

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Issue date: 21/10/2020 Revision date: 30/07/2021 Version: 2.0

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

1.1. Product identifier

Product form	: Mixture
Product name	: VT-322 Sprayable Contact Adhesive
Product group	: Trade product

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

1.2.1. Relevant identified uses

Main use category Use of the substance/mixture : Professional use, Industrial use Adhesives ·

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Vital Technical Sdn. Bhd. No.93, Jalan Industri 3/3 Rawang Integrated Industrial Park, 48000 Rawang, Selangor, Malaysia. T +603 60942088 - F +603 60992930 sales@vitaltechnical.com

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 2	H225
Skin corrosion/irritation, Category 2	H315
Skin sensitisation, Category 1	H317
Reproductive toxicity, Category 2	H361
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Specific target organ toxicity — Repeated exposure, Category 2	H373
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411
Full text of H-statements: see section 16	

Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. May cause drowsiness or dizziness. Causes skin irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

2.2. Label elements





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Contains	: toluene; HEXANE, MIXTURE OF ISOMERS (CONTAINING LESS THAN 5% N-HEXANE, EC NO. 203-777-6); P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN; rosin; colophony; NAPHTHA (PETROLEUM), HYDROTREATED LIGHT
Hazard statements (CLP)	 H225 - Highly flammable liquid and vapour. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H336 - May cause drowsiness or dizziness.
	H361 - Suspected of damaging fertility. Suspected of damaging the unborn child. (inhalation).
	H373 - May cause damage to organs (nervous system, central nervous system) through prolonged or repeated exposure (inhalation).
	H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P201 - Obtain special instructions before use.
	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
	P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
	P321 - Specific treatment (see supplemental first aid instruction on this label). P391 - Collect spillage.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
toluene substance with a Community workplace exposure limit	(CAS-No.) 108-88-3 (EC-No.) 203-625-9 (EC Index-No.) 601-021-00-3	30 – 50	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT	(CAS-No.) 64742-49-0	10 – 30	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361f STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
HEXANE, MIXTURE OF ISOMERS (CONTAINING LESS THAN 5% N-HEXANE, EC NO. 203-777-6)	(EC Index-No.) 601-007-00-7	1 – 10	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
P-TERT-BUTYLPHENOL-FORMALDEHYDE RESIN	(CAS-No.) 25085-50-1 (EC-No.) 607-533-3	1 – 10	Skin Sens. 1, H317
rosin; colophony	(CAS-No.) 8050-09-7 (EC-No.) 232-475-7 (EC Index-No.) 650-015-00-7	0.1 – 1	Skin Sens. 1, H317

Full text of H- and EUH-statements: see section 16

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SECTION 4: First aid measures		
4.1. Description of first aid measures		
First-aid measures general	: IF exposed or concerned: Get medical advice/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. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.	
First-aid measures after eye contact	: Rinse eyes with water as a precaution.	
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.	
4.2. Most important symptoms and effects, both acute and delayed		
Symptoms/effects Symptoms/effects after skin contact	May cause drowsiness or dizziness.Irritation. May cause an allergic skin reaction.	

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

Treat symptomatically.

SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media Unsuitable extinguishing media	Dry powder. Foam. Carbon dioxide.Water spray.	
5.2. Special hazards arising from the substance or mixture		
Fire hazard Hazardous decomposition products in case of fire	Highly flammable liquid and vapour.Toxic fumes may be released.	
5.3. Advice for firefighters		
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.	

SECTION 6: Accidental release measures				
6.1. Personal precautions, protective equip	6.1. Personal precautions, protective equipment and emergency procedures			
6.1.1. For non-emergency personnel				
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapours/spray. 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				
Avoid release to the environment.				
6.3. Methods and material for containment and cleaning up				
For containment Methods for cleaning up Other information	 Collect spillage. Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. Dispose of materials or solid residues at an authorized site. 			
6.4. Reference to other sections				

For further information refer to section 13.

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SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling Hygiene measures	 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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, include	ding any incompatibilities
Technical measures Storage conditions	 Ground/bond container and receiving equipment. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
7.3. Specific end use(s)	

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

toluene (108-88-3)			
EU - Indicative Occupational Exposure Limit (IOEL)			
Local name	Toluene		
IOELV TWA (mg/m³)	192 mg/m³		
IOELV TWA (ppm)	50 ppm		
IOELV STEL (mg/m³)	384 mg/m ³		
IOELV STEL (ppm)	100 ppm		
Notes	Skin		
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC		
USA - ACGIH - Occupational Exposure Limits			
Local name	Toluene		
ACGIH TWA (ppm)	20 ppm		
Remark (ACGIH)	TLV® Basis: Visual impair; female repro; pregnancy loss. Notations: A4 (Not classifiable as a Human Carcinogen); BEI		
Regulatory reference	ACGIH 2020		
USA - ACGIH - Biological Exposure Indices			
Local name	TOLUENE		
Biological Exposure Indices (BEI)	0.3 mg/g creatinine Parameter: o-Cresol (with hydrolysis) - Medium: urine - Sampling time: End of shift - Notations: B 0.03 mg/l Parameter: Toluene - Medium: urine - Sampling time: End of shift 0.02 mg/l Parameter: Toluene - Medium: blood - Sampling time: Prior to last shift of workweek		
Regulatory reference	ACGIH 2020		

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rosin; colophony (8050-09-7)		
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	≈ 0.05 mg/m³	
WEL STEL (mg/m ³)	≈ 0.15 mg/m³	

Exposure limit values for the other components

n-hexane (110-54-3)			
EU - Indicative Occupational Exposure Limit (IOEL)			
Local name	n-Hexane		
IOELV TWA (mg/m³)	72 mg/m³		
IOELV TWA (ppm)	20 ppm		
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC		
USA - ACGIH - Occupational Exposure Limits	3		
Local name	n-Hexane		
ACGIH TWA (ppm)	50 ppm		
Remark (ACGIH)	TLV® Basis: CNS impair; peripheral neuropathy; eye irr. Notations: Skin; BEI		
Regulatory reference	ACGIH 2020		
USA - ACGIH - Biological Exposure Indices	USA - ACGIH - Biological Exposure Indices		
Local name	n-HEXANE		
Biological Exposure Indices (BEI)	0.5 mg/l Parameter: 2,5-Hexanedione (without hydrolysis) - Medium: urine - Sampling time: End of shift		
Regulatory reference	ACGIH 2020		

cyclohexane (110-82-7)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Cyclohexane	
IOELV TWA (mg/m ³)	700 mg/m³	
IOELV TWA (ppm)	200 ppm	
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC	
USA - ACGIH - Occupational Exposure Limits		
Local name	Cyclohexane	
ACGIH TWA (ppm)	100 ppm	
Remark (ACGIH)	TLV® Basis: CNS impair	
Regulatory reference	ACGIH 2020	

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:	
Safety glasses	

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

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Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: > 40 mm²/s
Viscosity, dynamic	: 400 – 500 cP
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

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

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1 Information on toxicological ef	forte
, i i i i i i i i i i i i i i i i i i i	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
toluene (108-88-3)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 Inhalation - Rat	> 20 mg/l/4h
Skin corrosion/irritation	Causes skin irritation
Skin conosion/initiation	pH: Not applicable
Serious eye damage/irritation	: Not classified
Schous cyc damage/imation	pH: Not applicable
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility. Suspected of damaging the unborn child. (inhalation).
STOT-single exposure	: May cause drowsiness or dizziness.

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toluene (108-88-3)			
STOT-single exposure	May cause drowsiness or dizziness.		
HEXANE, MIXTURE OF ISOMERS (CONTAIN	ING LESS THAN 5% N-HEXANE, EC NO. 203-777-6)		
STOT-single exposure	May cause drowsiness or dizziness.		
NAPHTHA (PETROLEUM), HYDROTREATED	LIGHT (64742-49-0)		
STOT-single exposure	May cause drowsiness or dizziness.		
STOT-repeated exposure :	May cause damage to organs (nervous system, central nervous system) through prolonged or repeated exposure (inhalation).		
toluene (108-88-3)			
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.		
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (64742-49-0)			
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.		
Aspiration hazard :	Not classified		
VT-322 Sprayable Contact Adhesive			
Viscosity, kinematic	> 40 mm²/s		

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general Hazardous to the aquatic environment, short-term (acute) Hazardous to the aquatic environment, long-term (chronic) Not rapidly degradable	 Toxic to aquatic life with long lasting effects. Not classified Toxic to aquatic life with long lasting effects.
12.2. Persistence and degradability	
No additional information available	
12.3. Bioaccumulative potential	
No additional information available	
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB assessment	
No additional information available	
12.6. Other adverse effects	
No additional information available	

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SECTION 13: Disposal considerations 13.1. Waste treatment methods Waste treatment methods Additional information : Flammable vapours may accumulate in the container.

SECTION 14: Transport information

ADR	IMDG	ΙΑΤΑ	ADN	RID
I4.1. UN number			I	I
UN 1133	UN 1133	UN 1133	UN 1133	UN 1133
I4.2. UN proper shippin	ig name			
ADHESIVES (containing flammable liquid)	ADHESIVES (containing flammable liquid)	Adhesives (containing flammable liquid)	ADHESIVES (containing flammable liquid)	ADHESIVES (containing flammable liquid)
Fransport document desci	ription		·	
UN 1133 ADHESIVES (containing flammable liquid), 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1133 ADHESIVES (containing flammable liquid), 3, II, MARINE POLLUTANT/ENVIRONME NTALLY HAZARDOUS	UN 1133 Adhesives (containing flammable liquid), 3, II, ENVIRONMENTALLY HAZARDOUS	UN 1133 ADHESIVES (containing flammable liquid), 3, II, ENVIRONMENTALLY HAZARDOUS	UN 1133 ADHESIVES (containing flammable liquid), 3, II, ENVIRONMENTALLY HAZARDOUS
4.3. Transport hazard	class(es)			
3	3	3	3	3
4.4. Packing group	· · · ·			
I	II	I	II	II
4.5. Environmental ha	zards		·	·
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	F1
Special provisions (ADR)	:	640D
Limited quantities (ADR)	:	51
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001, IBC02, R001
Special packing provisions (ADR)	:	PP1
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T4
Portable tank and bulk container special provisions	:	TP1, TP8
(ADR)		
Tank code (ADR)	:	LGBF
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	2
Special provisions for carriage - Operation (ADR)	:	S2, S20

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Hazard identification number (Kemler No.) Orange plates	: 33 : 33 : 33 : 1133
Tunnel restriction code (ADR)	: D/E
EAC code	: •3YE
Transport by sea	
Limited quantities (IMDG)	: 5L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	IBC02
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP8
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: B
Properties and observations (IMDG)	: Adhesives are solutions of gums, resins, etc., usually volatile due to the solvents. Miscibility
	with water depends upon their composition.
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 packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A3
ERG code (IATA)	: 3L
Inland waterway transport	
Classification code (ADN)	: F1
Special provisions (ADN)	: 640D
Limited quantities (ADN)	: 5L
Excepted quantities (ADN)	: E2
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1
Rail transport	
Classification code (RID)	: F1
Special provisions (RID)	640D
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02, R001
Special packing provisions (RID)	: PP1
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions	: TP1, TP8
(RID)	
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 2

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

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list ≥ 0,1 % / SCL

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

France

Occupational diseases				
Code	Description			
RG 4 BIS	Gastrointestinal disorders caused by benzene, toluene, xylenes and all products containing them			
RG 65	Eczematiform lesions of allergic mechanism			
RG 66	Occupational rhinitis and asthma			
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide			

Germany

Employment restrictions	:	Observe restrictions according Act on the Protection of Working Mothers (MuSchG)
		Observe restrictions according Act on the Protection of Young People in Employment
		(JArbSchG)
Water hazard class (WGK)	:	WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)
Netherlands		
ABM category	:	Z(1) - non biodegradable substances with hazardous properties for humans and the
		environment (carcinogenicity/ mutagenicity/ reprotoxicity/bioacumulative potential/ toxicity or persistence)
SZW-lijst van kankerverwekkende stoffen	:	rosin; colophony is listed
SZW-lijst van mutagene stoffen	:	rosin; colophony is listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	:	None of the components are listed
SZW-lijst van reprotoxische stoffen –	:	None of the components are listed
Vruchtbaarheid		
SZW-lijst van reprotoxische stoffen – Ontwikkeling	:	toluene is listed
Denmark		
Class for fire hazard	:	Class II-1
Store unit	:	5 liter
Classification remarks	:	R10 <h225;h315;h317;h336;h361;h373;h411>; Emergency management guidelines for the storage of flammable liquids must be followed</h225;h315;h317;h336;h361;h373;h411>
Danish National Regulations	:	Young people below the age of 18 years are not allowed to use the product
		Pregnant/breastfeeding women working with the product must not be in direct contact with
		the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:			
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			

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ATEAcute Toxicity EstimateBLVBiological limit valueCAS-No.Chemical Abstract Service numberCLPClassification Labelling Packaging Regulation; Regulation (EC) No 1272/2008DMELDerived Minimal Effect levelDNELDerived-No Effect LevelEC50Median effective concentrationEC-No.European Community numberENEuropean StandardIATAInternational Air Transport AssociationIMDGInternational Maritime Dangerous GoodsLC50Median effective concentrationED50Median lethal concentrationIADGInternational Maritime Dangerous GoodsLC50Median lethal concentrationLD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect LevelNOAELNo-Observed Effect ConcentrationOELOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegulation, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006		
CAS-No.Chemical Abstract Service numberCLPClassification Labelling Packaging Regulation; Regulation (EC) No 1272/2008DMELDerived Minimal Effect levelDNELDerived-No Effect LevelEC50Median effective concentrationEC-No.European Community numberENEuropean StandardIATAInternational Air Transport AssociationIMDGInternational Maritime Dangerous GoodsLC50Median lethal concentrationLD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect LevelNOECOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	ATE	Acute Toxicity Estimate
CLPClassification Labelling Packaging Regulation; Regulation (EC) No 1272/2008DMELDerived Minimal Effect levelDNELDerived-No Effect LevelEC50Median effective concentrationEC-No.European Community numberENEuropean StandardIATAInternational Air Transport AssociationIMDGInternational Maritime Dangerous GoodsLC50Median lethal concentrationLD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect LevelNOAELNo-Observed Adverse Effect LevelNOECOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	BLV	Biological limit value
DMELDerived Minimal Effect levelDNELDerived-No Effect LevelEC50Median effective concentrationEC-No.European Community numberENEuropean StandardIATAInternational Air Transport AssociationIMDGInternational Air Transport AssociationIMDGInternational Maritime Dangerous GoodsLC50Median lethal concentrationLD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect LevelNOAELNo-Observed Effect ConcentrationOECOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	CAS-No.	Chemical Abstract Service number
DNELDerived-No Effect LevelEC50Median effective concentrationEC-No.European Community numberENEuropean StandardIATAInternational Air Transport AssociationIMDGInternational Maritime Dangerous GoodsLC50Median lethal concentrationLD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect ConcentrationNOAELNo-Observed Adverse Effect LevelNOECOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50Median effective concentrationEC-No.European Community numberENEuropean StandardIATAInternational Air Transport AssociationIMDGInternational Maritime Dangerous GoodsLC50Median lethal concentrationLD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect ConcentrationNOAELNo-Observed Adverse Effect LevelNOECOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	DMEL	Derived Minimal Effect level
EC-No.European Community numberENEuropean StandardIATAInternational Air Transport AssociationIMDGInternational Maritime Dangerous GoodsLC50Median lethal concentrationLD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect ConcentrationNOAELNo-Observed Adverse Effect LevelNOAELNo-Observed Effect ConcentrationOELOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	DNEL	Derived-No Effect Level
ENEuropean StandardIATAInternational Air Transport AssociationIMDGInternational Maritime Dangerous GoodsLC50Median lethal concentrationLD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect ConcentrationNOAELNo-Observed Adverse Effect LevelNOCECOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	EC50	Median effective concentration
IATAInternational Air Transport AssociationIMDGInternational Maritime Dangerous GoodsLC50Median lethal concentrationLD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect ConcentrationNOAELNo-Observed Adverse Effect LevelNOECNo-Observed Effect ConcentrationOELOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	EC-No.	European Community number
IMDGInternational Maritime Dangerous GoodsLC50Median lethal concentrationLD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect ConcentrationNOAELNo-Observed Adverse Effect LevelNOECNo-Observed Effect ConcentrationOELOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	EN	European Standard
LC50Median lethal concentrationLD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect ConcentrationNOAELNo-Observed Adverse Effect LevelNOECNo-Observed Effect ConcentrationOELOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	ΙΑΤΑ	International Air Transport Association
LD50Median lethal doseLOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect ConcentrationNOAELNo-Observed Adverse Effect LevelNOECNo-Observed Effect ConcentrationOELOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	IMDG	International Maritime Dangerous Goods
LOAELLowest Observed Adverse Effect LevelNOAECNo-Observed Adverse Effect ConcentrationNOAELNo-Observed Adverse Effect LevelNOECNo-Observed Effect ConcentrationOELOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	LC50	Median lethal concentration
NOAECNo-Observed Adverse Effect ConcentrationNOAELNo-Observed Adverse Effect LevelNOECNo-Observed Effect ConcentrationOELOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	LD50	Median lethal dose
NOAELNo-Observed Adverse Effect LevelNOECNo-Observed Effect ConcentrationOELOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	LOAEL	Lowest Observed Adverse Effect Level
NOECNo-Observed Effect ConcentrationOELOccupational Exposure LimitPBTPersistent Bioaccumulative ToxicPNECPredicted No-Effect ConcentrationREACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	NOAEC	No-Observed Adverse Effect Concentration
OEL Occupational Exposure Limit PBT Persistent Bioaccumulative Toxic PNEC Predicted No-Effect Concentration REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	NOAEL	No-Observed Adverse Effect Level
PBT Persistent Bioaccumulative Toxic PNEC Predicted No-Effect Concentration REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	NOEC	No-Observed Effect Concentration
PNEC Predicted No-Effect Concentration REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	OEL	Occupational Exposure Limit
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	РВТ	Persistent Bioaccumulative Toxic
	PNEC	Predicted No-Effect Concentration
RID Regulations concerning the International Carriage of Dangerous Goods by Rail	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	SDS	Safety Data Sheet
vPvB Very Persistent and Very Bioaccumulative	vPvB	Very Persistent and Very Bioaccumulative
WGK Water Hazard Class	WGK	Water Hazard Class

Full text of H- and EUH-statements:	
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Safety Data Sheet (SDS), EU

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.