Via M. Coppino 253 - 55049 Viareggio (Lu) ITALY tel. +39 0584 383694 fax +39 0584 395182

www.cecchi.it info@cecchi.it

ADDITIVE NO FIRE POWDER - SAFETY DATA SHEET - october 2018



ADDITIVE NO FIRE POWDER

1. Identification of substance/mixture and of the company/untertaking

1.1 Product identifier

Substance name Aluminum hydroxide

Commercial product name ADDITIVE NO FIRE POWDER

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

Additive, flame retardant, filler, pigment, ground chemical, health care, personal care, viscosity adjustor

1.3 Details of the supplier of the safety data sheet

Company Cecchi Gustavo & C. srl - Via M. Coppino 253, 55049 Viareggio (LU) ITALY www.cecchi.it - info@cecchi.it Information in case of emergency: +39 0584 383694 - info@cecchi.it From monday to friday office hours 8:30 – 12:30, 14:00 – 18:30

1.4 Emergency telephone number

+39 0584 383694

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according Regulation (EC) No 1272/2008 [CLP]

Not classified

Classification according Directive 67/548/EEC or Directive 1999/45/EC

Not classified

2.2 Label elements

 Hazard pictogram
 None

 Signal word
 None

 Hazard statement
 None

 Precautionary statements (recommended)
 None

2.3 Other Hazards

Prolonged or excessive contact may cause mechanical irritation of the respiratory tract.

3. Composition/information on ingredients

3.1 Substances

Chemical name	CAS No	EC No	REACH-Registration-No	Weight [%]	H-Phrases	R-Phrases
Aluminum hydroxide	21645-51-2	244-492-7	01-2119529246-39-0012	>99,5	None	None

3.2 Mixtures This product is a substance

4. First aid measures

4.1 Description of first aid measures

 Inhalation
 Move to fresh air. Consult a physician if necessary.

 Skin contact
 Mechanical (dry) removal. Subsequent rinsing with water.

 Eye contact
 Intensive rinsing with water. Consult a physician if necessary.

 Ingestion
 Rinse out mouth and give plenty of water to drink. Seek medical advice.

4.2 Most important symptoms and effects, both acute None

and delaye

4.3 Indication of any immediate medical attention and None

special treatment needed

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5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Product itself is non-combustible. Use extinguishing measures appropriate to the source of the fire.

Unsafe extinguishing media None None

5.2 Special hazards arising from the substance or

mixture 5.3 Advice for firefighters

None

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. In case of exposure to high levels of airborne dust, wear a personal respirator in compliance with national

legislation.

6.2 Environmental precautions No special environmental precautions required.

6.3 Methods and material for containment and cleaning up

Take up mechanically. Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections See chapter 8 and 13

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling Avoid dust formation. No special handling advice required.

Advice on protection against fire and explosion Not explosive. No special measures necessary.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in dry place.

7.3 Specific and use(s) See product information.

8. Exposure controls/personal protection

8.1 Control parameters Observe the local by-laws in terms of fine dust:

(e.g.: OSHA-PEL value 15 mg/m³ total dust, 5 mg/m³ for respirable dust;

ACGIH-TWA value 10 mg/ m³, TRGS 900 10 mg/m³ respirable, 3 mg/m³ alveolar)

Exposure limits for consumers Not applicable

8.2 Exposure controls

Technical controls Avoid dust formation. Appropriate local exhaust ventilation recommended.

Personal protection controls

Respiratory protection Avoid inhaling the dust. In case of insufficient ventilation and exposure to high levels of airborne dust, wear suitable respiratory

equipment. Recommended filter type: Filter P2 (acc. to DIN 3181)

Hand protection Protective gloves are recommended

> Glove material: Nitril rubber Layer thickness: 0.11 mm Breakthrough time: > 480 Min

Eye protection Safety glasses with side-shields (frame goggles) are recommended

No special protective equipment required Skin protection

Hygiene measures Do not eat, drink or smoke when handling. Observe standard industrial hygiene practice.

Environmental exposure controls No special exposure controls required.

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Test substance

Test substance

9. Physical and chemical properties

9.1 Informationon basic physical and chemical properties

Physical state: Color White Odor: Odorless

8 - 9 at 20 $^{\circ}\text{C}$ (saturated solution) pH:

Solubility in water. 0,00009 g/l at 20 °C 2,4 g/cm3 (20 °C) Density: Vapor pressure: Not applicable Boiling point: 2980 °C

Decomposes before melting Melting point.

Not applicable Flash point : Flammability. Not flammable Auto ignition: Not auto flammable Explosive properties: Non explosive

Oxidizing properties: Thermal decomposition: >200 °C Octanol-Water coefficient: Not applicable 9.2 Other information None

10. Stability and reactivity

10.1 Reactivity No known, if used properly.

10.2 Chemical stability: Stable under normal conditions. Loss of water and decomposition starts at temperature >200°C

10.3 Possibility of hazardous reactions No hazardous reactions known. 10.4 Conditions to avoid High temperature > 200°C

10.5 Incompatible materials Soluble in strong acids and caustic solutions.

10.6 Hazardous decomposition products:

11. Toxicological information

Acute effects

1.1 Information on toxicological effects	No bioaccumulation potential

Туре Oral Aluminum hydroxide >2000 ma/ka bw rat acute Dermal Not applicable Inhalation LC50: 7,6 mg/l rat acute Analogue Skin corrosion Not corrosive rabbit acute Analogue Analogue Skin irritation Not irritating rabbit acute Eye irritation Not irritating rabbit acute Analogue Sensitisation Non sensitising

Species

Repeated dose toxicity Value Species Туре

NOAEL Analogue Oral 30mg/kg bw/day rat Inhalation NOAEL: 70mg/m³ rat subchronic Analogue

Cancerogenity There is no evidence of any carcinogenic effects Mutagenity There is no evidence of any mutagenic effects Reproductive toxicity There is no evidence of any reproductive toxicity effects

Value

12. Ecological information

Value Species Type Test substance 12.1 Toxicity Fish toxicity LC50: >100 mg/l Salmo trutta acute Aluminum hydroxide EC50: >100 mg/l Invertebrate toxicity Analogue Daphnia Magna acute EC50: >100 mg/l Algae toxicity Selenastrum capricornutum acute Analogue

Micro-organism toxicity Study scientifically unjustified

12.2 Persistance and degradability Not applicable for inorganic substances

12.3 Bioaccumulative potential Not applicable 12.4 Mobility in soil Not applicable

12.5 Results of PBT and vPvB assessment As a result of the PBT/vPvB assessment it is found that the product does not meet the criteria for classification as PBT/vPvB.

12.6 Other adverse effects None known.

13. Disposal considerations

13.1 Waste treatment methods Reuse or recycle when possible. Dispose of in accordance with local regulations

Spoiled packages Packaging has to be emptied entirely. Recycling of used packaging is recommended. Local by-laws must be observed

14. Transport information

14.1 UN number according to UN shipping name, see item 14.2

14.2 Un propper shipping name

ADR / RID NOT CLASSIFIED AS "DANGEROUS GOODS" IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

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IATA-DGR / ICAO-TI NOT CLASSIFIED AS "DANGEROUS GOODS"

 14.3 Transport hazard class(es)
 None

 14.4 Packaging group
 None

 14.5 Environmental hazards
 None

14.6 Special precautions for user

See item 6 to 8

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No hazardous goods

15. Regulatory information

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

EU-Regulations and directives

Not applicable Regulation (EC) No 2037/2000 (Ozon Depleting Substances) Not applicable Regulation (EC) No 850/2004 (Persistant Organic Pollutants) Not applicable Regulation (EC) No 689/2008 (Export and import of dangerous substances) Not applicable Directive 2002/95/EC (RoHS) Not applicable Directive 2002/96/EC (WEEE) Not applicable Directive 1999/13/EC (VOC) None Restrictions according TITLE VIII of the Regulation (EC) No 1907/2006 (REACH)

National legislations

Water pollution class Not classified Classification according VbF Not classified

International Inventories

Chemical name	TSCA	DSL	ENCS	IECSC	KECL	PICCS	AICS
Aluminum hydroxide	listed	listed	1-17	listed	KE-00980	listed	listed

15.2 Chemical safety assessment Not applicable

16. Other information Employment restrictions

None

Issuer of MSDS

Contact Nabaltec AG, Analysenzentrum

> phone fax 0049 9431 53289

This information is based on our present knowledge. This shall not constitute a guarantee for any specific product featured and shall not establish a legally valid contractual relationship.

Exposure scenarios

As a result of the hazard assessment and PBT/vPvB assessment it is found that SUBSTANCE Aluminum hydroxide (CAS# 21645-51-2) does not meet the criteria for classification as hazardous (according to Directives 67/548/EEC and 1272/2008/EC) nor is it considered to be a PBT/vPvB. An exposure assessment and the subsequent step of risk characterisation is not required.

Key-Legend ACGIH

American Conference of Governmental Industrial Hygienist

OSHA Occupational Safety & Health Administration

PFI Permissible exposure limit TWA Time Weighted Average TRGS Technische Regeln für Gefahrstoffe NOEL No Observed Effect Level NOAEL No Observed Adverse Effect Level LC Letal Concentration EC

ADR Accord européen sur le transport des marchandises dangéreuses par route IATA-DGR International Air Transport Association-Dangerous Goods Regulations ICAO-TI International Civil Aviation Organization-Technical Instruction IMDG International Maritime Code for Dangerous Goods

MARPOL Maritime Pollution Convention

RID Règlement international concernant le transport des marchandises dangereuses par chemins de fei

Restriction of (the use of certain) hazardous substances WEFF Waste Electrical and Electronic Equipment

VOC Volatile Organic Compounds

Verordnung über brennbare Flüssigkeiten