. |
| Persistence and degradability | No data available |
| Bioaccumulation | No data available. |
| Mobility in soil | No data available |
| Hazardous to the ozone layer | No data available |

13. DISPOSAL CONSIDERATIONS

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

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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)

| | |
|-----------------|---------------|
| ADR | Not regulated |
| 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 user** Not applicable**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable

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15. REGULATORY INFORMATION

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

Poisonous and Deleterious Substances Control Act

Not applicable

Industrial Safety and Health Act (ISHA)

Not applicable under the Ordinance on Prevention of Hazards due to Specified Chemical Substances

Not applicable under the Ordinance on Prevention of Organic Solvent Poisoning

Substances requiring name labeling or notification (Designated Hazardous Substances)

Not applicable.

PRTR and Promotion of Chemical Management Law:

Not applicable

Fire Services Act

Not applicable

Japan - Specified Chemical Substances

Class I specified chemical substances

Not regulated.

Class II specified chemical substances

Not regulated.

Monitoring chemical substances

Not regulated.

Priority Assessment Chemical Substances (PACs)

Not regulated.

Reporting Exempted Substances

Not regulated.

Global Inventories

Pure substance/mixture

Mixture

| 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 oxide | 1344-28-1 | 215-691-6 | 01-211952 9248-35-x xxx | Y | Y | Y | (1)-23 (ENCS)(ISHL) | KE-01012 | Y | Y | Y | Y | A |

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

Legend-Inventories

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)

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NDSL (Non-Domestic Substances List)
Japan - ISHL Notifiable Substances
ENCS - Japan Existing and New Chemical Substances

16. OTHER INFORMATION

| | |
|-----------------------------------|---|
| Prepared by | Huber Engineered Materials Global Regulatory Affairs (Email – HEM.HAMRegulatory@huber.com) |
| Reason for Revision | This SDS complies with the requirements of JIS Z 7252:2019 and JIS Z 7253:2019 (Japan) |
| Bibliography | NITE GHS Classified list Japan Society for occupational health (2015) recommendation of allowable concentrations, etc. ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value |
| Abbreviations and acronyms | Land transport (ADR/RID) BOD (Biochemical oxygen demand) COD (Chemical oxygen demand) DNEL (Derived No Effect Level) PNEC (Predicted No Effect Concentration) DOT (Department of Transportation) ICAO (International Civil Aviation Organization) IATA (International Air Transport Association) IARC (International Agency for Research on Cancer) IMDG (International Maritime Dangerous Goods) PPE (Personal Protection Equipment) SCBA (Self-Contained Breathing Apparatus) Positive Pressure STEL (Short Term Exposure Limit) TLV® (Threshold Limit Value) TWA (Time-Weighted Average) CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) NIOSH (National Institute for Occupational Safety and Health) EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) TDG (Transport of Dangerous Goods) Canada WHMIS (Workplace Hazardous Materials Information System) |
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End of Safety Data Sheet