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According to Regulation (EC) No 1907/2006 [REACH] Art. 3 Part 3 this product is classified as article, hence no obligation exists to create a safety data sheet as required by REACH Art. 31/32. This Product Information was created in the style of REACH Annex II/Regulation (EU) 2015/830 to inform about a safe and careful handling with this product.

Chapter 1: Identification of the article and of the company

- 1.1 **Product Identifier** Tenax® Short Fiber, nickel-coated
- 1.1.1 **Product type** Tenax®-J HT C903/923
- 1.2 **Recommended Use** As filler or manufacturing of non-woven fabrics/-papers.
- 1.2.1 **Uses advised against** None
- 1.3 **Details of the supplier/site**
- 1.3.1 **Address** Toho Tenax Europe GmbH
 Kasinostr. 19-21
 42103 Wuppertal
 GERMANY
 Tel: +49 202 32-3225
 Homepage: www.tohotenax.com
- 1.3.2 **Responsible department/qualified person** Dr Axel Leuchter
 General Manager Quality & Compliance
 E-mail: safety@tohotenax-eu.com
- 1.4 **Emergency telephone No.** +49 228-19240 (24h) German/English



Chapter 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 **Classification according to Regulation (EC) No. 1272/2008 [CLP]**
 Classification of **metallic nickel** as product component:

Skin Sens. 1	H317	May cause an allergic skin reaction.
Carc. 2	H351	Suspected of causing cancer.
STOT RE 1	H372	Causes damage to organs through prolonged or repeated exposure.

- 2.2 **Labelling elements according to Regulation (EC) No. 1272/2008 [CLP]**
 Classification of **metallic nickel** as product component:

Hazard pictograms	 GHS08	 GHS07
Signal word	Danger	
Hazard statements	H317 May cause an allergic skin reaction.	

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	H351	Suspected of causing cancer.
	H372	Causes damage to organs through prolonged or repeated exposure. May be irritant to eyes, skin, respiratory and gastrointestinal tract. May cause health disorders such as bronchitis, lung damage and mucosal ulcers.
Hazard statements Prevention	P201	Obtain special instructions before use.
	P202	Do not handle until all safety precautions have been read and understood.
	P260	Do not breath dust.
	P261	Avoid breathing dust.
	P264	Wash hands thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P280	Wear protective gloves/protective clothing/eye protection.
	P281	Use personal protective equipment as required.
Hazard statements Reaction	P302+P352	IF ON SKIN: Wash with plenty of water and soap.
	P308+P313	IF exposed or concerned: Get medical advice/attention if you feel unwell.
	P314	Get medical advice/attention if you feel unwell.
	P333+P313	If skin irritation or a rash occurs: Get medical advice/attention if you feel unwell.
	P363	Wash contaminated clothing before reuse.
Safety instructions Storage	P405	Store locked up.
Safety instructions Disposal	P501	Dispose of contents/container in consultation with the regional waste disposer.

2.2.1 Supplemental hazard information

None

2.3 Other hazards

With respect to health and environment risks, as long as safety instructions are followed, no other hazards are to be feared.
See chapter 11

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- 2.3.1 Physico-chemical-hazard** 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

Chapter 3: Composition/information of ingredients

- 3.1 Product type** This product is an article acc. to regulation (EC) 1907/2006 [REACH].

3.2 Composition/information of ingredients

[wt%]	Substances	CAS EINECS/ELINCS EU-INDEX	GHS/CLP:	
40 - ≤ 60	Carbon fiber based on polyacrylonitrile (PAN)	308063-67-4/7440-44-0 Polymer: (231-153-3) -	-	
40 - ≤ 60	Nickel	7440-02-0 231-111-4 028-002-00-7	Skin Sens.1 Carc.2 STOT RE 1	H317 H351 H372

Chapter 4: First aid measures

4.1 Description of first aid measures

- 4.1.1 General information** Remove any clothing that has been contaminated with the product.
- 4.1.2 Inhalation** In the case of fiber or/and metallic dust inhalation, bring affected person to fresh air. If respiratory irritation persist, seek medical attention.
- 4.1.3 Skin contact** In the case of contact with skin, rinse affected area immediately with plenty of warm water. Consult a doctor if skin irritation persists.
- 4.1.4 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
- 4.1.5 Ingestion** Seek medical care. Rinse mouth out with water then give plenty of water to drink.
- 4.2 Most important symptoms and effects, both acute and delayed**
 Allergic reaction.
- 4.3 Indication of any immediate medical attention and special treatment needed**
 Symptomatic treatment.

Chapter 5: Firefighting measures

5.1 Extinguishing media

5.1.1 Suitable extinguishing media

Foam, dry powder, water spray jet, carbon dioxide

5.1.2 Not suitable extinguishing media for safety reasons

Full water jet

5.2 Special hazards arising from the article

At temperatures above ≥ 650 °C, hazardous decomposition and degradation products as WHO fibers (respirable carbon fiber particles) as well as hazardous pyrolysis residues like metal oxides might occur.

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- 5.3 Advice for firefighters** Do not inhale explosion and/or combustion gases. Use self-contained breathing apparatus. Fire residues and contaminated firefighting water must be disposed of in accordance with local regulations.

Chapter 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedure**
 Use personal protective clothing.
- 6.2 Environmental precautions**
 No special measures are required.
- 6.3 Methods and material for containment and cleaning up**
 Take up mechanically. Dispose of contaminated material in accordance with regulations.
- 6.4 Reference to other sections**
 See Chapter 7, 8 and 13

Chapter 7: Handling and storage

- 7.1 Precautions for safe handling**
 During mechanical processing, dust should be kept to a minimum and taken place in closed systems. Avoid skin contact by wearing appropriate protective clothing (suitable gloves, personal protective clothing). General hygiene rules must be observed: Wash hands before breaks and at the end of work. Protect skin by using skincare ointment.
- 7.2 Conditions for safe storage, including any incompatibilities**
 Protect from direct sunlight and store in the original packaging, away from other UV light sources.
 Recommended storage temperature: ≤ 50 °C, relative humidity: ≤ 85%.
- 7.3 Specific end uses**
 See product use, Chapter 1.2

Chapter 8: Exposure controls/personal protection

- 8.1 Control parameters**
- 8.1.1 Ingredients with occupational exposure limits to be monitored**

Substances	CAS	Occupational exposure limits (OEL)	Country	Sources
Carbon fibre	308063-67-4 7440-44-0	2 fibres/cm ³ (limit value – 8 h)	BEL	GESTIS Limit Values Belgium VLEP/GWBB
		3 respirable particle (limit value – 8 h)	CHN	GESTIS Limit Values China (currently in process)
Nickel metal – total dust	7440-02-0	0.006 mg/m ³ alveolar fraction	GER	TRGS 900 Germany
		1 mg/m ³ (limit value 8 h)	AUS	GESTIS Limit Values Australia
		0.5 mg/m ³ (limit value 8 h) 2 mg/m ³ (short term)	AUT	GESTIS Limit Values Austria – MAK and TRK
		1 mg/m ³ (limit value 8 h)	BEL	GESTIS Limit Values Belgium VLEP/GWBB

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	1 mg/m ³ (limit value 8 h)	CDN	GESTIS Limit Values Canada/Québec - VEA
	1 mg/m ³ (limit value 8 h)	FRA	GESTIS Limit Values France – VLE
	0.1 mg/m ³ (limit value 8 h) 0.1 mg/m ³ (short term)	HUN	GESTIS Limit Values Hungary - ÁK
	0.5 mg/m ³ (limit value 8 h)	IRE	GESTIS Limit Values Ireland (currently in process)
	1 mg/m ³ (limit value 8 h)	NZL	GESTIS Limit Values New Zealand (currently in process)
	1 mg/m ³ (limit value 8 h)	SIN	GESTIS Limit Values Singapore (currently in process)
	1 mg/m ³ (limit value 8 h)	KOR	GESTIS Limit Values South Korea (currently in process)
	1 mg/m ³ (limit value 8 h)	ESP	GESTIS Limit Values Spain
	0.015 mg/m ³ (limit value 8 h)	USA	GESTIS Limit Values United States of America – REL (Niosh)
	1 mg/m ³ (limit value 8 h)	USA	GESTIS Limit Values United States of America – PEL

8.1.2 DN(M)EL-Thresholds

Substance	CAS No.	DN(M)EL Threshold	Effect	Exposure route	Source
Nickel metal – total dust	7440-02-0				
Worker	Inhalation	50 µg/m ³	Systemic	Long term	ECHA
		No hazard identified		Acute/short term	
		50 µg/m ³	Local	Long term	
		11.9 mgm ³		Acute/short term	
	Dermal	No hazard identified	Systemic	Long term	
		No hazard identified		Acute/short term	
		35 µg/m ³	Local	Long term	
		No hazard identified		Acute/short term	
	Eye	No hazard identified			
		Inhalation	20 ng/m ³	Systemic	

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General population		No hazard identified		Acute/short term
		20 ng/m ³	Local	Long term
		800 µg/m ³		Acute/short term
	Dermal	No hazard identified	Systemic	Long term
				Acute/short term
		35 µg/cm ³	Local	Long term
				Acute/short term
	Oral	20 µg/kg bw/day	Systemic	Long term
		12 µg/kg bw/day		Acute/short term
	Eye	No hazard identified	-	-

8.2 Exposure controls Individual protective measures (personal protective equipment):



8.2.1 Additional advice on system design

Ensure adequate ventilation on workplace. In the case of fiber and/or metallic dust formation, it is suggested using an appropriate extraction device. If processing causes a high risk of skin contact, it would be necessary to work in closed installations. Should this is technically impossible, only those tools should be used with which skin contact can be avoided or reduced to an absolute minimum. Protect technical equipment from electrical short circuits while fiber and/or metallic dust appear.

8.2.2 Eye protection Protection goggles

8.2.3 Hand protection Wear protective gloves in any case. 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 ≥ 0.11 mm
 Penetration time: ≥ 6h (480 min)

8.2.4 Additional protective measures Personal protective equipment should be selected specifically for the work place.

8.2.5 Respiratory protection In the case of fiber or/and metallic dust, use breathing apparatus. Short time filter device, filter P2 white. Respiratory equipment for high concentrations.

8.2.6 Delimitation and monitoring of the environmental exposition Not specified

Chapter 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Form	Solid, continuous fiber
Color	Bronze-metallic glossy
Odor	Odorless

9.1.2 Basic physical and chemical properties

Parameter	Value	Method	Remarks
pH level [20 °C]	Not applicable		
Melting point [°C]	ca. 3500		Carbon fiber
	ca. 1450		Nickel
Initial boiling point/ Boiling range [°C]	Not specified		
Flash point [°C]	Not specified		
Evaporating temperature	Not specified		
Inflammability (fest, gasförmig)	Not applicable		
Lower explosion limits	Not applicable		
Upper explosion limits	Not applicable		
Vapour pressure [Pa]	Not applicable		
Vapour density [°C]	Not applicable		
Relative Density [°C]	2.5 – 3.0		
Solubility (solvents) [°C]	Not applicable		
Partition coefficient: n-Octan/Water [K _{ow}]	Not applicable		
Auto-ignition temperature [°C]	Not applicable		
Decomposition temperature [°C]	≥ 650	Ambient air	Carbon fiber
	≥ 290		Sizing
Viscosity, flow time [23 °C]	Not applicable		
Viscosity, dyn. [mPas/20 °C]	Not applicable		
Explosive properties	Not applicable		
Oxidizing properties	Not specified		

9.2 Other information

Parameter	Value	Method	Remarks
Bulk density [g/L]	600 - 650		
Carbon fiber filament diameter [µm]	≥ 5.0		

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Specific electrical conductivity [Ohm cm]	7,5 10 ⁻⁵		
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Chapter 10: Stability and reactivity

- 10.1 Reactivity/stability** Product is not reactive and stable under normal conditions for transfer, storage and applications.
- 10.2 Conditions to avoid** Reaction with powerful oxydants.
Do not heat up above decomposition temperature mentioned.
See Chapter 5.2, 9.1.2
- 10.3 Incompatible materials** Accumulation of fiber-/ metallic dust may entail the risk of a dust explosion in the present of air.
- 10.4 Hazardous decomposition products** None if used for intended purpose.

Chapter 11: Toxicological information

11.1 Information on toxicological information

Toxicological effects of the total product are not studied.

11.1.1 Acute toxicity

On basis of available data, product does not meet the criteria for classification.

Substance	CAS No.	Species	Source	Method
Nickel	7440-02-0			
LD ₅₀ ,oral	≥ 9,000 mg/kg bw	Rat	ECHA	OECD 401
NOAEC, inhalation	≥ 10.2 mg/L air 14 d	Rat	ECHA	-

11.1.2 Skin corrosion/irritant

On basis of available data, product does not meet the criteria for classification.

Substance	CAS No.	Species	Source	Method
Nickel	7440-02-0			
Mild skin irritation	< 4 h	Rabbit	Echa	OECD 404

11.1.3 Serious eye damage/eye irritation

On basis of available data, product does not meet the criteria for classification.

Substance	CAS No.	Species	Source	Method
Nickel	25068-38-6			
Eye irritation	48 h	Rabbit	Echa	OECD 405

11.1.4 Respiratory or skin sensitization

No data available.

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11.1.5 Germ cell mutagenicity No data available.

11.1.6 Carcinogenicity On basis of available data, product meets the criteria for classification.

Substance	CAS No.	Species	Source	Method
Nickel	7440-02-0			
LOAEC inhalation: aerosol	≥ 6.7 mg Ni/kg bw/day	Rat	ECHA	OECD 451
NOAEC inhalation: aerosol	≥ 2.2 mg Ni/kg bw/day			

11.1.7 Reproductive toxicity No data available.

11.1.8 STOT-single exposure No data available.

11.1.9 STOT-repeated exposure On basis of available data, product meets the criteria for classification.

Substance	CAS No.	Species	Source	Method
Nickel	7440-02-0			
LOAEC inhalation: aerosol	0.1 mg/m ³ air (nominal)	Rat	ECHA	OECD 451

11.1.10 Aspiration hazard No data available.

11.1.11 Additional toxicological information
 No data available.

11.1.12 General information Carbon fiber 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

Chapter 12: Ecological information

12.1 Aquatic Toxicity Toxicity of the total product is not studied.

Substance	CAS No.	Species	Source	Method
Nickel	7440-02-0			
Short-time toxicity to fish	LC ₅₀ 15.3 mg/L 96 h	Oncorhynchus mykiss	ECHA	-
Long-time toxicity to fish	NOEC 0.057 mg/L 32 d	Pimephales promelas	ECHA	ASTM 1980, E-729
	LOEC 0.12 mg/L 32 d			
Short-term toxicity to aquatic invertebrates	LC ₅₀ ≥ 74.4 µg/L 48 h	Ceriodaphnia dubia	ECHA	EPA, ASTM and OECD
Long-term toxicity to aquatic invertebrates	NOEC ≥ 6.13 µg/L 21 d	Daphna magna	ECHA	OCED 211
	LOEC ≥ 6.13 µg/L 21 d			
	LC ₅₀ ≥ 37.4 µg/L 21 d			
	EC ₁₀ ≥ 8.78 µg/L 21 d			
	EC ₂₀ ≥ 12.7 µg/L 21 d			
	EC ₅₀ ≥ 23.6 µg/L 21 d			

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Toxicity to aquatic algae and cyanobacteria	NOEC ≥ 24.6 µg/L 72 h	Ankistrodesmus falcatus	ECHA	OECD 201
	LOEC ≥ 42.9 µg/L 72 h			
	EC ₁₀ ≥ 18.3 µg/L 72 h			
	EC ₅₀ ≥ 237 µg/L 72 h			
Toxicity to plants other than algae	EC ₁₀ ≥ 3.9 µg/L 7 d	Lemna minor	ECHA	OECD 221
	EC ₅₀ ≥ 87 µg/L 7 d			
Toxicity to microorganisms	EC ₅₀ 33 mg/L 30 min	Activated sludge	ECHA	ISO 8192
Toxicity to other aquatic organisms	LC ₁₀ ≥ 0.88 mg/L 4 d	Bufo terrestris	ECHA	-
	LC ₂₀ ≥ 0.97 mg/L 4 d			
	LC ₅₀ ≥ 2.91 mg/L 4 d			
	NOEC ≥ 0.64 mg/L 4 d			
	LOEC ≥ 0.9 mg/L 4 d			

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulation potential

Bioaccumulation of the total product is not known.

Substance	CAS No.	Species	Source	Method
Nickel	7440-02-0			
Aquatic species: invertebrate	BCF 45 (107 µg Ni/L)	Cambarus bartoni	ECHA	-
	BCF 23 (200 µg Ni/L)			
	BCF 16 (400 µg Ni/L)			
	BCF 8 (800 µg Ni/L)			

12.4 Mobility in soil

Mobility of the total product is not known.

Bestandteil	CAS Nr.	Spezies	Quelle	Methode
Nickel	7440-02-0			
Terrestrial	BASF 0.05 (marine clay loam)	Allolobophora caliginosa (Earthworm)	ECHA	-
	BASF 0.2 (sandy loam)			
	BASF 0.07 (riverine clay loam)			
	BASF 0.34 (peaty sand)			
	BASF 0.21 (sandy podzolized soil)			
	BASF 1.86 (plaggen soil)			

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- 12.5 Results of the PBT and vPvB assessment** Criteria for classification in PBT / vPvB according to REACH Annex XIII are not applicable for inorganic substances.
- 12.6 Other adverse effects** Ecological data of the total product is not available. Due to the resistance to rotting, do not release into the environment or sewers. It is not known that the product has got an ozone depletion effect or a global warming potential

Chapter 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 customer enables an allocation. The waste code number has to be determined within the EU in accordance with the local waste disposer.
- 13.1.1 Product** If necessary, coordinate disposal with the authorities.
- AVV-No. (recommended)** 061399 Wastes from inorganic chemical processes, if otherwise not specified.
 160303 Inorganic wastes containing dangerous substances.
- 13.2 Contaminated packaging** Non-contaminated packaging may be taken for recycling. Contaminated packaging must be disposed of like the product.
- AVV-No. (recommended)** 150110 packaging containing residues of dangerous substances or contaminated of dangerous substances.

Chapter 14: Transport information

- 14.1** With reference to the transport regulations the product is classified as:
NO DANGEROUS GOODS

Chapter 15: Regulatory information

- 15.1 Safety, health and environmental regulations/specific legislations**
 The national health and occupational safety regulations have to be considered when handling or processing the product.
- 15.1.1 National Regulations** See Chapter 8
- 15.1.2 VOC-Regulation (2004/42/EG)**
 Product does not emit volatile organic components.
- 15.1.3 Ozone layer (Reg. EC No. 2037/2000)**
 Product does not contain substances that deplete the ozone layer.
- 15.1.4 Employment restriction** Observe employment restrictions for child bearing mothers and nursing mothers.
 Observe employment restrictions under the law for the protection of young people at work (94/33/EC Art.7).
- 15.1.5 Water pollution class** **Nickel:** WGK 1 (KBwS-resolution 2011, slightly polluting to water Ident No. 7182).
- 15.1.6 Fluorinated greenhouse gases (Reg. EU No. 517/2014)**
 Product does not contain fluorinated greenhouse gases.
- 15.1.7 Export/import of hazardous chemical (Reg. EU No. 649/2012)**
 Product is not covered by this regulation.

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- 15.1.8 Persistent organic pollutants (Reg. EC No. 850/2004)**
 Product is not covered by this regulation.
- 15.1.9 SVHC (Candidate list)** The product does not contain Substances of Very High Concern acc. to REACH Reg. (EC) No. 1907/2006, Art. 57 above legal concentration limits of ≥ 0.1 wt%.
- 15.1.10 Seveso-III-Directive (2012/18/EU)**
 Product is not covered by this directive.
- 15.1.11 RoHS 2011/65/EU / (EU) 2015/863**
 This carbon fiber product does not contain any substances listed in RoHS (or contains in concentrations below the limits as specified therein).

15.1.12 Technical Instructions on Air (TA-Luft)

Substance	CAS No.	Category	Mass flux [g/h]	Mass concentration [mg/m ³]
Nickel metal – total dust	7440-02-0	Section 5.2.2 inorganic particulate matter of class II	2.5	0.5

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

Chapter 16: Other information

16.1 Changes compared to the last version

- Revision 01** First edition
 In view of the data content, this information sheet has been completely revised. Unlike previous definition, the Toho Tenax has concluded that Carbon Fiber and its products is regarded as article in accordance with REACH Regulation (EC) 1907/2006. Toho Tenax has come to the firm conviction that during production Carbon Fiber is given a special shape, surface or design, which determines its function to a greater degree than does its chemical composition. Therefore it has to be treated as an article.
- Revision 02** Chapter 1: 1.3.1 Definition of sides, 1.3.2 Details of responsible contact persons
- Revision 03** Chapter 1: 1.3.1 Definition of sides, 1.3.2 Details of responsible contact persons deleted.
 Chapter 8: revised
 Chapter 15: revised and added further regulations.
 Chapter 16: revised
- Revision 04** Implementation and expansion of the portfolio by Tenax®-J HT C923.
 Chapter 1 to 16 updated to the latest state of available data.

16.2 Hazard information (Chapter 2 and 3)

- 16.2.1 Methods for the evaluation of the information according to article 9 of regulation (EC) No. 1272/2008 [CLP]**
 The classification of the total product has been determined using the methods of the calculation method.

Hazard statements	Grading methods
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Skin Sens. 1	H317	Data based on metallic nickel as product component.
Carc. 2	H351	Data based on metallic nickel as product component.
STOT RE 1	H372	Data based on metallic nickel as product component.

16.2.2 Trainings instructions Provide adequate information, instruction and training for operators.

16.3 Literature references and sources for data

16.3.1 Regulations

In their respective current versions:
 REACH Regulation (EC) No. 1907/2006, Regulation (EU) 2015/830,
 CLP Regulation (EC) No. 1272/2008,
 TRGS 900 occupational limit values,
 VOC Reg. 2004/42/CE,
 Ozone Regulation (EC) No. 2037/2000,
 National Maternity Protection Act, Youth Employment Act acc.to Directive 94/33/EC,
 VwVwS,
 Waste Directive 2008/98/EC,
 Greenhouse gases Reg. EU No. 517/2014,
 PIC Reg. EU No. 649/2012,
 Persistent organic pollutant Reg. EC No. 850/2004,
 Seveso-III-Directive (2012/18/EU),
 RoHS Directive 2011/65/EU,
 Technical Instruction on Air,
 National Workplaces and Exposure Limits (OELs) of corresponding countries

16.3.2 Internet

<http://www.baua.de>
<http://www.bgbau.de/gisbau>
http://www.dguv.de/medien/fb-holzundmetall/publikationen/infoblaeter/info-bl_deutsch/074_cfk_materialien.pdf
<http://www.dguv.de/gestis>
<http://www.echa.europa.eu/candidate-list-table>
<http://www.esdscom.eu>
<http://www.echemportal.org>
<http://eur-lex.europa.eu>

16.4 Abbreviations

Acc. to	According to
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AGS	Committee on Hazardous Substances (Ausschuss für Gefahrstoffe)
ÁK	Average concentration
ATE	Acute Toxicity Estimates
AVV	Waste Catalogue Regulation (Abfallverzeichnis-Verordnung)
BCF	Bioaccumulation factor
bw	Body Weight
CAS No.	Chemical Abstracts Service Number

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CLP	Classification, Labelling and Packaging
DN(M)EL	Derived No or Minimal Effect Level (abgeleitete Konzentration, bei der keine Schädwirkung auftritt)
dw	dry weight
EbC₅₀	Reduce of the biomass
ECHA	European Chemicals Agency
E(C)L₅₀	Median effective (concentration) dose (Mittlere effektive (Konzentration) Dosis)
EG	European Union
EINECS	European Inventory of Existing Commercial Chemical Substances
ELNICS	European List of Notified Chemical Substances
EU	European Union
ErC₅₀	Growth Inhibition of 50%
GHS	Globally Harmonised System for Classification and Labelling
GWBB	Granswaarden voor beroepsmatige blootstelling
HZVA	Manufacture, Formulation, Supply and Use (Herstellung, Zubereitung, Vertrieb und Anwendung)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA-DGR	Dangerous Goods Regulations by the „International Air Transport Association“
IBC-Code	International Code for the Construction and Equipment of Ships carrying Dangerous Goods
ICAO-TI	Technical Instructions by the “International Civil Aviation Organisation”
IMDG	International Maritime Code for Dangerous Goods
IRAC	International Agency for Research of Cancer
KBwS	German Commission for the Evaluation of Water Polluting Substances (Kommission Bewertung wassergefährdender Stoffe des Umweltbundesamt)
L(C)D₅₀	Median lethal (concentration) dose (mittlere Letaldosis (Konzentration))
LOE(C)L	Niedrigste Dosis (Expositions-konzentration), bei der eine Wirkung beobachtet werden kann. (Low Observed Effect Level (Concentration))
Marpol	International agreements on the marine environment (Internationales Übereinkommen zum Schutz der Meeresumwelt)
NIOSH	National Institute for Occupational Safety
NOAE(C)L	Höchste Dosis (Expositions-konzentration), bei der keine schädlichen Befunde beobachtet werden. (No Observed Adverse Effect Level(Concentration))
NOE(C)L	Höchste Dosis (Expositions-konzentration), bei der keine Wirkung beobachtet werden kann. (No Observed Effect Level(Concentration))
OECD	Organisation für wirtschaftliche Zusammenarbeit und Entwicklung (Organisation for Economic Cooperation and Development)

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OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PNEL	Predicted No Effect Concentration (Konzentration, bei der keine Wirkung auftritt)
P_{ow}	Partition coefficient n-octanol/water (Verteilungskoeffizient n-Oktanol/Wasser)
QSAR	Qualitative Structur-Activity-Relationship method (qualitative Struktur-Wirkungs-Beziehungs-Methode)
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
REL	Recommended exposure limits
RID	Regulation Concerning the International Transport of Dangerous Goods by Rail
RoHS	Restriction on Hazardous Substances (Beschränkung von gefährlichen Stoffen)
STP	Kläranlage (Sewage treatment plant)
SVHC	Substances of Very High Concern for Authorization
TRGS	Technical Rules for Hazardous Substances (Technische Regeln für Gefahrstoffe)
TRK	Technical Guidance Concentrations
VEA	Valeurs d'exposition admissibles
VLEP	Valeurs limites d'exposition professionnelle
VO	Regulation (Verordnung)
VOC	Volatile Organic Compounds Directive (flüchtige organische Verbindungen)
vPvB	Very Persistent and very Bioaccumulative
VwVwS	Verwaltungsvorschrift wassergefährdende Stoffe (German Regulation on Substances Hazardous to Water)
WHO	World Health Organisation
wt%	Weight Percent (Gewichtsprozent)

16.5 Other information

16.5.1 Customs tariff number 68151010

16.5.2 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.

16.5.3 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.