Safety data sheet
according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Nanoprotech Super Anticorrosion (Aerosol)

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses of the substance or mixture:
Protection against moisture.
Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet
GB

Nanoprotech OÜ, Uus-Sadama 21, 10120 Tallinn,
Estonia Phone: +372 6816270, Fax: +372 6816271
info@nanoprotech.com

E-mail address of the competent person: info@nanoprotech.com

1.4 Emergency telephone
Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:
+37 26816270 (08:00 - 17:00 h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
2.1.1 Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Aquatic Chronic	3	H412-Harmful to aquatic life with long lasting effects.
Aerosol	1	H222-Extremely flammable aerosol.
Aerosol	1	H229-Pressurised container: May burst if heated.

2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments)
F+,Extremely flammable
Dangerous for the environment, R52/53
2.2 Label elements
2.2.1 Labeling according to Regulation (EC) 1272/2008 (CLP)

Danger

H412-Harmful to aquatic life with long lasting effects. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use.
P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Without adequate ventilation, formation of explosive mixtures may be possible.

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

SECTION 3: Composition/information on ingredients

Aerosol

3.1 Substance

n.a.

3.2 Mixture

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	
Registration number (REACH)	01-2119473851-33-XXXX
Index	---
EINECS, ELINCS, NLP	920-750-0 (REACH-IT List-No.)
CAS	CAS ---
content %	2,5-<15
Classification according to Directive 67/548/EEC	Highly flammable, F, R11 Dangerous for the environment, N, R51 Dangerous for the environment, R53 Harmful, Xn, R65 R66 R67
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411

Hydrocarbons, C10, aromatics, <1% naphthalene	
Registration number (REACH)	01-2119463583-34-XXXX
Index	---
EINECS, ELINCS, NLP	918-811-1 (REACH-IT List-No.)
CAS	(64742-94-5)
content %	1-5
Classification according to Directive 67/548/EEC	Dangerous for the environment, N, R51 Dangerous for the environment, R53 Harmful, Xn, R65 R66 R67
Classification according to Regulation (EC) 1272/2008 (CLP)	Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411

2,6-Di-t-butyl-4-methyl-phenol	
Registration number (REACH)	01-2119555270-46-XXXX
Index	---
EINECS, ELINCS, NLP	204-881-4
CAS	CAS 128-37-0
content %	0,1-<1
Classification according to Directive 67/548/EEC	Dangerous for the environment, N, R50 Dangerous for the environment, R53
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

For the text of the R-phrases / H-phrases and classification codes (GHS/CLP), see Section 16.
The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.
If the person is unconscious, place in a stable side position and consult a doctor.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.
Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Typically no exposure pathway.
Rinse the mouth thoroughly with water.
Do not induce vomiting. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.
The following may occur:
Irritation of the eyes
Irritation of the respiratory tract
Coughing
Headaches
Dizziness
With long-term contact:
Drying of the skin.
Dermatitis (skin inflammation)
Ingestion:
Nausea
gastrointestinal disturbances

4.3 Indication of any immediate medical attention and special treatment needed

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO2
Extinction powder
Water jet spray
Alcohol resistant foam

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:
Oxides of carbon
Oxides of sulphur
Toxic gases
Danger of bursting (explosion) when heated
Explosive vapour/air mixture

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Remove possible causes of ignition - do not smoke.
Ensure sufficient supply of air.
Avoid inhalation, and contact with eyes or skin.
If applicable, caution - risk of slipping

6.2 Environmental precautions
Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.
Prevent surface and ground-water infiltration, as well as ground penetration.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up
If spray or gas escapes, ensure ample fresh air is available.
Without adequate ventilation, formation of explosive mixtures may be possible.
Active substance:
Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

6.4 Reference to other sections
For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations
Ensure good ventilation.
Avoid inhalation of the vapours.
Avoid contact with eyes or skin.
Keep away from sources of ignition - Do not smoke.
Take measures against electrostatic charging, if appropriate.
Do not use on hot surfaces.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities
Keep out of access to unauthorised individuals.
Not to be stored in gangways or stair wells.
Store product closed and only in original packing.
Observe special regulations for aerosols!
Observe special storage conditions (in Germany, e.g., in accordance with the regulations in the "Betriebssicherheitsverordnung").
Keep protected from direct sunlight and temperatures over 50°C.
Store in a well ventilated place.
Store cool

7.3 Specific end use(s)
No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):
800 mg/m3

GB			
Chemical Name	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics		Content %:2,5-<15
WEL-TWA: 1200 mg/m3	WEL-STEL: ---	---	
BMGV: ---	Other information: ---		

GB Chemical Name	Hydrocarbons, C10, aromatics, <1% naphthalene		Content %:1-5
WEL-TWA: 500 mg/m3 (Aromatics)	WEL-STEL: ---	---	
BMGV: ---		Other information: ---	

GB Chemical Name	2,6-Di-t-butyl-4-methyl-phenol		Content %:0,1-<1
WEL-TWA: 10 mg/m3	WEL-STEL: ---	---	
BMGV: ---		Other information: ---	

GB Chemical Name	Propane		Content %:
WEL-TWA: 1000 ppm (ACGIH)	WEL-STEL: ---	---	
BMGV: ---		Other information: ---	

GB Chemical Name	Butane		Content %:
WEL-TWA: 600 ppm (1450 mg/m3)	WEL-STEL: 750 ppm (1810 mg/m3)	---	
BMGV: ---		Other information: ---	

GB Chemical Name	Oil mist, mineral		Content %:
WEL-TWA: 5 mg/m3 (ACGIH)	WEL-STEL: 10 mg/m3 (ACGIH)	---	
BMGV: ---		Other information: ---	

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

2,6-Di-t-butyl-4-methyl-phenol

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5,8	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1,74	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	8,3	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	5	mg/kg bw/d	
	Environment - soil		PNEC	1,04	mg/kg wwt	
	Environment - sewage treatment plant		PNEC	100	mg/l	
	Environment - sediment		PNEC	1,29	mg/kg wwt	
	Environment - marine		PNEC	0,4	µg/l	
	Environment - periodic release		PNEC	4	µg/l	
	Environment - freshwater		PNEC	4	µg/l	
	Environment - oral (animal feed)		PNEC	16,7	mg/kg	
	Environment - soil		PNEC	1,23	mg/kg	

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	773	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2035	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	699	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	608	mg/m3	
	Human - oral	Long term, systemic effects	DNEL	699	mg/kg bw/d	

Hydrocarbons, C10, aromatics, <1% naphthalene						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
Workers / employees	Human - dermal	Long term	DNEL	12,5	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term	DNEL	151	mg/m3	
Consumer	Human - dermal	Long term	DNEL	7,5	mg/kg bw/day	
Consumer	Human - inhalation	Long term	DNEL	32	mg/m3	
Consumer	Human - oral	Long term	DNEL	7,5	mg/kg bw/day	

8.2 Exposure controls
8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
With danger of contact with eyes.
Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
Chemical resistant protective gloves (EN 374).
If applicable
Protective nitrile gloves (EN 374)
Minimum layer thickness in mm:
0,35
Protective Viton® / fluoroelastomer gloves (EN 374)
Minimum layer thickness in mm:
0,4
Permeation time (penetration time) in minutes:
> 480
Protective hand cream recommended.

Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)

Respiratory protection:
If OES or MEL is exceeded.
Filter A2 P2 (EN 14387), code colour brown, white
At high concentrations:
Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Aerosol, Substance: Liquid
Colour:	Light brown, Turbid
Odour:	Mineral oil
Odour threshold:	Not determined
pH-value:	n.a.
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	Not determined
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	0,84 g/cm3 (Active substance)
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	40-45 mm2/s (40°C, Active substance)
Explosive properties:	Product is not explosive. When using: development of explosive vapour/air mixture possible.
Oxidising properties:	No

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity
The product has not been tested.

10.2 Chemical stability
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions
No dangerous reactions are known.

10.4 Conditions to avoid
See also section 7.
Heating, open flame, ignition sources
Pressure increase will result in danger of bursting.

10.5 Incompatible materials
Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products
See also section 5.2
No decomposition when used as directed.

SECTION 11: Toxicological information

Possibly more information on health effects, see Section 2.1 (classification).

Nanoprotech Anticorrosion (Aerosol)						
Toxicity/effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:						n.d.a.

Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.
Other information:						Classification according to calculation procedure.

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2800	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>23,3	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:		2000	mg/kg	Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Reproductive toxicity:	LOAEL	9000	ppm	Rat	OECD 416 (Two-generation Reproduction Toxicity Study)	Negative
Aspiration hazard:						Yes
Symptoms:						drowsiness, unconsciousness, heart/circulatory disorders, headaches, cramps, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.

Hydrocarbons, C10, aromatics, <1% naphthalene

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	

Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>4688	mg/m3	Rat	OECD 403 (Acute Inhalation Toxicity)	
Acute toxicity, by inhalation:	LC50	>5	mg/l/4h	Rat		
Skin corrosion/irritation:						Repeated exposure may cause skin dryness or cracking.
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising
Germ cell mutagenicity:					OECD 479 (Genetic Toxicology - In Vitro Sister Chromatid Exchange assay in Mammalian Cells)	Negative
Reproductive toxicity:					OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Negative
Aspiration hazard:						Yes
Symptoms:						drowsiness, headaches, drowsiness, dizziness

2,6-Di-t-butyl-4-methyl-phenol

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:						Slightly irritant
Serious eye damage/irritation:				Rabbit	(Draize-Test)	Slightly irritant
Respiratory or skin sensitisation:				Human being		Not sensitizising
Germ cell mutagenicity:					(Ames-Test)	Negative
Germ cell mutagenicity:				Mammalian		Negative
Reproductive toxicity:	NOAEL	100	mg/kg	Rat		
Specific target organ toxicity - repeated exposure (STOT-RE):	NOEL	25	mg/kg	Rat		(28d)
Symptoms:						mucous membrane irritation

Propane

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Symptoms:						breathing difficulties, unconsciousness, frostbite, headaches, cramps, mucous membrane irritation, dizziness, nausea and vomiting.

Butane						
Toxicity/effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Symptoms:						ataxia, breathing difficulties, drowsiness, unconsciousness, frostbite, disturbed heart rhythm, headaches, cramps, intoxication, dizziness, nausea and vomiting.

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

Nanoprotech Anticorrosion (Aerosol)							
Toxicity/effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Toxicity to fish:							n.d.a.
Toxicity to daphnia:							n.d.a.
Toxicity to algae:							n.d.a.
Persistence and degradability:							n.d.a.
Bioaccumulative potential:							n.d.a.
Mobility in soil:							n.d.a.
Results of PBT and vPvB assessment							n.d.a.
Other adverse effects:							n.d.a.

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics							
Toxicity/effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Toxicity to fish:	LL50	96h	3 -10	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EL50	48h	4,6 - 10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to daphnia:	NOELR	21d	1 -1,6	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
Toxicity to algae:	NOEC/NOEL	72h	10	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	EbL50	72h	10-30		Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	98	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Completely biodegradable.
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EL50	48h	11,14	mg/l			calculated value
Water solubility:			2	mg/l			Insoluble

Hydrocarbons, C10, aromatics, <1% naphthalene

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	2 -5	mg/l			
Toxicity to fish:	LL50	96h	2 - 5	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EC50	48h	3 -10	mg/l			
Toxicity to daphnia:	EL50	48h	3 -10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	EC50	72h	1 -3	mg/l			
Toxicity to algae:	EL50	72h	11	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	NOELR	72h	2,5	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	49,6	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily but inherent biodegradable.
Water solubility:							Insoluble

2,6-Di-t-butyl-4-methyl-phenol

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC0	96h	>=0,57	mg/l	Brachydanio rerio	Regulation (EC) 440/2008 C.1 (ACUTE TOXICITY FOR FISH)	
Toxicity to fish:	LC50	96h	>=0,57	mg/l	Brachydanio rerio		
Toxicity to daphnia:	EC50	48h	0,61	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to daphnia:	NOEC/NOEL	21d	0,316	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	EC50	72h	>0,42	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	IC50	72h	>0,4	mg/l	Desmodesmus subspicatus	84/449/EEC C.3	
Persistence and degradability:		28d	4,5	%		OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	
Persistence and degradability:		28d	4,5	%		OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	Not readily biodegradable
Bioaccumulative potential:			230-2500		Cyprinus caprio	OECD 305 (Bioconcentration - Flow-Through Fish Test)	56d

Bioaccumulative potential:	Log Pow		5,1				
Results of PBT and vPvB assessment							No PBT substance
Toxicity to bacteria:	EC50	3h	>10000	mg/l	activated sludge		
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.
Water solubility:			0,00076	g/l			

Propane							
Toxicity/effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Bioaccumulative potential:	Log Pow		2,28				A notable biological accumulation potential is not to be expected (LogPow 1-3).
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Butane							
Toxicity/effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Bioaccumulative potential:	Log Pow		2,98				A notable biological accumulation potential is not to be expected (LogPow 1-3).
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product.
Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC)
11 01 98 other wastes containing dangerous substances
16 05 04 gases in pressure containers (including halons) containing dangerous substances
Recommendation:
Pay attention to local and national official regulations
Take full aerosol cans to problem waste collection.
Take emptied aerosol cans to valuable material collection.

For contaminated packing material

Pay attention to local and national official regulations
Recommendation:
Do not perforate, cut up or weld uncleaned container.
Recycling
15 01 04 metallic packaging

SECTION 14: Transport information

General statements

UN number: 1950

Transport by road/by rail (ADR/RID)

UN proper shipping name:
UN 1950 AEROSOLS
Transport hazard class(es): 2.1
Packing group: -
Classification code: 5F
LQ (ADR 2015): 1 L

LQ (ADR 2009): 2
Environmental hazards: Not applicable
Tunnel restriction code: D

Transport by sea (IMDG-code)

UN proper shipping name:
AEROSOLS
Transport hazard class(es): 2.1
Packing group: -
EmS: F-D, S-U
Marine Pollutant: n.a
Environmental hazards: Not applicable

Transport by air (IATA)

UN proper shipping name:
Aerosols, flammable

Transport hazard class(es): 2.1
Packing group: -
Environmental hazards: Not applicable

Special precautions for user

Persons employed in transporting dangerous goods must be trained.
All persons involved in transporting must observe safety regulations.
Precautions must be taken to prevent damage.

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

Freighted as packaged goods rather than in bulk, therefore not applicable.
Minimum amount regulations have not been taken into account.
Danger code and packing code on request.
Comply with special provisions.

SECTION 15: Regulatory information

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

For classification and labelling see Section 2.
Observe restrictions:
Comply with trade association/occupational health regulations.
Observe youth employment law (German regulation).
Directive 2010/75/EU (VOC): ~ 69 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

These details refer to the product as it is delivered.
Revised sections: 1, 11, 12, 15

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Aquatic Chronic 3, H412	Classification according to calculation procedure.
Aerosol 1, H222	Classification based on test data.
Aerosol 1, H229	Classification based on test data.

The following phrases represent the posted R phrases / H phrases, Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).
11 Highly flammable.
50 Very toxic to aquatic organisms.
51 Toxic to aquatic organisms.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53 May cause long-term adverse effects in the aquatic environment.
65 Harmful: may cause lung damage if swallowed.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H336 May cause drowsiness or dizziness.
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.

Aquatic Chronic — Hazardous to the aquatic environment - chronic
Aerosol — Aerosols
Flam. Liq. — Flammable liquid
Asp. Tox. — Aspiration hazard
STOT SE — Specific target organ toxicity - single exposure - narcotic effects
Aquatic Acute — Hazardous to the aquatic environment - acute

Any abbreviations and acronyms used in this document:

AC Article Categories
acc., acc. to according, according to
ACGIH American Conference of Governmental Industrial Hygienists
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOEL Acceptable Operator Exposure Level
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF Bioconcentration factor
BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)
BMGV Biological monitoring guidance value (EH40, UK)
BOD Biochemical oxygen demand
BSEF Bromine Science and Environmental Forum
bw body weight
CAS Chemical Abstracts Service
CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
CIPAC Collaborative International Pesticides Analytical Council
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
COD Chemical oxygen demand
CTFA Cosmetic, Toiletry, and Fragrance Association
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
DT50 Dwell Time - 50% reduction of start concentration
DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EC European Community
ECHA European Chemicals Agency
EEA European Economic Area
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ERC Environmental Release Categories
ES Exposure scenario
etc. et cetera
EU European Union
EWC European Waste Catalogue
Fax. Fax number

gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
HET-CAM Hen's Egg Test - Chorionallantoic Membrane
HGWP Halocarbon Global Warming Potential
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC Intermediate Bulk Container
IBC (Code) International Bulk Chemical (Code)
IC Inhibitory concentration
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform ChemicaL Information Database
LC lethal concentration
LC50 lethal concentration 50 percent kill
LCLo lowest published lethal concentration
LD Lethal Dose of a chemical
LD50 Lethal Dose, 50% kill
LDLo Lethal Dose Low
LOAEL Lowest Observed Adverse Effect Level
LOEC Lowest Observed Effect Concentration
LOEL Lowest Observed Effect Level
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute of Occupational Safety and Health (United States of America)
NOAEC No Observed Adverse Effective Concentration
NOAEL No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
NOEL No Observed Effect Level
ODP Ozone Depletion Potential
OECD Organisation for Economic Co-operation and Development
org. organic
PAH polycyclic aromatic hydrocarbon
PBT persistent, bioaccumulative and toxic
PC Chemical product category
PE Polyethylene
PNEC Predicted No Effect Concentration
POCP Photochemical ozone creation potential
ppm parts per million
PROC Process category
PTFE Polytetrafluorethylene
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT Self-Accelerating Decomposition Temperature
SAR Structure Activity Relationship
SU Sector of use
SVHC Substances of Very High Concern
Tel. Telephone
ThOD Theoretical oxygen demand
TOC Total organic carbon
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.
These statements were made by:

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