



Safety Data Sheet

FIRE RETARDANT ADDITIVES

Hydral® 710

Globally Harmonized System (GHS)

Issue Date: 30/Mar/2020
Print Date: 17/Nov/2020

Revision Number: 1.3

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

1.1. Product identifier

Product Name: Hydral® 710

Pure substance/mixture Substance

Chemical Name	CAS Number	REACH registration number	TSCA: United States	GHS Classification	Weight-%
Aluminum Hydroxide	21645-51-2	01-2119529246-39	A	Not classified.	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
MARTINSWERK GmbH
Kölner Strasse 110
50127 Bergheim
Germany
Tel. : +49-2271-90.22.78
Fax. : +49-2271-90.27.17

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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Mixture versus substance information	No information available
GHS Classification	This product is not classified as hazardous according to the UN GHS guideline and labeling is not required
Hazards identification	
Physical Hazard	Not classified.
Health Hazards	Not classified
Environmental Hazard	Not classified.
2.2. Label elements	
Symbols/Pictograms	None
Signal Word	None
Precautionary Statements	
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.
2.3. Other hazards	No information available.

SECTION 3: Composition/information on ingredients

Pure substance/mixture Substance

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

SECTION 4: First aid measures

4.1. Description of first aid measures

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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.
Aspiration hazard	Not an expected route of exposure.
Notes to Physician	Treat symptomatically.
4.2. Most important symptoms and effects, both acute and delayed	Signs and symptoms may include coughing, gasping, choking and difficulty breathing.
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.

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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

- Exposure Limits** Provide adequate ventilation as well as local exhaustion at critical locations
- Aluminum Hydroxide**
- | | |
|--------|---|
| ACGIH | TLV/TWA 8-hr: 1 mg/m ³ (respirable fraction) |
| OSHA | TWA: 15 mg/m ³ Total Dust
5 mg/m ³ Respirable Dust |
| Mexico | Not established |
- 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

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Hand Protection	Impervious gloves
Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice
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
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.
Evaporation Rate	Not applicable.
Flammability (solid, gas)	Not applicable
Flammability (solid, gas)	Not applicable
Upper flammability limit:	
Lower flammability limit:	
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Relative Density	2.4 g/cm ³ , 20° C
Water Solubility	Insoluble
Solubility in other solvents	No information available
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

SECTION 10: Stability and reactivity

10.1. Reactivity	None
10.2. Chemical stability	Stable under normal conditions

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- 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.

Information on Likely Routes of Exposure

- Inhalation** Do not breathe dust
Inhalation of dust may cause irritation of the respiratory system
- Skin** Contact with dust can cause mechanical irritation or drying of the skin
- 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
Inhalation LC50
IARC

> 2000 mg/kg Rat
Rat > 2.3 mg/l (Al2O3) Aerosol Maximum attainable concentration
Not Listed

- Acute Toxicity** Based on available data, the classification criteria are not met
- Chronic Toxicity** Based on available data, the classification criteria are not met.
- Chronic Effects** Based on available data, the classification criteria are not met.
- Respiratory Sensitization** No information available
- Serious eye damage/eye irritation** Non-irritant Rabbit
- Skin Corrosion/Irritation** Non-irritant Rabbit
- Skin Sensitization** Based on available data, the classification criteria are not met Not a skin sensitizer

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	Guinea pig
Mutagenicity	in vitro Not genotoxic in bacteria and mammalian cell systems. in vivo Mutagenicity (micronucleus test) Rat Negative (weight of evidence approach)
Germ cell mutagenicity	No information available.
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	Based on available data, the classification criteria are not met.
Specific target organ toxicity - Single exposure	Not classified.
Specific target organ toxicity - Repeated exposure	No information available.
Mixture versus substance information	No information available

SECTION 12: Ecological information

12.1. Ecotoxicity	Not considered to be harmful to aquatic life.
Aluminum Hydroxide	
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.
Partition coefficient	No information available
Bioconcentration factor (BCF)	Not 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

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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.
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
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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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	EC No	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

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

Germany

Not considered to be harmful to aquatic life

Aluminum Hydroxide

WGK Classification (AwSV) 5220 WGK: nwg

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance

SECTION 16: Other information

Prepared by

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GHS Classification

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

Symbols/Pictograms

None

Signal Word

None

Hazard Statements

None

Hazards identification

Physical Hazard

Not classified

Health Hazards

Not classified

Environmental Hazard

Not classified

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Abbreviations and acronyms

International Agency for Research on Cancer (IARC)
International Air Transport Association (IATA)
International Maritime Dangerous Goods (IMDG)
International Uniform Chemical Information Database (IUCLID)
Workplace Hazardous Materials Information System (WHMIS) status and classification
EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification
DOT (Department of Transportation)
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
TWA - Time-Weighted Average
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)
The Classification, Labeling and Packaging of Substances and Mixtures (CLP) 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)
Reportable Quantity (RQ) (RQ/% in mixture)
STEL - Short Term Exposure Limit
TLV® - Threshold Limit Value
Derived No Effect Level (DNEL)
SVHC: Substances of Very High Concern for Authorization:
Land transport (ADR/RID)
Biochemical oxygen demand (BOD)
Chemical oxygen demand (COD)
ICAO (air)
(IMDG) International Maritime Dangerous Goods
Positive Pressure Self-Contained Breathing Apparatus (SCBA)
Predicted No Effect Concentration (PNEC)
Globally Harmonized System (GHS)

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End of Safety Data Sheet