

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



FULCAT-22 D

Version 2.0

SDB_IE

Revision Date: 24.11.2022

Date of last issue: 10.03.2022

Print Date 20.09.2023

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

1.1 Product identifier

Trade name : FULCAT-22 D

Product code : 000000000000136019

REACH Registration Number : Exempt: Annex V.7

Substance name : Bentonite

CAS-No. : 1302-78-9

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

Use of the Sub-
stance/Mixture : Catalyst

1.3 Details of the supplier of the safety data sheet

Company : BYK Additives Ltd.
Moorfield Road
WA8 3AA Widnes

Telephone : +44 151 495 2222

Telefax : +44 151 420 4401

Information : Regulatory Affairs

Telephone : +49 281 670-23532

Telefax : +49 281 670-23533

E-mail address : GHS.BYK@altana.com

1.4 Emergency telephone number

+44 1235 239670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



FULCAT-22 D

Version 2.0

SDB_IE

Revision Date: 24.11.2022

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Print Date 20.09.2023

2.3 Other hazards

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

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Contaminated surfaces will be extremely slippery.

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

The product contains less than 1% w/w RCS (respirable crystalline silica) as determined by the SWeRF method. The respirable crystalline silica content can be measured using the "Size-Weighted Respirable Fraction – SWeRF" method. All details about the SWeRF method is available at www.crystallinesilica.eu.

Depending on the handling and use (grinding, drying, bagging), airborne respirable dust may be generated. Dust contains respirable crystalline silica. Prolonged and or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable dust should be monitored and controlled. The product should be handled using methods and techniques that minimize or eliminate dust generation.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : Bentonite

CAS-No. : 1302-78-9

Chemical nature : Phyllosilicate

Components

Remarks : No hazardous ingredients

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



FULCAT-22 D

Version 2.0

SDB_IE

Revision Date: 24.11.2022

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Print Date 20.09.2023

- | | | |
|-------------------------|---|---|
| In case of skin contact | : | Wash off with soap and water.
Get medical attention if irritation develops and persists.
If on clothes, remove clothes.
Wash contaminated clothing before re-use. |
| In case of eye contact | : | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist. |
| If swallowed | : | Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

Rinse mouth with water.
If large quantities of this material are swallowed, call a physician immediately. |

4.2 Most important symptoms and effects, both acute and delayed

- | | | |
|----------|---|--|
| Symptoms | : | No symptoms known or expected. |
| Risks | : | Irritating to eyes, respiratory system and skin. |

4.3 Indication of any immediate medical attention and special treatment needed

- | | | |
|-----------|---|------------------------|
| Treatment | : | Treat symptomatically. |
|-----------|---|------------------------|

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | | |
|--------------------------------|---|---|
| Suitable extinguishing media | : | Foam
Carbon dioxide (CO ₂)
Dry chemical

Water spray
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | : | High volume water jet |

5.2 Special hazards arising from the substance or mixture

- | | | |
|---------------------------------------|---|---|
| Specific hazards during fire-fighting | : | The product itself does not burn.
Material can be slippery when wet. |
| Hazardous combustion products | : | No hazardous combustion products are known |

FULCAT-22 D

Version 2.0
SDB_IE

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5.3 Advice for firefighters

- Special protective equipment : Wear self-contained breathing apparatus for firefighting if necessary for firefighters.
- Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Avoid dust formation.
Avoid breathing dust.
Use personal protective equipment.

6.2 Environmental precautions

- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Pick up and arrange disposal without creating dust.
Use approved industrial vacuum cleaner for removal.
High efficiency particulate air filter (HEPA filter)
Clean-up methods - large spillage
Knock down dust with water spray jet.
Shovel into suitable container for disposal.
After cleaning, flush away traces with water.
Clean-up methods - small spillage
Sweep up or vacuum up spillage and collect in suitable container for disposal.
- Pick up and arrange disposal without creating dust.
Sweep up and shovel.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Operate if possible out of doors or in a well-ventilated place.
Do not breathe vapours/dust.
Avoid contact with skin and eyes.
Avoid prolonged or repeated contact with skin.

FULCAT-22 D

Version 2.0
SDB_IE

Revision Date: 24.11.2022

Date of last issue: 10.03.2022
Print Date 20.09.2023

Advice on protection against fire and explosion : In case of insufficient ventilation, wear suitable respiratory equipment.
Provide appropriate exhaust ventilation at places where dust is formed.

Avoid dust formation.

Hygiene measures : General industrial hygiene practice.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards.

Keep container tightly closed.

Advice on common storage : No materials to be especially mentioned.

Further information on storage stability : Keep in a dry place.
No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Quartz (SiO ₂)	14808-60-7	OELV - 8 hrs (TWA) (Respirable dust)	0,1 mg/m ³ (Silica)	IE OEL
Further information: Carcinogenic, see List of Carcinogenic Substances, Mixtures and Processes				

Further occupational exposure limits

Description	Value type	Control parameters	Basis
dusts non-specific	OELV - 8 hrs (TWA)	4 mg/m ³	IE OEL
	OELV - 8 hrs (TWA)	10 mg/m ³	IE OEL

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation.
Maintain air concentrations below occupational exposure standards.
Dust must be extracted directly at the point of origin.

Personal protective equipment

Eye protection : Safety glasses
Wear safety glasses with side shields or goggles.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



FULCAT-22 D

Version 2.0

SDB_IE

Revision Date: 24.11.2022

Date of last issue: 10.03.2022

Print Date 20.09.2023

Hand protection : If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.

Remarks : Use protective skin cream before handling the product.
Wear suitable gloves. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Protective suit
Work uniform or laboratory coat.

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

Filter type : Suitable mask with particle filter P3 (European Norm 143)

Environmental exposure controls

General advice : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : powder
Colour : off-white
Odour : odourless
Odour Threshold : Not applicable

Melting point/freezing point : Not applicable

Boiling point/boiling range : Not applicable

Flammability : Will not burn

Upper explosion limit / Upper flammability limit : Not applicable

Lower explosion limit / Lower flammability limit : Not applicable

Flash point : Not applicable

Auto-ignition temperature : Not applicable

Decomposition temperature : No data available

pH : 8,5
(aqueous suspension)

Viscosity
Viscosity, dynamic : No data available
Viscosity, kinematic : No data available

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



FULCAT-22 D

Version 2.0

SDB_IE

Revision Date: 24.11.2022

Date of last issue: 10.03.2022

Print Date 20.09.2023

Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: No data available
Vapour pressure	: Not applicable
Density	: 2,60 g/cm ³ (20 °C)
Bulk density	: 850,00 kg/m ³
Relative vapour density	: No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
No hazards to be specially mentioned.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : None known.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

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

Acute toxicity

Product:

Acute oral toxicity : LD₅₀ (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 420

Acute inhalation toxicity : LC₅₀ (Rat): > 5,27 mg/l
Test atmosphere: dust/mist
Method: OECD Test Guideline 436

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



FULCAT-22 D

Version 2.0

SDB_IE

Revision Date: 24.11.2022

Date of last issue: 10.03.2022

Print Date 20.09.2023

Skin corrosion/irritation

Product:

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

Serious eye damage/eye irritation

Product:

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

Respiratory or skin sensitisation

Product:

Test Type : Mouse Local Lymph Node assay (LLNA)
Exposure routes : Dermal
Species : Mouse
Method : OECD Test Guideline 429
Result : Does not cause skin sensitisation.

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Test Type: Ames test
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 mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Germ cell mutagenicity- Assessment : In vitro tests did not show mutagenic effects

STOT - single exposure

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



FULCAT-22 D

Version 2.0

SDB_IE

Revision Date: 24.11.2022

Date of last issue: 10.03.2022

Print Date 20.09.2023

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Product:

Remarks : This product contains <1% crystalline silica. The respirable crystalline silica as determined by the SWerF method is <1% w/w. See section 2.3

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 16.000 mg/l
Exposure time: 96 h

LC50 (Marine species): 2.800 - 3.200 mg/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

Toxicity to algae/aquatic plants : EC50 : > 100 mg/l
Exposure time: 72 h

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

12.4 Mobility in soil

Product:

Mobility : Remarks: Bentonite is almost insoluble and thus presents a

SAFETY DATA SHEET

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FULCAT-22 D

Version 2.0

SDB_IE

Revision Date: 24.11.2022

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low mobility in most soils

12.5 Results of PBT and vPvB assessment

Product:

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

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



FULCAT-22 D

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SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
REACH - List of substances subject to authorisation (Annex XIV)	: Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	Not applicable

15.2 Chemical safety assessment

Bentonite is exempted from REACH registration in accordance with Annex V.7. A hazard assessment has been conducted under the umbrella of the European Bentonite Association (EUBA) and the outcome was that bentonite is not a hazardous substances. Therefore, in absence of identified hazard, the substance is safe and presents no risk.

SECTION 16: Other information

Items where relevant changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of other abbreviations

IE OEL	: Ireland. List of Chemical Agents and Occupational Exposure Limit Values - Schedule 1
IE OEL / OELV - 8 hrs (TWA)	: Occupational exposure limit value (8-hour reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified;

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



FULCAT-22 D

Version 2.0

SDB_IE

Revision Date: 24.11.2022

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Print Date 20.09.2023

NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Training advice : Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Other information : In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003)

According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



FULCAT-22 D

Version 2.0

SDB_IE

Revision Date: 24.11.2022

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Print Date 20.09.2023

material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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