SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008
This SDS is for generic information purposes and does not reflect required country specific information for OEL

HERCUSEAL SUPERIOR OUTDOOR WHITE
Supercedes Date: 22-Jun-2022

Revision date 25-Nov-2021
Revision Number 1

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

1.1. Product identifier

Product Name HERCUSEAL SUPERIOR OUTDOOR WHITE

Pure substance/mixture Mixture

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

Recommended use Sealant

Uses advised against Not to be used in production of toys or childcare articles.

1.3. Details of the supplier of the safety data sheet

Company Name
Bostik Benelux B.V.
Denariusstraat 11
4903 RC Oosterhout
The Netherlands
Tel: + 31 162 491 000

E-mail address SDS.box-EU@bostik.com

1.4. Emergency telephone number

Emergency Telephone 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Hazard statements
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

EU Specific Hazard Statements
EUH208 - Contains reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT] & 1,2-benzisothiazol-3(2H)-one [BIT]. May produce an allergic reaction
EUH210 - Safety data sheet available on request

2.3. Other hazards

No information available.

PBT & vPvB
This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	EC No.	CAS No.	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	REACH registration number
Titanium dioxide 0.1- <1 %	236-675-5	13463-67-7	[C]	-	-	-	01-2119489379-17-XXXX
Ethylene glycol 0.1- <1 %	203-473-3	107-21-1	STOT RE 2 (H373) Acute Tox. 4 (H302)	-	-	-	01-2119456816-28-XXXX
Diethylene glycol monobutyl ether 0.1- <1 %	203-961-6	112-34-5	Eye Irrit. 2 (H319)	-	-	-	01-2119475104-44-XXXX
1,2-benzisothiazol-3(2H)-one [BIT] 0.01 - <0.05 %	220-120-9	2634-33-5	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Acute Tox. 2 (H330) Aquatic Chronic 2 (H411)	Skin Sens. 1 :: C>=0.05%	1	-	01-2120761540-60-XXXX
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT] <0.0015 %	611-341-5	55965-84-9	Acute Tox. 3 (H301) Acute Tox. 2 (H310) Acute Tox. 2 (H330) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Eye Dam. 1 :: C>=0.6% Eye Irrit. 2 :: 0.06%<=C<0.6% Skin Corr. 1C :: C>=0.6% Skin Irrit. 2 :: 0.06%<=C<0.6% Skin Sens. 1 :: C>=0.0015%	100	100	01-2120764691-48-XXXX

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

Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes
[C] - Components with occupational exposure limits and/or biological occupational exposure limits requiring monitoring

Acute Toxicity Estimate
If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	EC No	CAS No	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Titanium dioxide	236-675-5	13463-67-7	-	-	-	-	-
Ethylene glycol	203-473-3	107-21-1	500	-	-	-	-
Diethylene glycol monobutyl ether	203-961-6	112-34-5	-	-	-	-	-
1,2-benzisothiazol-3(2H)-one [BIT]	220-120-9	2634-33-5	670	-	0.25	-	-

Chemical name	EC No	CAS No	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT]	611-341-5	55965-84-9	100	87.12	0.33	-	-

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Notes
See section 16 for more information

Chemical name	Notes
Titanium dioxide - 13463-67-7	V,W,10
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT] - 55965-84-9	B

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. If medical advice is needed, have product container or label at hand.

Inhalation IF exposed or concerned: Get medical advice/attention. Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.

Skin contact In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and water.

Ingestion Clean mouth with water. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person.

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

Symptoms No information available.

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

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO2).

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Do not scatter spilled material with high pressure water streams.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep from freezing.

Recommended storage temperature Do not freeze. Keep at temperatures between 5 and 35 °C.

7.3. Specific end use(s)

Specific use(s)
Sealant.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other information Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product

Only European Community Occupational Exposure Limits will be shown in this document. Please refer to regional SDS for further information.

Chemical name	European Union
Ethylene glycol 107-21-1	TWA: 20 ppm TWA: 52 mg/m³ STEL: 40 ppm STEL: 104 mg/m³ *
Diethylene glycol monobutyl ether 112-34-5	TWA: 10 ppm TWA: 67.5 mg/m³

Derived No Effect Level (DNEL) No information available

Derived No Effect Level (DNEL)			
Titanium dioxide (13463-67-7)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Local health effects	Inhalation	10 mg/m³	

Ethylene glycol (107-21-1)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Dermal	106 mg/kg bw/d	
worker Long term Systemic health effects	Inhalation	35 mg/m³	

1,2-benzisothiazol-3(2H)-one [BIT] (2634-33-5)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	6.81 mg/m³	
worker Long term Systemic health effects	Dermal	0.966 mg/kg bw/d	

Derived No Effect Level (DNEL)			
Titanium dioxide (13463-67-7)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Oral	700 mg/kg bw/d	

Ethylene glycol (107-21-1)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer	Dermal	53 mg/kg bw/d	

Long term Systemic health effects			
Consumer Long term Local health effects	Inhalation	7 mg/m³	

1,2-benzisothiazol-3(2H)-one [BIT] (2634-33-5)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	1.2 mg/m³	
Consumer Long term Systemic health effects	Dermal	0.345 mg/kg bw/d	

Predicted No Effect Concentration (PNEC) No information available.

Predicted No Effect Concentration (PNEC)	
Titanium dioxide (13463-67-7)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Marine water	0.0184 mg/l
Freshwater sediment	1000 mg/kg
Freshwater	0.184 mg/l
Marine sediment	100 mg/kg
Soil	100 mg/kg
Microorganisms in sewage treatment	100 mg/l
Freshwater - intermittent	0.193 mg/l

Ethylene glycol (107-21-1)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	10 mg/l
Marine water	1 mg/l
Freshwater sediment	37 mg/kg dry weight
Marine sediment	3.7 mg/kg dry weight
Soil	1.53 mg/kg dry weight
Microorganisms in sewage treatment	199.5 mg/l

1,2-benzisothiazol-3(2H)-one [BIT] (2634-33-5)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	4.03 µg/l
Marine water	0.403 µg/l
Sewage treatment plant	1.03 mg/l
Freshwater sediment	49.9 µg/l
Marine sediment	4.99 µg/l
Soil	3 mg/kg dry weight

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Suitable protective clothing.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Paste
Colour	See section 1 for more information
Odour	Characteristic.
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	= 0 °C	
Initial boiling point and boiling range	= 100 °C	
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	Not applicable . °C	
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	7 - 9	
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	> 21 mm²/s	
Dynamic viscosity	No data available	
Water solubility	No data available Miscible in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk Density	No data available	
Liquid Density	1.57	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

VOC Content (%)

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Do not freeze.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions. Stable under recommended storage conditions.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide	>10000 mg/kg (Rattus)	LD50 > 5000 mg/Kg	= 5.09 mg/L (Rattus) 4 h
Ethylene glycol	ATE 500 mg/kg	= 10600 mg/kg (Rattus) = 9530 µL/kg (Oryctolagus cuniculus)	> 2.5 mg/L (Rat) 6 h
Diethylene glycol monobutyl ether	=5660 mg/kg (Rattus)	= 2700 mg/kg (Oryctolagus cuniculus)	-
1,2-benzisothiazol-3(2H)-one [BIT]	=670 mg/kg (Rattus)	LD50 > 2000 mg/kg (Rattus)	ATE = 0.25 mg/L
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT]	-	LD50 = 87.12 mg/kg (Oryctolagus cuniculus)	= 0.33 mg/L (Rat) 4h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

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

Titanium dioxide (13463-67-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 404: Acute Dermal Irritation/Corrosion	Rabbit	Dermal			Non-irritant

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

Titanium dioxide (13463-67-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	Eye			Non-irritant

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Titanium dioxide (13463-67-7)

Method	Species	Exposure route	Results
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	Not a skin sensitiser
OECD Test No. 429: Skin Sensitisation: Local Lymph Node Assay	Mouse	Dermal	Not a skin sensitiser

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

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

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

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

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

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea	M-Factor	M-Factor (long-term)
Titanium dioxide 13463-67-7	LC50 (96h) >10000 mg/l (Cyprinodon variegatus) OECD 203	-	-	-		
Ethylene glycol 107-21-1	EC50: 6500 - 13000mg/L (96h, Pseudokirchneriella subcapitata)	LC50 96 h = 16000 mg/L (Poecilia reticulata static)	EC50 = 10000 mg/L 16 h EC50 = 620 mg/L 30 min EC50 = 620.0 mg/L 30 min	EC50: =46300mg/L (48h, Daphnia magna)		
Diethylene glycol monobutyl ether 112-34-5	EC50: >100mg/L (96h, Desmodesmus subspicatus)	LC50: =1300mg/L (96h, Lepomis macrochirus)	-	EC50: =2850mg/L (24h, Daphnia magna) EC50: >100mg/L (48h, Daphnia magna)		
1,2-benzisothiazol-3(2H)-one [BIT] 2634-33-5	EC50 3Hr 13mg/l (activated sludge) (OECD 209)	LC50 (96hr) 2.15 mg/l Cyprinodon variegatus EPA 540/9-85-006	-	EC50(48hr) 2.94 mg/l (Daphnia Magna) OECD 202	1	
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT] 55965-84-9	EC50 (72h) =0.048 mg/L (Pseudokirchneriella subcapitata) (OECD 201)	EC50 (96h) = 0.22 mg/L (Oncorhynchus mykiss) (OECD 211)	-	EC50 (48h) =0.1 mg/L (Daphnia magna) (OECD 202)	100	100

12.2. Persistence and degradability

Persistence and degradability No information available.

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT] (55965-84-9)

Method	Exposure time	Value	Results
OECD Test No. 301B: Ready Biodegradability: CO2 Evolution Test (TG 301 B)	28 days	biodegradation	Not readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Ethylene glycol	-1.36
Diethylene glycol monobutyl ether	1
1,2-benzisothiazol-3(2H)-one [BIT]	0.7
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT]	0.7

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Titanium dioxide	The substance is not PBT / vPvB PBT assessment does not apply
Ethylene glycol	The substance is not PBT / vPvB PBT assessment does not apply
Diethylene glycol monobutyl ether	The substance is not PBT / vPvB PBT assessment does not apply
1,2-benzisothiazol-3(2H)-one [BIT]	The substance is not PBT / vPvB
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) [C(M)IT/MIT]	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

Contaminated packaging Do not reuse empty containers.

European Waste Catalogue 08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

Other information Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

Note: Keep from freezing.

Land transport (ADR/RID)
14.1 UN number or ID number Not regulated
14.2 Proper Shipping Name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special Provisions None

IMDG
14.1 UN number or ID number Not regulated
14.2 Proper Shipping Name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Marine pollutant NP

14.6 Special Provisions None
14.7 Maritime transport in bulk according to IMO instruments Not applicable

Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number Not regulated
14.2 Proper Shipping Name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special Provisions None

Section 15: REGULATORY INFORMATION

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

European Union

Registration, Evaluation, Authorization, and Restriction of Chemicals (REACh) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:
This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction
This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	CAS No	Restricted substance per REACH Annex XVII
Diethylene glycol monobutyl ether	112-34-5	55. 75.

CAS 112-34-5 restricted for use in aerosol products sold to general public. Products for general public with level above 3% should be labeled "Do not use in paint spraying equipment"

Substance subject to authorisation per REACH Annex XIV
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Biocidal Products Regulation (EU) No 528/2012 (BPR)
Contains a biocide : Contains C(M)IT/MIT (3:1). May produce an allergic reaction

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

Persistent Organic Pollutants
Not applicable

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
Ethylene glycol 107-21-1	RG 84 RG 5,RG 14,RG 15,RG 15bis,RG 20bis
Diethylene glycol monobutyl ether 112-34-5	RG 84
1,2-benzisothiazol-3(2H)-one [BIT] 2634-33-5	RG 65

Germany

Ordinance on Industrial Safety and Health - Germany - BetrSichV
No flammable liquids in accordance with BetrSichV

Water hazard class (WGK) slightly hazardous to water (WGK 1)

Netherlands

List of Carcinogenic, mutagenic and reproductive toxin substances in accordance with Inspectorate SZW (Netherlands)

Denmark
Registration number(s) (P-no.) No information available
Norway
Registration number(s) (PRN-no.) No information available

15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H301 - Toxic if swallowed
H302 - Harmful if swallowed
H310 - Fatal in contact with skin
H314 - Causes severe skin burns and eye damage
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
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

Notes assigned to an entry
Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations.
In Part 3 entries with Note B have a general designation of the following type: 'nitric acid … %'.
In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis
Note V: If the substance is to be placed on the market as fibres (with diameter < 3 µm, length > 5 µm and aspect ratio ≥ 3:1) or particles of the substance fulfilling the WHO fibre criteria or as particles with modified surface chemistry, their hazardous properties must be evaluated in accordance with Title II of this Regulation, to assess whether a higher category (Carc. 1B or 1A) and/or additional routes of exposure (oral or dermal) should be applied

Note W: It has been observed that the carcinogenic hazard of this substance arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung

Notes relating to the classification and labelling of mixtures
Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm

SVHC: Substances of Very High Concern for Authorisation:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals
STOT RE: Specific target organ toxicity - Repeated exposure
STOT SE: Specific target organ toxicity - Single exposure
EWC: European Waste Catalogue
LOW: List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA: International Air Transport Association
ICAO: ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG: International Maritime Dangerous Goods
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

Legend SECTION 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
AGW	Occupational exposure limit value	BGW	Biological limit value
Ceiling	Maximum limit value	*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
NIOSH (National Institute for Occupational Safety and Health)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set

Prepared By Product Safety & Regulatory Affairs

Revision date	25-Nov-2021
Revision note	First time release
Training Advice	No information available
Further information	No information available

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet