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

1.1 Product identifier

ACTILOX® PA - B2

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

1.2.1 Relevant uses

Flame retardant, additive, filler, processing aid

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

Physico-chemical hazards Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.

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 Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

Product-type:

3.2 The product is a mixture.

Range [%]	Substance
70 - 99,5	Boehmite (Al(OH)O)
	CAS: 1318-23-6, EINECS/ELINCS: 215-284-3, Reg-No.: 01-2119555298-28-XXXX
0,1 - 30	Polysiloxane

Comment on component parts

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

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.
If eye irritation persists: Get medical advice/attention.

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 known.

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

High concentration of dust (> 250 g/m³) may lead to dust explosion in the presence of a source of ignition.
Risk of formation of toxic pyrolysis products.

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

Avoid dust formation.
Use breathing apparatus if exposed to dust.
Keep away from all sources of ignition.

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 production of 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.

Keep away from all sources of ignition.

Use barrier skin cream.
Wash hands before breaks and after work.
Do not eat, drink, smoke or take drugs at work.
Take off contaminated clothing and wash before reuse.

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.

Keep container tightly closed.
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
Boehmite (Al(OH)O), CAS: 1318-23-6
Industrial, inhalative, Long-term - local effects: 3,59 mg/m³.
general population, oral, Long-term - systemic effects: 2,37 mg/kg bw/day.

PNEC

Substance
Boehmite (Al(OH)O), CAS: 1318-23-6
freshwater, 74,9 µg/L.
sewage treatment plants (STP), 20 mg/L.

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Pay attention to dust limit value (ACGIH-2011: 10 mg/m³ particle inhalable; 3 mg/m³ 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.
Eye protection	safety glasses
Hand protection	0,11 mm Nitrile rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Protective clothing (EN 340)
Other	Avoid contact with eyes. Do not inhale dust.
Respiratory protection	Respiratory protection mask in the event of high concentrations. Short term: filter apparatus, filter P2. (DIN EN 143)
Thermal hazards	none
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	7 - 9 (20 °C / 68,0 °F) (aqueous suspension)
pH-value [1%]	not determined
Boiling point [°C]	not applicable
Flash point [°C]	not determined
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	250 g /m³
Upper explosion limit	not determined
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not applicable
Density [g/ml]	not determined
Bulk density [kg/m³]	610
Solubility in water	< 0,00009 g/l (20 °C) virtually insoluble
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 self-igniting
Decomposition temperature [°C]	not determined

9.2 Other information

Minimum ignition temperature of a dust layer: no glowing combustion until 450°C
Flammability [combustion factor at 20°C, 100°C]: 3
Maximal explosion express pressure [22°C]: 5,9 bar
Kst – value: 37 bar.m.s-1
Minimum ignition energy (with inductance): Emin > 2387mJ
Minimum ignition temperature of a dust cloud: 620°C

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable up to decomposition temperature.

10.3 Possibility of hazardous reactions

Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Strong acids.
Strong bases.
Strong oxidizing agent.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
ATE-mix, inhalativ (dust), > 5 mg/l 4h.
ATE-mix, dermal, > 2000 mg/kg.
ATE-mix, oral, > 2000 mg/kg.

Substance
Boehmite (Al(OH)O), CAS: 1318-23-6
LD50, oral, Rat: > 2000 mg/kg bw.
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
Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Skin corrosion/irritation
Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Respiratory or skin sensitisation
Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Specific target organ toxicity — single exposure
Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Specific target organ toxicity — repeated exposure
Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Mutagenicity
Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Reproduction toxicity
Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Carcinogenicity
Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Aspiration hazard
Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.

General remarks

none

SECTION 12: Ecological information

12.1 Toxicity

Substance
Boehmite (Al(OH)O), CAS: 1318-23-6
LC50, Salmo trutta: > 100 mg/l.
EC50, Daphnia magna: > 100 mg/l.
EC50, Selenastrum capricornutum: > 100 mg/l.

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

12.4 Mobility in soil

not applicable

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

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. Uncontaminated packaging may be taken for recycling.
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)	not determined

15.2 Chemical safety assessment

not applicable

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

SECTION 2 been added: Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.

SECTION 5 been added: High concentration of dust (> 250 g/m³) may lead to dust explosion in the presence of a source of ignition.

SECTION 9 been added: Minimum ignition temperature of a dust cloud: 620°C

SECTION 9 been added: Minimum ignition energy (with inductance): Emin > 2387mJ

SECTION 9 been added: Kst – value: 37 bar.m.s-1

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SECTION 9 been added: Flammability [combustion factor at 20°C, 100°C]: 3

SECTION 9 been added: Minimum ignition temperature of a dust layer: no glowing combustion until 450°C

SECTION 9 been added: not self-igniting

SECTION 10 been added: Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.