



## SANET ZITROTAN 2 X 5 LITER

WM 0712474

Order number: 0712474

Version 4.0

Revision Date 02.11.2017

Print Date 06.12.2017

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

#### 1.1 Product identifier

Trade name : SANET ZITROTAN 2 X 5 LITER  
Identification number : 61219

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

Use of the Substance/Mixture : Cleaning agent  
Restricted to professional users.

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

Company : tana Chemie GmbH  
Rheinallee 96  
55120 Mainz  
Telephone : +49613196403  
Telefax : +4961319642414  
E-mail address : Produktsicherheit@werner-mertz.com  
Responsible/issuing person  
Contact person : Product development / product safety

#### 1.4 Emergency telephone number

+49(0)6131-19240

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

#### 2.2 Label elements

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

Not a hazardous substance or mixture.

Safety data sheet available on request.

#### 2.3 Other hazards

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.  
No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

Chemical nature : Aqueous solution

##### Hazardous components

Chemical name	CAS-No. EC-No.	Classification	Concentration (% w/w)
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	Registration number		
citric acid	77-92-9 201-069-1 01-2119457026-42	Eye Irrit. 2; H319	$\geq 2 - < 5$
Alcohols, C12-14, ethoxylated, sulfates, sodium salts	68891-38-3 01-2119488639-16	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412  SCL 5 - < 10 % 2; H319 $\geq 10,0$ % 1; H318	$\geq 1 - < 2$

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : No hazards which require special first aid measures.
- If inhaled : Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.  
If symptoms persist, call a physician.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.
- In case of eye contact : Protect unharmed eye.  
If easy to do, remove contact lens, if worn.  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.

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

- Symptoms : No information available.
- Risks : No information available.

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

- Treatment : For specialist advice physicians should contact the Poisons Information Service.



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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media : 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 : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

#### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

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

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

Personal precautions : Use personal protective equipment.

#### 6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water courses.

#### 6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Neutralize with chalk, alkali solution or ammonia.  
Sweep up and shovel.  
Wipe up with absorbent material (e.g. cloth, fleece).  
Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For personal protection see section 8., Treat recovered material as described in the section "Disposal considerations"., Refer to section 15 for specific national regulation.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8. No special handling advice required.



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Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Wash hands before breaks and at the end of workday.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container.

Advice on common storage : No special restrictions on storage with other products.

Other data : No decomposition if stored and applied as directed.  
No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : Cleaning agent

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

#### DNEL

**Alcohols, C12-14, ethoxylated, sulfates, sodium salts**  
**68891-38-3:** : End Use: Workers  
Exposure routes: Skin contact  
Potential health effects: Long-term systemic effects  
Value: 2750 mg/kg

End Use: Workers  
Exposure routes: Inhalation  
Potential health effects: Long-term systemic effects  
Value: 175 mg/m<sup>3</sup>

End Use: Consumers  
Exposure routes: Skin contact  
Potential health effects: Long-term systemic effects  
Value: 1650 mg/kg

End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: Long-term systemic effects  
Value: 52 mg/m<sup>3</sup>

End Use: Consumers  
Exposure routes: Ingestion



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Potential health effects: Long-term systemic effects  
Value: 15 mg/kg

End Use: Workers  
Exposure routes: Skin contact  
Potential health effects: Long-term local effects  
Value: 0,132 mg/cm<sup>2</sup>

End Use: Consumers  
Exposure routes: Skin contact  
Potential health effects: Long-term local effects  
Value: 0,079 mg/cm<sup>2</sup>

### PNEC

**citric acid**  
**77-92-9:**

: Fresh water  
Value: 0,44 mg/l

Marine water  
Value: 0,044 mg/l

STP  
Value: > 1000 mg/l

Fresh water sediment  
Value: 34,6 mg/kg

Marine sediment  
Value: 3,46 mg/kg

Soil  
Value: 33,1 mg/kg

**Alcohols, C12-14, ethoxylated,**  
**sulfates, sodium salts**  
**68891-38-3:**

: Fresh water  
Value: 0,24 mg/l

Marine water  
Value: 0,024 mg/l

Fresh water sediment  
Value: 0,9168 mg/kg

Marine sediment  
Value: 0,09168 mg/kg

Soil  
Value: 7,5 mg/kg

STP  
Value: 10000 mg/kg

intermittent release  
Value: 0,071 mg/l



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### 8.2 Exposure controls

#### Personal protective equipment

Eye protection : not required under normal use

#### Hand protection

Material : not required under normal use

For prolonged or repeated contact use protective gloves.  
Chemical resistant gloves made of butyl rubber or nitrile rubber  
category III according to EN 374-1: 2003 (0,4 mm).

Remarks : Take note of the information given by the producer concerning  
permeability and break through times, and of special workplace  
conditions (mechanical strain, duration of contact).

Skin and body protection : not required under normal use

Respiratory protection : not required under normal use

#### Environmental exposure controls

General advice : Try to prevent the material from entering drains or water courses.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : red

Odour : like fruit

Odour Threshold : No data available

pH : ca. 2,4

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Burning rate : No data available

Lower explosion limit : No data available

Upper explosion limit : No data available



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Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: ca. 1,025 g/cm <sup>3</sup>
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: ca. 1.200 mPa.s
Viscosity, kinematic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions., No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No hazards to be specially mentioned.

### 10.4 Conditions to avoid

Conditions to avoid : No data available

### 10.5 Incompatible materials

Materials to avoid : No data available

### 10.6 Hazardous decomposition products

Hazardous decomposition products : No hazardous decomposition products are known.  
Other information : No hazardous decomposition products are known.



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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Product

- Skin corrosion/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 : According to the classification criteria of the European Union, the product is not considered as being an eye irritant.
- Respiratory or skin sensitisation : No data available
- Further information : No data available

##### Components: citric acid

##### 77-92-9:

- Acute oral toxicity : LD50 Oral Mouse: 5.400 mg/kg  
Method: OECD Test Guideline 401
- LD50 Oral Rat: 11.700 mg/kg  
Method: OECD Test Guideline 401
- LD50 Oral Mouse: 5.000 mg/kg
- LD50 Oral : 3.000 mg/kg
- Acute dermal toxicity : LD50 Dermal Rat: > 2.000 mg/kg
- Acute toxicity (other routes of administration) : see user defined free text Rat: 725 mg/kg  
Application Route: see user defined free text
- see user defined free text Mouse: 940 mg/kg  
Application Route: see user defined free text
- Skin corrosion/irritation : Result: Mild skin irritation
- Serious eye damage/eye irritation : Result: Eye irritation
- Respiratory or skin sensitisation : Result: Does not cause skin sensitisation.
- Carcinogenicity - Assessment : Not classifiable as a human carcinogen.





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Repeated dose toxicity : Rat: NOAEL: 4.000 mg/kg  
LOAEL: 8.000 mg/kg  
Application Route: Oral  
Exposure time: 10 d

### Alcohols, C12-14, ethoxylated, sulfates, sodium salts

#### 68891-38-3:

Acute oral toxicity : LD50 Oral Rat: 4.100 mg/kg  
Method: OECD Test Guideline 401  
GLP: no  
  
LD50 Oral Rat: 2.000 - 5.000 mg/kg  
Method: OECD Test Guideline 401  
Test substance: see user defined free text

LD50 Oral Rat: > 5.000 mg/kg  
Method: OECD Test Guideline 401  
Test substance: see user defined free text

Acute dermal toxicity : LD50 Rat: > 2.000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

Skin corrosion/irritation : Species: Rabbit  
Method: OECD Test Guideline 404

Serious eye damage/eye irritation : Species: Rabbit  
Method: OECD Test Guideline 405  
Test substance: see user defined free text

Species: Rabbit  
Method: OECD Test Guideline 405  
Test substance: see user defined free text

Respiratory or skin sensitisation : Test Method: Maximisation Test  
Species: Guinea pig  
Result: Did not cause sensitisation on laboratory animals.  
Method: OECD Test Guideline 406

Germ cell mutagenicity

Genotoxicity in vitro : Result: negative  
Method: OECD Test Guideline 471

Reproductive toxicity : Species: Rat  
Application Route: Oral  
NOAEL: > 300 mg/kg,  
F1: > 300 mg/kg, Method: OECD Test Guideline 416



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Teratogenicity	: Species: Rat Application Route: Oral >1.000 mg/kg > 1.000 mg/kg Method: see user defined free text
Repeated dose toxicity	: Rat: NOAEL: > 225 mg/kg  Application Route: Oral Exposure time: 90 Days Method: see user defined free text Target Organs: Liver
STOT - repeated exposure	: Exposure routes: Ingestion Target Organs: Liver

### SECTION 12: Ecological information

#### 12.1 Toxicity

##### Components:

##### **citric acid**

##### **77-92-9:**

Toxicity to fish	: LC50 (Leuciscus idus (Golden orfe)): 440 - 760 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 1.535 mg/l Exposure time: 24 h  EC50 (Daphnia magna (Water flea)): ca. 120 mg/l Exposure time: 72 h
Toxicity to algae	: NOEC (Scenedesmus quadricauda (Green algae)): 425 mg/l Exposure time: 8 Days Test Type: static test
Toxicity to bacteria	: (Pseudomonas putida): > 10.000 mg/l Exposure time: 16 h

##### **Alcohols, C12-14, ethoxylated, sulfates, sodium salts**

##### **68891-38-3:**

Toxicity to fish	: LC50 (Danio rerio (zebra fish)): 7,1 mg/l Exposure time: 96 h Test Type: flow-through test Method: OECD Test Guideline 203 GLP: yes  LC50 (Fish): > 1 - 10 mg/l
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	Test Type: semi-static test Method: OECD Test Guideline 203
	LC50 (Leuciscus idus (Golden orfe)): 10 - 100 mg/l Method: OECD Test Guideline 203
	NOEC (Oncorhynchus mykiss (rainbow trout)): 0,14 mg/l Exposure time: 28 d Test Type: flow-through test Method: OECD Test Guideline 204
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia pulex (Water flea)): 7,4 mg/l
	EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202
	NOEC (Daphnia magna (Water flea)): 0,27 mg/l Exposure time: 21 d Test Type: flow-through test Method: OECD Test Guideline 211
Toxicity to algae	: EC50 (Desmodesmus subspicatus (green algae)): 27,7 mg/l Exposure time: 72 h Test Type: Growth inhibition Method: OECD Test Guideline 201 GLP: yes
	EC50 (Scenedesmus subspicatus): 10 - 100 mg/l Method: OECD Test Guideline 201
	EC50 (Desmodesmus subspicatus (green algae)): > 10 - 100 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201
	NOEC : 0,95 mg/l Test Type: Growth inhibition Method: OECD Test Guideline 201
Toxicity to bacteria	: EC50 (Pseudomonas putida): > 10 g/l Exposure time: 16 h Test Type: Cell multiplication inhibition test Method: DIN 38412 GLP: yes
	EC10 (Pseudomonas putida): > 10 g/l Test Type: Cell multiplication inhibition test GLP:
Toxicity to fish (Chronic toxicity)	: NOEC: 1,2 mg/l  NOEC: 1 - 10 mg/l



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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Species: Leuciscus idus (Golden orfe)  
: NOEC: > 0,1 - 1 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

### 12.2 Persistence and degradability

#### Product:

Biodegradability : Remarks: The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

#### Components:

##### citric acid

##### 77-92-9:

Biodegradability : Result: Readily biodegradable  
Biodegradation: 97 %  
Exposure time: 28 d  
Method: OECD 301 B

Result: Readily biodegradable  
Biodegradation: 100 %  
Exposure time: 19 d  
Method: OECD 301 E

Biochemical Oxygen Demand (BOD) : 526 mg/g

Chemical Oxygen Demand (COD) : 728 mg/g

ThOD : 0,75 g/g

##### Alcohols, C12-14, ethoxylated, sulfates, sodium salts

##### 68891-38-3:

Biodegradability : Test Type: aerobic  
Result: rapidly biodegradable  
Biodegradation: > 70 %  
Exposure time: 28 d  
Method: OECD 301 A

### 12.3 Bioaccumulative potential

#### Components:

##### citric acid

##### 77-92-9:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: -1,72



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**Alcohols, C12-14, ethoxylated, sulfates, sodium salts**

**68891-38-3:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

### 12.4 Mobility in soil

#### Components:

**Alcohols, C12-14, ethoxylated, sulfates, sodium salts**

**68891-38-3:**

Distribution among environmental compartments : Adsorption/Soil  
Medium: Soil  
Koc: 191 Method: see user defined free text

### 12.5 Results of PBT and vPvB assessment

#### Product:

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..

#### Components:

**citric acid**

**77-92-9:**

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

**Alcohols, C12-14, ethoxylated, sulfates, sodium salts**

**68891-38-3:**

Assessment : This substance is not considered to be very persistent and very bioaccumulating (vPvB).. This substance is not considered to be persistent, bioaccumulating and toxic (PBT)..

### 12.6 Other adverse effects

#### Product:

Additional ecological information : There is no data available for this product.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Empty remaining contents.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.



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Waste Code

European Waste Catalogue  
20 01 29\*

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

### SECTION 14: Transport information

#### 14.1 UN number

**ADR**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

#### 14.2 Proper shipping name

Not regulated as a dangerous good

#### 14.3 Transport hazard class

**ADR**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

#### 14.4 Packing group

**ADR**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

#### 14.5 Environmental hazards

**ADR**

Not dangerous goods

Not regulated as a dangerous good

**IATA**

Not dangerous goods

#### 14.6 Special precautions for user

For personal protection see section 8.

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### SECTION 15: Regulatory information

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

: Directive 96/82/EC does not apply



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Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. TA Luft List (Germany)	: Not applicable : Total dust: Not applicable : Inorganic substances in powdered form: Not applicable : Inorganic substances in vapour or gaseous form: : portionClass 3: < 0,01 % : Organic Substances: : portionClass 1: < 0,01 % : Carcinogenic substances: Not applicable : Mutagenic: Not applicable : Toxic to reproduction: Not applicable
Volatile organic compounds (VOC) content	: Percent volatile: 0,02 % 3,19 g/l VOC content excluding water
Volatile organic compounds (VOC) content	: Percent volatile: 0,02 % 0,15 g/l VOC content valid only for coating materials used on wood surfaces
according to Detergents Regulation EC 648/2004	: <5% Anionic surfactants, Perfumes

### 15.2 Chemical safety assessment

There is no data available for this product.

## SECTION 16: Other information

### Full text of H-Statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

### Further information

Classification procedure: Calculation method

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; AICS - Australian Inventory of Chemical Substances; 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



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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; 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

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.

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