



**Hydral® 710, Hydral® PGA-SD, SpaceRite® S-3 and SpaceRite® S-11**

This material safety datasheet has been prepared according to Brazilian legislation and ABNT NBR 14725:2014 GHS (Globally Harmonized System)

**Issue Date** 27/Nov/2023

**Print Date** 27/Nov/2023

**Revision Number** 1.3.1

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product Name:** Hydral® 710, Hydral® PGA-SD, SpaceRite® S-3 and SpaceRite® S-11

**Chemical Name** Aluminum Hydroxide

**Pure substance/mixture** Substance

**Aluminum Hydroxide**

**CAS Number** 21645-51-2

**Weight-%** 100

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

**Recommended Use** Flame retardant

**Uses advised against** None known.

**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.huberadvancedmaterials.com](http://www.huberadvancedmaterials.com)

**E-mail** [hubermaterials@huber.com](mailto:hubermaterials@huber.com)

**1.4. Emergency telephone number** CHEMTREC: +1 800 424 9300 or International +1 703 527 3887

**SECTION 2: Hazards identification**

**Brazil Ministry of Transport**

This product is not part of the Hazardous Products Classification established by the Brazilian Federal Department of Transportation's Administrative Ruling 204 from 5/20/1997.

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**Prevention** Employ good industrial hygiene practice  
Do not handle until all safety precautions have been read and understood  
Do not breathe dust  
Wear protective gloves/protective clothing/eye protection/face protection

**Response** IF ON SKIN: Wash with plenty of soap and water

**Storage** 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/information on ingredients

**Pure substance/mixture** Substance

Chemical Name	CAS Number	TSCA: United States	EU REACH registration number	GHS Classification	Weight-%
Aluminum Hydroxide	21645-51-2	A	01-2119529246-39	Not classified.	100

**Additional information** TSCA A: Component is listed on Inventory as Active

## SECTION 4: First aid measures

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## 4.1. Description of first aid measures

<b>General Advice</b>	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.
<b>Eye Contact</b>	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Skin Contact</b>	Wash with plenty of soap and water.
<b>Ingestion</b>	Rinse mouth thoroughly with water.
<b>Inhalation</b>	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>Aspiration hazard</b>	Not an expected route of exposure.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	Signs and symptoms may include coughing, gasping, choking and difficulty breathing.
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>	Treatment should be symptomatic and supportive.

## SECTION 5: Firefighting measures

**Flammable Properties** None known

### 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.

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## 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.

6.3. 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

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) Flame retardant.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

#### Aluminum Hydroxide - 21645-51-2

OSHA	TWA: 15 mg/m <sup>3</sup> (Total Dust) 5 mg/m <sup>3</sup> (Respirable Dust)
NIOSH	TWA: 5 mg/m <sup>3</sup> (respirable dust); 10 mg/m <sup>3</sup> TWA (total dust)
ACGIH	TLV/TWA 8-hr: 1 mg/m <sup>3</sup> (respirable fraction)
Mexico	Not established

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**PNEC (Predicted No Effect Concentration)** No information available

**Biological Limit Values** None

**DNEL (Derived No Effect Level)** Consumer - oral, long-term - local and systemic 4.74 mg/kg bw/day  
Worker - inhalative, long-term - local and systemic 10.74 mg/m<sup>3</sup>

### 8.2. Exposure controls

**Engineering Measures** Ensure adequate ventilation, especially in confined areas  
Provide a good standard of controlled ventilation (10 to 15 air changes per hour)

### 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.

**Respiratory Protection** In case of inadequate ventilation wear respiratory protection.

**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

**Physical State** Solid.

**Color** White

**Odor** Odorless

**Odor Threshold** No information available

**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

**Flash Point** Not applicable

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Evaporation Rate	Not applicable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Relative Density	2.4 g/cm <sup>3</sup> , 20° C
Water Solubility	Insoluble
Partition coefficient	No information available
Autoignition Temperature	Not applicable
Decomposition Temperature	392 °F (200 °C)
Viscosity	Not applicable
Explosive Properties	None
Oxidizing Properties	Not applicable
VOC Content (%)	Not applicable
Solubility in other solvents	No information available

### 9.2. Other information

## SECTION 10: Stability and reactivity

10.1. Reactivity	None.
10.2. Chemical stability	Stable under normal conditions.
10.3. Possibility of hazardous reactions	None under normal processing.
10.4. Conditions to avoid	Incompatible materials.
10.5. Incompatible materials	Strong acids
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.
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### 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>	Avoid contact with eyes. 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 related to the physical, chemical and toxicological characteristics</b>	Signs and symptoms may include coughing, gasping, choking and difficulty breathing. Contact with eyes may cause irritation.

**Symptoms** Low hazard for usual industrial or commercial handling

### 11.1. Information on toxicological effects

#### Aluminum Hydroxide - 21645-51-2

<b>Oral LD50</b>	> 2000 mg/kg Rat
<b>Inhalation LC50</b>	Rat > 2.3 mg/l (Al <sub>2</sub> O <sub>3</sub> ) Aerosol Maximum attainable concentration
<b>IARC</b>	Not Listed

<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.
<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.

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<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.

## SECTION 12: Ecological information

**12.1. Ecotoxicity** Not considered to be harmful to aquatic life. Avoid release to the environment.

### Aluminum Hydroxide - 21645-51-2

**WGK Classification (AwSV)** 5220 WGK: nwg

<b>12.2. Persistence and degradability</b>	The methods for determining biodegradability are not applicable to inorganic substances.
<b>12.3. Bioaccumulative potential</b>	Not likely to bioaccumulate.
<b>Partition coefficient</b>	No information available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	No information available.
<b>12.5. Results of PBT and vPvB assessment</b>	This substance does not meet the criteria for classification as PBT or vPvB.
<b>12.6. Other adverse effects</b>	No information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Contaminated Packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>Waste codes</b>	Waste codes should be assigned by the user based on the application for which the product was used



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## Disposal Methods

Disposal should be in accordance with applicable regional, national and local laws and regulations

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European Waste Catalog 060299

## SECTION 14: Transport information

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

**ADR** Not regulated

**RID** Not regulated

**ADN** Not regulated

**IATA** Not regulated

IMDG/IMO	Not regulated
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ICAO Not regulated

14.1. UN number	None
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14.2. UN proper shipping name None

**14.3. Transport hazard class(es)** None

14.4. Packing group None

<b>14.5. Environmental hazards</b>	No
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<b>14.6. Special precautions for user</b>	Not applicable
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**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

Chemical Name	CAS Number	EC No	EU REACH registration	Australia (AIIC)	Canada (DSL)	China (IECSC)	Japan	S. Korea (KECL)	Mexico	New Zealand	Philippine s (PICCS)	Taiwan	TSCA: United States
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			number										
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

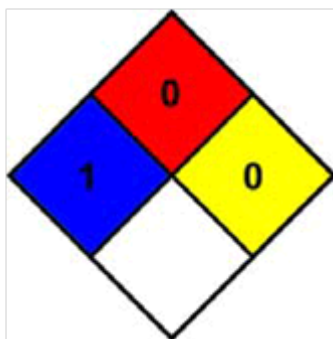
Information on risks and safety as written on the label

Health - Blue

Flammability - Red

Physical Hazard - Yellow

Special - White



4- Extreme  
3- High  
2- Moderate  
1- Low  
0- Minimum

## SECTION 16: Other information

### Prepared by

Huber Engineered Materials (HEM) Global Regulatory Affairs  
regulatory.affairs@huber.com

### Reason for Version

Brasil: ABNT NRB 14725-4: 2014.

### 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)

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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)  
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**