**Nabaltec AG**
**92409 Schwandorf**



## 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 www.nabaltec.de
E-mail info@nabaltec.de

**Address enquiries to**

| | |
|---|---|
| **Technical information** | info@nabaltec.de |
| **Safety Data Sheet** | sdb@chemiebuero.de |

### 1.4 Emergency telephone number

**Company**

+49 (0)9431 530 (24h)
+49 (0)9431 53222 (24h)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

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. |
| **Environmental hazards** | Does not contain any PBT or vPvB substances. |
| **Other hazards** | none |

## SECTION 3: Composition / Information on ingredients

### 3.1 Substances

| 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

**The product is a substance.**

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information** Change powdered clothing.

**Inhalation** Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

**Skin contact** When in contact with the skin, clean with soap and water.
Consult a doctor if skin irritation persists.

**Eye contact** 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.

**Ingestion** 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

**Suitable extinguishing media** Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.

**Extinguishing media that must not be used** 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.

### 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 applicable

**DNEL**

| Substance |
|---|
| Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2 |
| Industrial, inhalative, Long-term - systemic effects: 10,76 mg/m³. |
| Industrial, inhalative, Long-term - local effects: 10,76 mg/m³. |
| general population, oral, Long-term - systemic effects: 4,74 mg/kg bw/day. |

### 8.2 Exposure controls

| | |
|---|---|
| **Additional advice on system design** | Ensure adequate ventilation on workstation.<br>Pay attention to dust limit value (ACGIH-2011: 10 mg/m³ particle inhalable; 3 mg/m³ particle respirable).<br>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. |
| **Eye protection** | Safety glasses. (EN 166:2001) |
| **Hand protection** | 0,11mm Nitrile rubber, >480 min (EN 374-1/-2/-3).<br>The details concerned are recommendations. Please contact the glove supplier for further information. |
| **Skin protection** | Protective clothing (EN 340) |
| **Other** | Avoid contact with eyes and skin.<br>Do not inhale dust.<br>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. |
| **Respiratory protection** | Respiratory protection mask in the event of high concentrations.<br>Short term: filter apparatus, filter P1 (DIN EN 143) |
| **Thermal hazards** | not applicable |
| **Delimitation and monitoring of the environmental exposition** | Protect the environment by applying appropriate control measures to prevent or limit emissions. |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| **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/ml]** | 2,4 (20 °C / 68,0 °F) |
| **Bulk density [kg/m³]** | not determined |
| **Solubility in water** | 0,00009 g/l (20°C) |
| **Partition coefficient [n-octanol/water]** | not applicable |
| **Viscosity** | not applicable |
| **Relative vapour density determined in air** | not applicable |
| **Evaporation speed** | not applicable |
| **Melting point [°C]** | not applicable |
| **Autoignition temperature [°C]** | not applicable |
| **Decomposition temperature [°C]** | > 200 |

### 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.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

| Substance |
|---|
| Aluminium hydroxide (Synonyms: Aluminium trihydrate, ATH, Alumina trihydrate), CAS: 21645-51-2 |
| LD50, oral, Rat: > 2000 mg/kg. |
| LC50, inhalative, Rat: 7,6 mg/l 4h. |
| NOAEL, oral, Rat: 30 mg/kg bw/day chronic (analogon). |
| NOAEC, inhalative, Rat: 70 mg/m³ subchronic (analogon). |

| | |
|---|---|
| **Serious eye damage/irritation** | Non-corrosive / non-irritating. |
| **Skin corrosion/irritation** | Non-corrosive / non-irritating. |
| **Respiratory or skin sensitisation** | Non-sensitizing. |
| **Specific target organ toxicity — single exposure** | No classification. |
| **Specific target organ toxicity — repeated exposure** | No 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. |
| **Aspiration hazard** | No classification. |
| **General remarks** | |
| | none |

## 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 Other adverse effects

None known.

## 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

| | |
|---|---|
| **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 |

### 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 Transport in bulk according to Annex II of MARPOL and the IBC Code

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) 2015/830; (EU) 2016/131; (EU) 517/2014 |
| **TRANSPORT-REGULATIONS** | ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2020) |
| **NATIONAL REGULATIONS (GB):** | EH40/2005 Workplace exposure limits (Second edition, published December 2011). |
| **- 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.

## 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
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