

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date of issue: 6/19/2017 Revision date: 6/19/2017 Supersedes: 3/18/2015 Version: 3.00

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

Product identifier 1.1.

Trade name : Nanoflex® Optiperl 45

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Coating

Uses advised against 1.2.2.

No additional information available

Details of the supplier of the safety data sheet

Supplier

Signo Nanocare UK Ltd PO Box 225 Oswestry Shropshire SY10 1DL Telephone: +44 1691 65428 e-mail: info@signo-nanocare.com

Emergency telephone number

Emergency number Giftnotruf Berlin

Tel.: +49 (0)30 30686 790

Information in German and English language

SECTION 2: Hazards identification

Classification of the substance or mixture

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

Flammable liquids, Category 2 H225 Serious eye damage/eye irritation, Category H319

Full text of hazard classes and H-statements: see section 16

Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Causes serious eye irritation.

Label elements

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

Hazard pictograms (CLP)





GHS02

Signal word (CLP) : Danger

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour

H319 - Causes serious eye irritation

Precautionary statements (CLP) P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking

P233 - Keep container tightly closed

P280 - Wear protective clothing, eye protection, protective gloves

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water/shower

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing P337+P313 - If eye irritation persists: Get medical advice/attention

Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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SECTION 3: Composition/information on ingredients

Substances

Not applicable

3.2. **Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5 (REACH-no) 01-2119457610-43	>= 90	Flam. Liq. 2, H225 Eye Irrit. 2, H319
butanone	(CAS-No.) 78-93-3 (EC-No.) 201-159-0 (EC Index-No.) 606-002-00-3 (REACH-no) 01-2119457290-43	1 - 2.5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Specific concentration limits:

Name	Product identifier	Specific concentration limits
ethanol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5	(50 = <c 100)="" 2,="" <="" eye="" h319<="" irrit.="" td=""></c>
	(REACH-no) 01-2119457610-43	

Full text of H-statements: see section 16

SECTION 4: First aid measures

Description of first aid measures 4.1.

First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to First-aid measures after eye contact

do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion Rinse mouth out with water. Spit. Drink plenty of water. Do NOT induce vomiting. Vomiting: prevent asphyxia/aspiration pneumonia. Call a poison center or a doctor if you feel unwell.

Most important symptoms and effects, both acute and delayed

: May cause respiratory irritation. Cough. Causes eyes to water. Symptoms/effects after inhalation

Symptoms/effects after eye contact : Eye irritation.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Strong water jet.

Special hazards arising from the substance or mixture

: Highly flammable liquid and vapour. Fire hazard

Hazardous decomposition products in case of Toxic fumes may be released. Carbon monoxide. Carbon dioxide. Vapours are heavier than air. fire

Flash back possible over important distance.

Advice for firefighters

Firefighting instructions : Protect container with water spray.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing.

Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done Other information

according to official regulations.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

: Prohibit unauthorized persons. Do not smoke. Remove ignition sources. Wear breathing General measures

apparatus if exposed to vapours/dusts/aerosols.

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6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin

and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid sub-soil penetration.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite kieselguhr,

powdered limestone. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Notify authorities if product enters sewers or public waters.

Other information : Disposal must be done according to official regulations.

6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid

aerosolbuilding. Do not breathe spray, mist, vapours.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed.

Heat and ignition sources : Keep away from heat and direct sunlight.

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

storage facility

7.3. Specific end use(s)

Do not use : Aerosols.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

butanone (78-93-3)		
EU	Local name	Butanone
EU	IOELV TWA (mg/m³)	600 mg/m³
EU	IOELV TWA (ppm)	200 ppm
EU	IOELV STEL (mg/m³)	900 mg/m³
EU	IOELV STEL (ppm)	300 ppm
United Kingdom	Local name	Butan-2-one (methyl ethyl ketone)
United Kingdom	WEL TWA (mg/m³)	600 mg/m³
United Kingdom	WEL TWA (ppm)	200 ppm
United Kingdom	WEL STEL (mg/m³)	899 mg/m³
United Kingdom	WEL STEL (ppm)	300 ppm
United Kingdom	Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity), BMGV (Biological monitoring guidance values are listed in Table 2)
ethanol (64-17-5)		
United Kingdom	Local name	Ethanol
United Kingdom	WEL TWA (mg/m³)	1920 mg/m³
United Kingdom	WEL TWA (ppm)	1000 ppm
United Kingdom	Regulatory reference	EH40. HSE

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hutanana (79 02 2)	
butanone (78-93-3)	
DNEL/DMEL (Workers)	44C4 man/// in head over in head over
Long-term - systemic effects, dermal	1161 mg/kg bodyweight/day 600 mg/m³
Long-term - systemic effects, inhalation	600 mg/m²
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	31 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	106 mg/m³
Long-term - systemic effects, dermal	412 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	55.8 mg/l
PNEC aqua (marine water)	55.8 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	284.74 mg/kg dwt
PNEC sediment (marine water)	284.7 mg/kg dwt
PNEC (Soil)	
PNEC soil	22.5 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	1000 kg/kg food
PNEC (STP)	
PNEC sewage treatment plant	709 mg/l
ethanol (64-17-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	343 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	950 mg/m³
Long-term - local effects, inhalation	1900 mg/m³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	950 mg/m³
Long-term - systemic effects,oral	87 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	114 mg/m³
Long-term - systemic effects, dermal	206 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.96 mg/l
PNEC aqua (marine water)	0.79 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.6 mg/kg dwt
PNEC sediment (marine water)	2.9 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.63 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	0.38 kg/kg food
PNEC (STP)	
PNEC sewage treatment plant	580 mg/l
9.2 Exposure controls	

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Chemically resistant protective gloves. EN 374. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear. The above-mentioned times are based on reference values as per EN 374. Under practical conditions (33°C – taking into account the body temperature), the maximum wearing time is to be limited to one-third. Do not use: leather, thick fabric gloves

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Butyl rubber, Nitrile rubber (NBR)	6 (> 480 minutes)		3 (> 0.65)	EN 374

Eye protection:

Wear closed safety glasses. EN 166

Skin and body protection:

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Wear suitable protective clothing. Solvent-resistant apron

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. EN 143.

Device	Filter type	Condition	Standard
Breathing apparatus with filter	Type A - High-boiling (>65 °C) organic compounds	In case of unintentional release of substance, exceeding the occupational exposure limit value	EN 143

Environmental exposure controls:

Avoid release to the environment.

Other information:

Wash hands before breaks and after work. Do not eat, drink or smoke when using this product. Do not breathe gas/vapour/aerosol. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : colourless.
Odour : alcohol odour.
Odour threshold : 80 ppm

pH : 1 - 3 (500g/l; 20°C)
Relative evaporation rate (butylacetate=1) : No data available
Melting point : Not applicable
Freezing point : No data available

Boiling point : $78 \, ^{\circ}\text{C}$ Flash point : $< 21 \, ^{\circ}\text{C}$

Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : Not applicable
Vapour pressure : 57 hPa Ethanol
Relative vapour density at 20 °C : No data available
Relative density : No data available

Density : 0.8 (0.77 - 0.83) g/cm³ (20°C)
Solubility : Water: Slightly miscible
Log Pow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : 1 - 10 mPa.s (20°C)

Explosive properties : In use, may form flammable/explosive vapour-air mixture.

Oxidising properties : No data available
Lower explosive limit (LEL) : 3.5 vol %
Upper explosive limit (UEL) : 15 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicol	logical information
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11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

butanone (78-93-3)	
LD50 oral rat	> 2000 mg/kg (OECD 423 method)
LD50 dermal rabbit	> 10 mg/l (male; (OECD 402 method)
ethanol (64-17-5)	
LD50 oral rat	10470 mg/kg (OECD 401 method)
LC50 inhalation rat (Vapours - mg/l/4h)	20000 mg/l/4h
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)

Chinocholonimitation	. Not slassified (Based off available data, the slassification offeria are not met)
	pH: 1 - 3 (500g/l; 20°C)

Serious eye damage/irritation	: Causes serious eye irritation.
	pH: 1 - 3 (500a/l: 20°C)

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

ethanol (64-17-5)	
NOAEL (chronic, oral, animal/male, 2 years)	> 4400 mg/kg bodyweight (EPA OPPTS 870.4200)
NOAEL (chronic, oral, animal/female, 2 years)	> 4250 mg/kg bodyweight (EPA OPPTS 870.4200)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

	butanone (78-93-3)			
NOAEC (inhalation, rat, vapour, 90 days)		5041 ppmv/6h/day		

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

SECTION 12: Ecological information

12.1. Toxicity	
Acute aquatic toxicity	: Not classified (Based on available data, the classification criteria are not met)
Chronic aquatic toxicity	: Not classified (Based on available data, the classification criteria are not met)

butanone (78-93-3)	
LC50 fish 1	2993 (≥ 0) mg/l (96h; Pimephales promelas;(OECD 203 method))
EC50 Daphnia 1	308 mg/l EC50 48h - Daphnia magna [mg/l]; (OECD 202 method))
EC50 72h algae (1)	1972 mg/l (72h; Pseudokirchneriella subcapitata; (OECD 201 method))
ethanol (64-17-5)	
LC50 fish 1	14200 mg/l (96 h; US EPA method E03-05)
LC50 fish 2	8140 mg/l Leuciscus idus (golden orfe)
EC50 Daphnia 1	5012 mg/l (48 h; ASTM E729-80)

12.2. Persistence and degradability

Titel»®«Vorname»		
Persistence and degradability	Biodegradable.	
butanone (78-93-3)		
Persistence and degradability	Readily biodegradable.	
Biodegradation	98 % (28 d; OECD 301)	
ethanol (64-17-5)		
Persistence and degradability Readily biodegradable. Biodegradation 97 % (28 d)		

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12.3. Bioaccumulative potential

butanone (78-93-3)	
Log Pow	0.3 (40°C; (OECD 117 method))
ethanol (64-17-5)	
Log Kow	-0.31
Bioaccumulative potential	Bioaccumulation unlikely.

12.4. Mobility in soil

ethanol (64-17-5)	
Ecology - soil	No additional information available.

12.5. Results of PBT and vPvB assessment

«Titel»®«Vorname»			
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII			
This substance/mixture does not meet the vPv	B criteria of REACH regulation, annex XIII		
Component			
butanone (78-93-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
ethanol (64-17-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Disposal must be done according to official regulations. European waste catalogue. Do not

dispose of with domestic waste. Do not discharge into drains or the environment.

Additional information : Flammable vapours may accumulate in the container.

European List of Waste (LoW) code : 08 01 11* - waste paint and varnish containing organic solvents or other dangerous substances

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1170	1170	1170	1170	1170
14.2. UN proper shippi	ng name			
ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Ethyl alcohol solution	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Transport document descr	iption		•	
UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II, (D/E)	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II	UN 1170 Ethyl alcohol solution, 3, II	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II
14.3. Transport hazard	class(es)			
3	3	3	3	3
3	3	3	3	3
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

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14.6. Special precautions for user

- Overland transport

Classification code (ADR) : F1
Special provisions (ADR) : 144, 601
Limited quantities (ADR) : 11
Excepted quantities (ADR) : E2
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 33

Orange plates

33 1170

Tunnel restriction code (ADR) : D/E

- Transport by sea

Special provisions (IMDG) : 144
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-D

- Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y341
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 353
PCA max net quantity (IATA) : 5L
CAO max net quantity (IATA) : 60L

Special provisions (IATA) : A3, A58, A180

- Inland waterway transport

Classification code (ADN) : F1

Special provisions (ADN) : 144, 601

Limited quantities (ADN) : 1 L

Excepted quantities (ADN) : E2

Carriage permitted (ADN) : T

- Rail transport

Classification code (RID) : F1
Special provisions (RID) : 144, 601
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2
Transport category (RID) : 2
Hazard identification number (RID) : 33

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	butanone
3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	Nanoflex® Optiperl 45- butanone - ethanol

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3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Nanoflex® Optiperl 45- butanone - ethanol
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	butanone

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Other information, restriction and prohibition

regulations

: Take note of Directive 94/33/EC on the protection of young people at work.

Directive 2012/18/EU (SEVESO III) : P5c FLAMMABLE LIQUIDS

Flammable liquids, Categories 2 or 3 not covered by P5a and P5b

15.1.2. National regulations

United Kingdom

National regulations : Take note of Directive 94/33/EC on the protection of young people at work.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

For the following substances of this mixture a chemical safety assessment has been carried out

butanone

SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
2.1	Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]	Removed	
2.2	Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]	Removed	
2.2	Precautionary statements (CLP)	Modified	
8.1	PNEC	Added	
8.1	DNEL	Added	

Abbreviations and acronyms:

Abbieviations and delonyme.		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
DPD	Dangerous Preparations Directive 1999/45/EC	
DSD	Dangerous Substances Directive 67/548/EEC	
EC50	Median effective concentration	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	

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REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
TLM	Median Tolerance Limit	
vPvB	Very Persistent and Very Bioaccumulative	

Department issuing data specification sheet: : NanoCare Deutschland AG

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Full text of H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Flam. Liq. 2	Flammable liquids, Category 2	
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis	
H225	Highly flammable liquid and vapour	
H319	Causes serious eye irritation	
H336	May cause drowsiness or dizziness	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Flam. Liq. 2	H225	Calculation method
Eye Irrit. 2	H319	Calculation method

SDS EU 01

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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