according to Regulation (EC) No. 1907/2006

## **Nutrimix® Complete**



Version: 1.7 Revision Date:
Date of last issue: 23.02.2024 27.02.2024

Date of first issue: 15.08.2019

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

#### 1.1 Product identifier

Trade name : Nutrimix® Complete

UFI : XHK5-20QP-U00F-Q521

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

Use of the : Fertiliser

Substance/Mixture

#### 1.3 Details of the supplier of the safety data sheet

Company : COMPO EXPERT GmbH

Krögerweg 10 D-48155 Münster

Telephone : +49 (0) 251 29 79 81 – 000

Telefax : +49 (0) 251 29 79 81 - 111

E-mail address of person responsible for the SDS

: info@compo-expert.com

#### 1.4 Emergency telephone number

GBK GmbH - Global Regulatory Compliance - 24h

Telephone: +49 (0) 6132 - 84463

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 H302: Harmful if swallowed.

Serious eye damage, Category 1 H318: Causes serious eye damage.

Specific target organ toxicity - repeated

exposure, Category 2

H373: May cause damage to organs through

prolonged or repeated exposure.

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Long-term (chronic) aquatic hazard,

H411: Toxic to aquatic life with long lasting effects.

Category 2

#### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms









Signal word : Danger

Hazard statements : H302 Harmful if swallowed.

H318 Causes serious eye damage.

H373 May cause damage to organs through

prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : P101 If medical advice is needed, have product

container or label at hand.

Prevention:

P280 Wear protective gloves/ protective clothing/

eye protection/ face protection.

P284 In case of inadequate ventilation wear

respiratory protection.

Response:

P301 + P312 IF SWALLOWED: Call a POISON

CENTER/ doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with

water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

P310 Immediately call a POISON CENTER/

doctor.

#### 2.3 Other hazards

None known.

#### **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

Chemical nature : Mixture of inorganic salts

#### **Hazardous components**

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Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
zinc sulphate	7733-02-0 231-793-3 01-2119474684-27- XXXX	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 5 - <= 10
manganese sulphate (1:1)	7785-87-7 232-089-9 01-2119456624-35- XXXX	STOT RE 2; H373 Aquatic Chronic 2; H411 Eye Dam. 1; H318	>= 10 - <= 15
Sulfuric acid, iron(2+) salt (1:1), monohydrate	17375-41-6	Acute Tox. 4; H302 Eye Irrit. 2; H319 Skin Irrit. 2; H315	>= 5 - <= 10
citric acid	77-92-9 201-069-1 01-2119461715-35- XXXX	Eye Irrit. 2; H319 STOT SE 3; H335	>= 2,5 - <= 5
disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-)	14025-15-1 237-864-5 01-2119963944-23- 0002	Acute Tox. 4; H302 Eye Irrit. 2; H319	>= 15 - <= 30

For explanation of abbreviations see section 16.

## **SECTION 4: First aid measures**

according to Regulation (EC) No. 1907/2006

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4.1 Description of first aid measures

General advice : Take off immediately all contaminated clothing.

Wash contaminated clothing before re-use.

If inhaled : Move to fresh air.

Keep patient warm and at rest.

If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

In case of skin contact : Flush with plenty of water.

In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes

and consult a physician.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

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

Treatment : Treat symptomatically.

**SECTION 5: Firefighting measures** 

5.1 Extinguishing media

Suitable extinguishing media : The product is not flammable.

Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: Heating or fire can release toxic gas.

5.3 Advice for firefighters

Special protective equipment

for firefighters

: In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

**SECTION 6: Accidental release measures** 

according to Regulation (EC) No. 1907/2006

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#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid dust formation.

Ensure adequate ventilation.
Use personal protective equipment.

Keep people away from and upwind of spill/leak. Keep away from sources of ignition - No smoking. In case of involuntary exposition of the product contact

producer or supplier.

6.2 Environmental precautions

Environmental precautions : Do not empty into drains.

Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.

Sweep up or vacuum up spillage and collect in suitable

container for disposal.

6.4 Reference to other sections

For personal protection see section 8.

#### **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

Advice on safe handling : Provide appropriate exhaust ventilation at machinery and at

places where dust can be generated.

Avoid dust formation.

Keep away from sources of ignition - No smoking. Avoid dust accumulation in enclosed space.

Advice on protection against

fire and explosion

: Keep away from sources of ignition - No smoking.

Hygiene measures : Keep away from food, drink and animal feedingstuffs. Wash

hands before breaks and at the end of workday. Do not breathe dust. Use protective skin cream before handling the

product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage

areas and containers

: Keep in a dry, cool and well-ventilated place.

Further information on storage conditions

: humid air and water

according to Regulation (EC) No. 1907/2006

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Storage class (TRGS 510) : 13, Non Combustible Solids

7.3 Specific end use(s)

Specific use(s) : Always read the label and product information before use.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### **Occupational Exposure Limits**

Components	CAS-No.		e type (Form posure)	Control parameters		Basis		
manganese sulphate (1:1)	7785-87-7	(Inha	alable on)	0,5 mg/m3		DE TRGS 900		
Further information	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., The threshold value is based on the element content of the corresponding metal., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child							
		AGW fraction	(Inhalable on)	0,5 mg/ (Manga		DE TRGS 900		
Further information	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., The threshold value is based on the element content of the corresponding metal., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child							
Sulfuric acid, iron(2+) salt (1:1), monohydrate	17375-41-6	TWA		0,5 mg/m3 1 mg/m3		GB EH40		
No data available Mangansulfat	7785-8 7785-8		manganese:	20 μg/l	Immediately after exposure or after working hours, In case of long-term exposition: after more than one shif	TRGS 903		

#### 8.2 Exposure controls

#### **Engineering measures**

Provide adequate ventilation.

#### Personal protective equipment

according to Regulation (EC) No. 1907/2006

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Eye protection : Wear suitable gloves and eye/face protection.

Hand protection

Remarks : For prolonged or repeated contact use protective gloves.

Preventive skin protection

Skin and body protection : Protective suit

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory

equipment.

Particle filtering disposable mask DIN EN 149 with filter FFP2.

Protective measures : Handle in accordance with good industrial hygiene and safety

practice.

**Environmental exposure controls** 

General advice : Do not empty into drains.

Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform

respective authorities.

**SECTION 9: Physical and chemical properties** 

9.1 Information on basic physical and chemical properties

Physical state : crystalline

Colour : light blue

Odour : characteristic

Odour Threshold : No data available

pH : No data available

Melting point/range : No data available

according to Regulation (EC) No. 1907/2006

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Boiling point/boiling range : No data available

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : The product is not flammable.

Upper explosion limit : Not applicable

Lower explosion limit : Not applicable

Vapour pressure : Not applicable

Relative vapour density : Not applicable

Density : 1,347 g/m³ (20 °C)

Solubility(ies)

Water solubility : soluble

Partition coefficient: n-

octanol/water

: Not applicable

Auto-ignition temperature : No data available

Decomposition temperature : No decomposition if stored and applied as directed.

Viscosity

Viscosity, dynamic : Not applicable

Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : Not considered an oxidizing substance

#### 9.2 Other information

No data available

#### **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

No decomposition if stored and applied as directed.

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#### 10.2 Chemical stability

No decomposition if stored and applied as directed.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

GLP: No information available.

10.4 Conditions to avoid

Conditions to avoid : Keep away from heat and sources of ignition.

10.5 Incompatible materials

Materials to avoid : Amines

Strong oxidizing agents

Strong acids

10.6 Hazardous decomposition products

Hazardous decomposition :

products

: Nitrogen oxides (NOx)

#### **SECTION 11: Toxicological information**

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

#### **Acute toxicity**

## Components:

zinc sulphate:

Acute oral toxicity : LD50 (Rat): 862 - 4.429 mg/kg

Acute dermal toxicity : LD50 Dermal (Rat): > 2.000 mg/kg

manganese sulphate (1:1):

Acute oral toxicity : LD50 (Rat): 2.150 mg/kg

Sulfuric acid, iron(2+) salt (1:1), monohydrate:

Acute oral toxicity : LD50 Oral (Rat): 319 mg/kg

citric acid:

Acute oral toxicity : LD50 Oral (Rat): 3.000 mg/kg

disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Acute oral toxicity : LD50 (Rat): 890 mg/kg

Acute inhalation toxicity : LC50 (Rat): 5,32 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 436

according to Regulation (EC) No. 1907/2006

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#### Skin corrosion/irritation

#### **Product:**

Remarks: May cause skin irritation and/or dermatitis.

#### **Components:**

## **zinc sulphate:** Species: Rabbit

Assessment: Irritating to skin.

#### disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Remarks: slight irritation

According to the classification criteria of the European Union, the product is not considered as

being a skin irritant.

#### Serious eye damage/eye irritation

#### **Product:**

Remarks: May irritate eyes.

#### **Components:**

#### zinc sulphate: Species: Rabbit

Result: Risk of serious damage to eyes.

#### disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Method: OECD Test Guideline 405

Result: Eye irritation

#### Respiratory or skin sensitisation

#### **Product:**

Remarks: None known.

#### **Components:**

#### disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Method: OECD Test Guideline 429

Result: non-sensitizing

#### germ cell mutagenicity

#### Components:

#### disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Genotoxicity in vitro : Test Type: Ames test

Method: OECD Test Guideline 471

Result: Mutagenicity tests revealed no genotoxic potential.

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#### Carcinogenicity

#### Components:

disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-): Remarks: Animal testing did not show any carcinogenic effects.

#### Reproductive toxicity

#### **Components:**

disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Effects on fertility

Remarks: No toxicity to reproduction

Effects on foetal : Remarks: Did not show teratogenic effects in animal

development experiments.

#### STOT - single exposure

#### Components:

disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-): Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### STOT - repeated exposure

#### Components:

disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-): Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### **Aspiration hazard**

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

#### 11.2 Information on other hazards

#### **Endocrine disrupting properties**

No data available

#### **Further information**

#### **Product:**

Remarks: Irritant

Harmful

#### **SECTION 12: Ecological information**

according to Regulation (EC) No. 1907/2006

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12.1 Toxicity

**Components:** zinc sulphate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,43 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 1,86 mg/l

Exposure time: 48 h

Toxicity to algae : EC50 (Scenedesmus quadricauda (Green algae)): 0,52 mg/l

Exposure time: 120 h

: EC50 (Bacteria): 22,75 mg/l Toxicity to bacteria

Exposure time: 0,5 h

manganese sulphate (1:1):

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 30 mg/l

citric acid:

Toxicity to fish : LC50 (golden orfe): 440 mg/l

> Exposure time: 96 h Test Type: static test

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 1.535 mg/l

Exposure time: 24 h

: (Scenedesmus quadricauda (Green algae)): 640 mg/l Toxicity to algae

Exposure time: 7 DAY

Toxicity to bacteria : EC0 (Pseudomonas putida): 10.000 mg/l

Exposure time: 16 h

disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Toxicity to fish : LC50 (Fish): 555 mg/l

Exposure time: 96 h

12.2 Persistence and degradability

**Product:** 

Biodegradability : Remarks: The methods for determining biodegradability are

not applicable to inorganic substances.

Components:

disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Biodegradability : Remarks: Not readily biodegradable.

according to Regulation (EC) No. 1907/2006

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#### 12.3 Bioaccumulative potential

#### **Product:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

#### **Components:**

disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

#### 12.4 Mobility in soil

#### **Product:**

Mobility : Remarks: After release, adsorbs onto soil.

Distribution among : Remarks: No data available

environmental compartments

#### 12.5 Results of PBT and vPvB assessment

#### **Product:**

Assessment : Remarks: Not applicable

#### **Components:**

disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Assessment : Substance is not persistent, bioaccumulative, and toxic

(PBT).. Substance is not very persistent and very

bioaccumulative (vPvB)...

#### 12.6 Endocrine disrupting properties

No data available

#### 12.7 Other adverse effects

#### **Product:**

Additional ecological

information

: Do not flush into surface water or sanitary sewer system.

#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product : Fertiliser

Do not flush into surface water or sanitary sewer system.

Do not dispose of with domestic refuse.

In accordance with local and national regulations.

according to Regulation (EC) No. 1907/2006

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Contaminated packaging : If recycling is not practicable, dispose of in compliance with

local regulations.

Suitable cleaning agents

Water

#### **SECTION 14: Transport information**

#### 14.1 UN number or ID number

ADN : UN 3077
ADR : UN 3077
RID : UN 3077
IMDG : UN 3077
IATA : UN 3077

14.2 UN proper shipping name

**ADN** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(zinc sulphate, manganese sulphate)

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S

(zinc sulphate, manganese sulphate)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S

(zinc sulphate, manganese sulphate)

**IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(zinc sulphate, manganese sulphate)

**IATA** : Environmentally hazardous substance, solid, n.o.s.

(zinc sulphate, manganese sulphate)

#### 14.3 Transport hazard class(es)

ADN : 9
ADR : 9
RID : 9
IMDG : 9
IATA : 9

#### 14.4 Packing group

ADN

Packing group : III

according to Regulation (EC) No. 1907/2006

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Classification Code : M7
Hazard Identification Number : 90
Labels : 9

**ADR** 

Packing group : III
Classification Code : M7
Hazard Identification Number : 90
Labels : 9
Tunnel restriction code : (E)

RID

Packing group : III
Classification Code : M7
Hazard Identification Number : 90
Labels : 9

**IMDG** 

Packing group : III Labels : 9

EmS Code : F-A, S-F

Segregation group : : (-)

IATA

Packing instruction (cargo : 956

aircraft)

Packing instruction : 956

(passenger aircraft)

Packing instruction (LQ) : Y956
Packing group : III
Labels : 9

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

rid

Environmentally hazardous : yes

**IMDG** 

Marine pollutant : yes

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not relevant

according to Regulation (EC) No. 1907/2006

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#### **SECTION 15: Regulatory information**

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Quantity 1 Quantity 2

E2 ENVIRONMENTAL 200 t 500 t

**HAZARDS** 

Water hazard class

(Germany)

: WGK 3 highly hazardous to water

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

#### **SECTION 16: Other information**

#### **Full text of H-Statements**

H302 : Harmful if swallowed. H315 : Causes skin irritation.

H318 : Causes serious eye damage. H319 : Causes serious eye irritation. H335 : May cause respiratory irritation.

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.

#### 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

Eye Irrit. : Eye irritation Skin Irrit. : Skin irritation

STOT RE : Specific target organ toxicity - repeated exposure STOT SE : Specific target organ toxicity - single exposure

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ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - 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 Organization; 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; TECI - Thailand Existing Chemicals 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**

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.

DE / EN