



**SpaceRite® S-3**

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

**Issue Date** 10/Apr/2025  
**Print Date** 01/May/2026

**Revision Number** 1.3  
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**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product Name:</b>	SpaceRite® S-3
<b>Chemical Name</b>	Aluminum Hydroxide
<b>Pure substance/mixture</b>	Substance
<b>Recommended Use</b>	Flame retardant, Smoke suppressant
<b>Uses advised against</b>	None known
<b>Company:</b>	J.M. Huber Corporation 3100 Cumberland Boulevard, Suite 600 Atlanta, GA 30339 USA Tel: +1 678 247-7300
<b>Internet</b>	<a href="http://www.huberadvancedmaterials.com">www.huberadvancedmaterials.com</a>
<b>E-mail</b>	<a href="http://www.huberadvancedmaterials.com/contact">www.huberadvancedmaterials.com/contact</a>
<b>Emergency Telephone Number</b>	CHEMTREC: +1 800 424 9300 or International 1+703-527-3887 +81 03-3560-7316

**2. HAZARD IDENTIFICATION**

<b>Japan GHS Classification</b>	
<b>Physical Hazards</b>	Not classified.
<b>Health Hazard</b>	Not classified.
<b>Environmental Hazards</b>	Not classified.
<b>GHS label elements</b>	
<b>Symbols/Pictograms</b>	None
<b>Signal Word</b>	None
<b>Hazard statements</b>	This product is not classified as hazardous according to the UN GHS guideline and labeling is not required
<b>Precautionary Statements</b>	
<b>Prevention</b>	Do not handle until all safety precautions have been read and understood Employ good industrial hygiene practice Do not breathe dust
<b>Response</b>	IF exposed or concerned: Get medical advice/attention Wash with plenty of soap and water

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**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:	Weight-%	Japan	Japan GHS Classification
Aluminum Hydroxide	21645-51-2	100	(1)-17 (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 (CO<sub>2</sub>)

**Unsuitable Extinguishing Media** Do not use water jetstream

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**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

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

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Japan

TWA: 2 mg/m<sup>3</sup>

### 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	Powder
Color	White
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	Not applicable
Evaporation Rate	Not applicable
Flammability	No data available
Explosive Properties	None
Vapor Pressure	Not applicable
Water Solubility	Insoluble
Partition coefficient	No data available
Viscosity	Not applicable
Specific Gravity	No data available
Oxidizing Properties	Not applicable
Decomposition Temperature	392 °F (200 °C)
Flash Point	Not applicable.
pH:	8.4 - 10.2 5% Water suspension
Melting point / Freezing point	ca 300 °C / 572 °F (101.3 kPa)
Initial boiling point	5396 °F (2980 °C) 101.3 kPa
Flammability	Not applicable
Relative Vapor Density	Not applicable
Relative Density	2.4 g/cm <sup>3</sup> , 20° C
Solubility in other solvents	No information available
VOC Content (%)	Not applicable None

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## 10. STABILITY AND REACTIVITY

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

<b>Inhalation</b>	Do not breathe dust Inhalation of dust may cause irritation of the respiratory system
<b>Skin</b>	Contact with dust can cause mechanical irritation or drying of the skin
<b>Eyes</b>	Dust contact with the eyes can lead to mechanical irritation
<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

#### Aluminum Hydroxide

Oral LD50	> 2000 mg/kg Rat
IARC	Not Listed

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<b>Acute Toxicity</b>	Based on available data, the classification criteria are not met.
<b>Chronic Toxicity</b>	Based on available data, the classification criteria are not met.
<b>Chronic Effects</b>	Based on available data, the classification criteria are not met.
<b>Serious eye damage/eye irritation</b>	Non-irritant Rabbit

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<b>Respiratory Sensitization</b>	No information available
<b>Skin Corrosion/Irritation</b>	Non-irritant Rabbit
<b>Skin Sensitization</b>	Based on available data, the classification criteria are not met. Not a skin sensitizer Guinea pig
<b>Mutagenicity</b>	in vitro. Not genotoxic in bacteria and mammalian cell systems. in vivo. Mutagenicity (micronucleus test). Rat. Negative. (weight of evidence approach).
<b>Germ cell mutagenicity</b>	No information available.
<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.
<b>Specific target organ toxicity - Single exposure</b>	Not classified.
<b>Specific target organ toxicity - Repeated exposure</b>	No information available.
<b>Mixture versus substance information</b>	No information available.

## 12. ECOLOGICAL INFORMATION

### Aluminum Hydroxide

Aquatic toxicity

Not considered to be harmful to aquatic life

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

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal</b>	Dispose of in accordance with federal, state and local regulations
<b>Contaminated packaging</b>	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)

HUBER

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ADR	Not regulated
RID	Not regulated
ADN	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 regulated

#### 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

##### Substance

Chemical Name	CAS NUMBER:	EC No	EU REACH registration number	Australia (AICS)	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

#### 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)

NDSL (Non-Domestic Substances List)

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Japan - ISHL Notifiable Substances  
ENCS - Japan Existing and New Chemical Substances

### 16. OTHER INFORMATION

<b>Prepared by</b>	Huber Engineered Materials Global Regulatory Affairs (Email – HEM.HAMRegulatory@huber.com)
<b>Reason for Revision</b>	This SDS complies with the requirements of JIS Z 7252:2019 and JIS Z 7253:2019 (Japan)
<b>Bibliography</b>	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
<b>Abbreviations and acronyms</b>	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)
<b>Disclaimer</b>	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