

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## BYK-1745

Version 2.0

SDB\_GB

Revision Date: 22.03.2023

Date of last issue: 11.08.2021

Print Date 03.04.2023

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

#### 1.1 Product identifier

Trade name : BYK-1745

Product code : 000000000000136824

This substance/ mixture contains nanoforms

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

Use of the Sub-  
stance/Mixture : Defoamer

#### 1.3 Details of the supplier of the safety data sheet

Company : BYK-Chemie GmbH  
Abelstrasse 45  
46483 Wesel

Telephone : +49 281 670-0  
Telefax : +49 281 65735

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.

#### **Additional Labelling**

EUH210 Safety data sheet available on request.

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### 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.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Mixture of hydrophobic solids and foam destroying polymers, silicone free

#### Components

| Chemical name                                | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification | Concentration<br>(% w/w) |
|----------------------------------------------|-------------------------------------------------------|----------------|--------------------------|
| Substances with a workplace exposure limit : |                                                       |                |                          |
| Silicon dioxide                              | 7631-86-9<br>231-545-4<br>01-2119379499-16            |                | >= 3 - < 5               |

For explanation of abbreviations see section 16.

This substance/ mixture contains nanoforms

#### Components:

##### **Silicon dioxide:**

#### Particle characteristics

Assessment : Assessment: This substance/ mixture contains nanoforms

Shape : Shape: spheres

Crystallinity : Crystallinity: amorphous

Surface treatment /Coatings : Surface treatment /Coatings: no

##### **Silicon dioxide:**

Assessment : Assessment: This substance/ mixture contains nanoforms

Shape : Shape: spheres

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|                             |   |                                                                                |
|-----------------------------|---|--------------------------------------------------------------------------------|
| Crystallinity               | : | Crystallinity: amorphous                                                       |
| Surface treatment /Coatings | : | Surface treatment /Coatings: yes<br>Properties of Coated Particle: hydrophobic |

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

#### 4.2 Most important symptoms and effects, both acute and delayed

|          |   |                           |
|----------|---|---------------------------|
| Symptoms | : | No information available. |
| Risks    | : | No information available. |

#### 4.3 Indication of any immediate medical attention and special treatment needed

|           |   |                           |
|-----------|---|---------------------------|
| Treatment | : | No information available. |
|-----------|---|---------------------------|

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

|                                |   |                                                           |
|--------------------------------|---|-----------------------------------------------------------|
| Suitable extinguishing media   | : | Foam<br>Carbon dioxide (CO <sub>2</sub> )<br>Dry chemical |
| Unsuitable extinguishing media | : | High volume water jet                                     |

#### 5.2 Special hazards arising from the substance or mixture

|                               |   |                                 |
|-------------------------------|---|---------------------------------|
| Hazardous combustion products | : | Carbon oxides<br>Silicon oxides |
|-------------------------------|---|---------------------------------|

#### 5.3 Advice for firefighters

|                              |   |                                                                  |
|------------------------------|---|------------------------------------------------------------------|
| Special protective equipment | : | Wear self-contained breathing apparatus for firefighting if nec- |
|------------------------------|---|------------------------------------------------------------------|

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for firefighters

essary.

Further information

: Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

### 6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

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

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## 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.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

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.

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

Further information on storage stability : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : No data available

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Occupational Exposure Limits

| Components                                                                      | CAS-No.   | Value type (Form of exposure) | Control parameters             | Basis      |
|---------------------------------------------------------------------------------|-----------|-------------------------------|--------------------------------|------------|
| Silicon dioxide                                                                 | 7631-86-9 | TWA (inhalable dust)          | 6 mg/m <sup>3</sup> (Silica)   | GB EH40    |
|                                                                                 |           | TWA (Respirable dust)         | 2,4 mg/m <sup>3</sup> (Silica) | GB EH40    |
|                                                                                 |           | TWA (Respirable dust)         | 0,1 mg/m <sup>3</sup>          | 2004/37/EC |
| Further information: Carcinogens or mutagens                                    |           |                               |                                |            |
|                                                                                 |           | TWA (Respirable fraction)     | 0,1 mg/m <sup>3</sup> (Silica) | GB EH40    |
| Further information: Capable of causing cancer and/or heritable genetic damage. |           |                               |                                |            |

##### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name  | End Use | Exposure routes | Potential health effects   | Value               |
|-----------------|---------|-----------------|----------------------------|---------------------|
| Silicon dioxide | Workers | Inhalation      | Long-term systemic effects | 4 mg/m <sup>3</sup> |

#### 8.2 Exposure controls

##### Personal protective equipment

Eye protection : Safety glasses

Hand protection

Material : PVC disposable gloves  
Break through time : > 120 min

Skin and body protection : Protective suit

Respiratory protection : No personal respiratory protective equipment normally required.

##### Environmental exposure controls

General advice : Prevent product from entering drains.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Physical state : suspension

Colour : yellow, cloudy

Odour : not significant

Odour Threshold : No data available

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|                                                  |   |                                                                                             |
|--------------------------------------------------|---|---------------------------------------------------------------------------------------------|
| Melting point/freezing point                     | : | < 0 °C<br>Method: derived                                                                   |
| Initial boiling point                            | : | > 250 °C<br>Method: derived                                                                 |
| Upper explosion limit / Upper flammability limit | : | No data available                                                                           |
| Lower explosion limit / Lower flammability limit | : | No data available                                                                           |
| Flash point                                      | : | > 150 °C<br>Method: 49 (Pensky-Martens)                                                     |
| Auto-ignition temperature                        | : | > 200 °C<br>Method: DIN 51794                                                               |
| Decomposition temperature                        | : | No data available                                                                           |
| pH                                               | : | 6 (20 °C)<br>Concentration: 1 %<br>Method: Universal pH-value indicator                     |
| Viscosity                                        |   |                                                                                             |
| Viscosity, dynamic                               | : | No data available                                                                           |
| Viscosity, kinematic                             | : | No data available                                                                           |
| Solubility(ies)                                  |   |                                                                                             |
| Water solubility                                 | : | insoluble                                                                                   |
| Solubility in other solvents                     | : | No data available                                                                           |
| Partition coefficient: n-octanol/water           | : | No data available                                                                           |
| Vapour pressure                                  | : | 1 hPa (20 °C)<br>Method: derived                                                            |
| Relative density                                 | : | No data available                                                                           |
| Density                                          | : | 0,973 g/cm <sup>3</sup> (20 °C, 1.013 hPa)<br>Method: 4 deaerated (20°C oscillating U-tube) |
| Relative vapour density                          | : | No data available                                                                           |
| Particle characteristics                         |   |                                                                                             |
| Assessment                                       | : | Assessment: This substance/ mixture contains nanoforms                                      |
| Particle size                                    | : | Further particle properties for nanomaterials see section 3                                 |

### 9.2 Other information

No data available

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### 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 : Acids and bases  
Strong oxidizing agents

#### 10.6 Hazardous decomposition products

No data available

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### SECTION 11: Toxicological information

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

##### Acute toxicity

##### Product:

Acute oral toxicity : Remarks: No data available

##### Components:

##### **Silicon dioxide:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat, male and female): 58,8 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
GLP: yes

##### Skin corrosion/irritation

##### Product:

Remarks : No data available

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### Serious eye damage/eye irritation

**Product:**

Remarks : No data available

### Respiratory or skin sensitisation

**Product:**

Remarks : No data available

### Germ cell mutagenicity

**Product:**

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

### Carcinogenicity

**Product:**

Remarks : No data available

### Reproductive toxicity

**Product:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

### STOT - single exposure

**Product:**

Remarks : No data available

### STOT - repeated exposure

**Product:**

Remarks : No data available

### Repeated dose toxicity

**Product:**

Remarks : No data available

### Aspiration toxicity

**Product:**

No data available

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### 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 : No data available

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## SECTION 12: Ecological information

### 12.1 Toxicity

**Product:**

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

### 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

No data available

### 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

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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.

## SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

|                                                                                           |                                                                                                                     |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                    |

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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

Seveso III Directive (2012/18/EU) implemented by Control of Major Accident Hazards Regulations 2015 (COMAH)

Not applicable

### 15.2 Chemical safety assessment

Not applicable

## 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 H-Statements

#### Full text of other abbreviations

|                  |   |                                                                                                                                 |
|------------------|---|---------------------------------------------------------------------------------------------------------------------------------|
| 2004/37/EC       | : | Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work |
| GB EH40          | : | UK. EH40 WEL - Workplace Exposure Limits                                                                                        |
| 2004/37/EC / TWA | : | Long term exposure limit                                                                                                        |
| GB EH40 / TWA    | : | Long-term exposure limit (8-hour TWA 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; AIIC - 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; 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

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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

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 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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