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

1.1. Product identifier

Trade name
BAG DESI PAK 4U DINB 15/PE 105/C

Material number: 247882

REACH - Registration number according to article 20(3): EXEMPTED ACCORD. ANNEX V.7

CAS number : 1302-78-9

EC number : 215-108-5

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

Relevant identified uses of the substance or mixture
Type of use : Desiccant

Uses advised against
Type of use : There are no uses advised against.

1.3. Details of the supplier of the safety data sheet

Identification of the company
Clariant Produkte (Deutschland) GmbH
Ostenriederstrasse 15
85368 Moosburg
Telephone no. : +49 (0)8761/82-0

Information about the substance/mixture
BU Functional Minerals
Product Stewardship
e-mail: SDS.Europe@clariant.com

1.4. Emergency telephone number

00800-5121 5121 (24 h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
The product contains less than 1% w/w RCS (respirable crystalline silica).

Depending on the handling and use (grinding, drying, bagging), airborne respirable dust may be generated. Dust contains respirable crystalline silica. Prolonged and or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable dust should be monitored and controlled. The product should be handled using methods and techniques that minimize or eliminate dust generation.
No release of desiccant clay dusts expected under normal use of the desiccant clay bags.
The information contained in chapters 6, 7 and 8 are to be considered only in case of accidental release of larger quantities.
The substance does not meet the criteria for PBT or vPvB substance.

SECTION 3: Composition/information on ingredients

3.1 Substances

EC-No.	:	215-108-5
Chemical nature	:	Synonyms: Bentonite, sodian; Bentonite, calcian; Montmorillonite. Desiccant clay packed in desiccant bags. Bentonite is a UVCB substance, sub-type 4. The purity of the product is 100 % w/w. Impurities are not applicable for a UVCB substance.

Hazardous components

Remarks	:	No hazardous ingredients

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	:	No known delayed effects. Consult a physician for all exposures except for minor instances.
If inhaled	:	Remove to fresh air immediately. Get medical attention immediately.
In case of skin contact	:	Wash off immediately with soap and plenty of water.
In case of eye contact	:	Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.
If swallowed	:	Clean mouth with water and drink afterwards plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	:	There are no acute and delayed symptoms and effects observed.
Risks	:	No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : The product itself does not burn.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray jet
Dry powder
Foam
Carbon dioxide (CO2)

Unsuitable extinguishing media : No restrictions

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : The product is not flammable.
Does not sustain combustion.
No hazardous decomposition products are known.

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Special sliding risk through leaking of spilled product in connection with water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Ensure adequate ventilation.
Avoid dust formation.
Evacuate personnel to safe areas.
Avoid contact with skin, eyes and clothing.
Wear personal protective equipment.
Avoid breathing dust.
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
Special sliding risk through leaking of spilled product in connection with water.
Avoid dust formation; avoid dry sweeping
Use vacuum suction unit, or shovel into bags.

6.2 Environmental precautions

Environmental precautions : No special environmental precautions required.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Pick up and transfer to properly labelled containers.
If product is released from trucks in roads, place signposts and remove the spill using vacuum cleaning systems.

6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid dust formation.
Provide sufficient air exchange and/or exhaust in work rooms.
In case of insufficient ventilation, wear suitable respiratory equipment.
For personal protection see section 8.
Handle and open container with care.
If you require advice on safe handling techniques or specific uses, please contact your supplier or check the further information referred to in section 16.

Hygiene measures : Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Minimize airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting.

Advice on common storage : No conditions to be specially mentioned.

Other data : Stable under recommended storage conditions.

7.3 Specific end use(s)

Specific use(s) : Not relevant

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Bentonite (Dust)			10 mg/m3	Nepsi (European Network on

				Silica)
			3 mg/m3	Nepsi (European Network on Silica)

8.2 Exposure controls

Engineering measures

Minimize airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organizational measures e.g. by isolating personnel from dusty areas. Remove and wash soiled clothing

Personal protective equipment

Eye protection : Do not wear contact lenses.
Safety glasses with side-shields
Ensure that eyewash stations and safety showers are close to the workstation location.

Hand protection
Remarks : Use a high fat protective cream after cleaning skin. Wear suitable gloves.

Skin and body protection : Long sleeved clothing

Respiratory protection : Local ventilation to keep levels below established threshold values is recommended. In case of prolonged exposure to airborne dust concentrations, a suitable particle filter mask that complies with the requirements of national legislation is recommended, depending on the expected exposure levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : lumpy, granular, powder

Colour : bright to earthy

Odour : none

pH : 6 - 11
(20 °C)
Method: aqueous suspension
For detail information please refer to our physical & chemical data sheet.

Melting point/range : > 450 °C
Method: EU A.1

Boiling point/boiling range : not applicable (solid with a melting point > 450 °C)

Flash point	:	Not applicable
Evaporation rate	:	not applicable (solid with a melting point > 450 °C)
Flammability (solid, gas)	:	does not ignite Method: EU A.10
Lower explosion limit	:	non explosive (void of any chemical structures commonly associated with explosive properties)
Vapour pressure	:	not applicable (solid with a melting point > 450 °C)
Relative vapour density	:	Not applicable
Density	:	2,6 g/cm3
Bulk density	:	500 - 1.100 kg/m3For detail information please refer to our physical & chemical data sheet.
Solubility(ies)		
Water solubility	:	< 0,9 g/l (20 °C) Method: Directive 84/449/EEC, A.6
Partition coefficient: n-octanol/water	:	Not applicable inorganic
Decomposition temperature	:	No decomposition if used as directed.
Viscosity		
Viscosity, dynamic	:	not applicable (solid with a melting point > 450 °C)
Oxidizing properties	:	no oxidizing properties (Based on the chemical structure, the substance does not contain a surplus of oxygen or any structural groups known to be correlated with a tendency to react exothermally with combustible material)

9.2 Other information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

10.4 Conditions to avoid

Conditions to avoid : Forms slippery/greasy layers with water.

10.5 Incompatible materials

Materials to avoid : inert, not reactive
Avoid storing together with materials that may be affected by dust.

10.6 Hazardous decomposition products

Not relevant

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat): > 2 g/kg
Method: OECD Test Guideline 420

Acute inhalation toxicity : Remarks: no data available

Acute dermal toxicity : Remarks: no data available
Bentonite is almost insoluble and has a low absorption through the skin.

Skin corrosion/irritation

Product:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Serious eye damage/eye irritation

Product:

Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation

Respiratory or skin sensitisation

Product:

Remarks: no data available
Bentonite is considered not to be a skin sensitizer based on experience in handling and low absorption through the skin.

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Test Type: In vitro gene mutation study in bacteria
Method: OECD Test Guideline 471

Result: negative

: Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

: Test Type: In vitro gene mutation study in mammalian cells
Method: OECD Test Guideline 476
Result: negative

Carcinogenicity

Product:

Remarks: Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:

Effects on fertility :

Remarks: Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

Remarks: No organ toxicity observed in acute tests.
Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:

No aspiration toxicity classification

Further information

Product:

Remarks: **Specific symptoms in animal studies (likely route of exposure):**

In case of ingestion:
No acute or long term effects were seen in animal studies following oral exposure.

In case of skin contact:
No acute effects were seen in an animal study following acute dermal exposure.
Bentonite is not a skin irritant

In case of inhalation:
No acute effects were seen in an animal study following acute inhalation exposure.

Bentonite contains crystalline silica, which is a known cause of silicosis, a progressive, sometimes fatal lung disease. In a 1997 monograph (Volume 68, "Silica, Some Silicates, Coal Dust and Para-aramid Fibrils"), the International Agency for Research on cancer (IARC) has classified "inhaled crystalline silica from occupational sources" in Group 1 as a substance "carcinogenic to humans". In making the overall evaluation, the IARC Working Group noted that carcinogenicity in humans was not detected in all industrial circumstances studied. Crystalline silica has also been classified by the German MAK Commission as a human carcinogen (Category A1).

Although bentonite contains quartz, an intratracheal study (Creutzenberg 2008) on the read across substance bentonite demonstrated significant differences in toxicity following administration of equivalent doses of quartz as either bentonite (15.2 mg of bentonite with 60% quartz) or reference quartz (10.5 mg of 87% quartz). The reference-quartz caused significant, self-perpetuating lung toxicity while bentonite demonstrated significantly less toxicity and partial recovery during the study period. The main effect of bentonite was slight fibrosis and inflammation of the lung. The study demonstrated that a simple bridging of toxicity data from quartz to bentonite is not appropriate.

Occupational exposure to respirable dust should be monitored and controlled

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 16 g/l Exposure time: 96 h LC50 (Marine water fish): 2,8 - 3,2 g/l Exposure time: 24 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 EC50 (Metacarcinus magister): 81,6 mg/l Exposure time: 96 h EC50 (Pandalus danae): 24,8 mg/l Exposure time: 96 h
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 100 mg/l Exposure time: 72 h
Plant toxicity	:	84,4 mg/kg Species: Phaseolus vulgaris Remarks: No effect on the growth was observed.

84,4 mg/kg
Species: Zea mays
Remarks: No effect on the growth was observed.

12.2 Persistence and degradability

Product:

Biodegradability	:	Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: Not relevant for inorganic substances

12.4 Mobility in soil

Product:

Distribution among environmental compartments	:	Medium: Soil Remarks: Bentonite is almost insoluble and thus presents a low mobility in most soils.

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

Additional ecological information	:	none

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Can be disposed of as solid waste in a suitable installation subject to the Environmental Protection (Duty of Care) Regulations. Avoid dust formation. Where possible recycling is preferred to disposal or incineration.
Contaminated packaging	:	No specific requirements.

SECTION 14: Transport information

Section 14.1. to 14.5.

ADR	not restricted
ADN	not restricted
RID	not restricted
IATA	not restricted
IMDG	not restricted

14.6. Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code (International Bulk Chemicals Code)

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EC) No 850/2004 on persistent organic pollutants	:	Not applicable
Water contaminating class (Germany)	:	not water endangering
Other regulations	:	Bentonite is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant. The product (bentonite) is not separately classified by the Occupational Health and Safety Administration (OSHA). The product has not been classified as a human carcinogen by OSHA , the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP).

15.2 Chemical safety assessment

Not relevant

SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Training advice : Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

Other information : Social Dialogue on Respirable Crystalline Silica:

A multi-sectoral social dialogue agreement on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it was signed on 25 April 2006. This autonomous agreement, which receives the European Commission's financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25 October 2006. The Agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the Agreement and its annexes, including the Good Practices Guide, are available from http://www.nepsi.eu and provide

useful information and guidance for the handling of products containing respirable crystalline silica. Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers.

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