

Nabaltec AG  
92409 Schwandorf

Date printed 14.03.2023, Revision 11.10.2022

Version 4.0. Supersedes version: 3.0

Page 1 / 11

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

### 1.1 Product identifier

**APYRAL®**

**Valid for all product variants**

Registration number	01-2119529246-39-0012
IUPAC	Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate)
EINECS/ELINCS	244-492-7
CAS	21645-51-2

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

#### 1.2.1 Relevant uses

Flame retardant, additive, filler, pigment, ground chemical, health care, personal care, viscosity adjustor

#### 1.2.2 Uses advised against

None known.

### 1.3 Details of the supplier of the safety data sheet

Company	Nabaltec AG Postfach 1860 92409 Schwandorf / GERMANY Phone +49 (0) 9431-53-0 Fax +49 (0) 9431-53-289 Homepage <a href="http://www.nabaltec.de">www.nabaltec.de</a> E-mail <a href="mailto:info@nabaltec.de">info@nabaltec.de</a>
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#### Address enquiries to

Technical information	<a href="mailto:info@nabaltec.de">info@nabaltec.de</a>
Safety Data Sheet	<a href="mailto:sdb@chemiebuero.de">sdb@chemiebuero.de</a> (No dispatch of safety data sheets) Safety data sheets are available from the supplier.

### 1.4 Emergency telephone number

Advisory body	Call NHS 111 or a doctor
Company	+49 (0)9431 53222 (24h) +49 (0)9431 530 (24h)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

No classification.

### 2.2 Label elements

Hazard pictograms	
Hazard statements	none

### 2.3 Other hazards

Human health dangers	Prolonged and excessive contact can cause irritation of the respiratory tract. Contains no ingredients with endocrine-disrupting properties.
Environmental hazards	Does not contain any PBT or vPvB substances.
Other hazards	none

Nabaltec AG  
92409 Schwandorf

Date printed 14.03.2023, Revision 11.10.2022

Version 4.0. Supersedes version: 3.0

Page 2 / 11

### SECTION 3: Composition / Information on ingredients

#### 3.1 Substances

The product is a substance.

Range [%]	Substance
> 99.5	Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate) CAS: 21645-51-2, EINECS/ELINCS: 244-492-7, Reg-No.: 01-2119529246-39-XXXX

**Comment on component parts** No dangerous components.  
Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.

#### 3.2 Mixtures

not applicable

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

<b>General information</b>	Change powdered clothing.
<b>Inhalation</b>	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
<b>Skin contact</b>	When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In the event of symptoms seek medical treatment.
<b>Ingestion</b>	Rinse out mouth and give plenty of water to drink. In the event of symptoms seek medical treatment.

#### 4.2 Most important symptoms and effects, both acute and delayed

none

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.
<b>Extinguishing media that must not be used</b>	Full water jet

#### 5.2 Special hazards arising from the substance or mixture

none

#### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use breathing apparatus if exposed to dust.  
Avoid dust formation.

Nabaltec AG  
92409 Schwandorf

Date printed 14.03.2023, Revision 11.10.2022

Version 4.0. Supersedes version: 3.0

Page 3 / 11

## 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

## 6.3 Methods and material for containment and cleaning up

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

## 6.4 Reference to other sections

See SECTION 8+13

# SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

Avoid the formation and deposition of dust.  
Provide vacuuming if dust raised.

Wash hands before breaks and after work.  
Use barrier skin cream.  
Do not eat, drink, smoke or take drugs at work.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.  
Prevent penetration into the ground.  
Do not store together with food and animal food/diet.  
Store in a dry place.

## 7.3 Specific end use(s)

See product use, SECTION 1.2

# SECTION 8: Exposure controls / personal protection

## 8.1 Control parameters

### Ingredients with occupational exposure limits to be monitored (GB)

not relevant

### DNEL

Substance
Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2
Industrial, inhalative, Long-term - systemic effects, 10.76 mg/m <sup>3</sup>
Industrial, inhalative, Long-term - local effects, 10.76 mg/m <sup>3</sup>
general population, oral, Long-term - systemic effects, 4.74 mg/kg bw/day

### PNEC

Substance
Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2
There are no PNEC values established for the substance.

## 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation. Pay attention to dust limit value (ACGIH-2011: 10 mg/m <sup>3</sup> particle inhalable; 1,25 mg/m <sup>3</sup> particle respirable). Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
<b>Eye protection</b>	Safety glasses. (EN 166:2001)
<b>Hand protection</b>	0.11mm Nitrile rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
<b>Skin protection</b>	Protective clothing (EN 340)
<b>Other</b>	Avoid contact with eyes and skin. Do not inhale dust. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
<b>Respiratory protection</b>	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, filter P1 (DIN EN 143)
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	Protect the environment by applying appropriate control measures to prevent or limit emissions.

Nabaltec AG  
92409 Schwandorf

Date printed 14.03.2023, Revision 11.10.2022

Version 4.0. Supersedes version: 3.0

Page 5 / 11

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	powder
Form	powder
Color	white
Odor	odourless
Odour threshold	not applicable
pH-value	8 - 9 (20°C) Saturated solution
pH-value [1%]	not determined
Boiling point [°C]	2980
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not applicable
Density [g/cm <sup>3</sup> ]	2.4 (20 °C / 68,0 °F)
Relative density	not determined
Bulk density [kg/m <sup>3</sup> ]	not determined
Solubility in water	0.00009 g/l (20°C)
Solubility other solvents	not relevant
Partition coefficient [n-octanol/water]	not applicable
Kinematic viscosity	not applicable
Relative vapour density	not applicable
Evaporation speed	not applicable
Melting point [°C]	not applicable
Auto-ignition temperature [°C]	not applicable
Decomposition temperature [°C]	> 200
Particle characteristics	not applicable

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

The product is stable under standard conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions known.

### 10.4 Conditions to avoid

Strong heating, because the thermal decomposition starts from 200°C.

### 10.5 Incompatible materials

Reactions with strong acids and alkalies.

#### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

Nabaltec AG  
92409 Schwandorf

Date printed 14.03.2023, Revision 11.10.2022

Version 4.0. Supersedes version: 3.0

Page 7 / 11

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute oral toxicity

Substance
Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2
LD50, oral, Rat, > 2000 mg/kg
NOAEL, oral, Rat, 30 mg/kg bw/day chronic (analogon)

#### Acute dermal toxicity

#### Acute inhalational toxicity

Substance
Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2
LC50, inhalative, Rat, 7.6 mg/l 4h
NOAEC, inhalative, Rat, 70 mg/m <sup>3</sup> subchronic (analogon)

#### Serious eye damage/irritation Non-corrosive / non-irritating.

Substance
Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2
Eye, non-irritating

#### Skin corrosion/irritation Non-corrosive / non-irritating.

Substance
Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2
dermal, non-irritating

#### Respiratory or skin sensitisation Non-sensitizing.

Substance
Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2
inhalative, non-sensitizing
dermal, non-sensitizing

#### Specific target organ toxicity — single exposure No classification.

Substance
Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2
inhalative, non-irritating

#### Specific target organ toxicity — repeated exposure No classification.

Substance
Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2
NOAEL, oral, Rat, 30 mg Al/kg bw/day as aluminium citrate, The effects observed are not sufficient for classification.
LOAEC, inhalative, Rat, 70 mg Al/m <sup>3</sup> as aluminium oxide, The effects observed are not sufficient for classification.

**Mutagenicity** There is no evidence of any mutagenic effects.

**Reproduction toxicity** There is no evidence of any reproductive toxicity effects.

**Carcinogenicity** There is no evidence of any carcinogenic effects.

Nabaltec AG  
92409 Schwandorf

Date printed 14.03.2023, Revision 11.10.2022

Version 4.0. Supersedes version: 3.0

Page 8 / 11

**Aspiration hazard** No classification.  
**General remarks**

none

#### 11.2 Information on other hazards

**Endocrine disrupting properties** Contains no ingredients with endocrine-disrupting properties.

**Other information**

### SECTION 12: Ecological information

#### 12.1 Toxicity

Substance
Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2
LC50, Salmo trutta, > 100 mg/l
EC50, Selenastrum capricornutum, > 100 mg/l
EC50, Daphnia magna, > 100 mg/l

#### 12.2 Persistence and degradability

**Behaviour in environment compartments** not applicable

**Behaviour in sewage plant** not applicable

**Biological degradability** not applicable

#### 12.3 Bioaccumulative potential

not applicable

#### 12.4 Mobility in soil

not applicable

#### 12.5 Results of PBT and vPvB assessment

not applicable

#### 12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

#### 12.7 Other adverse effects

None known.



Nabaltec AG  
92409 Schwandorf

Date printed 14.03.2023, Revision 11.10.2022

Version 4.0. Supersedes version: 3.0

Page 9 / 11

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

For recycling, consult manufacturer.

Waste no. (recommended) 061399

#### Contaminated packaging

Uncontaminated packaging may be reused.

Waste no. (recommended) 150101  
150102

## SECTION 14: Transport information

### 14.1 UN number or ID number

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

### 14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

### 14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

Nabaltec AG  
92409 Schwandorf

Date printed 14.03.2023, Revision 11.10.2022

Version 4.0. Supersedes version: 3.0

Page 10 / 11

#### 14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

#### 14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

#### 14.7 Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

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

**EEC-REGULATIONS** 2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014

**TRANSPORT-REGULATIONS** ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)

**NATIONAL REGULATIONS (GB):** EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.

- Observe employment restrictions for people no

- VOC (2010/75/CE) 0%

#### 15.2 Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

Nabaltec AG

92409 Schwandorf

Date printed 14.03.2023, Revision 11.10.2022

Version 4.0. Supersedes version: 3.0

Page 11 / 11

## SECTION 16: Other information

### 16.1 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
 ATE = acute toxicity estimate  
 CAS = Chemical Abstracts Service  
 CLP = Classification, Labelling and Packaging  
 DMEL = Derived Minimum Effect Level  
 DNEL = Derived No Effect Level  
 EC50 = Median effective concentration  
 ECB = European Chemicals Bureau  
 EEC = European Economic Community  
 EINECS = European Inventory of Existing Commercial Chemical Substances  
 EL50 = Median effective loading  
 ELINCS = European List of Notified Chemical Substances  
 EmS = Emergency Schedules  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
 IC50 = Inhibition concentration, 50%  
 IMDG = International Maritime Code for Dangerous Goods  
 IUCLID = International Uniform Chemical Information Database  
 IVIS = In vitro irritation score  
 LC50 = Lethal concentration, 50%  
 LD50 = Median lethal dose  
 LC0 = lethal concentration, 0%  
 LOAEL = lowest-observed-adverse-effect level  
 LL50 = Median lethal loading  
 LQ = Limited Quantities  
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
 NOAEL = No Observed Adverse Effect Level  
 NOEC = No Observed Effect Concentration  
 PBT = Persistent, Bioaccumulative and Toxic substance  
 PNEC = Predicted No-Effect Concentration  
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
 STP = Sewage Treatment Plant  
 TLV®/TWA = Threshold limit value – time-weighted average  
 TLV®STEL = Threshold limit value – short-time exposure limit  
 VOC = Volatile Organic Compounds  
 vPvB = very Persistent and very Bioaccumulative

### 16.2 Other information

**Classification procedure**

**Modified position**

none

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