

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

1.1. Product identifier

Product form	: Substance
Trade name	: DX Glass Fiber of 300 Glass
Chemical name	: Glass, oxide, chemicals
EC Index-No.	: 014-046-00-4
EC-No.	: 266-046-0
CAS-No.	: 65997-17-3
REACH registration No	: 01-2119488048-29-0001
Other means of identification	: e-glass microfibres of representative composition; [Calcium-aluminium-silicate fibres with random orientation with the following representative composition (% given by weight): SiO ₂ 50,0-56,0 %, Al ₂ O ₃ 13,0-16,0 %, B ₂ O ₃ 5,8-10,0 %, Na ₂ O < 0,6 %, K ₂ O < 0,4 %, CaO 15,0-24,0 %, MgO < 5,5 %, Fe ₂ O ₃ < 0,5 %, F ₂ < 1,0 %. Process: typically produced by flame attenuation and rotary process. (Additional individual elements may be present at low levels; the process list does not preclude innovation).]

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

1.2.1. Relevant identified uses

Main use category	: Industrial use
Use of the substance/mixture	: Manufacturing of filtration products, insulators (electrical insulation for shielding purposes)

Title	Life cycle stage	Use descriptors
Manufacture of glass and glass products, E-glass Filter	Industrial, Manufacture	SU3, SU6b, PROC1, PROC5, PROC8b, PROC9, PROC14, PROC21, PROC26, AC4, ERC5

Full text of use descriptors: see section 16

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Alkegen
Mill Lane, Rainford
WA11 8LP St Helens, Merseyside
United Kingdom
T + 44 (0) 1744 88 7600 - F + 44 (0) 1744 88 9916
www.alkegen.com

Email competent person

reachsds@alkegen.com

Manufacturer

Unifrax Dongxiang (Songyuan) Co., Ltd
Wulantuga Industrial Park
131121 Songyuan City
China
T +86 0438 2611 628

Importer

Lauscha Fiber International GmbH
Dammweg 35
98724 Lauscha
Germany
T +49 36702 2870 - F +49 36702 28728
lauscha.info@unifrax.com

1.4. Emergency telephone number

Emergency number	: Occupational Hygiene and CARE: Tel: + 44 (0) 1744 887603; Email: reachsds@alkegen.com ; (8.15-17.10 h); Language : English
------------------	--

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Carcinogenicity (inhalation) Category 1B H350i

Full text of H- and EUH-statements: see section 16

DX Glass Fiber of 300 Glass

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Adverse physicochemical, human health and environmental effects

May cause cancer (inhalation).

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

:



GHS08

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H350i - May cause cancer by inhalation.

Precautionary statements (CLP)

: P201 - Obtain special instructions before use.

P280 - Wear eye protection, protective gloves, respiratory protection.

P308+P313 - IF exposed or concerned: Get medical advice/attention.

Extra phrases

: Restricted to professional users.

Listed on CLP Annex VI

: EC Index-No.: 014-046-00-4

2.3. Other hazards

Other hazards which do not result in classification : May cause mechanical irritation to the skin, eyes and respiratory system.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Glass, oxide, chemicals (Note A)	CAS-No.: 65997-17-3 EC-No.: 266-046-0 EC Index-No.: 014-046-00-4 REACH-no: 01-2119488048-29-0001	-	Carc. 1B, H350i

Full text of H- and EUH-statements: see section 16

Note A : Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4.

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact

: Wash skin with plenty of water. Take off immediately all contaminated clothing and wash it before reuse.

First-aid measures after eye contact

: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion

: Rinse mouth.

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

Symptoms/effects after inhalation

: mechanical irritation.

Symptoms/effects after skin contact

: mechanical irritation.

DX Glass Fiber of 300 Glass

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Symptoms/effects after eye contact : mechanical irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : The product is not flammable. Use extinguishing media appropriate for surrounding fire.
Water spray. Dry powder. Foam.

Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : None known.

5.3. Advice for firefighters

Firefighting instructions : Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid dust formation. Do not breathe dust. Avoid contact with skin and eyes.

6.1.1. For non-emergency personnel

Protective equipment : Concerning personal protective equipment to use, see section 8.

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Manipulations are to be done only by qualified and authorised persons.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. Minimise generation of dust. Dust can be vacuumed with a vacuum cleaner containing a HEPA (High Efficiency Particulate Air) filter.

Other information : Shovel into suitable and closed container for disposal. Disposal must be done according to official regulations.

6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Avoid dust formation. Do not breathe dust. Avoid contact with skin and eyes. Floors, walls and other surfaces in the hazard area must be cleaned regularly.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Separate working clothes from town clothes. Launder separately.

DX Glass Fiber of 300 Glass

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in original container. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

For professional users only. See Section 8.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Glass, oxide, chemicals (65997-17-3)	
EU - Binding Occupational Exposure Limit (BOEL)	
Local name	Refractory ceramic fibres which are carcinogens
BOEL TWA	0.3 fibers/ml
Regulatory reference	DIRECTIVE (EU) 2019/130 (amending Directive 2004/37/EC)
United Kingdom - Occupational Exposure Limits	
Local name	Refractory ceramic fibres and special purpose fibres
WEL TWA (OEL TWA) [1]	5 mg/m ³ total inhalable dust
WEL TWA (OEL TWA) [2]	0.3 fibers/ml respirable fraction
Remark	Carc (Capable of causing cancer and/or heritable genetic damage)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Glass, oxide, chemicals (65997-17-3)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	0.75 fibers/cm ³
DNEL/DMEL (General population)	
Long-term - local effects, inhalation	0.25 fibers/cm ³

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

In case of dust production: protective goggles. EN 166

DX Glass Fiber of 300 Glass

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Leather protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

If dust are formed : Wear appropriate mask, (FFP3)

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product. Do not take working clothes home. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: white.
Appearance	: Fibres.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: 700 – 800 °C
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Water: Insoluble
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 2.5 – 2.6 g/cm ³ (20 °C)
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

DX Glass Fiber of 300 Glass

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

Additional information	This fibre also has low potential to cross biological membranes and consequently has a low potential for absorption through the gastrointestinal tract.
------------------------	---

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (OECD 404 method)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: May cause cancer by inhalation.
Additional information	: E-glass microfibre has been shown to induce lung tumours (carcinoma and adenoma) at high concentrations in long-term inhalation studies, probably due to the higher biopersistence of fibers longer than 20 µm. The mechanism by which E-glass microfibre induces lung tumours is not fully elucidated but overload of cellular clearance mechanisms has been suggested.
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Not relevant)

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

DX Glass Fiber of 300 Glass

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

11.2.2. Other information

Other information : E-glass microfibre dissolves relatively slowly in vitro at pH 7.4 and in lung fluid. Fibre dissolution by lung fluid at acidic pH by macrophages is making them brittle and the longer fibres are then broken into shorter fibres.
If swallowed, the fibres will dissolve at acidic gastric pH and be excreted.
The shorter fibres are catabolized either by migration or by ingestion by macrophages that "travel" to the lymphatic system.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

Not rapidly degradable

Glass, oxide, chemicals (65997-17-3)	
LC50 - Fish [1]	> 1000 mg/l (96 h; Danio rerio; (OECD 203 method))
EC50 - Crustacea [1]	> 1000 mg/l (72 h; Daphnia magna; (OECD 202 method))
ErC50 algae	> 1000 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))

12.2. Persistence and degradability

Glass, oxide, chemicals (65997-17-3)	
Persistence and degradability	Not applicable for inorganic substances.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

Glass, oxide, chemicals (65997-17-3)	
Ecology - soil	Product adsorbs little onto the soil.

12.5. Results of PBT and vPvB assessment

Glass, oxide, chemicals (65997-17-3)	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Disposal must be done according to official regulations. European waste catalogue. Do not discharge into drains or the environment. Do not dispose of with domestic waste.

Product/Packaging disposal recommendations : Recycle or dispose of in compliance with current legislation.

European List of Waste (LoW) code : 17 06 03* - other insulation materials consisting of or containing dangerous substances

HP Code : HP7 - "Carcinogenic;" waste which induces cancer or increases its incidence

DX Glass Fiber of 300 Glass

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Other information, restriction and prohibition regulations

: Take note of Directive 94/33/EC on the protection of young people at work. Take note of Directive 92/85/EC on the safety and health of pregnant workers at work.

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

DX Glass Fiber of 300 Glass

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

United Kingdom

National regulations

: Take note of Directive 94/33/EC on the protection of young people at work.
Take note of Directive 92/85/EC on the safety and health of pregnant workers at work.

15.2. Chemical safety assessment

A chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet

DX Glass Fiber of 300 Glass

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative
CAS-No.	Chemical Abstract Service number

Data sources : Information provided by the manufacturer. European Chemicals Agency,
<http://echa.europa.eu/>.

Other information : Occupational Hygiene: dawn.webster@alkegen.com.

Full text of H- and EUH-statements:	
Carc. 1B	Carcinogenicity (inhalation) Category 1B
H350i	May cause cancer by inhalation.

Full text of use descriptors	
AC4	Stone, plaster, cement, glass and ceramic articles
ERC5	Use at industrial site leading to inclusion into/onto article
PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC21	Low energy manipulation and handling of substances bound in/on materials or articles
PROC26	Handling of solid inorganic substances at ambient temperature
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
SU3	Industrial uses: Uses of substances as such or in preparations* at industrial sites
SU6b	Manufacture of pulp, paper and paper products

KFT SDS EU 06

The information presented on this SDS (1) provides details on material identity, manufacturer/supplier information, hazard characterization and prevention, emergency response and other specialized information, (2) is considered to be accurate to the best of our knowledge, information and good faith belief as of the date of publication, (3) is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release of the material named, (4) should be read and used in conjunction with the company's relevant literature, (5) relates only to the specific material designated and may not be valid for such material used in combination with any other material or process and (6) is provided without warranty, expressed or implied, in law or in fact, of merchantability or fitness for a particular purpose. This document does not constitute a product specification and should not be relied on as such. Employers may use this SDS to supplement other information gathered by them in their efforts to assure the health and safety of their employees and the proper use of the product.

DX Glass Fiber of 300 Glass

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Annex to the safety data sheet

Product exposure scenario(s)	
ES Type	ES title
Worker	Manufacture of glass and glass products, E-glass Filter

DX Glass Fiber of 300 Glass

Annex to the safety data sheet: Exposure scenario

CAS-No.: 65997-17-3 Product form: Substance Physical state: Solid

1. Manufacture of glass and glass products, E-glass Filter

1.1. Title section

Manufacture of glass and glass products, E-glass Filter

ES Type: Worker
Revision date: 21/12/2022

Association ref code: 1
Issue date: 21/12/2022

Environment		
1	Contributing scenario controlling environmental exposure	ERC5
Worker		
2	E-glass Delivery & Storage	PROC1
3	Mixing or blending in batch processes (Water & Sulfuric acid), Formulation	PROC5
4	Contributing scenario controlling worker exposure	PROC8b
5	Bulk weighing	PROC9
6	Paper articles	PROC14
7	Manufacture Filter, Product packaging, Control measures, Cleaning Working area	PROC21
8	Contributing scenario controlling worker exposure	PROC26
Processes, tasks, activities covered	Use at industrial sites (IS) Manufacture (M)	

1.2. Conditions of use affecting exposure

1.2.1. Control of environmental exposure: Contributing scenario controlling environmental exposure (ERC5)

ERC5	Use at industrial site leading to inclusion into/onto article
Product (article) characteristics	
Physical form of product	Solid
Concentration of substance in product	Covers percentage substance in the product up to 100 % (unless stated differently)
Technical and organisational conditions and measures	
Onsite wastewater treatment required	Filtration. Neutralize
Exhaust air scrubber	Filtration
Conditions and measures related to sewage treatment plant	
Ensure all waste water is collected and treated via a WWTP	

1.2.2. Control of worker exposure: E-glass Delivery & Storage (PROC1)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
Product (article) characteristics	
Physical form of product	Solid
Concentration of substance in product	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	
Covers frequency up to: 5 days per week	
Frequency and duration of use	≤ 8 h/day
Technical and organisational conditions and measures	
Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Clean equipment and the work area every day	Avoid dust to spread
Local exhaust is needed at source of dust	Dust and/or fine particles, minimize inhalation exposure
Minimisation of manual phases	
Avoid dust formation	
Sweeping or shovelling without dust for disposal	
Conditions and measures related to personal protection, hygiene and health evaluation	
Assumes a good basic standard of occupational hygiene is implemented	
Wear suitable gloves resistant to chemical penetration	Ensure that direct skin contact is avoided
If skin contact or contamination of clothing is possible, protective clothing should be worn	

DX Glass Fiber of 300 Glass

Annex to the safety data sheet: Exposure scenario

CAS-No.: 65997-17-3 Product form: Substance Physical state: Solid

1.2.3. Control of worker exposure: Mixing or blending in batch processes (Water & Sulfuric acid), Formulation (PROC5)

PROC5	Mixing or blending in batch processes
Product (article) characteristics	
Physical form of product	Solid
Concentration of substance in product	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	
Covers frequency up to: 5 days per week	
Frequency and duration of use	≤ 8 h/day
Technical and organisational conditions and measures	
Mixing or blending in batch processes	
Clean equipment and the work area every day	Avoid dust to spread
Local exhaust is needed at source of dust	Dust and/or fine particles, minimize inhalation exposure
Minimisation of manual phases	
Avoid dust formation	
Sweeping or shovelling without dust for disposal	
Conditions and measures related to personal protection, hygiene and health evaluation	
Assumes a good basic standard of occupational hygiene is implemented	
If skin contact or contamination of clothing is possible, protective clothing should be worn	
Wear suitable gloves resistant to chemical penetration	Ensure that direct skin contact is avoided
Dust formation: dust mask. Filter type: P3	

1.2.4. Control of worker exposure: Contributing scenario controlling worker exposure (PROC8b)

PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
Product (article) characteristics	
Physical form of product	Solid
Concentration of substance in product	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	
Covers frequency up to: 5 days per week	
Frequency and duration of use	≤ 8 h/day
Technical and organisational conditions and measures	
Transfer of substance or mixture (charging and discharging) at dedicated facilities	
Clean equipment and the work area every day	Avoid dust to spread
Local exhaust is needed at source of dust	Dust and/or fine particles, minimize inhalation exposure
Minimisation of manual phases	
Avoid dust formation	
Sweeping or shovelling without dust for disposal	
Conditions and measures related to personal protection, hygiene and health evaluation	
Assumes a good basic standard of occupational hygiene is implemented	
If skin contact or contamination of clothing is possible, protective clothing should be worn	
Wear suitable gloves resistant to chemical penetration	Ensure that direct skin contact is avoided
Breathing apparatus with filter. Filter type: P3	

1.2.5. Control of worker exposure: Bulk weighing (PROC9)

PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Product (article) characteristics	
Physical form of product	Solid
Concentration of substance in product	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	
Covers frequency up to: 5 days per week	
Frequency and duration of use	≤ 8 h/day
Technical and organisational conditions and measures	
Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	
Clean equipment and the work area every day	Avoid dust to spread

DX Glass Fiber of 300 Glass

Annex to the safety data sheet: Exposure scenario

CAS-No.: 65997-17-3 Product form: Substance Physical state: Solid

Local exhaust is needed at source of dust	Dust and/or fine particles, minimize inhalation exposure
Minimisation of manual phases	
Avoid dust formation	
Sweeping or shovelling without dust for disposal	

Conditions and measures related to personal protection, hygiene and health evaluation	
Assumes a good basic standard of occupational hygiene is implemented	
If skin contact or contamination of clothing is possible, protective clothing should be worn	
Wear suitable gloves resistant to chemical penetration	Ensure that direct skin contact is avoided
Dust formation: dust mask. Filter type: P3	

1.2.6. Control of worker exposure: Paper articles (PROC14)

PROC14	Tabletting, compression, extrusion, pelettisation, granulation
--------	--

Product (article) characteristics	
Physical form of product	Solid
Concentration of substance in product	Covers percentage substance in the product up to 100 % (unless stated differently)

Amount used (or contained in articles), frequency and duration of use/exposure	
Covers frequency up to: 5 days per week	
Frequency and duration of use	≤ 8 h/day

Technical and organisational conditions and measures	
Tabletting, compression, extrusion, pelettisation, granulation	
Clean equipment and the work area every day	Avoid dust to spread
Local exhaust is needed at source of dust	Dust and/or fine particles, minimize inhalation exposure
Minimisation of manual phases	
Avoid dust formation	
Sweeping or shovelling without dust for disposal	

Conditions and measures related to personal protection, hygiene and health evaluation	
Assumes a good basic standard of occupational hygiene is implemented	
If skin contact or contamination of clothing is possible, protective clothing should be worn	
Wear suitable gloves resistant to chemical penetration	Ensure that direct skin contact is avoided
Breathing apparatus with filter. Filter type: P3	

1.2.7. Control of worker exposure: Manufacture Filter, Product packaging, Control measures, Cleaning Working area (PROC21)

PROC21	Low energy manipulation and handling of substances bound in/on materials or articles
--------	--

Product (article) characteristics	
Physical form of product	Solid
Concentration of substance in product	Covers percentage substance in the product up to 100 % (unless stated differently)

Amount used (or contained in articles), frequency and duration of use/exposure	
Covers frequency up to: 5 days per week	
Frequency and duration of use	≤ 8 h/day

Technical and organisational conditions and measures	
Low energy manipulation and handling of substances bound in/on materials or articles	
Clean equipment and the work area every day	Avoid dust to spread
Local exhaust is needed at source of dust	Dust and/or fine particles, minimize inhalation exposure
Minimisation of manual phases	
Avoid dust formation	
Sweeping or shovelling without dust for disposal	

Conditions and measures related to personal protection, hygiene and health evaluation	
Assumes a good basic standard of occupational hygiene is implemented	
If skin contact or contamination of clothing is possible, protective clothing should be worn	
Wear suitable gloves resistant to chemical penetration	Ensure that direct skin contact is avoided
Breathing apparatus with filter. Filter type: P3	

1.2.8. Control of worker exposure: Contributing scenario controlling worker exposure (PROC26)

PROC26	Handling of solid inorganic substances at ambient temperature
--------	---

DX Glass Fiber of 300 Glass

Annex to the safety data sheet: Exposure scenario

CAS-No.: 65997-17-3 Product form: Substance Physical state: Solid

Product (article) characteristics	
Physical form of product	Solid
Concentration of substance in product	Covers percentage substance in the product up to 100 % (unless stated differently)
Amount used (or contained in articles), frequency and duration of use/exposure	
Covers frequency up to: 5 days per week	
Frequency and duration of use	≤ 8 h/day
Technical and organisational conditions and measures	
Handling of solid inorganic substances at ambient temperature	
Clean equipment and the work area every day	Avoid dust to spread
Local exhaust is needed at source of dust	Dust and/or fine particles, minimize inhalation exposure
Minimisation of manual phases	
Avoid dust formation	
Sweeping or shovelling without dust for disposal	
Conditions and measures related to personal protection, hygiene and health evaluation	
Assumes a good basic standard of occupational hygiene is implemented	
If skin contact or contamination of clothing is possible, protective clothing should be worn	
Wear suitable gloves resistant to chemical penetration	Ensure that direct skin contact is avoided
Breathing apparatus with filter. Filter type: P3	

1.3. Exposure estimation and reference to its source

1.3.1. Environmental release and exposure Contributing scenario controlling environmental exposure (ERC5)

Information for contributing exposure scenario
As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed

1.3.2. Worker exposure E-glass Delivery & Storage (PROC1)

Information for contributing exposure scenario
Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted

1.3.3. Worker exposure Mixing or blending in batch processes (Water & Sulfuric acid), Formulation (PROC5)

Information for contributing exposure scenario
Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted

1.3.4. Worker exposure Contributing scenario controlling worker exposure (PROC8b)

Route of exposure and type of effects	Exposure estimate	RCR	Method
Acute - Local - Inhalation	0.12 mg/m ³	< 1	
Long term - Local - Inhalation	0.013 mg/m ³	0.017	

1.3.5. Worker exposure Bulk weighing (PROC9)

Route of exposure and type of effects	Exposure estimate	RCR	Method
Acute - Local - Inhalation	0.2 mg/m ³	< 1	
Long term - Local - Inhalation	0.2 mg/m ³	0.267	

1.3.6. Worker exposure Paper articles (PROC14)

Route of exposure and type of effects	Exposure estimate	RCR	Method
Acute - Local - Inhalation	0.03 mg/m ³	< 1	
Long term - Local - Inhalation	0.005 mg/m ³	0.007	

1.3.7. Worker exposure Manufacture Filter, Product packaging, Control measures, Cleaning Working area (PROC21)

Route of exposure and type of effects	Exposure estimate	RCR	Method
Acute - Local - Inhalation	0.12 mg/m ³	< 1	
Long term - Local - Inhalation	0.105 mg/m ³	0.14	

1.3.8. Worker exposure Contributing scenario controlling worker exposure (PROC26)

Route of exposure and type of effects	Exposure estimate	RCR	Method
Acute - Local - Inhalation	0.11 mg/m ³	< 1	
Long term - Local - Inhalation	0.11 mg/m ³	0.147	

1.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

1.4.1. Environment

DX Glass Fiber of 300 Glass

Annex to the safety data sheet: Exposure scenario

CAS-No.: 65997-17-3 Product form: Substance Physical state: Solid

1.4.2. Health

Guidance - Health	Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed.
-------------------	--