



MATERIAL SAFETY DATA SHEET

REEF 2

Created: 18/01/2022

Revision Date: 13/06/2023

Version: 2.2

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

1.1 Product identifier

Trade name: REEF 2

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

Use of the Sub-stance/Mixture: Auxiliary for the paper industry

1.3 Details of the supplier of the safety data sheet

Contact Information: CelluComp Ltd, +4401592870335, enquiries@cellucomp.com

1.4 Emergency telephone number Leo Number

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (Regulation (EC) No 1272/2008) [CLP/GHS]

Not a hazardous substance or mixture.

Conforms to Regulation (EC) No 1907/2006 (REACH), Annex II – United Kingdom (UK)

2.2 Label elements

Labelling (Regulation (EC) No 1272/2008)

Not a hazardous substance or mixture.

Precautionary Statements

Additional Labelling

EUH210

Safety data sheet available on request.

EUH208

Contains 1,2-benzisothiazol-3(2H)-one, mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1).

May produce an allergic reaction.

2.3 Other Hazards

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition & Information on Ingredients

3.1 Composition

3.2 Mixtures

Chemical nature: Aqueous dispersion of polymers with additives

Components

1,2-benzisothiazol-3(2H)-one

2634-33-5

220-120-9

613-088-00-6

01-2120761540-60

Acute Tox. 4; H302

Acute Tox. 2; H330

Skin Irrit. 2; H315

Eye Dam. 1; H318

Skin Sens. 1; H317

Aquatic Acute 1; H400

Aquatic Chronic 2; H411

M-Factor (Acute aquatic toxicity): 1

specific concentration limit Skin Sens. 1; H317 $\geq 0,05\% \geq 0,0025 - < 0,025$

5-chloro-2-methyl-4-isothiazolin-3-one

[EC no. 247-55965-84-9

Acute Tox. 3; H301

Acute Tox. 2; H330; $\geq 0,0002 - < 0,0015$

500-7] and

2-methyl-2H-isothiazol-3-one

[EC no. 220-2396] (3:1)

613-167-00-5

01-2120764691-48

Acute Tox. 2; H310

Skin Corr. 1B; H314

Eye Dam. 1; H318

Skin Sens. 1; H317

Aquatic Acute 1; H400

Aquatic Chronic 1; H410

M-Factor (Acute aquatic toxicity): 100

M-Factor (Chronic aquatic toxicity): 100

specific concentration limit

Skin Corr. 1C; H314; $\geq 0,6 \%$

Skin Irrit. 2; H315; $0,06 - < 0,6 \%$

Eye Irrit. 2; H319; $0,06 - < 0,6 \%$

Skin Sens. 1A; H317; $\geq 0,0015 \%$

For explanation of abbreviations see section 16.

Section 4: First aid measures

4.1 Description of first aid measures

- General:** Take off all contaminated clothing immediately. Show this safety data sheet to the doctor in attendance.
- Inhalation:** Move to fresh air. If symptoms persist, call a physician.
- Skin contact:** Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
- Eye contact:** Immediately flush eye(s) with plenty of water. If symptoms persist, call a physician.
- Ingestion:** Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Risks: There may be reddening, swelling associated with itching on contact.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

Section 5: Fire and Explosion Data

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO₂)
Water spray
Dry powder
Foam

5.2 Special hazards arising from product

Specific hazards during firefighting:

Hazardous decomposition products formed under fire conditions.

Can be released in cases of fire:

Carbon oxides acrylic monomers

Flammability of product: N/A

5.3 Advice for firefighters

Special protective equipment for firefighters:

In the event of fire, wear self-contained breathing apparatus.

Further information:

In case of fire do not inhale smoke, conflagration gases and steams.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. The product itself does not burn.
The residual polymer after volatilizing the watery phase is combustible.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:

Use personal protective equipment.
Contaminated surfaces will be extremely slippery.

6.2 Environmental precautions

Environmental precautions:

The product should not be allowed to enter drains, water courses or the soil.

Pay attention to local or official regulations.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up:

Close drains (risk of blockage caused by polymer precipitation).

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Clean contaminated surface thoroughly.

Dispose of in accordance with local regulations.

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8.

Section 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Provide sufficient air exchange and/or exhaust in work rooms.

Advice on protection against fire and explosion:

No special protective measures against fire required.

Hygiene measures:

Avoid contact with skin, eyes and clothing.

Do not breathe vapours, aerosols.

Take off all contaminated clothing immediately.

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Always store in original containers or of similar type.

Keep container tightly closed.

Inappropriate material for containers and conduit: Metal

Metals suitable material for containers and conduit: Polyethylene

Further information on storage conditions:

Protect from frost.
Protect from temperatures over + 30 °C.
Store in a cool/ambient place.
Advice on common storage: No special precautions required.

7.3 Specific end use(s)

Specific use(s): Consult the technical guidelines for the use of this substance/mixture.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name End Use Exposure routes Potential health effects Value

1,2-benzisothiazol-3(2H)-one

Workers Inhalation Long-term systemic effects: 6,81 mg/m³

Workers Skin contact Long-term systemic effects: 0,966 mg/kg bw/day

Consumers Inhalation Long-term systemic effects: 1,2 mg/m³

Consumers Skin contact Long-term systemic effects 0,345 mg/kg bw/day

5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

Workers Inhalation Long-term local effects: 0,02 mg/m³

Workers Inhalation Acute local effects: 0,04 mg/m³

Consumers Inhalation Long-term local effects: 0,02 mg/m³

Consumers Inhalation Acute local effects: 0,04 mg/m³

Consumers Ingestion Long-term systemic effects: 0,09 mg/kg bw/day

Consumers Ingestion Acute systemic effects: 0,11 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name Environmental Compartment Value

1,2-benzisothiazol-3(2H)-one

Fresh water 4,03 µg/l

Marine water 0,403 µg/l

Intermittent use/release 1,1 µg/l STP 1,03 mg/l

Fresh water sediment 49,9 µg/kg

Marine sediment 4,99 µg/kg
Soil 3 mg/kg dry weight (d.w.)

5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and *2-methyl-2H-isothiazol-3-one* [EC no. 220-239-6] (3:1)

Fresh water 3,39 µg/l
Marine water 3,39 µg/l
Intermittent use/release 3,39 µg/l
Marine water 3,39 µg/l
Remarks: Intermittent use/release STP 0,23 mg/l
Fresh water sediment 0,027 mg/kg dry weight (d.w.)
Marine sediment 0,027 mg/kg dry weight (d.w.)
Soil 0,01 mg/kg dry weight (d.w.)

8.2 Exposure controls

Engineering measures: Solids with occupational exposure limits in liquid preparations do not cause an exposure in the workplace, because they are not present in a respirable form. Exposure can occur in the form of aerosols or after drying of the liquid the solids remain, possibly in a finely dispersed form.

Provide sufficient air exchange and/or exhaust in work rooms.

Personal protective equipment: Eye protection: Goggles (EN 166)

Hand protection:

Material: Nitrile rubber
Break through time: > 480 min
Glove thickness: >= 0,35 mm
Protective index: Class 6

Remarks: The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The obtained break through times according to EN 374 Part III are not measured under normal operating conditions. Therefore, a maximum usage time of 50% of the breakthrough time is recommended.

Skin and body protection: Wear suitable protective clothing (EN 14605).

Respiratory protection: In case the workplace is not ventilated sufficiently and during spray processing, it is necessary to wear respiratory protective equipment.

Recommended Filter type: Combination filter A/P (EN 141)

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: Dispersion

Colour:	white
Odour:	characteristic
Melting point/range:	No data available
Boiling point/boiling range:	No data available
Upper explosion limit / Upper flammability limit: Not applicable	
Lower explosion limit / Lower flammability limit: Not applicable	
Flash point:	Not applicable
pH:	6,5 - 7,5 (20 °C) (undiluted)
Viscosity, dynamic:	500 - 800 mPa.s (20 °C) Brookfield RVT, 20 rpm, spindle 2
Solubility(ies)	
Water solubility:	miscible
Partition coefficient: noctanol/water : Not applicable	
Vapour pressure:	ca. 23 hPa (20 °C)
Water Density:	1,00 g/cm ³ (20 °C)
Relative vapour density:	Not applicable

9.2 Other information

Oxidizing properties:	Not applicable
Flammability (liquids):	does not ignite
Self-ignition:	not auto-flammable
Evaporation rate:	Not applicable
Conductivity:	Not determined

Section 10: Stability and Reactivity Data

10.1 Reactivity:	No hazards to be mentioned.
10.2 Chemical stability:	The product is chemically stable.
10.3 Possibility of hazardous reactions:	
Hazardous reactions:	No dangerous reaction known under conditions of normal use.
10.4 Conditions to avoid	
Conditions to avoid:	Not applicable

10.5 Incompatible materials

Materials to avoid: Not applicable

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

Section 11: Toxicological information

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

Acute toxicity

Product:

Acute oral toxicity: LD50 (Rat): > 2 000 mg/kg

Remarks: Argument by analogy

Acute inhalation toxicity:

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

Acute dermal toxicity:

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

Components:

1,2-benzisothiazol-3(2H)-one:

Acute oral toxicity: LD50 (Rat): 1 020 mg/kg
Acute inhalation toxicity: LC50: > 0,05 - 0,5 mg/l
Exposure time: 4 h

Remarks: Test atmosphere: dust/mist
value stated in literature

Acute dermal toxicity: LD50 (Rat): > 2 000 mg/kg

5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and *2-methyl-2H-isothiazol-3-one* [EC no. 220-239-6] (3:1):

Acute oral toxicity: LD50 (Rat): 66 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity: LC50 (Rat): 0,171 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity: LD50 (Rabbit): 87,12 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Remarks : Prolonged skin contact may cause skin irritation.

Components:

1,2-benzisothiazol-3(2H)-one:

Result : Irritating to skin.

5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and *2-methyl-2H-isothiazol-3-one* [EC no. 220-239-6] (3:1):

Species: Rabbit

Method : OECD Test Guideline 404

Result : Corrosive after 1 to 4 hours of exposure

Serious eye damage/eye irritation

Remarks: Contact with eyes may cause irritation.

Components:

1,2-benzisothiazol-3(2H)-one:

Species: Rabbit

Result: Causes serious eye damage.

Respiratory or skin sensitisation

Remarks : May produce an allergic reaction.

Components:

1,2-benzisothiazol-3(2H)-one:

Test Type: Maximisation Test

Species: Guinea pig

Method: OECD Test Guideline 406

Result: May cause sensitisation by skin contact.

5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and *2-methyl-2H-isothiazol-3-one* [EC no. 220-239-6] (3:1):

Exposure routes: Dermal

Species: Guinea pig

Assessment: The product is a skin sensitiser, sub-category 1A.

Method: OECD Test Guideline 406

Result: May cause an allergic skin reaction.

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT - single exposure

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

STOT - repeated exposure

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

Aspiration toxicity

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

11.2 Information on other hazards

Endocrine disrupting properties

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 12: Ecological information

12.1 Toxicity

Toxicity to fish: No data is available on the product itself.

Toxicity to daphnia and other aquatic invertebrates: No data is available on the product itself.

Toxicity to algae/aquatic plants: No data is available on the product itself.

Toxicity to microorganisms: No data is available on the product itself.

Components:

1,2-benzisothiazol-3(2H)-one:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 2,15 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates :

EC50 (Daphnia (water flea)): 2,9 mg/l

Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants: EC10 (*Selenastrum capricornutum* (green algae)): 0,043 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EC50 (*Selenastrum capricornutum* (green algae)): 0,11 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity): 1

Toxicity to microorganisms: EC50 (activated sludge): 12,8 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and ***2-methyl-2H-isothiazol-3-one*** [EC no. 220-239-6] (3:1):

Toxicity to fish: EC50 (*Oncorhynchus mykiss* (rainbow trout)): 0,22 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates:

EC50 (*Daphnia* (water flea)): 0,12 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants: NOEC (*Pseudokirchneriella subcapitata* (green algae)): 0,0012 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EC50 (*Pseudokirchneriella subcapitata* (green algae)): 0,048 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 100

Toxicity to microorganisms: EC20 (activated sludge): 0,97 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Toxicity to fish (Chronic toxicity): NOEC: 0,098 mg/l
Exposure time: 28 d
Species: *Oncorhynchus mykiss* (rainbow trout)
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

NOEC: 0,004 mg/l
Exposure time: 21 d
Species: *Daphnia magna* (Water flea)

Method: OECD Test Guideline 211
M-Factor (Chronic aquatic toxicity) : 100

12.2 Persistence and degradability

Biodegradability: Test Type: DOC measuring
Biodegradation: 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301A

Test Type: O2 measuring
Biodegradation: 11 %
Exposure time: 28 d
Method: OECD 301 F (mineralisation)

Chemical Oxygen Demand (COD): 1 427 mg/g
Method: DIN 38409-H-41

Physico-chemical removability: Can be eliminated from water by precipitation.

Components:

1,2-benzisothiazol-3(2H)-one:

Biodegradability: rapidly degradable

5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and *2-methyl-2H-isothiazol-3-one* [EC no. 220-239-6] (3:1):

Biodegradability: Test Type: O2 measuring
Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 28 d
Method: OECD 301 D (mineralisation)

Remarks: The product is "readily biodegradable" according to the criteria of the OECD.

The 10 day time window criterion is not fulfilled.

12.3 Bioaccumulative potential

Bioaccumulation: No data is available on the product itself.

Components:

1,2-benzisothiazol-3(2H)-one:

Partition coefficient: noctanol/water: log Pow: 0,70 (20 °C)

5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and *2-methyl-2H-isothiazol-3-one* [EC no. 220-239-6] (3:1):

Partition coefficient: noctanol/water: log Pow: 0,75
Remarks: Active ingredient

12.4 Mobility in soil

Mobility: No data available

12.5 Results of PBT and vPvB assessment

Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Adsorbed organic bound halogens (AOX): The product does not increase the AOX-value of the waste water.

Additional ecological information: According to our knowledge, the product does not contain heavy metals and other compounds of EC directive 2000/60 EC.

Section 13: Disposal considerations

13.1 Waste treatment methods

Pay attention to local or official regulations.

Contaminated packaging: Pay attention to local or official regulations.

Section 14: Transport information

14.1 UN number or ID number Not regulated as a dangerous good

14.2 UN proper shipping name Not regulated as a dangerous good

14.3 Transport hazard class(es) Not regulated as a dangerous good

14.4 Packing group Not regulated as a dangerous good

14.5 Environmental hazards Not regulated as a dangerous good

14.6 Special precautions for user

See chapter 6 - 8

14.7 Maritime transport in bulk according to IMO instruments

Remarks: Not applicable

Section 15: Regulatory information

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

Other regulations: National and local regulations must be observed.

15.2 Chemical safety assessment:

Not required

Section 16: Other information

Full text of H-Statements:

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.
H330 : Fatal if inhaled.
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.

Full text of other abbreviations:

Acute Tox. : Acute toxicity
Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard
Eye Dam. : Serious eye damage
Skin Corr. : Skin corrosion
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation

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; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organiza-

tion; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous

Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Training advice:

Based on the information in the safety data sheet and the workplace

conditions, employees must be regularly trained in the safe handling of the product. National rules for training employees in handling hazardous substances must be observed.

Other information:

The classification for dangerous physico-chemical properties, health and environmental hazards has been derived from a combination of computational methods and, if available, test data.

This data sheet contains changes from the previous version in section(s): 9, 16

Sources of key data used to compile the Safety Data Sheet: Information from our suppliers, as well as data from the "Registered substances database" of the European Chemicals Agency (ECHA) has been used to compile this safety data sheet.

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.