

Substance key: SC0000107388
Version : 4 - 1 / USA

Revision Date: 05/02/2017
Date of printing :10/30/2017

SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000
Information of the substance/preparation:	Product Stewardship +1-704-331-7710
Emergency tel. number:	+1 800-424-9300 CHEMTREC

Trade name: PKT DESI PAK® 1/2U TY 38X80 550/PP NHT
Material number: 256390
CAS number: 1302-78-9
Primary product use: Desiccant
Restrictions on use : There are no uses advised against.

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 29 CFR 1910.1200**

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance
CAS-No. : 1302-78-9

Hazardous components

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

SECTION 4. FIRST AID MEASURES

General advice : No known delayed effects. Consult a physician for all exposures except for minor instances.

If inhaled : INHALATION: If exposed to excessive levels of dust or fumes, remove to fresh air and get medical attention. Get medical attention if cough and other symptoms develop.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :10/30/2017

- If you feel unwell, seek medical advice (show the label where possible).
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Use a mild soap if available.
- In case of eye contact : Do not rub affected area.
Rinse immediately with plenty of lukewarm water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.
- If swallowed : Normally not needed. If whole canisters or sachets are ingested, call a physician or your local Poison Control Center (1-800-222-1222 in the United States).
- Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2).
No additional symptoms are known.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

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

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.
Avoid dust formation.
Evacuate personnel to safe areas.
Avoid contact with skin, eyes and clothing.
Wear personal protective equipment.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :10/30/2017

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.
Wearing appropriate personal protective equipment, contain spill and collect into a suitable container.
No special precautions required.
Refer to Section 8 for more information.

Environmental precautions : No special environmental precautions required.

Methods and materials for containment and 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.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Use of proper hygiene practices in the workplace is recommended.

Conditions for safe storage : 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.

Technical measures/Precautions : Store in a dry place.

Store in a dry place.

Materials to avoid : No conditions to be specially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Use ventilation adequate to keep exposures below recommended exposure limits. See the safety datasheet.

Personal protective equipment

Respiratory protection : Use local exhaust if dusting occurs. Good general ventilation is adequate in the absence of dusts.

Hand protection

Remarks : Wear protective gloves. Wash thoroughly after handling.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :10/30/2017

Eye protection	:	Safety glasses with side-shields
Skin and body protection	:	Wear suitable protective equipment.
Hygiene measures	:	Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	lumpy, granular, powder
Colour	:	bright to earthy
Odour	:	none
Odour Threshold	:	not determined
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
Self-ignition	:	Method: 92/69/EEC, A.6. no relative self-ignition temperature below 400 °C
Upper explosion limit	:	Not applicable
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/cm ³
Bulk density	:	500 - 1,100 kg/m ³ For detail information please refer to our physical & chemical data sheet.
Solubility(ies) Water solubility	:	< 0.9 g/l (20 °C)

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :10/30/2017

Method: Tested according to Directive 92/69/EEC.

Partition coefficient: n-octanol/water	:	Not applicable inorganic
Auto-ignition temperature	:	not determined
Decomposition temperature	:	No decomposition if used as directed.
Viscosity		
Viscosity, dynamic	:	not applicable (solid with a melting point > 450 °C)
Viscosity, kinematic	:	Not applicable
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)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	None known.
Conditions to avoid	:	Forms slippery/greasy layers with water.
Incompatible materials	:	inert, not reactive Avoid storing together with materials that may be affected by dust.
Hazardous decomposition products	:	Not relevant

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Eye contact

Ingestion

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.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :10/30/2017

Skin corrosion/irritation**Product:**

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

Serious eye damage/eye irritation**Product:**

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

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.

IARC Not listed

OSHA Not listed

NTP Not listed

Reproductive toxicity**Product:**

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :10/30/2017

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

Experience with human exposure**Product:**

General Information : The possible symptoms known are those derived from the labelling (see section 2).

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****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 : (Phaseolus vulgaris): 84.4 mg/kg
Remarks: No effect on the growth was observed.

(Zea mays): 84.4 mg/kg
Remarks: No effect on the growth was observed.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :10/30/2017

Persistence and degradability**Product:**

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

Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: Not relevant for inorganic substances

Mobility in soil**Product:**

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

Other adverse effects**Product:**

Additional ecological information : According to experience and to the information currently available, the product has no harmful effects on the environment if used correctly as intended.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

RCRA - Resource Conservation and Recovery Act

Authorization Act

Waste Code : NONE

Waste from residues : This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Contaminated packaging : No specific requirements.

SECTION 14. TRANSPORT INFORMATION

DOT not restricted

IATA not restricted

IMDG not restricted

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :10/30/2017

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards**SARA 313** : This product is not subject to SARA Title III Section 313 reporting requirements under 40 CFR 372.**Clean Water Act**

Contains no known priority pollutants at concentrations greater than 0.1%.

The components of this product are reported in the following inventories:**TSCA** : All components of this product are listed or excluded from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) Inventory.

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; 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

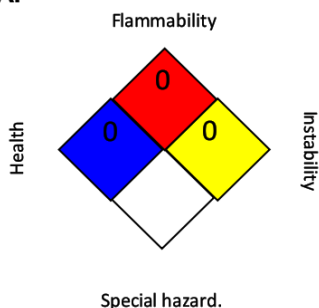
Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :10/30/2017

Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information**NFPA:**

Revision Date : 05/02/2017

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Clariant makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Clariant's products for its particular application. NO EXPRESS OR IMPLIED WARRANTY IS MADE OF THE MERCHANTABILITY, SUITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE OF ANY PRODUCT OR SERVICE. Nothing included in this information waives any of Clariant's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

US / EN

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/27/2017

SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000
Information of the substance/preparation:	Product Stewardship +1-704-331-7710
Emergency tel. number:	+1 800-424-9300 CHEMTREC

Trade name:	PKT DESI PAK® 1/6U CP 27X62 1200/PP NHT
Material number:	256392
CAS number:	1302-78-9
Primary product use:	Desiccant
Restrictions on use :	There are no uses advised against.

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 29 CFR 1910.1200**

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

CAS-No. : 1302-78-9

Hazardous components

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

SECTION 4. FIRST AID MEASURES

General advice	: No known delayed effects. Consult a physician for all exposures except for minor instances.
If inhaled	: INHALATION: If exposed to excessive levels of dust or fumes, remove to fresh air and get medical attention. Get medical attention if cough and other symptoms develop.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/27/2017

- If you feel unwell, seek medical advice (show the label where possible).
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Use a mild soap if available.
- In case of eye contact : Do not rub affected area.
Rinse immediately with plenty of lukewarm water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.
- If swallowed : Normally not needed. If whole canisters or sachets are ingested, call a physician or your local Poison Control Center (1-800-222-1222 in the United States).
- Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2).
No additional symptoms are known.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

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

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.
Avoid dust formation.
Evacuate personnel to safe areas.
Avoid contact with skin, eyes and clothing.
Wear personal protective equipment.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/27/2017

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.
Wearing appropriate personal protective equipment, contain spill and collect into a suitable container.
No special precautions required.
Refer to Section 8 for more information.

- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and 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.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Use of proper hygiene practices in the workplace is recommended.
- Conditions for safe storage : 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.
- Technical measures/Precautions : Store in a dry place.

Store in a dry place.
- Materials to avoid : No conditions to be specially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

- Engineering measures** : Use ventilation adequate to keep exposures below recommended exposure limits. See the safety datasheet.

Personal protective equipment

- Respiratory protection : Use local exhaust if dusting occurs. Good general ventilation is adequate in the absence of dusts.

Hand protection

- Remarks : Wear protective gloves. Wash thoroughly after handling.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/27/2017

Eye protection	:	Safety glasses with side-shields
Skin and body protection	:	Wear suitable protective equipment.
Hygiene measures	:	Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	lumpy, granular, powder
Colour	:	bright to earthy
Odour	:	none
Odour Threshold	:	not determined
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
Self-ignition	:	Method: 92/69/EEC, A.6. no relative self-ignition temperature below 400 °C
Upper explosion limit	:	Not applicable
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/cm ³
Bulk density	:	500 - 1,100 kg/m ³ For detail information please refer to our physical & chemical data sheet.
Solubility(ies) Water solubility	:	< 0.9 g/l (20 °C)

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/27/2017

Method: Tested according to Directive 92/69/EEC.

Partition coefficient: n-octanol/water	:	Not applicable inorganic
Auto-ignition temperature	:	not determined
Decomposition temperature	:	No decomposition if used as directed.
Viscosity		
Viscosity, dynamic	:	not applicable (solid with a melting point > 450 °C)
Viscosity, kinematic	:	Not applicable
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)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	None known.
Conditions to avoid	:	Forms slippery/greasy layers with water.
Incompatible materials	:	inert, not reactive Avoid storing together with materials that may be affected by dust.
Hazardous decomposition products	:	Not relevant

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**Eye contact
Ingestion**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.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/27/2017

Skin corrosion/irritation**Product:**

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

Serious eye damage/eye irritation**Product:**

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

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.

IARC Not listed

OSHA Not listed

NTP Not listed

Reproductive toxicity**Product:**

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/27/2017

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

Experience with human exposure**Product:**

General Information : The possible symptoms known are those derived from the labelling (see section 2).

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****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 : (Phaseolus vulgaris): 84.4 mg/kg
Remarks: No effect on the growth was observed.

(Zea mays): 84.4 mg/kg
Remarks: No effect on the growth was observed.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/27/2017

Persistence and degradability**Product:**

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

Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: Not relevant for inorganic substances

Mobility in soil**Product:**

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

Other adverse effects**Product:**

Additional ecological information : According to experience and to the information currently available, the product has no harmful effects on the environment if used correctly as intended.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

RCRA - Resource Conservation and Recovery Act

Authorization Act

Waste Code : NONE

Waste from residues : This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Contaminated packaging : No specific requirements.

SECTION 14. TRANSPORT INFORMATION

DOT not restricted

IATA not restricted

IMDG not restricted

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/27/2017

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This product is not subject to SARA Title III Section 313 reporting requirements under 40 CFR 372.

Clean Water Act

Contains no known priority pollutants at concentrations greater than 0.1%.

The components of this product are reported in the following inventories:

TSCA : All components of this product are listed or excluded from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) Inventory.

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; 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

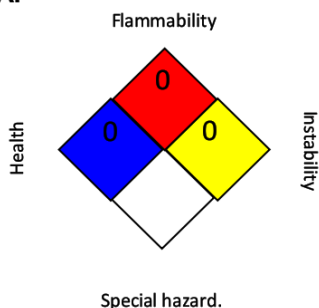
Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/27/2017

Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information**NFPA:**

Revision Date : 05/02/2017

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Clariant makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Clariant's products for its particular application. NO EXPRESS OR IMPLIED WARRANTY IS MADE OF THE MERCHANTABILITY, SUITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE OF ANY PRODUCT OR SERVICE. Nothing included in this information waives any of Clariant's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

US / EN

BAG DESI PAK® 1U T2 TY 641 3X4 300/PP

Page 1

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :06/28/2017

SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000
Information of the substance/preparation:	Product Stewardship +1-704-331-7710
Emergency tel. number:	+1 800-424-9300 CHEMTREC

Trade name:	BAG DESI PAK® 1U T2 TY 641 3X4 300/PP
Material number:	254242
CAS number:	1302-78-9
Primary product use:	Desiccant
Restrictions on use :	There are no uses advised against.

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 29 CFR 1910.1200**

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

CAS-No. : 1302-78-9

Hazardous components

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

SECTION 4. FIRST AID MEASURES

General advice	: No known delayed effects. Consult a physician for all exposures except for minor instances.
If inhaled	: INHALATION: If exposed to excessive levels of dust or fumes, remove to fresh air and get medical attention. Get medical attention if cough and other symptoms develop.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :06/28/2017

- If you feel unwell, seek medical advice (show the label where possible).
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Use a mild soap if available.
- In case of eye contact : Do not rub affected area.
Rinse immediately with plenty of lukewarm water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.
- If swallowed : Normally not needed. If whole canisters or sachets are ingested, call a physician or your local Poison Control Center (1-800-222-1222 in the United States).
- Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2).
No additional symptoms are known.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

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

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.
Avoid dust formation.
Evacuate personnel to safe areas.
Avoid contact with skin, eyes and clothing.
Wear personal protective equipment.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :06/28/2017

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.
Wearing appropriate personal protective equipment, contain spill and collect into a suitable container.
No special precautions required.
Refer to Section 8 for more information.

- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and 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.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Use of proper hygiene practices in the workplace is recommended.
- Conditions for safe storage : 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.
- Technical measures/Precautions : Store in a dry place.
Store in a dry place.
- Materials to avoid : No conditions to be specially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

- Engineering measures** : Use ventilation adequate to keep exposures below recommended exposure limits. See the safety datasheet.

Personal protective equipment

- Respiratory protection : Use local exhaust if dusting occurs. Good general ventilation is adequate in the absence of dusts.
- Hand protection
Remarks : Wear protective gloves. Wash thoroughly after handling.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :06/28/2017

Eye protection	:	Safety glasses with side-shields
Skin and body protection	:	Wear suitable protective equipment.
Hygiene measures	:	Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	lumpy, granular, powder
Colour	:	bright to earthy
Odour	:	none
Odour Threshold	:	not determined
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
Self-ignition	:	Method: 92/69/EEC, A.6. no relative self-ignition temperature below 400 °C
Upper explosion limit	:	Not applicable
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/cm ³
Bulk density	:	500 - 1,100 kg/m ³ For detail information please refer to our physical & chemical data sheet.
Solubility(ies) Water solubility	:	< 0.9 g/l (20 °C)

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :06/28/2017

Method: Tested according to Directive 92/69/EEC.

Partition coefficient: n-octanol/water	:	Not applicable inorganic
Auto-ignition temperature	:	not determined
Decomposition temperature	:	No decomposition if used as directed.
Viscosity		
Viscosity, dynamic	:	not applicable (solid with a melting point > 450 °C)
Viscosity, kinematic	:	Not applicable
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)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	None known.
Conditions to avoid	:	Forms slippery/greasy layers with water.
Incompatible materials	:	inert, not reactive Avoid storing together with materials that may be affected by dust.
Hazardous decomposition products	:	Not relevant

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**Eye contact
Ingestion**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.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :06/28/2017

Skin corrosion/irritation**Product:**

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

Serious eye damage/eye irritation**Product:**

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

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.

IARC Not listed

OSHA Not listed

NTP Not listed

Reproductive toxicity**Product:**

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :06/28/2017

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

Experience with human exposure**Product:**

General Information : The possible symptoms known are those derived from the labelling (see section 2).

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****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 : (Phaseolus vulgaris): 84.4 mg/kg
Remarks: No effect on the growth was observed.

(Zea mays): 84.4 mg/kg
Remarks: No effect on the growth was observed.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :06/28/2017

Persistence and degradability**Product:**

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

Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: Not relevant for inorganic substances

Mobility in soil**Product:**

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

Other adverse effects**Product:**

Additional ecological information : According to experience and to the information currently available, the product has no harmful effects on the environment if used correctly as intended.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

RCRA - Resource Conservation and Recovery Authorization Act

Waste Code : NONE

Waste from residues : This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Contaminated packaging : No specific requirements.

SECTION 14. TRANSPORT INFORMATION

DOT not restricted

IATA not restricted

IMDG not restricted

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :06/28/2017

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards**SARA 313** : This product is not subject to SARA Title III Section 313 reporting requirements under 40 CFR 372.**Clean Water Act**

Contains no known priority pollutants at concentrations greater than 0.1%.

The components of this product are reported in the following inventories:**TSCA** : All components of this product are listed or excluded from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) Inventory.**SECTION 16. OTHER INFORMATION****Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; KECl - 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; 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

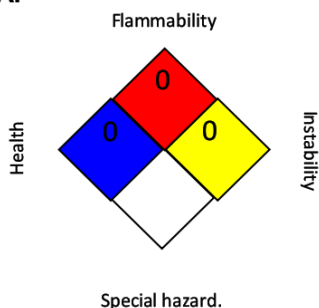
Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :06/28/2017

Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information**NFPA:**

Revision Date : 05/02/2017

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Clariant makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Clariant's products for its particular application. NO EXPRESS OR IMPLIED WARRANTY IS MADE OF THE MERCHANTABILITY, SUITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE OF ANY PRODUCT OR SERVICE. Nothing included in this information waives any of Clariant's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

US / EN

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/07/2017

SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000
Information of the substance/preparation:	Product Stewardship +1-704-331-7710
Emergency tel. number:	+1 800-424-9300 CHEMTREC

Trade name:	BAG DESI PAK® 2U T2 TY-695 3X6 150/PP
Material number:	254253
CAS number:	1302-78-9
Primary product use:	Desiccant
Restrictions on use :	There are no uses advised against.

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 29 CFR 1910.1200**

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

CAS-No. : 1302-78-9

Hazardous components

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

SECTION 4. FIRST AID MEASURES

General advice	: No known delayed effects. Consult a physician for all exposures except for minor instances.
If inhaled	: INHALATION: If exposed to excessive levels of dust or fumes, remove to fresh air and get medical attention. Get medical attention if cough and other symptoms develop.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/07/2017

- If you feel unwell, seek medical advice (show the label where possible).
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Use a mild soap if available.
- In case of eye contact : Do not rub affected area.
Rinse immediately with plenty of lukewarm water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.
- If swallowed : Normally not needed. If whole canisters or sachets are ingested, call a physician or your local Poison Control Center (1-800-222-1222 in the United States).
- Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2).
No additional symptoms are known.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

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

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.
Avoid dust formation.
Evacuate personnel to safe areas.
Avoid contact with skin, eyes and clothing.
Wear personal protective equipment.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/07/2017

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.
 Wearing appropriate personal protective equipment, contain spill and collect into a suitable container.
 No special precautions required.
 Refer to Section 8 for more information.

- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and 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.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Use of proper hygiene practices in the workplace is recommended.
- Conditions for safe storage : 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.
- Technical measures/Precautions : Store in a dry place.
 Store in a dry place.
- Materials to avoid : No conditions to be specially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

- Engineering measures** : Use ventilation adequate to keep exposures below recommended exposure limits. See the safety datasheet.

Personal protective equipment

- Respiratory protection : Use local exhaust if dusting occurs. Good general ventilation is adequate in the absence of dusts.

- Hand protection
 Remarks : Wear protective gloves. Wash thoroughly after handling.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/07/2017

Eye protection	:	Safety glasses with side-shields
Skin and body protection	:	Wear suitable protective equipment.
Hygiene measures	:	Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	lumpy, granular, powder
Colour	:	bright to earthy
Odour	:	none
Odour Threshold	:	not determined
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
Self-ignition	:	Method: 92/69/EEC, A.6. no relative self-ignition temperature below 400 °C
Upper explosion limit	:	Not applicable
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/cm ³
Bulk density	:	500 - 1,100 kg/m ³ For detail information please refer to our physical & chemical data sheet.
Solubility(ies) Water solubility	:	< 0.9 g/l (20 °C)

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/07/2017

Method: Tested according to Directive 92/69/EEC.

Partition coefficient: n-octanol/water	:	Not applicable inorganic
Auto-ignition temperature	:	not determined
Decomposition temperature	:	No decomposition if used as directed.
Viscosity		
Viscosity, dynamic	:	not applicable (solid with a melting point > 450 °C)
Viscosity, kinematic	:	Not applicable
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)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	None known.
Conditions to avoid	:	Forms slippery/greasy layers with water.
Incompatible materials	:	inert, not reactive Avoid storing together with materials that may be affected by dust.
Hazardous decomposition products	:	Not relevant

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Eye contact

Ingestion

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.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/07/2017

Skin corrosion/irritation**Product:**

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

Serious eye damage/eye irritation**Product:**

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

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.

IARC Not listed

OSHA Not listed

NTP Not listed

Reproductive toxicity**Product:**

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/07/2017

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

Experience with human exposure**Product:**

General Information : The possible symptoms known are those derived from the labelling (see section 2).

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****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 : (Phaseolus vulgaris): 84.4 mg/kg
Remarks: No effect on the growth was observed.

(Zea mays): 84.4 mg/kg
Remarks: No effect on the growth was observed.

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/07/2017

Persistence and degradability**Product:**

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

Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: Not relevant for inorganic substances

Mobility in soil**Product:**

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

Other adverse effects**Product:**

Additional ecological information : According to experience and to the information currently available, the product has no harmful effects on the environment if used correctly as intended.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

RCRA - Resource Conservation and Recovery Act

Authorization Act

Waste Code : NONE

Waste from residues : This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Contaminated packaging : No specific requirements.

SECTION 14. TRANSPORT INFORMATION

DOT not restricted

IATA not restricted

IMDG not restricted

Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/07/2017

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This product is not subject to SARA Title III Section 313 reporting requirements under 40 CFR 372.

Clean Water Act

Contains no known priority pollutants at concentrations greater than 0.1%.

The components of this product are reported in the following inventories:

TSCA : All components of this product are listed or excluded from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) Inventory.

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; 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

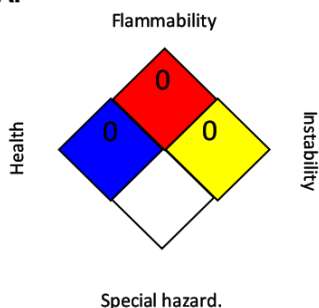
Substance key: SC0000107388

Revision Date: 05/02/2017

Version : 4 - 1 / USA

Date of printing :07/07/2017

Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information**NFPA:**

Revision Date : 05/02/2017

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Clariant makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Clariant's products for its particular application. NO EXPRESS OR IMPLIED WARRANTY IS MADE OF THE MERCHANTABILITY, SUITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE OF ANY PRODUCT OR SERVICE. Nothing included in this information waives any of Clariant's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

US / EN

BAG DESI PAK® 4U TY 523 5X5.5

Page 1

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/22/2015

SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000
Information of the substance/preparation:	Product Safety 1-704-331-7710
Emergency tel. number:	+1 800-424-9300 CHEMTREC

Trade name:	BAG DESI PAK® 4U TY 523 5X5.5
Material number:	254255
CAS number:	1302-78-9
Chemical family:	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.
Primary product use:	Desiccant
Restrictions on use :	There are no uses advised against.

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Not a hazardous substance or mixture.

GHS Label element

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	<ul style="list-style-type: none">• Substance
Chemical nature	<ul style="list-style-type: none">• 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

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/22/2015

SECTION 4. FIRST AID MEASURES

- General advice : No known delayed effects. Consult a physician for all exposures except for minor instances.
- If inhaled : INHALATION: If exposed to excessive levels of dust or fumes, remove to fresh air and get medical attention. Get medical attention if cough and other symptoms develop. If you feel unwell, seek medical advice (show the label where possible).
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Use a mild soap if available.
- In case of eye contact : Do not rub affected area.
Rinse immediately with plenty of lukewarm water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.
- If swallowed : Normally not needed. If whole canisters or sachets are ingested, call a physician or your local Poison Control Center (1-800-222-1222 in the United States).
- Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2).
No additional symptoms are known.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

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

None known.

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/22/2015

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

Personal precautions, protective equipment and emergency procedures : 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.
Wearing appropriate personal protective equipment, contain spill and collect into a suitable container.
No special precautions required.
Refer to Section 8 for more information.

Environmental precautions : No special environmental precautions required.

Methods and materials for containment and 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.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Use of proper hygiene practices in the workplace is recommended.

Conditions for safe storage : 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.

Technical measures/Precautions : Store in a dry place.

Store in a dry place.

Materials to avoid : No conditions to be specially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/22/2015

All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is 5 mg/m³ for respirable fraction and 15 mg/m³ for total dust. ACGIH exposure guidelines of less than 3 mg/m³ (respirable) and 10 mg/m³ (inhalable) have been established for particles (insoluble/poorly soluble) not otherwise specified (PNOS).

Engineering measures : Use ventilation adequate to keep exposures below recommended exposure limits. See the safety datasheet.

Personal protective equipment

Respiratory protection : Use local exhaust if dusting occurs. Good general ventilation is adequate in the absence of dusts.

Hand protection

Remarks : Wear protective gloves. Wash thoroughly after handling.

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear suitable protective equipment.

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : lumpy, granular, powder

Colour : bright to earthy

Odour : none

Odour Threshold : not determined

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

BAG DESI PAK® 4U TY 523 5X5.5

Page 5

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/22/2015

Upper explosion limit	: Not applicable
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/cm ³
Bulk density	: 500 - 1,100 kg/m ³ For 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
Auto-ignition temperature	: not determined
Decomposition temperature	: No decomposition if used as directed.
Viscosity	
Viscosity, dynamic	: not applicable (solid with a melting point > 450 °C)
Viscosity, kinematic	: Not applicable
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)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable under recommended storage conditions.
Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: None known.
Conditions to avoid	: Forms slippery/greasy layers with water.
Incompatible materials	: inert, not reactive Avoid storing together with materials that may be affected by dust.
Hazardous decomposition products	: Not relevant

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/22/2015

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Eye contact

Ingestion

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

Result: No eye irritation

Method: OECD Test Guideline 405

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

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/22/2015

Result: negative

Carcinogenicity**Product:**

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

IARC Not listed

OSHA Not listed

NTP Not listed

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

Experience with human exposure**Product:**

General Information : The possible symptoms known are those derived from the labelling (see section 2).

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 16 g/l
Exposure time: 96 hLC50 (Marine water fish): 2.8 - 3.2 g/l
Exposure time: 24 hToxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/22/2015

- 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 : (Phaseolus vulgaris): 84.4 mg/kg
Remarks: No effect on the growth was observed.
- (Zea mays): 84.4 mg/kg
Remarks: No effect on the growth was observed.

Persistence and degradability**Product:**

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

Bioaccumulative potential**Product:**

- Bioaccumulation : Remarks: Not relevant for inorganic substances

Mobility in soil**Product:**

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

Other adverse effects**Product:**

- Results of PBT and vPvB assessment : Remarks: The substance does not meet the criteria for PBT or vPvB substance.
- Additional ecological information : According to experience and to the information currently available, the product has no harmful effects on the environment if used correctly as intended.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

- RCRA - Resource Conservation and Recovery Authorization Act : No -- Not as sold.

BAG DESI PAK® 4U TY 523 5X5.5

Page 9

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/22/2015

Waste Code	: NONE
Waste from residues	: This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.
Contaminated packaging	: No specific requirements.

SECTION 14. TRANSPORT INFORMATION

DOT	not restricted
IATA	not restricted
IMDG	not restricted

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This product is not subject to SARA Title III Section 313 reporting requirements under 40 CFR 372.

Clean Water Act

Contains no known priority pollutants at concentrations greater than 0.1%.

The components of this product are reported in the following inventories:

TSCA : All components of this product are listed or excluded from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) Inventory.

Inventories

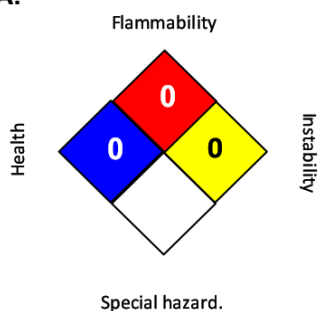
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/22/2015

SECTION 16. OTHER INFORMATION**Further information****NFPA:**

Revision Date : 05/15/2015

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.

US / USA

SAFETY DATA SHEET

BAG DESI PAK® 8U T2 TY-565 5X8 300/D

Page 1

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000
Information of the substance/preparation:	Product Safety 1-704-331-7710
Emergency tel. number:	+1 800-424-9300 CHEMTREC

Trade name:	BAG DESI PAK® 8U T2 TY-565 5X8 300/D
Material number:	248787
CAS number:	1302-78-9
Chemical family:	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.
Primary product use:	Desiccant
Restrictions on use :	There are no uses advised against.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS Label element

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	<ul style="list-style-type: none">• Substance
Chemical nature	<ul style="list-style-type: none">• 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

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SAFETY DATA SHEET

BAG DESI PAK® 8U T2 TY-565 5X8 300/D

Page 2

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

SECTION 4. FIRST AID MEASURES

- General advice : No known delayed effects. Consult a physician for all exposures except for minor instances.
- If inhaled : INHALATION: If exposed to excessive levels of dust or fumes, remove to fresh air and get medical attention. Get medical attention if cough and other symptoms develop. If you feel unwell, seek medical advice (show the label where possible).
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Use a mild soap if available.
- In case of eye contact : Do not rub affected area.
Rinse immediately with plenty of lukewarm water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.
- If swallowed : Normally not needed. If whole canisters or sachets are ingested, call a physician or your local Poison Control Center (1-800-222-1222 in the United States).
- Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2).
No additional symptoms are known.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

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

None known.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Special sliding risk through leaking of spilled product in

SAFETY DATA SHEET

BAG DESI PAK® 8U T2 TY-565 5X8 300/D

Page 3

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

connection with water.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : 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.
Wearing appropriate personal protective equipment, contain spill and collect into a suitable container.
No special precautions required.
Refer to Section 8 for more information. |
| Environmental precautions | : No special environmental precautions required. |
| Methods and materials for containment and 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. |

SECTION 7. HANDLING AND STORAGE

- | | |
|--------------------------------|---|
| Advice on safe handling | : Use of proper hygiene practices in the workplace is recommended. |
| Conditions for safe storage | : 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. |
| Technical measures/Precautions | : Store in a dry place.

Store in a dry place. |
| Materials to avoid | : No conditions to be specially mentioned. |

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is 5 mg/m³ for respirable fraction and 15 mg/m³ for total dust. ACGIH exposure guidelines of less than 3 mg/m³

SAFETY DATA SHEET

BAG DESI PAK® 8U T2 TY-565 5X8 300/D

Page 4

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

(respirable) and 10 mg/m³ (inhalable) have been established for particles (insoluble/poorly soluble) not otherwise specified (PNOS).

Engineering measures : Use ventilation adequate to keep exposures below recommended exposure limits. See the safety datasheet.

Personal protective equipment

Respiratory protection : Use local exhaust if dusting occurs. Good general ventilation is adequate in the absence of dusts.

Hand protection

Remarks : Wear protective gloves. Wash thoroughly after handling.

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear suitable protective equipment.

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : lumpy, granular, powder

Colour : bright to earthy

Odour : none

Odour Threshold : not determined

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

Upper explosion limit : Not applicable

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)

SAFETY DATA SHEET

BAG DESI PAK® 8U T2 TY-565 5X8 300/D

Page 5

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

Relative vapour density	: Not applicable
Density	: 2.6 g/cm ³
Bulk density	: 500 - 1,100 kg/m ³ For 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
Auto-ignition temperature	: not determined
Decomposition temperature	: No decomposition if used as directed.
Viscosity Viscosity, dynamic	: not applicable (solid with a melting point > 450 °C)
Viscosity, kinematic	: Not applicable
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)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable under recommended storage conditions.
Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: None known.
Conditions to avoid	: Forms slippery/greasy layers with water.
Incompatible materials	: inert, not reactive Avoid storing together with materials that may be affected by dust.
Hazardous decomposition products	: Not relevant

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Ingestion

Acute toxicity

SAFETY DATA SHEET

BAG DESI PAK® 8U T2 TY-565 5X8 300/D

Page 6

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

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
Result: No eye irritation
Method: OECD Test Guideline 405

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.

IARC

Not listed

SAFETY DATA SHEET
BAG DESI PAK® 8U T2 TY-565 5X8 300/D

Page 7

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

OSHA Not listed

NTP Not listed

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

Experience with human exposure

Product:

General Information : The possible symptoms known are those derived from the labelling (see section 2).

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

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

SAFETY DATA SHEET
BAG DESI PAK® 8U T2 TY-565 5X8 300/D

Page 8

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

Plant toxicity : (Phaseolus vulgaris): 84.4 mg/kg
Remarks: No effect on the growth was observed.

(Zea mays): 84.4 mg/kg
Remarks: No effect on the growth was observed.

Persistence and degradability

Product:

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

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Not relevant for inorganic substances

Mobility in soil

Product:

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

Other adverse effects

Product:

Results of PBT and vPvB assessment : Remarks: The substance does not meet the criteria for PBT or vPvB substance.

Additional ecological information : According to experience and to the information currently available, the product has no harmful effects on the environment if used correctly as intended.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act Waste Code : No -- Not as sold.
: NONE

Waste from residues : This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Contaminated packaging : No specific requirements.

SECTION 14. TRANSPORT INFORMATION

SAFETY DATA SHEET
BAG DESI PAK® 8U T2 TY-565 5X8 300/D

Page 9

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

DOT	not restricted
IATA	not restricted
IMDG	not restricted

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This product is not subject to SARA Title III Section 313 reporting requirements under 40 CFR 372.

Clean Water Act

Contains no known priority pollutants at concentrations greater than 0.1%.

The components of this product are reported in the following inventories:

TSCA : All components of this product are listed or excluded from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) Inventory.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

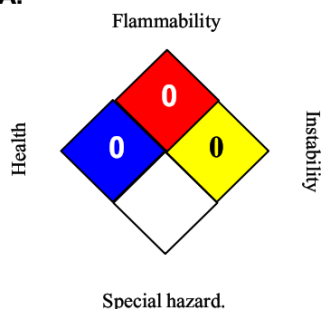
Further information

SAFETY DATA SHEET
BAG DESI PAK® 8U T2 TY-565 5X8 300/D

Substance key: SC0000107388
Version : 4 - 0 / USA

Revision Date: 05/15/2015
Date of printing :05/30/2015

NFPA:



Revision Date : 05/15/2015

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.

US / USA

SAFETY DATA SHEET

BAG DESI PAK® 16U TY-532 5¾X10 150/D NHT

Page 1

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000
Information of the substance/preparation:	Product Safety 1-704-331-7710
Emergency tel. number:	+1 800-424-9300 CHEMTREC

Trade name:	BAG DESI PAK® 16U TY-532 5¾X10 150/D NHT
Material number:	254238
CAS number:	1302-78-9
Chemical family:	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.
Primary product use:	Desiccant
Restrictions on use :	There are no uses advised against.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS Label element

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	<ul style="list-style-type: none">• Substance
Chemical nature	<ul style="list-style-type: none">• 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

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SAFETY DATA SHEET

BAG DESI PAK® 16U TY-532 5¼X10 150/D NHT

Page 2

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

SECTION 4. FIRST AID MEASURES

- General advice : No known delayed effects. Consult a physician for all exposures except for minor instances.
- If inhaled : INHALATION: If exposed to excessive levels of dust or fumes, remove to fresh air and get medical attention. Get medical attention if cough and other symptoms develop. If you feel unwell, seek medical advice (show the label where possible).
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Use a mild soap if available.
- In case of eye contact : Do not rub affected area.
Rinse immediately with plenty of lukewarm water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.
- If swallowed : Normally not needed. If whole canisters or sachets are ingested, call a physician or your local Poison Control Center (1-800-222-1222 in the United States).
- Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2).
No additional symptoms are known.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

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

None known.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Special sliding risk through leaking of spilled product in

SAFETY DATA SHEET

BAG DESI PAK® 16U TY-532 5¾X10 150/D NHT

Page 3

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

connection with water.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : 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.
Wearing appropriate personal protective equipment, contain spill and collect into a suitable container.
No special precautions required.
Refer to Section 8 for more information. |
| Environmental precautions | : No special environmental precautions required. |
| Methods and materials for containment and 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. |

SECTION 7. HANDLING AND STORAGE

- | | |
|--------------------------------|---|
| Advice on safe handling | : Use of proper hygiene practices in the workplace is recommended. |
| Conditions for safe storage | : 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. |
| Technical measures/Precautions | : Store in a dry place.

Store in a dry place. |
| Materials to avoid | : No conditions to be specially mentioned. |

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is 5 mg/m³ for respirable fraction and 15 mg/m³ for total dust. ACGIH exposure guidelines of less than 3 mg/m³

SAFETY DATA SHEET

BAG DESI PAK® 16U TY-532 5¾X10 150/D NHT

Page 4

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

(respirable) and 10 mg/m³ (inhalable) have been established for particles (insoluble/poorly soluble) not otherwise specified (PNOS).

Engineering measures : Use ventilation adequate to keep exposures below recommended exposure limits. See the safety datasheet.

Personal protective equipment

Respiratory protection : Use local exhaust if dusting occurs. Good general ventilation is adequate in the absence of dusts.

Hand protection

Remarks : Wear protective gloves. Wash thoroughly after handling.

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear suitable protective equipment.

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : lumpy, granular, powder

Colour : bright to earthy

Odour : none

Odour Threshold : not determined

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

Upper explosion limit : Not applicable

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)

SAFETY DATA SHEET

BAG DESI PAK® 16U TY-532 5¾X10 150/D NHT

Page 5

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

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
Auto-ignition temperature	: not determined
Decomposition temperature	: No decomposition if used as directed.
Viscosity Viscosity, dynamic	: not applicable (solid with a melting point > 450 °C)
Viscosity, kinematic	: Not applicable
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)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable under recommended storage conditions.
Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: None known.
Conditions to avoid	: Forms slippery/greasy layers with water.
Incompatible materials	: inert, not reactive Avoid storing together with materials that may be affected by dust.
Hazardous decomposition products	: Not relevant

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Ingestion

Acute toxicity

SAFETY DATA SHEET

BAG DESI PAK® 16U TY-532 5¾X10 150/D NHT

Page 6

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

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
Result: No eye irritation
Method: OECD Test Guideline 405

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.

IARC

Not listed

SAFETY DATA SHEET
BAG DESI PAK® 16U TY-532 5¾X10 150/D NHT

Page 7

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

OSHA Not listed

NTP Not listed

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

Experience with human exposure

Product:

General Information : The possible symptoms known are those derived from the labelling (see section 2).

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

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

SAFETY DATA SHEET
BAG DESI PAK® 16U TY-532 5¾X10 150/D NHT

Page 8

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

Plant toxicity : (Phaseolus vulgaris): 84.4 mg/kg
Remarks: No effect on the growth was observed.

(Zea mays): 84.4 mg/kg
Remarks: No effect on the growth was observed.

Persistence and degradability

Product:

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

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Not relevant for inorganic substances

Mobility in soil

Product:

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

Other adverse effects

Product:

Results of PBT and vPvB assessment : Remarks: The substance does not meet the criteria for PBT or vPvB substance.

Additional ecological information : According to experience and to the information currently available, the product has no harmful effects on the environment if used correctly as intended.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act Waste Code : No -- Not as sold.
: NONE

Waste from residues : This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Contaminated packaging : No specific requirements.

SECTION 14. TRANSPORT INFORMATION

SAFETY DATA SHEET
BAG DESI PAK® 16U TY-532 5¾X10 150/D NHT

Page 9

Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

DOT	not restricted
IATA	not restricted
IMDG	not restricted

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This product is not subject to SARA Title III Section 313 reporting requirements under 40 CFR 372.

Clean Water Act

Contains no known priority pollutants at concentrations greater than 0.1%.

The components of this product are reported in the following inventories:

TSCA : All components of this product are listed or excluded from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) Inventory.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

SAFETY DATA SHEET

BAG DESI PAK® 16U TY-532 5¾X10 150/D NHT

Page 10

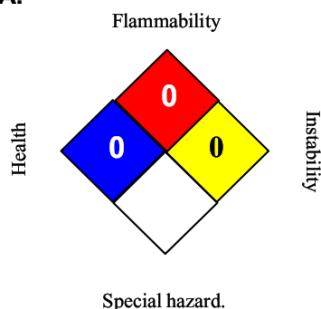
Substance key: SC0000107388

Revision Date: 05/15/2015

Version : 4 - 0 / USA

Date of printing :05/30/2015

NFPA:



Revision Date : 05/15/2015

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.

US / USA