

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 27/06/2022 Revision date: 27/06/2022 Version: 1.00

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

1.1. Product identifier

Product form : Mixture

Trade name : FIXWOOL RIGIDIZER D20 UFI : P66A-00HF-Q00U-F8PG

Product code

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

1.2.1. Relevant identified uses

Use of the substance/mixture : For industrial use within high temperature applications.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier **Email competent person** reachsds@alkegen.com

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1.4. Emergency telephone number

: Occupational Hygiene and CARE: Tel: + 44 (0) 1744 887603; Email: **Emergency number**

reachsds@alkegen.com; (8.15-17.10 h); Language: English

Distributor

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin sensitisation, Category 1 H317

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

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

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

Hazard pictograms (CLP) :

GHS07

Signal word (CLP) : Warning

Contains : 1,2-benzisothiazol-3(2H)-one, 2-methyl-2H-isothiazol-3-one

Hazard statements (CLP)

: H317 - May cause an allergic skin reaction.

Precautionary statements (CLP)

: P261 - Avoid breathing dust, mist, spray.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component		
ethanediol (107-21-1)	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	
1,2-benzisothiazol-3(2H)-one (2634-33-5)	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	
2-methyl-2H-isothiazol-3-one (2682-20-4)	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	

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Mixture of the substances listed below with non-hazardous additives

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanediol substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 107-21-1 EC-No.: 203-473-3 EC Index-No.: 603-027-00-1 REACH-no: 01-2119456816- 28	≥ 5 - < 10	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) STOT RE 2, H373
1,2-benzisothiazol-3(2H)-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 EC Index-No.: 613-088-00-6 REACH-no: 01-2120761540- 60-xxxx	< 0.1	Acute Tox. 4 (Oral), H302 (ATE=670 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

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2-methyl-2H-isothiazol-3-one	CAS-No.: 2682-20-4 EC-No.: 220-239-6 EC Index-No.: 613-326-00-9 REACH-no: 01-2120764690- 50-xxxx	< 0.1	Acute Tox. 2 (Inhalation), H330 (ATE=0.1 mg/l/4h) Acute Tox. 3 (Dermal), H311 (ATE=242 mg/kg bodyweight) Acute Tox. 3 (Oral), H301 (ATE=120 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=10)
			Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

Specific concentration limits:			
Name	Product identifier	Specific concentration limits	
1,2-benzisothiazol-3(2H)-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 EC Index-No.: 613-088-00-6 REACH-no: 01-2120761540- 60-xxxx	(0.05 ≤C < 100) Skin Sens. 1, H317	
2-methyl-2H-isothiazol-3-one	CAS-No.: 2682-20-4 EC-No.: 220-239-6 EC Index-No.: 613-326-00-9 REACH-no: 01-2120764690- 50-xxxx	(0.0015 ≤C ≤ 100) Skin Sens. 1A, H317	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Allow affected person to breathe fresh air.

First-aid measures after skin contact : Gently wash with plenty of soap and water. Take off contaminated clothing and wash it

before reuse. Get medical advice if skin irritation persists.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. If eye irritation persists: Get medical

advice/attention.

First-aid measures after ingestion : Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Obtain emergency medical

attention.

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

Symptoms/effects after skin contact : Allergic reactions.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : The product is not flammable. Use extinguishing media appropriate for surrounding fire.

Foam. Dry powder. Carbon dioxide. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Carbon dioxide. Carbon monoxide. Aldehydes.

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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

6.1.1. For non-emergency personnel

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

Emergency procedures : Prohibit unauthorized persons.

6.1.2. For emergency responders

Protective equipment : Ensure adequate ventilation. Concerning personal protective equipment to use, see section

8.

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

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

High efficiency particulate air filter (HEPA filter).

6.4. Reference to other sections

See section 7. See Section 8. See Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Obtain special

instructions before use. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact with skin

and eyes. Avoid inhalation of vapours.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Product must only be kept in the original packaging. Keep container closed when not in use.

Protect against frost.

Storage temperature : $5-20 \, ^{\circ}\text{C}$

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

facility

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

ethanediol (107-21-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylene glycol

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IOEL TWA	52 mg/m³
IOEL TWA [ppm]	20 ppm
IOEL STEL	104 mg/m³
IOEL STEL [ppm]	40 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	Ethane-1,2-diol
WEL TWA (OEL TWA) [1]	10 mg/m³ particulate 52 mg/m³ vapour
WEL TWA (OEL TWA) [2]	20 ppm vapour
WEL STEL (OEL STEL)	104 mg/m³ vapour
WEL STEL (OEL STEL) [ppm]	40 ppm vapour
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
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

8.1.4. DNEL and PNEC		
ethanediol (107-21-1)		
DNEL/DMEL (Workers)		
106 mg/kg bodyweight/day		
35 mg/m³		
·		
53 mg/kg bodyweight/day		
7 mg/m³		
·		
10 mg/l		
1 mg/l		
10 mg/l		
10 mg/l		
PNEC (Sediment)		
37 mg/kg dwt		
3.7 mg/kg dwt		
PNEC (Soil)		
1.53 mg/kg dwt		
PNEC (STP)		
199.5 mg/l		

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1,2-benzisothiazol-3(2H)-one (2634-33-5)			
DNEL/DMEL (Workers)			
Long-term - systemic effects, dermal	0.966 mg/kg bodyweight/day		
Long-term - systemic effects, inhalation	6.81 mg/m³		
DNEL/DMEL (General population)			
Long-term - systemic effects, inhalation	1.2 mg/m³		
Long-term - systemic effects, dermal	0.345 mg/kg bodyweight/day		
PNEC (Water)			
PNEC aqua (freshwater)	4.03 μg/L		
PNEC aqua (marine water)	0.403 μg/L		
PNEC aqua (intermittent, freshwater)	1.1 μg/L		
PNEC aqua (intermittent, marine water)	0.11 μg/L		
PNEC (Sediment)			
PNEC sediment (freshwater)	49.9 µg/kg dw		
PNEC sediment (marine water)	4.99 µg/kg dw		
PNEC (Soil)			
PNEC soil	3 mg/kg dwt		
PNEC (STP)			
PNEC sewage treatment plant	1.03 mg/l		
2-methyl-2H-isothiazol-3-one (2682-20-4)			
DNEL/DMEL (Workers)			
Acute - local effects, inhalation	0.043 mg/m³		
Long-term - local effects, inhalation	0.021 mg/m³		
DNEL/DMEL (General population)			
Acute - systemic effects, oral	0.053 mg/kg bodyweight/day		
Acute - local effects, inhalation	0.043 mg/m³		
Long-term - systemic effects,oral	0.027 mg/kg bodyweight/day		
Long-term - local effects, inhalation	0.021 mg/m³		
PNEC (Water)			
PNEC aqua (freshwater)	3.39 µg/L		
PNEC aqua (marine water)	3.39 µg/L		
PNEC aqua (intermittent, freshwater)	3.39 µg/L		
PNEC aqua (intermittent, marine water)	3.39 µg/L		
PNEC (Soil)			
PNEC soil	0.047 mg/kg dwt		
PNEC (STP)	PNEC (STP)		
PNEC sewage treatment plant	0.23 mg/l		

8.1.5. Control banding

No additional information available

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Safety glasses with side shields. EN 166

8.2.2.2. Skin protection

Skin and body protection:

Impervious clothing. Do not take working clothes home

8.2.2.3. Respiratory protection

Respiratory protection:

Liquid product: Inhalation unlikely. If dust are formed: Wear appropriate mask, Particle filter, P2. EN 149.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid : Blue. Colour Appearance : Paste. : odourless. Odour Odour threshold : Not available Melting point : Not available Freezing point : Not available Boiling point : 100 °C Flammability : Not applicable Explosive limits : Not available Lower explosion limit : Not available Upper explosion limit : Not available Flash point : Not available Auto-ignition temperature : Not available Decomposition temperature : Not available рΗ : 10 - 10.5 Viscosity, kinematic : Not available : Water: Soluble Solubility Partition coefficient n-octanol/water (Log Kow) : Not available : Not available Vapour pressure Vapour pressure at 50 °C : Not available Density : Not available Relative density : Not available Relative vapour density at 20 °C : Not available

9.2. Other information

Particle characteristics

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

: Not applicable

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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

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

NOAEL (chronic, oral, animal/male, 2 years)

Reproductive toxicity

STOT-single exposure

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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)

. Not classified (based off available data, the classification chiefla are not met)
> 7000 mg/kg bodyweight
≈ 1600 mg/kg bodyweight (human (estimated value))
3-5)
670 – 784 mg/kg bodyweight (OECD 401 method)
> 2000 mg/kg bodyweight (OECD 402 method)
0-4)
120 mg/kg bodyweight (EPA OPPTS 870.1100)
242 mg/kg bodyweight (OECD 402 method)
0.1 mg/l/4h (OECD 403 method)
: Not classified pH: 10 – 10.5
: Not classified pH: 10 – 10.5
: May cause an allergic skin reaction.
: Not classified
: Not classified
0-4)

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> 400 ppm (mouse)

: Not classified : Not classified

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STOT-repeated exposure	 Not classified
5 LOT-repeated exposure	Not classified

ethanediol	
	May cause damage to organs (kidneys) through prolonged or repeated exposure (if swallowed).

Aspiration hazard : Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term

: Not classified

(chronic)

Hazardous to the aquatic environment, long-term : Not classified

1,2-benzisothiazol-3(2H)-one (2634-33-5)		
LC50 - Fish [1]	2.18 mg/l (96 h; Onchorhynchus mykiss, OECD 203)	
EC50 - Crustacea [1]	2.94 mg/l (48 h; Daphnia magna; OECD 202)	
ErC50 algae	0.15 mg/l (72 h; Pseudokirchneriella subcapitata; OECD 201)	
NOEC chronic algae	0.055 mg/l (72 h; Pseudokirchneriella subcapitata; OECD 201)	
2-methyl-2H-isothiazol-3-one (2682-20-4)		
LC50 - Fish [1]	4.77 mg/l (96 h; Oncorhynchus mykiss; (OECD 203 method))	
EC50 - Crustacea [1]	0.934 mg/l (48 h; Daphnia magna; (OECD 202 method))	
EC50 72h algae	0.103 mg/l (72 h, Pseudokirchneriella Subcapita; (OECD 201 method))	
ErC50 algae	0.072 mg/l (OECD 201 method)	
NOEC chronic fish	4.93 mg/l (98 d; Oncorynchus mykiss; (OECD 210 method))	
NOEC chronic crustacea	0.044 mg/l (21 d; Daphnia magna; (OECD 211 method))	
NOEC chronic algae	0.05 mg/l (5 d; Pseudokirchneriella subcapitata; (OECD 201 method))	

12.2. Persistence and degradability

ethanediol		
Biodegradation	90 – 100 % (10 d; (OECD 301A method))	
1,2-benzisothiazol-3(2H)-one (2634-33-5)		
Persistence and degradability	Not readily biodegradable.	
Biodegradation	85 % (63 d; (OECD 301C method))	
2-methyl-2H-isothiazol-3-one (2682-20-4)		
Persistence and degradability	Not readily biodegradable. (OECD 301B method). (OECD 301D method).	

12.3. Bioaccumulative potential

ethanediol	
Partition coefficient n-octanol/water (Log Pow)	-1.36 (Quantitative structure-activity relationship (QSAR))

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1,2-benzisothiazol-3(2H)-one (2634-33-5)		
BCF - Fish [1]	6.95 (OECD 305 method)	
Partition coefficient n-octanol/water (Log Kow)	0.7 (20 °C; pH 7; Test method EU A.8)	
2-methyl-2H-isothiazol-3-one (2682-20-4)		
Partition coefficient n-octanol/water (Log Pow)	-0.486 (20 °C)	
Bioaccumulative potential	Bioaccumulation unlikely.	

12.4. Mobility in soil

2-methyl-2H-isothiazol-3-one (2682-20-4)	
Surface tension	68.8 mN/m (19 °C, EEC Method A5)
Ecology - soil	Low mobility (soil).

12.5. Results of PBT and vPvB assessment

No additional information available

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.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

European List of Waste (LoW) code : 08 04 10 - waste adhesives and sealants other than those mentioned in 08 04 09

SECTION 14: Transport information

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

IMDG	IATA	ADN	RID
umber			
Not applicable	Not applicable	Not applicable	Not applicable
g name			
Not applicable	Not applicable	Not applicable	Not applicable
class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable
ards			
Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
	wmber Not applicable g name Not applicable lass(es) Not applicable Not applicable Dangerous for the environment: No	Not applicable Dangerous for the environment: No	Not applicable Not applicable Not applicable g name Not applicable Not applicable Not applicable lass(es) Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Dangerous for the environment: No Dangerous for the environment: No environment: No

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14.6. Special precautions for user

Overland transport

Transport regulations (ADR) : Not applicable

Transport by sea

Transport regulations (IMDG) : Not applicable

Air transport

Transport regulations (IATA) : Not applicable

Inland waterway transport

Transport regulations (ADN) : Not applicable

Rail transport

Transport regulations (RID) : 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

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	
3(b)	FIXWOOL RIGIDIZER D20 ; ethanediol	

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 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

No additional information available

15.2. Chemical safety assessment

No 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	

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CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 DMEL Derived Minimal Effect level ECS0 Median effective concentration IARC International Agency for Research on Cancer IATA International Agency for Research on Cancer IATA International Maritime Dangerous Goods LCS0 Median lethal concentration LDS0 Median lethal concentration LDS0 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 STP Sewage treatment plant TLM Median Tolerance Limit vPvB Very Persistent and Very Bioaccumulative	0.5	
DNEL Derived-No Effect Level ECSO Median effective concentration IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LCSO Median lethal concentration LDSO 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 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 STP Sewage treatment plant TLM Median Tolerance Limit	CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
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 STP Sewage treatment plant TLM Median Tolerance Limit	DMEL	Derived Minimal Effect level
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 Level 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 TLM Median Tolerance Limit	DNEL	Derived-No Effect Level
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 STP Sewage treatment plant TLM Median Tolerance Limit	EC50	Median effective concentration
IMDG International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Level 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 STP Sewage treatment plant TLM Median Tolerance Limit	IARC	International Agency for Research on Cancer
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 STP Sewage treatment plant TLM Median Tolerance Limit	IATA	International Air Transport Association
LO50 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 STP Sewage treatment plant TLM Median Tolerance Limit	IMDG	International Maritime Dangerous Goods
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 STP Sewage treatment plant TLM Median Tolerance Limit	LC50	Median lethal concentration
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 STP Sewage treatment plant TLM Median Tolerance Limit	LD50	Median lethal dose
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 STP Sewage treatment plant TLM Median Tolerance Limit	LOAEL	Lowest 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 STP Sewage treatment plant TLM Median Tolerance Limit	NOAEC	No-Observed Adverse 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 STP Sewage treatment plant TLM Median Tolerance Limit	NOAEL	No-Observed Adverse Effect Level
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 STP Sewage treatment plant TLM Median Tolerance Limit	NOEC	No-Observed Effect Concentration
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 STP Sewage treatment plant TLM Median Tolerance Limit	OECD	Organisation for Economic Co-operation and Development
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 STP Sewage treatment plant TLM Median Tolerance Limit	PBT	Persistent Bioaccumulative Toxic
RID Regulations concerning the International Carriage of Dangerous Goods by Rail SDS Safety Data Sheet STP Sewage treatment plant TLM Median Tolerance Limit	PNEC	Predicted No-Effect Concentration
SDS Safety Data Sheet STP Sewage treatment plant TLM Median Tolerance Limit	REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
STP Sewage treatment plant TLM Median Tolerance Limit	RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TLM Median Tolerance Limit	SDS	Safety Data Sheet
	STP	Sewage treatment plant
vPvB Very Persistent and Very Bioaccumulative	TLM	Median Tolerance Limit
	vPvB	Very Persistent and Very Bioaccumulative
CAS-No. Chemical Abstract Service number	CAS-No.	Chemical Abstract Service number

Data sources Other information

- : European Chemicals Agency, http://echa.europa.eu/. MSDSs of the suppliers.
- : Occupational Hygiene: dawn.webster@alkegen.com. Please refer to specific technical data sheet for more information.

Full text of H- and EUH-statements:		
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1	
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
H301	Toxic if swallowed.	
H302	Harmful if swallowed.	
H311	Toxic in contact with skin.	
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	

Safety Data Sheet

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

H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage.	
H330	Fatal if inhaled.	
H373	May cause damage to organs through prolonged or repeated exposure.	
H400	Very toxic to aquatic life.	
H410	Very toxic to aquatic life with long lasting effects.	
H411	Toxic to aquatic life with long lasting effects.	
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
Skin Sens. 1A	Skin sensitisation, category 1A	
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]		
Skin Sens. 1	H317	Calculation method

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.