NANOBYK-3650

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

1.1 Product identifier

Trade name : NANOBYK-3650

UFI : Q6H4-U0TS-1000-88W0

Product code : 000000000000141493

This substance/ mixture contains nanoforms (according to REACH Regulation)

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

Use of the Substance/Mixture : Additive to Improve Mechanical Properties

1.3 Details of the supplier of the safety data sheet

Company : BYK-Chemie GmbH
Abelstrasse 45
46483 Wesel
Telephone : +49 281 670-0
Telefax : +49 281 65735

Information : Regulatory Affairs
Telephone : +49 281 670-23532
Telefax : +49 281 670-23533
E-mail address : GHS.BYK@altana.com

1.4 Emergency telephone

+44 1235 239670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapor.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.
H336 May cause drowsiness or dizziness.

Precautionary Statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing mist or vapors.

Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Hazardous ingredients which must be listed on the label:
- 108-65-6 2-methoxy-1-methylethyl acetate

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.

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

3.2 Mixtures

Chemical nature : Dispersion of surface treated silica nanoparticles

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
2-methoxy-1-methylethyl acetate	108-65-6	STOT SE 3; H336	>= 30 - < 50

	203-603-9 01-2119475791-29	Flam. Liq. 3; H226	
1-methoxy-2-propanol	107-98-2 203-539-1 01-2119457435-35	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system)	>= 10 - < 12,5

For explanation of abbreviations see section 16.

This substance/ mixture contains nanoforms (according to REACH Regulation)

Components:

Silicon dioxide:

Particle characteristics

Particle Size Distribution	:	D50 = 20 nm ± 5 nm Measurement technique: Transmission Electron Microscopy / Electron Microscopy (TEM/EM) calculation
Assessment	:	This substance/ mixture contains nanoforms (according to REACH Regulation)
Shape	:	Shape: spheres
Crystallinity	:	Crystallinity: amorphous
Surface treatment /Coatings	:	Surface treatment /Coatings: yes Properties of Coated Particle: hydrophobic

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice	:	Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Do not leave the victim unattended.
If inhaled	:	Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice.
In case of skin contact	:	If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	:	Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

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.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
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 : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For disposal considerations see section 13., For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapors/dust.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition.

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 : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions. Electrical installations / working materials must comply with the technological safety

standards.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2-methoxy-1-methylethyl acetate	108-65-6	TWA	50 ppm 275 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 550 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	50 ppm 275 mg/m3	MT OEL
	Further information: A skin notation assigned to the OEL identifies the possibility of significant uptake through the skin.			
		STEL	100 ppm 550 mg/m3	MT OEL
	Further information: A skin notation assigned to the OEL identifies the possibility of significant uptake through the skin.			
1-methoxy-2-propanol	107-98-2	TWA	100 ppm 375 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	150 ppm 568 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	100 ppm 375 mg/m3	MT OEL
	Further information: A skin notation assigned to the OEL identifies the possibility of significant uptake through the skin.			
		STEL	150 ppm 568 mg/m3	MT OEL
	Further information: A skin notation assigned to the OEL identifies the possibility of significant uptake through the skin.			

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

Substance name	End Use	Routes of exposure	Potential health effects	Value
2-methoxy-1-methylethyl acetate	Workers	Skin contact	Long-term systemic effects	796 mg/kg
	Workers	Inhalation	Long-term systemic effects	275 mg/m3
	Consumers	Skin contact	Long-term systemic effects	320 mg/kg
	Consumers	Inhalation	Long-term systemic effects	33 mg/m3
	Consumers	Ingestion	Long-term systemic effects	36 mg/kg
	Workers	Inhalation	Acute local effects	550 mg/m3
	Consumers	Inhalation	Acute local effects	33 mg/m3
1-methoxy-2-propanol	Workers	Inhalation	Acute local effects	553,5 mg/m3
	Workers	Skin contact	Long-term systemic effects	50,6 mg/kg
	Workers	Inhalation	Long-term systemic effects	369 mg/m3
	Consumers	Skin contact	Long-term systemic effects	18,1 mg/kg
	Consumers	Inhalation	Long-term systemic effects	43,9 mg/m3
	Consumers	Ingestion	Long-term systemic effects	3,3 mg/kg

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

Substance name	Environmental Compartment	Value
2-methoxy-1-methylethyl acetate	Fresh water	0,635 mg/l
	Sea water	0,0635 mg/l
	Intermittent releases	6,35 mg/l
	Sewage treatment plant	100 mg/l
	Fresh water sediment	3,29 mg/kg
	Sea sediment	0,329 mg/kg
	Soil	0,29 mg/kg
1-methoxy-2-propanol	Fresh water	10 mg/l
	Sea water	1 mg/l
	Intermittent releases	100 mg/l
	Sewage treatment plant	100 mg/l
	Fresh water sediment	41,6 mg/kg
	Sea sediment	4,17 mg/kg
	Soil	2,47 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Hand protection
Material : butyl-rubber
Break through time : > 480 min
Glove thickness : 0,7 mm

Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	:	In the case of vapor formation use a respirator with an approved filter.

Environmental exposure controls

General advice	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. 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	:	dispersion
Color	:	translucent
Odor	:	solvent
Odor Threshold	:	No data available
Melting point/ range	:	No data available
Initial boiling point	:	ca. 120 °C
Upper explosion limit / Upper flammability limit	:	ca. 13,7 %(V)
Lower explosion limit / Lower flammability limit	:	ca. 1,5 %(V)
Flash point	:	45 °C Method: 48 (Abel-Pensky) DIN 51755
Autoignition temperature	:	> 200 °C Method: DIN 51794
Decomposition temperature	:	No data available
pH	:	7 (20 °C) Concentration: 1 % Method: Universal pH-value indicator
Viscosity		
Viscosity, dynamic	:	10 mPa.s

Method: 11 (NV, 20°C)

Solubility(ies)
Water solubility : immiscible

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Vapor pressure : ca. 3,8 hPa (20 °C)
Method: calculated

Relative density : No data available

Density : 1,15 g/cm3 (20 °C, 1.013 hPa)
Method: 1 (20°C coating pycnometer)

Bulk density : Not applicable

Relative vapor density : No data available

Particle characteristics
Assessment : This substance/ mixture contains nanoforms (according to REACH Regulation)

Particle size : Further particle properties for nanomaterials see section 3

9.2 Other information

Flammability (liquids) : Sustains combustion

Evaporation rate : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Vapors may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

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

Not classified due to lack of data.

Product:

Acute oral toxicity : Remarks: No data available

Components:

2-methoxy-1-methylethyl acetate:

Acute oral toxicity : LD50 (Rat, female): > 5.000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

1-methoxy-2-propanol:

Acute oral toxicity : LD50 (Rat, male and female): 4.016 mg/kg
Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)
GLP: yes

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2.000 mg/kg
Method: Directive 67/548/EEC, Annex V, B.3.
GLP: yes

Skin corrosion/irritation

Not classified due to lack of data.

Product:

Remarks : No data available

Components:

2-methoxy-1-methylethyl acetate:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes

1-methoxy-2-propanol:

Species	:	Rabbit
Method	:	Directive 67/548/EEC, Annex V, B.4.
Result	:	No skin irritation
GLP	:	yes

Serious eye damage/eye irritation

Not classified due to lack of data.

Components:

2-methoxy-1-methylethyl acetate:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation
GLP	:	yes

1-methoxy-2-propanol:

Species	:	Rabbit
Method	:	Directive 67/548/EEC, Annex V, B.5.
Result	:	No eye irritation
GLP	:	yes

Respiratory or skin sensitization

Skin sensitization

Not classified due to lack of data.

Respiratory sensitization

Not classified due to lack of data.

Product:

Remarks	:	No data available

Components:

2-methoxy-1-methylethyl acetate:

Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Not a skin sensitizer.
GLP	:	yes

1-methoxy-2-propanol:

Test Type	:	Maximization Test
Routes of exposure	:	Dermal
Species	:	Guinea pig
Method	:	Directive 67/548/EEC, Annex V, B.6.
Result	:	Does not cause skin sensitization.

GLP : yes

Germ cell mutagenicity
Not classified due to lack of data.

Product:
Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Carcinogenicity
Not classified due to lack of data.

Product:
Remarks : No data available

Reproductive toxicity
Not classified due to lack of data.

Product:
Effects on fertility : Remarks: No data available

Effects on fetal development : Remarks: No data available

STOT-single exposure
May cause drowsiness or dizziness.

Product:
Remarks : No data available

STOT-repeated exposure
Not classified due to lack of data.

Product:
Remarks : No data available

Repeated dose toxicity

Product:
Remarks : No data available

Aspiration toxicity
Not classified due to lack of data.

Product:
No data available

11.2 Information on other hazards

Endocrine disrupting properties

Product:

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.

Further information

Product:

Remarks : Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Concentrations substantially above the TLV value may cause narcotic effects.
Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: No data available

Components:

2-methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (Fish): 100 - 180 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: no

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 1.000 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: no

1-methoxy-2-propanol:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 6.812 mg/l
Exposure time: 96 h
Test Type: static test
Method: DIN 38412
GLP: no

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Components:

2-methoxy-1-methylethyl acetate:

Biodegradability : Result: Readily biodegradable.
Method: OECD Test Guideline 301F
GLP: yes

1-methoxy-2-propanol:

Biodegradability : Result: Readily biodegradable.
Method: OECD Test Guideline 301
GLP: yes

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

2-methoxy-1-methylethyl acetate:

Partition coefficient: n-octanol/water : log Pow: 1,2 (20 °C)
pH: 6,8
Method: OECD Test Guideline 117
GLP: yes

1-methoxy-2-propanol:

Partition coefficient: n-octanol/water : log Pow: 0,37 (20 °C)
pH: 6,8
Method: OECD Test Guideline 117
GLP: No information available.

12.4 Mobility in soil

No data available

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.

12.6 Endocrine disrupting properties

Product:

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

Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number or ID number

ADR : UN 1993

IMDG : UN 1993

IATA : UN 1993

14.2 UN proper shipping name

ADR : FLAMMABLE LIQUID, N.O.S.
(1-Methoxy-2-propanol acetate, 1-Methoxy-2-propanol)

IMDG : FLAMMABLE LIQUID, N.O.S.
(1-Methoxy-2-propanol acetate, 1-Methoxy-2-propanol)

IATA : Flammable liquid, n.o.s.
(1-Methoxy-2-propanol acetate, 1-Methoxy-2-propanol)

14.3 Transport hazard class(es)

ADR : 3

IMDG : 3

IATA : 3

14.4 Packing group

ADR

Packing group	:	III
Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3
Tunnel restriction code	:	D/E

IMDG

Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Remarks	:	IMDG Code segregation group - none

IATA (Cargo)

Packing instruction (cargo aircraft)	:	366
Packing group	:	III
Labels	:	Flammable Liquids

IATA (Passenger)

Packing instruction (passenger aircraft)	:	355
Packing instruction (LQ)	:	Y344
Packing group	:	III
Labels	:	Flammable Liquids

14.5 Environmental hazards

ADR
Environmentally hazardous : no

IMDG
Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on : Conditions of restriction for the

the market and use of certain dangerous substances, mixtures and articles (Annex XVII)		following entries should be considered: Number on list 3 Number on list 20: dibutyltin dilaurate, tributyltin compounds Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.
REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).	:	This product does not contain substances of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 57).
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Fire Hazard Class	:	A II: Flash point 69.8 °F to 131 °F, at 59 °F not miscible in water

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	P5c	FLAMMABLE LIQUIDS

15.2 Chemical Safety Assessment

Not applicable

SECTION 16: Other information

Items where relevant changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of H-Statements

H226	:	Flammable liquid and vapor.
H336	:	May cause drowsiness or dizziness.

Full text of other abbreviations

Flam. Liq.	:	Flammable liquids
STOT SE	:	Specific target organ toxicity - single exposure
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
MT OEL	:	Malta. Occupational Exposure Limits
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL	:	Short term exposure limit
MT OEL / TWA	:	Long term exposure limit
MT OEL / STEL	:	Occupational exposure limit value Short-term, 15 minute

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 Standardization; 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 Organization 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, Authorization 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

Classification of the mixture:		**Classification procedure:**
Flam. Liq. 3	H226	Based on product data or assessment
STOT SE 3	H336	Calculation method

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.

MT / EN

Annex: Exposure Scenarios

Table of Contents