Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

According to Regulation (EC) No 1907/2006 [REACH] Article 3(3) this product is classified as article, hence no obligation exists to create a safety data sheet as required by REACH Article 31. This Product Information was created in the style of REACH Annex II/Regulation (EU) 2020/878 to inform about a safe and careful handling with this product.

Section 1: Identification of the article and of the company

1.1 Product Identifier
Tenax™ Chopped Fiber all types*
Tenax™ Milled Fiber all types

***Exceptions**
Tenax™-J HT C903, nickel-coated
Tenax™-J HT C923, nickel-coated

REACH-registration status
This product is treated as an article. Articles are exempted from registration in accordance with Regulation (EC) No 1907/2006.

1.2 Relevant identified uses of the article and uses advised against
As filler or manufacturing of non-woven fabrics/-papers.

Uses advised against
None known.

1.3 Details of the supplier
Teijin Carbon Europe GmbH
Kasinostr. 19-21
42103 Wuppertal
GERMANY
Tel: +49 202 32 32 25
Homepage: www.teijincarbon.com

Qualified person
E-Mail: safety@teijincarbon.com

1.4 EMERGENCE TELEPHONE NUMBER
Not available for this version.

Section 2: Hazards identifications

2.1 Classification
This product is an **article**, and hence does not require a classification and labelling according to EU regulations.

2.1.1 Self-Classification according to Regulation (EC) No 1272/2008 [CLP]
Not classified as hazardous. See chapter 3

2.2 Self-Labelling elements according to Regulation (EC) No 1272/2008 [CLP]
Not subject to classification.

Precautionary instruction
P280: Wear protective gloves.

Supplemental hazard information (EU)
EUH208: Contains „reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)“. May produce an allergic reaction.

2.3 Other hazards

The product does not contain any **vPvB** substances or is not included under Annex XIII of Regulation (EC) 1907/2006 above legal concentration limits ≥ 0.1 % (w/w).
The product does not contain any **PBT** substances or is not included under Annex XIII of Regulation (EC) 1907/2006 above legal concentration limits ≥ 0.1 % (w/w).
The product does not contain Substances of Very High Concern (**SVHC**) acc. to REACH Regulation (EC) No 1907/2006, Art. 59 above legal concentration limits of ≥ 0.1 % (w/w).
The product does not contain any constituents that are in accordance with REACH Article 57(f), Regulation (EU) 2017/2100, or Regulation (EC) 2018/605 in quantities of 0.1% (w/w) or more have **endocrine disrupting** properties.

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

Other hazards which do not result in classification
As delivered the product is not explosive at all; however, accumulation of fine dust could be caused a risk of dust explosion. See chapter 10

Section 3: Composition/information of ingredients

3.1 Product type

This product is an **article** acc. to regulation (EC) 1907/2006 [REACH].
It does not contain any substances that are intended to be released under normal or foreseeable applications.

Description
Chopped or milled carbon fiber pure or with different polymer mixtures as sizing.

3.2 Composition/information of ingredients

No	Substance	EU-INDEX EINECS/ELINCS CAS No Reg. No	Content by weight % (w/w)	GHS/CLP		M-factor/ specific limit value	Notice
1.	**Carbon fiber based on polyacrylonitrile (PAN)**	**-** **Polymer: (231-153-3)** **308063-67-4** (7440-44-0) **-**	**≥ 95**	**Not classified**		**-**	**[A]** **[2]**
2.	**Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)**	**603-074-00-8** **500-033-5** **25068-38-6** **-**	**0.1 - < 1.0**	**Skin Irrit. 2** **Skin Sens.1** **Eye Irrit. 2** **Aquatic Chronic 2**	**H315** **H317** **H319** **H411**	**C ≥ 5 %** **C ≥ 5 %**	**[A]** **[1]**

The full wording of the listed hazard statements can be found in section 16.
[A] = Ingredient
[B] = Impurity
[1] = Substance classified as hazardous to health or the environment.
[2] = Substance with an occupational exposure limit value.

Additional information
None known.

Section 4: First aid measures

4.1 Description of first aid measures

General information
No special measures necessary. Avoid contact with unprotected body parts.

Following inhalation
In the case of fiber dust inhalation, bring affected person to fresh air. If respiratory irritation persist, seek medical attention.

Following skin contact
In the case of contact with skin, rinse affected area thoroughly with lot of cold water. Do not use warm water since it aggravates the skin itching/irritation. Consult a doctor if skin irritation persists.

Following eye contact
In the case of eye contact, rinse the affected eye thoroughly for a few minutes. Remove contact lenses, if present and easy to do, continue rinsing. If eye irritation persist, seek medical attention.

Following ingestion
Not applicable.

Self-protection of the first aider
Self-aider: Pay attention to self-protection!

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and Effects
Preexisting sensitization and skin disorders may be aggravated.

4.3 Indication of any immediate medical attention and special treatment needed

Special treatment
First aid, treatment of symptoms.

Notes for the doctor
Treat symptomatically.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Foam, dry powder, water spray jet, carbon dioxide.

Unsuitable extinguishing media
Full water jet.

5.2 Special hazards arising from the article

Hazardous combustion products
At temperatures above ≥ 200 °C, hazardous decomposition and degradation products like Carbon oxides (COx), and Nitrogen oxides (NOx) can be released from the matrix.
Further increase of temperature above ≥ 650 °C can cause WHO-fibres coming from the disintegrating CF-material.

5.3 Advice for firefighters

Special protective equipment for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing.

5.4 Additional Information
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedure

For non-emergency personnel
Wear personal protective equipment, see section 8

For emergency responders
Remove persons to safety. Isolate hazard area and deny entry. Ventilate closed spaces before entering. Use personal protective equipment, see section 8.

6.2 Environmental precautions
No special measures are required.

6.3 Methods and material for containment and cleaning up

For containment
Not known.

For cleaning up
Clean contaminated objects with damp cloth. Dispose of contaminated material in accordance with regulations.

6.4 Reference to other sections
Handling and storage, see section 7.
Personal protection, see section 8.
Disposal considerations, see section 13.

Section 7: Handling and storage

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

7.1 Precautions for safe handling

Protective measures
Wear personal protective equipment. See Section 8.

Measures to prevent fire
Keep the product away from heat, sparks and open flames.

Measures to prevent aerosol and dust generation
Fiber dust shall be extracted at the point of origin by an integrated extraction or vacuumed by an industrial vacuum cleaner. Filter recommendation: class B1 IP65 or type 22 IIIC according to DIN IEC 62784, at least filter class cat. M.

Measures to protect the environment
Not known.

Advice on general occupational hygiene
General hygiene rules must be observed: Wash hands before breaks and at the end of work. Wash contaminated clothing prior to re-use.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Recommended storage temperature: ≤ 50 °C, relative humidity ≤ 85 %.

Requirements for storage rooms and vessels
Store the product in dry rooms in the original packaging.

Further information on storage conditions
Store and keep away from direct sunlight and other UV-light source.

7.3 Specific end use(s)

Recommendations
Intermediate product

Specific end uses
See chapter 1.2.

Section 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limits

No	Substance	CAS No	Occupational exposure limits (OEL)		Monitoring and observation processes	Sources Limit value type Country of origin
			Limit value Eight hours	**Limit value Short term (15 min)**		
	Workplace limits for dust in general (ASGW)	**-**	-	1.25 A mg/m³ 10 E mg/m³	Exceedance factor = 2	TRGS 900, 521 GESTIS Limit Values Germany (AGS)
1.	**Carbon fibre**	**-**	2 fibre particles/cm³			GESTIS Limit Values Belgium VLEP/GWBB
			3 E mg/m³			GESTIS Limit Values China

Biological limit values
Not applicable.

DN(M)EL-Values
Not applicable.

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

PNEC-Values
Not applicable.

8.2 Exposure controls
Individual protection measures when processing the product, such as personal protective equipment:

Appropriate protective equipment
Ensure adequate ventilation on workplace. Mechanical processing should be preferable taken place in confined areas or separate facilities. Technical machinery, electric and electronic devises should be protected against static charge and short circuit.

Personal protective equipment

Eye and face protection

Suitable eye protection
Protection google at all stages.

Skin protection

Hand protection
Wear protective gloves when handling the product. For sufficient protection use gloves according to EN 374. Nevertheless, before using protection gloves for the first time, they should be tested for their workplace-specific suitability (e.g. mechanical resistance, product compatibility and antistatic properties). For further information, please contact the glove supplier.
Glove material: Nitrile rubber, thickness ≥ 0.4 mm
Penetration time: ≥ 2 h (120 min)

Body protection
Wear clothes with long sleeves. A work coat is recommended when handling the product.

Respiratory protection
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection should be worn. In case of vapors and/or dust, use breathing apparatus. Short time (max. 20 min). Half-/quarter mask with A2P2 filter.

Thermal hazards
No specific hazards.

Environmental exposure controls
Not specified.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Form	Color	Odor	Odor threshold
Solid, short or milled fiber	Black	Not specified	Not available

Basic physical and chemical properties

Parameter	Value	Method	Remarks
pH level [20 °C]	Not applicable		
Melting point/ freezing point [°C]	≈ 3500 °C		Carbon fiber

Parameter	Value	Method	Remarks
Initial boiling point/ Boiling range [°C]	Not specified		
Flash point [°C]	Not specified		
Evaporating rate	Not available		
Inflammability (solid, gaseous)	Not available		
Lower explosion limits	Not available		
Upper explosion limits	Not available		
Vapor pressure [Pa]	Not available		
Vapor density [°C]	Not available		
Relative Density [°C]	1.7 – 2.0 g/cm³		At 23 °C
Solubility (solvents) [°C]	Not available		
Partition coefficient: n-Octan/Water [K_{ow}]	Not applicable		
Auto-ignition temperature [°C]	Not applicable		
Decomposition temperature [°C]	≥ 650 °C CF ≥ 200 °C resin matrix		Ambient air
Viscosity, flow time [23 °C]	Not applicable		
Viscosity, dyn. [mPas/20 °C]	Not applicable		
Explosive properties	Product is not explosive		
Oxidizing properties	None known		

9.2 Other information
None known.

Section 10: Stability and reactivity

10.1 Reactivity
Product is not reactive under conditions for transfer, storage and applications. See Chapter 7.2

10.2 Chemical stability
Product is stable under conditions for transfer, storage and applications. See Chapter 7.2

10.3 Possibility of hazardous reactions
Accumulation of dust may entail the risk of a dust explosion in the present of air.

10.4 Conditions to avoid
Do not heat up above decomposition temperature mentioned. See Section 5.2, 9.1.2.

10.5 Incompatible materials
No information available.

10.6 Hazardous decomposition products
None known if used for intended purpose.

Section 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Assessment / Classification of the product

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

Acute toxicity

Tenax™ Short Fibers						
Parameter	Endpoint	Value	Species	Result / evaluation	Method	Remark
Acute oral toxicity	ATE	-	-	-	-	-
Acute dermal toxicity	ATE	-	-	-	-	-
Acute inhalative toxicity (vapor)	ATE	-	-	-	-	-

Due to calculated ATE values, acute toxicity of the product is not expected. Based on available data, the classification criteria are not met.

Skin corrosion/irritant
Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation
Based on available data, the classification criteria are not met.

Sensitisation to the respiratory tract/skin
Based on available data, the classification criteria of respiratory sensitisation are not met.
Based on available data, the classification criteria of skin sensitisation are not met.

Germ cell mutagenicity
Based on available data, the classification criteria are not met.

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

Reproductive toxicity
Based on available data, the classification criteria are not met.

Overall assessment on CMR properties
This product does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Specific target organ toxicity (single exposure
Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure)
Based on available data, the classification criteria are not met.

Aspiration hazard
Based on available data, the classification criteria are not met.

Toxicological information of the ingredients

Acute toxicity

Practical experience / human evidence
No data available.

Animal data

Parameter	Effect dose/ concentration	Value	Species	Result / evaluation	Method/ Source	Remark
2.	**Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)**					
Acute oral toxicity	LD50	> 2 000 mg/kg bw	Rat	Negative	OECD 420 Producer	Nontoxic
Acute dermal toxicity	LD50	> 2 000 mg/kg bw	Rabbit	Negative	OECD 402 Producer	
Acute inhalative toxicity (vapor)	LC50, 4 h	-	-	-	-	

Skin corrosion/irritant

Practical experience / human evidence
No data available

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

Animal data (InVivo)

Exposure time	Observation time	Species	Score	Result / evaluation	Method/ Source	Remark
2.	**Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)**					
4 h	1h, 24 h, 72 h, 7 d	Rabbit	-	Negative	OECD 404 Producer	Not irritating

Serious eye damage/eye irritation

Practical experience / human evidence
No data available.

Animal data (InVivo)

Exposure time	Observation time	Species	Score	Result / evaluation	Method/ Source	Remark
2.	**Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)**					
-	1 h, 24 h, 72 h, 7 d	Rabbit	-	Positive, fully reversible within 7 days	OECD 405 Producer	Irritating

InVitro eye test
No data available.

Sensitisation to the respiratory tract/skin

Sensitisation to the respiratory tract

Practical experience / human evidence
No data available.

Skin Sensitisation

Practical experience / human evidence
No data available

Animal data (InVivo)

Effect dose/ concentration	Value	Species	Result / evaluation	Method/Source	Remark
2.	**Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)**				
-	-	-	Positive	-	Sensitizing

Germ cell mutagenicity

InVivo mutagenicity / genotoxicity
No data available

InVitro mutagenicity / genotoxicity
No data available

Carcinogenicity

Practical experience / human evidence
No data available.

Animal data
No data available

Reproductive toxicity

Adverse effects on sexual function and fertility
No data available

Adverse effects on developmental toxicity
No data available

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

Effects on or via lactation
No data available.

Specific target organ toxicity (single exposure)

Practical experience / human evidence
No data available.

Animal data
No data available.

Specific target organ toxicity (repeated exposure)

Practical experience / human evidence
No data available.

Animal data
No data available

Aspiration hazard

Practical experience / human evidence
Not applicable.

Experimental data
Viscosity data. See Section 9.

11.2 Information on other hazards

Endocrine disrupting properties
No data available.

General information
Starting from the resin matrix: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Fiber and dust abrasion can cause mechanical irritation of the skin and respiratory tract.
Carbon fiber itself does not emit WHO-fibre particles that are respirable (IARC). Definition of WHO-fibre particle: length ≥ 5 µm, diameter ≤ 3 µm and length-to-diameter ratio 3:1.

Section 12: Ecological information

12.1 Toxicity

Toxicity of the product
Assessment / Classification

Aquatic toxicity
Based on available data, the classification criteria are met.

Sediment toxicity
Not classifiable due to data lacking.

Terrestrial toxicity
Not classifiable due to data lacking.

Toxicity information of the ingredients

Acute (short-term) fish toxicity
No data available

Chronic (long-term) fish toxicity
No data available.

Acute (short-term) toxicity to crustacean

Effect dose/ concentration	Value	Test duration	Species	Result / evaluation	Method/ Source	Remark
2.	**Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)**					
EC50	2 mg/L	48 h	Daphnia magna	-	OECD 202 Producer	Static

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

Chronic (long-term) toxicity to crustacean
No data available

Acute (short-term) toxicity to algae and cyanobacteria

Effect dose/ concentration	Value	Test duration	Species	Result / evaluation	Method/ Source	Remark
2.	**Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)**					
EC50	9 mg/L	48 h	Scenedesmus capricornutum	Growth retardation	-	Static

Toxicity to other aquatic plants and organisms
No data available.

Toxicity to microorganisms
No data available.

Sediment toxicity
No data available.

Terrestrial toxicity

Toxicity to soil microorganisms except arthropods
No data available.

Toxicity to terrestrial arthropods
No data available.

Toxicity to terrestrial plants
No data available.

Toxicity to birds
No data available.

12.2 Persistence and degradability

Assessment / Classification
BADGE is based on available data readily degradable.

Abiotic Degradation
No data available.

Biodegradation

Inoculum	Parameter	Degradation rate	Concen-tration	Method/Source	Remark
2.	**Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)**				
Activated sludge	BSB (28 d)	5 %	-	OECD 301F Echa	Readily degradable

12.3 Bioaccumulative potential (BCF)

Assessment / Classification
Based on available data, the classification criteria are not met.

Bioaccumulative potential of the ingredients

12.4 Mobility in soil
No data available.

Assessment / Classification
Not classifiable due to data lacking.

Mobility in soil of the ingredients
No data available.

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

12.5 Results of the PBT and vPvB assessment
The product does not contain any vPvB substances or is not included under Annex XIII of Regulation (EC) 1907/2006 above legal concentration limits ≥ 0.1 % (w/w).
The product does not contain any PBT substances or is not included under Annex XIII of Regulation (EC) 1907/2006 above legal concentration limits ≥ 0.1 % (w/w).

12.6 Endocrine disrupting properties
The product does not contain any constituents that are in accordance with REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 of the Commission or the Delegated Commission Regulation (EU) 2018/605 in quantities of 0.1% (w/w) or more have endocrine disrupting properties.

12.7 Other adverse effects
None known.

Section 13: Disposal considerations

13.1 Waste treatment methods
Product residues should be disposed of in compliance with Directive on Waste 2008/98/EC as well as national and regional regulations. For the product, it is not possible to determine a waste code number according to the European Waste Catalogue (EWC) as only the intended use by the costumer enables an allocation. The waste code number has to be determined within the EU in accordance with the local waste disposer.

Product / Packaging disposal
List of proposed waste codes/waste designations in accordance with AVV.

Waste treatment-relevant information
Not specified.

Sewage disposal-relevant information
Not specified.

Other disposal recommendations
Non-contaminated packaging may be taken for recycling.
Contaminated packaging must be disposed of like the product.

Section 14: Transport information

		Land transport (ADR/RID	Inland waterways (ADN)	Marine transportation (IMDG)	Transport by air (ICAO-IT/ IATA-DGR)
14.1	**UN-Number**	-			
14.2	**UN proper shipping name**	**NO DANGEROUS GOODS**			
14.3	**Transport hazard class(es)**	-			
	Label	-			
14.4	**Packing group**	-			
14.5	**Environmental hazards**	-			

14.6 Special precautions for user
See section 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and IBC-Code
Not applicable.

14.8 Additional information
Not applicable.

Section 15: Regulatory information

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

15.1 Safety, health and environmental regulations/specific legislations

EU regulations

Authorizations and/or restrictions on use
Not applicable.

Other EU regulations

VOC directive (2004/42/EG)
The product may emit volatile organic substances under processing conditions.

Ozone layer (Reg. EC No. 1005/2009)
Product does not contain substances that deplete the ozone layer.

Employment restriction
When processing the product, observe employment restrictions for child bearing mothers and nursing mothers, and furthermore, observe employment restrictions under the law for the protection of young people at work (94/33/EC Article 7)

Fluorinated greenhouse gases (Reg. EU No. 517/2014)
Product does not contain fluorinated greenhouse gases.

RoHS 2011/65/EU and amendments
This product does not contain any substances listed in RoHS (or contains in concentrations below the limits as specified therein).

Persistent organic pollutants (Reg. EC No 850/2004)
Product does not contain any persistent organic pollutants substances.

Export and import of dangerous chemicals (Reg. EC No 689/2008)
Product does not contain any dangerous chemicals according to the export and import regulation.

Seveso-III-Directive (2012/18/EU)
Product is not subject to Seveso-III-Directive.

National regulations

Water pollution class
Product is not dangerous to water, (self-assessment according AwSV).

15.2 Chemical safety assessment
Chemical safety assessments for substances in this product were not carried out.

Section 16: Other information

16.1 Indication of changes

Chapter	Previous entry (text/value)	Latest entry
Headline	Tenax®	Tenax™
Preamble	Regulation (EU) 2015/830	Regulation (EU) 2020/878
2.3	-	Added information on SVHC and endocrine disrupting properties.
12.6	Other adverse effects	Endocrine disrupting properties

16.2 Abbreviations and acronyms

H315	Skin Irrit. 2	Causes skin irritation.
H317	Skin Sens. 1	May cause an allergic skin reaction.
H319	Eye Irrit. 2	Causes serious eye irritation.
H411	Aquatic Chronic 2	Toxic to aquatic life with long lasting effects.

A	Alveolar fraction
ÁK	Average concentration
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AGS	German Committee on Hazardous Substances
ASGW	Workplace limits for dust in general
ATE	Acute Toxicity Estimated value
AVV	European List of Waste
AwSV	Regulation on facilities for handling substances hazardous to water
BCF	Bioaccumulation factor
BLF	Biological Limit Value
BGV	Biological Guidance Value
BSB	Biochemical oxygen demand
bw	Body weight
CAS No	Registration Number of the Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DGUV	Institute for Work and Health of the German Social Accident Insurance
DMEL	Derived Minimum Effect Level
DNEL	Derived No Effect Level
DT50	Dissipation half life
dw	Dry weight (Dry basis)
E	Inhalable fraction
EC	European Council
EC50	Median effective concentration
ECHA	European Chemical Agency
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EU	European Union
EUH	EU-Hazard Statements
EWC	European Waste Catalogue
GHS	Globally Harmonized System
IARC	International Agency for Research of Cancer
IATA	International Air Transport Association
IC50	Inhibition concentration, 50 %
ICAO-TI	International civil Aviation Organization (Technical Instructions for the Safe Transport of Dangerous Goods by Air)
IMDG	International Maritime Code for Dangerous Goods
LC50	Lethal concentration, 50 %
LD50	Median lethal dose
LO(A)EL(C)	Lowest Observed (Adverse) Effect Level (Concentration)
MAK	Maximum Workplace Concentrations
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
MW	Molecular weight
NOAEL(C)	No Observed Adverse Effect Level (Concentration)
NOELR	No Observable Effect Loading Rate
N.O.S.	Not otherwise specified
OEL	Occupational Exposure Limit(s) (Values)
PBT	Persistent, Bioaccumulative and Toxic substance
PEL	Permissible Exposure Limits
PNEC	Predicted No Effect Concentration
P_{ow}	Partition coefficient n-octanol/water
QSAR	Quantitative structure-activity relationship
RE	Repeated dose toxicity

Revision date / version: 15 October 2021 / version 07
Replacing version dated / version: 1 January 2020 / version 06
Valid from / PDF print date: 15 October 2021

REACH	Registration, Evaluation, Authorization and Restriction of Chemicals
REL	Recommended exposure limits
RID	International Carriage of Dangerous Goods by Road
SCOEL/EU	European Scientific Committee on Occupational Exposure Limits
STOT	Specific target organ toxicity
STP	Sewage treatment plant
SVHC	Substances of Very High Concern for Authorization
TRK	Technical Guidance Concentrations
TRGS	German Technical Rule for Hazardous Substances
vPvB	Very Persistent and very Bioaccumulative
AwSV	German Regulation on Installations for Handling Substances Hazardous to Water
WHO	World Health Organisation
WHO-fibre	length ≥ 5 µm, diameter ≤ 3 µm and length-to-diameter ratio 3:1
% (w/w)	Weight Percent

16.3 Key literature references and sources for data

http://www.bgbau.de/gisbau
http://www.dguv.de
http://www.dguv.de/gestis
http://www.echa.europa.eu//candidate-list-table
http://www.baua.de
https://echa.europa.eu/de
http://eur-lex.europa.eu

16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]
Although the product is treated as an article, the classification used here has been determined based on a mixture and according to the technics of the calculation method set out in CLP regulation (EC) 1272/2008.

16.5 Training advice
Product should only be handled by trained operators.

16.6 Additional information
None known.

16.7 Other information

Inventory Status
In general, articles are exempted from compulsory registration acc. to REACH regulation. Anyhow, all ingredients comply with the registration requirements acc. to REACH (registration or pre-registration), and additionally are listed in EINECS or ELINCS.

Disclaimer
This information is given to the best of our current knowledge and describes an article with regard to safety requirements. We would like to point out that it does not represent a guarantee of properties.