

Safety Data Sheet according to (EC) No 1907/2006 as amended

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TEROSON UP 620 CAN 241G EN

SDS No. : 593337 V004.0 Revision: 09.01.2023 printing date: 10.01.2023 Replaces version from: 26.10.2021

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

1.1. Product identifier TEROSON UP 620 CAN 241G EN

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

Intended use: hardener component

1.3. Details of the supplier of the safety data sheet

Henkel Ltd Adhesives Wood Lane End HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY-Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):	
Organic peroxides	Type E
H242 Heating may cause a fire.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Acute hazards to the aquatic environment	Category 1
H400 Very toxic to aquatic life.	
Chronic hazards to the aquatic environment	Category 1
H410 Very toxic to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:	
Contains	Dibenzoyl peroxide
Signal word:	Warning
Hazard statement:	H242 Heating may cause a fire.H317 May cause an allergic skin reaction.H319 Causes serious eye irritation.H410 Very toxic to aquatic life with long lasting effects.
Precautionary statement:	P102 Keep out of reach of children. P101 If medical advice is needed, have product container or label at hand. P103 Read label before use.
Precautionary statement: Prevention	P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement: Response	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302+P352 IF ON SKIN: Wash with plenty of water.
Precautionary statement: Storage	P403+P235 Store in a well-ventilated place. Keep cool.
Precautionary statement: Disposal	P501 Dispose of contents/container in accordance with national regulation.

2.3. Other hazards

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

Following substances are present in a concentration \geq the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration \geq the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
Dibenzoyl peroxide 94-36-0 202-327-6 01-2119511472-50	45- 52 %	Org. Perox. B, H241 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 10 M chronic = 10	
Ethane-1,2-diol 107-21-1 203-473-3 01-2119456816-28	0,1- 9,9 %	Acute Tox. 4, Oral, H302 STOT RE 2, Oral, H373	oral:ATE = 500 mg/kg	EU OEL

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Move to fresh air, consult doctor if complaint persists.

Skin contact:

IF ON SKIN: Wash with plenty of soap and water. In case of adverse health effects seek medical advice.

Eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

EYE: Irritation, conjunctivitis.

SKIN: Rash, Urticaria.

4.3. Indication of any immediate medical attention and special treatment needed See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media Suitable extinguishing media: All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons: Carbon dioxide.

5.2. Special hazards arising from the substance or mixture In case of fire toxic gases can be released.5.3. Advice for firefighters Wear self-contained breathing apparatus.

Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

Avoid contact with skin and eyes. Keep unprotected persons away.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water. Inform authorities in the event of product spillage to water courses or sewage systems.

6.3. Methods and material for containment and cleaning up

Remove mechanically. Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid open flames and sources of ignition. Ground/bond container and receiving equipment. Use explosion proof electric equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Hygiene measures:

Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction. Store in a cool place, max. storage temperature 30°C. Temperatures between + 5 °C and + 25 °C Keep container tightly sealed. Store in a cool, dry place. Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s) hardener component

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ррт	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Dibenzoyl peroxide 94-36-0 [DIBENZOYL PEROXIDE]		5	Time Weighted Average (TWA):		EH40 WEL
Dimethyl phthalate 131-11-3 [DIMETHYL PHTHALATE]		5	Time Weighted Average (TWA):		EH40 WEL
Dimethyl phthalate 131-11-3 [DIMETHYL PHTHALATE]		10	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, PARTICULATE]		10	Time Weighted Average (TWA):		EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]	20	52	Time Weighted Average (TWA):		EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, PARTICULATE]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHYLENE GLYCOL]	40	104	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Ethane-1,2-diol 107-21-1 [ETHYLENE GLYCOL]	20	52	Time Weighted Average (TWA):	Indicative	ECTLV
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]	40	104	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Dibenzoyl peroxide 94-36-0 [DIBENZOYL PEROXIDE]		5	Time Weighted Average (TWA):		IR_OEL
Dimethyl phthalate 131-11-3 [DIMETHYL PHTHALATE]		5	Time Weighted Average (TWA):		IR_OEL
Dimethyl phthalate 131-11-3 [DIMETHYL PHTHALATE]		10	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Ethane-1,2-diol 107-21-1 [ETHYLENE GLYCOL]	40	104	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Ethane-1,2-diol 107-21-1 [ETHYLENE GLYCOL]	20	52	Time Weighted Average (TWA):	Indicative	ECTLV
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]		20	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL]	20	52	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL]			Skin designation:	Can be absorbed through the skin.	IR_OEL

Ethane-1,2-diol	40	104	Short Term Exposure	15 minutes	IR_OEL
107-21-1			Limit (STEL):	Indicative OELV	
[Ethane-1,2-diol]					

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value		Remarks		
			mg/l	ppm	mg/kg	others	
Dibenzoyl peroxide	aqua		0,00002				
94-36-0	(freshwater)		mg/l				
Dibenzoyl peroxide	aqua (marine		0,000002				
94-36-0	water)		mg/l				
Dibenzoyl peroxide	sewage		0,35 mg/l				
94-36-0	treatment plant						
	(STP)						
Dibenzoyl peroxide	sediment				0,013		
94-36-0	(freshwater)				mg/kg		
Dibenzoyl peroxide	Soil				0,003		
94-36-0					mg/kg		
Dibenzoyl peroxide	sediment				0,001		
94-36-0	(marine water)				mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Dibenzoyl peroxide 94-36-0	Workers	Inhalation	Long term exposure - systemic effects		39 mg/m3	
Dibenzoyl peroxide 94-36-0	Workers	dermal	Long term exposure - systemic effects		13,3 mg/kg	
Dibenzoyl peroxide 94-36-0	Workers	dermal	Long term exposure - local effects		0,034 mg/cm2	
Dibenzoyl peroxide 94-36-0	General population	oral	Long term exposure - systemic effects		2 mg/kg	
Ethane-1,2-diol 107-21-1	Workers	dermal	Long term exposure - systemic effects		106 mg/kg	
Ethane-1,2-diol 107-21-1	Workers	inhalation	Long term exposure - local effects		35 mg/m3	
Ethane-1,2-diol 107-21-1	General population	dermal	Long term exposure - systemic effects		53 mg/kg	
Ethane-1,2-diol 107-21-1	General population	inhalation	Long term exposure - local effects		7 mg/m3	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls: Ensure good ventilation/extraction.

Respiratory protection:

In case of dust formation, we recommend wearing of appropriate respiratory protection equipment with particle filter P (EN 14387).

This recommendation should be matched to local conditions.

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection: Goggles which can be tightly sealed. Protective eye equipment should conform to EN166.

Skin protection: Wear protective equipment. Protective clothing that covers arms and legs. Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway), or equivalent.

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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Physical state	solid
Delivery form	paste
Colour	Currently under determination
Odor	characteristic
Solidification temperature	Not applicable, Product is a solid.
Initial boiling point	Currently under determination
Flammability	Currently under determination
Explosive limits	Not applicable, Product is a solid.
Flash point	Currently under determination
Auto-ignition temperature	Not applicable, Product is a solid.
Decomposition temperature	Currently under determination
pH	Not applicable, Product is non-soluble (in water).
Viscosity (kinematic)	Not applicable, Product is a solid.
Solubility (qualitative)	Insoluble
(20 °C (68 °F))	
Partition coefficient: n-octanol/water	Not applicable
	Mixture
Vapour pressure	Currently under determination
Density	1,15 - 1,25 g/cm3 no method
(20 °C (68 °F))	
Relative vapour density:	Not applicable, Product is a solid.

9.2. Other information

Particle characteristics

Other information not applicable for this product

Not applicable, Product is a solution

SECTION 10: Stability and reactivity

10.1. Reactivity

Reducing agents. Reacts with alkalis. Reaction with amines Heavy metals. Reaction with strong acids.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity 10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

Benzoic acid Benzene Biphenyl Phenyl benzoate

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Dibenzoyl peroxide 94-36-0	LD50	> 2.000 mg/kg	mouse	OECD Guideline 401 (Acute Oral Toxicity)
Ethane-1,2-diol 107-21-1	Acute toxicity estimate (ATE)	500 mg/kg		Expert judgement

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Ethane-1,2-diol 107-21-1	LD50	10.600 mg/kg	rabbit	not specified

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Test atmosphere		Species	Method
CAS-No.	type			time		
Dibenzoyl peroxide 94-36-0	LC0	24,3 mg/l	dust/mist	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
Dibenzoyl peroxide 94-36-0	LC50	> 24,3 mg/l	dust/mist	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Dibenzoyl peroxide 94-36-0	not irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Ethane-1,2-diol 107-21-1	not irritating	20 h	rabbit	BASF Test

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Dibenzoyl peroxide 94-36-0	not irritating		rabbit	FDA Guideline
Ethane-1,2-diol 107-21-1	not irritating		rabbit	BASF Test

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Dibenzoyl peroxide 94-36-0	sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Ethane-1,2-diol 107-21-1	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result	Type of study /	Metabolic	Species	Method
CAS-No.		Route of	activation /		
		administration	Exposure time		
Dibenzoyl peroxide	negative	bacterial reverse	with and without		OECD Guideline 471
94-36-0		mutation assay (e.g			(Bacterial Reverse Mutation
		Ames test)			Assay)
Dibenzoyl peroxide	negative	mammalian cell	with and without		OECD Guideline 476 (In vitro
94-36-0		gene mutation assay			Mammalian Cell Gene
					Mutation Test)
Ethane-1,2-diol	negative	bacterial reverse	with and without		OECD Guideline 471
107-21-1		mutation assay (e.g			(Bacterial Reverse Mutation
		Ames test)			Assay)
Dibenzoyl peroxide	negative	intraperitoneal		mouse	OECD Guideline 474
94-36-0					(Mammalian Erythrocyte
					Micronucleus Test)
Ethane-1,2-diol	negative	oral: feed		rat	Chromosome Aberration Test
107-21-1					

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Dibenzoyl peroxide 94-36-0	not carcinogenic	dermal	2 y daily	rat	male/female	equivalent or similar OECD Guideline 451 (Carcinogenicity Studies)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Dibenzoyl peroxide 94-36-0	NOAEL P >= 1.000 mg/kg NOAEL F1 500 mg/kg	screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Dibenzoyl peroxide 94-36-0	NOAEL 190 mg/kg	oral: feed	120 w daily	rat	not specified
Dibenzoyl peroxide 94-36-0	NOAEL > 833 mg/kg	dermal	104 w daily	mouse	OECD Guideline 451 (Carcinogenicity Studies)
Ethane-1,2-diol 107-21-1	NOAEL 150 mg/kg	oral: feed	16 w daily	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Dibenzoyl peroxide	LC50	0,06 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish,
94-36-0					Acute Toxicity Test)
Ethane-1,2-diol	LC50	72.860 mg/l	96 h	Pimephales promelas	EPA-660 (Methods for
107-21-1					Acute Toxicity Tests with
					Fish, Macroinvertebrates
					and Amphibians)
Ethane-1,2-diol	NOEC	15.380 mg/l	7 d	Pimephales promelas	other guideline:
107-21-1					

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Dibenzoyl peroxide 94-36-0	EC50	0,11 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethane-1,2-diol 107-21-1	EC50	> 100 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Dibenzoyl peroxide 94-36-0	EC10	0,001 mg/l	21 d	1 0	OECD 211 (Daphnia magna, Reproduction Test)
Ethane-1,2-diol 107-21-1	NOEC	8.590 mg/l	7 d	Ceriodaphnia dubia	other guideline:

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Dibenzoyl peroxide 94-36-0	ErC50	0,071 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dibenzoyl peroxide 94-36-0	NOEC	0,02 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethane-1,2-diol 107-21-1	EC50	> 6.500 - 13.000 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethane-1,2-diol 107-21-1	NOEC	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Dibenzoyl peroxide	EC 50	35 mg/l	30 min	activated sludge of a	OECD Guideline 209
94-36-0				predominantly domestic sewage	(Activated Sludge,
					Respiration Inhibition Test)
Ethane-1,2-diol	EC20	> 1.995 mg/l	30 min	activated sludge, domestic	ISO 8192 (Test for
107-21-1		-		_	Inhibition of Oxygen
					Consumption by Activated
					Sludge)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Dibenzoyl peroxide 94-36-0	readily biodegradable	aerobic	71 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Ethane-1,2-diol 107-21-1	readily biodegradable	aerobic	> 90 - 100 %	10 d	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

12.3. Bioaccumulative potential

Hazardous substances	Bioconcentratio	Exposure time	Temperature	Species	Method
CAS-No.	n factor (BCF)				
Dibenzoyl peroxide	66,6			fish	OECD Guideline 305
94-36-0					(Bioconcentration: Flow-through
					Fish Test)

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Dibenzoyl peroxide 94-36-0	3,2	22 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Ethane-1,2-diol 107-21-1	-1,36		QSAR (Quantitative Structure Activity Relationship)

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Dibenzoyl peroxide	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
94-36-0	Bioaccumulative (vPvB) criteria.
Ethane-1,2-diol	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
107-21-1	Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

UN number or ID number

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

080111

14.1.

SECTION 14: Transport information

	ADR	3108
	RID	3108
	ADN	3108
	IMDG	3108
	IATA	3108
14.2.	UN proper shij	oping name
	ADR	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE)
	RID	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE)
	ADN	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE)
	IMDG	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE)
	IATA	Organic peroxide type E, solid (Dibenzoyl peroxide)
14.3.	Transport haza	ard class(es)
	ADR	5.2
	RID	5.2
	ADN	5.2
	IMDG	5.2
	IATA	5.2 (HEAT)
14.4.	Packing group	
	ADR	
	RID	
	ADN	
	IMDG	
	IATA	
	1/1/1	
14.5.	Environmental	hazards
	ADR	Environmentally Hazardous
	RID	Environmentally Hazardous
	ADN	Environmentally Hazardous
	IMDG	Marine pollutant
	IATA	not applicable
		not approache
14.6.	Special precaut	tions for user
14.6.	Special precaut	not applicable

	Tunnelcode: (D)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

When shipping as a set (component A and B), the following dangerous goods classification 'UN 3269 Polyester Resin Multi-Component System' can be used.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Persistent organic pollutants (Regulation (EU) 2019/1021): VOC content 0 % (2010/75/EU) Not applicable Not applicable Not applicable

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

H241 Heating may cause a fire or explosion.

- H302 Harmful if swallowed.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very
	bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Dear Customer,

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Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.



Safety Data Sheet according to (EC) No 1907/2006 as amended Page 1 of 23

TEROSON UP 620 CAN 241G EN

SDS No. : 592565 V004.0 Revision: 09.01.2023 printing date: 10.01.2023 Replaces version from: 09.01.2023

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

1.1. Product identifier

TEROSON UP 620 CAN 241G EN

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

Adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ltd Adhesives Wood Lane End HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY-Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification ((CLP):
------------------	--------

Flammable liquids	Category 3
H226 Flammable liquid and vapour.	
Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Toxic to reproduction	Category 2
H361d Suspected of damaging the unborn child.	
Specific target organ toxicity - single exposure	Category 3
H335 May cause respiratory irritation.	
Target organ: respiratory tract irritation	
Specific target organ toxicity - repeated exposure	Category 1
H372 Causes damage to organs through prolonged or repeated exposure.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:	
Contains	Styrene
	Vinyltoluene
	methyl methacrylate
	maleic anhydride
Signal word:	Danger
Hazard statement:	 H226 Flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H361d Suspected of damaging the unborn child. H372 Causes damage to organs through prolonged or repeated exposure.
Supplemental information	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
Precautionary statement: Prevention	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.P260 Do not breathe dust/fume/spray.P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement: Response	P308+P313 IF exposed or concerned: Get medical advice/attention. P370+P378 In case of fire: Use CO2, dry chemical, or foam for extinction.
Precautionary statement: Storage	P403+P235 Store in a well-ventilated place. Keep cool.

2.3. Other hazards

Solvents contained in the product evaporate during processing and their vapors can form explosive/highly inflammable air/vapor mixtures.

The solvent vapors are heavier than air and may collect in high concentrations at floor level.

Following substances are present in a concentration \geq the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration \geq the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
Titanium dioxide 13463-67-7 236-675-5 01-2119489379-17	10- < 25 %	Carc. 2, Inhalation, H351		
Styrene 100-42-5 202-851-5 01-2119457861-32	10- < 25 %	Flam. Liq. 3, H226 Acute Tox. 4, Inhalation, H332 Asp. Tox. 1, H304 Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT RE 1, Inhalation, H372 Repr. 2, H361d Aquatic Chronic 3, H412 STOT SE 3, H335		
Vinyltoluene 25013-15-4 246-562-2 01-2119622074-50	10- < 25 %	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304	M acute = 1 ===== inhalation:ATE = 5,1 mg/l;dust/mist	
methyl methacrylate 80-62-6 201-297-1 01-2119452498-28	2,5- < 5%	Flam. Liq. 2, H225 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317	STOT SE 3; H335; C >= 10 %	EU OEL
maleic anhydride 108-31-6 203-571-6 01-2119472428-31	< 1%	STOT RE 1, Inhalation, H372 Acute Tox. 4, Oral, H302 Skin Sens. 1A, H317 Resp. Sens. 1, H334 Eye Dam. 1, H318 Skin Corr. 1B, H314	Skin Sens. 1A; H317; C >= 0,001 %	
2-Butoxyethanol 111-76-2 203-905-0 01-2119475108-36	< 1%	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 4, Oral, H302 Acute Tox. 3, Inhalation, H331	oral:ATE = 1.200 mg/kg inhalation:ATE = 3 mg/l;vapour	EU OEL

Declaration of the ingredients according to CLP (EC) No 1272/2008:

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

Inhalation: Fresh air, oxygen supply, warmth; seek specialist medical attention.

Skin contact: IF ON SKIN: Wash with plenty of soap and water. In case of adverse health effects seek medical advice.

Eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor. After ingestion or vomit: danger of product entering the lung.

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

SKIN: Rash, Urticaria.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

ASPIRATION: Coughing, shortness of breath, nausea. Delayed effect: bronchopneumonia or pulmonary oedema

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

See section: Description of first aid measures Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema. Do not induce vomiting. Seek medical attention from a specialist.

SECTION 5: Firefighting measures

5.1. Extinguishing media Suitable extinguishing media: Carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons: Water jet (solvent-containing product).

5.2. Special hazards arising from the substance or mixture

In case of fire toxic gases can be released.

5.3. Advice for firefighters Wear self-contained breathing apparatus. Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Avoid contact with skin and eyes. Keep unprotected persons away. Danger of slipping on spilled product.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water. Inform authorities in the event of product spillage to water courses or sewage systems.

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust). Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

Page 5 of 23

7.1. Precautions for safe handling

Avoid open flames and sources of ignition. Ground/bond container and receiving equipment. Use explosion proof electric equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Hygiene measures:

Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working. Take off contaminated clothing and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction. Temperatures between + 5 °C and + 35 °C Store in a cool, dry place. Keep container tightly sealed.

7.3. Specific end use(s) Adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Titanium dioxide		4	Time Weighted Average		EH40 WEL
13463-67-7			(TWA):		
[TITANIUM DIOXIDE, RESPIRABLE]		10			
Titanium dioxide 13463-67-7		10	Time Weighted Average (TWA):		EH40 WEL
TITANIUM DIOXIDE, TOTAL			(TWA):		
INHALABLE]					
Styrene	100	430	Time Weighted Average		EH40 WEL
100-42-5			(TWA):		
[STYRENE]					
Styrene	250	1.080	Short Term Exposure	15 minutes	EH40 WEL
100-42-5			Limit (STEL):		
[STYRENE]					
Silicon dioxide		6	Time Weighted Average		EH40 WEL
112945-52-5 [SILICA, AMORPHOUS, INHALABLE			(TWA):		
DUST]					
Silicon dioxide		2,4	Time Weighted Average		EH40 WEL
112945-52-5		_,.	(TWA):		
[SILICA, AMORPHOUS, RESPIRABLE					
DUST]					
Silicon dioxide		4	Time Weighted Average		EH40 WEL
112945-52-5			(TWA):		
[Dust, respirable dust] Silicon dioxide		10	Time W/-i-ht-d Assesses		
112945-52-5		10	Time Weighted Average (TWA):		EH40 WEL
[Dust, inhalable dust]			(1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (
Methyl methacrylate	50	208	Time Weighted Average		EH40 WEL
80-62-6	20	200	(TWA):		
[METHYL METHACRYLATE]					
Methyl methacrylate	100		Short Term Exposure	Indicative	ECTLV
80-62-6			Limit (STEL):		
[METHYL METHACRYLATE]					
Methyl methacrylate 80-62-6	50		Time Weighted Average (TWA):	Indicative	ECTLV
[METHYL METHACRYLATE]			(TWA):		
Methyl methacrylate	100	416	Short Term Exposure	15 minutes	EH40 WEL
80-62-6	100		Limit (STEL):	10 111111105	
[METHYL METHACRYLATE]					
2-Butoxyethanol	25	123	Time Weighted Average		EH40 WEL
111-76-2			(TWA):		
[2-BUTOXYETHANOL]					
2-Butoxyethanol			Skin designation:	Can be absorbed through the	EH40 WEL
111-76-2 12 RUTOXVETHANOL 1				skin.	
[2-BUTOXYETHANOL] 2-Butoxyethanol	20	98	Time Weighted Average	Indicative	ECTLV
111-76-2	20	20	(TWA):	maleative	Leib,
[2-BUTOXYETHANOL]			(-···-/·		
2-Butoxyethanol	50	246	Short Term Exposure	Indicative	ECTLV
111-76-2			Limit (STEL):		
[2-BUTOXYETHANOL]					
2-Butoxyethanol	50	246	Short Term Exposure	15 minutes	EH40 WEL
111-76-2 [2-BUTOXYETHANOL]			Limit (STEL):		
		1	Time Weighted Average		EH40 WEL
Maleic anhydride 108-31-6		1	Time Weighted Average (TWA):		LI140 WEL
[MALEIC ANHYDRIDE]			(1 11 11).		
Maleic anhydride		3	Short Term Exposure	15 minutes	EH40 WEL
108-31-6			Limit (STEL):		
[MALEIC ANHYDRIDE]					

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Titanium dioxide 13463-67-7		10	Time Weighted Average (TWA):		IR_OEL
[TITANIUM DIOXIDE]					
Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE]		4	Time Weighted Average (TWA):		IR_OEL
Styrene	20	85	Time Weighted Average		IR_OEL
100-42-5 [STYRENE]	20	00	(TWA):		III_OLL
Styrene 100-42-5	40	170	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
[STYRENE]		0.40			ID OF
Vinyltoluene 25013-15-4 [METHYLSTYRENE, ALL ISOMERS]	50	242	Time Weighted Average (TWA):		IR_OEL
Vinyltoluene	10	483	Short Term Exposure	15 minutes	IR_OEL
25013-15-4	10	-05	Limit (STEL):	15 minutes	IK_OLL
[METHYLSTYRENE, ALL ISOMERS]		-			ID OF
Silicon dioxide 112945-52-5		6	Time Weighted Average (TWA):		IR_OEL
[SILICA, AMORPHOUS]					
Silicon dioxide 112945-52-5		2,4	Time Weighted Average (TWA):		IR_OEL
[SILICA, AMORPHOUS]			(1,1,1).		
Silicon dioxide 112945-52-5		10	Time Weighted Average (TWA):		IR_OEL
[DUSTS NON-SPECIFIC]			(1 WA).		
Silicon dioxide		4	Time Weighted Average		IR_OEL
112945-52-5 [DUSTS NON-SPECIFIC]			(TWA):		
Methyl methacrylate	50		Time Weighted Average	Indicative OELV	IR_OEL
80-62-6 [METHYL METHACRYLATE]			(TWA):		
Methyl methacrylate	100		Short Term Exposure	Indicative	ECTLV
80-62-6			Limit (STEL):		
[METHYL METHACRYLATE] Methyl methacrylate	50		Time Weighted Average	Indicative	ECTLV
80-62-6			(TWA):		2012
[METHYL METHACRYLATE] Methyl methacrylate	100		Short Term Exposure	15 minutes	IR OEL
80-62-6	100		Limit (STEL):	Indicative OELV	IK_OLL
[METHYL METHACRYLATE]					
2-Butoxyethanol 111-76-2	50	246	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
[2-BUTOXYETHANOL (EGBE)]			Emit (STEE).	Indicative OLL V	
2-Butoxyethanol	20	98	Time Weighted Average	Indicative OELV	IR_OEL
111-76-2 [2-BUTOXYETHANOL (EGBE)]			(TWA):		
2-Butoxyethanol	1		Skin designation:	Can be absorbed through the	IR_OEL
111-76-2 [2-BUTOXYETHANOL (EGBE)]				skin.	
2-Butoxyethanol	20	98	Time Weighted Average	Indicative	ECTLV
111-76-2 [2-BUTOXYETHANOL]			(TWA):		
2-Butoxyethanol	50	246	Short Term Exposure	Indicative	ECTLV
111-76-2			Limit (STEL):		
[2-BUTOXYETHANOL] Maleic anhydride	0.01		Time Weighted Aver		IR OFI
108-31-6	0,01		Time Weighted Average (TWA):		IR_OEL
[MALEIC ANHYDRIDE]					

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental		Value				Remarks
	Compartment	period	mg/l	ppm	mg/kg	others	
Styrene	aqua		0,028 mg/l	ppm	ilig/kg	others	
100-42-5	(freshwater)		0,020 mg 1				
Styrene	aqua (marine		0,014 mg/l				
100-42-5	water)						
Styrene	aqua		0,04 mg/l				
100-42-5	(intermittent						
Styrene	releases) sewage		5 mg/l				
100-42-5	treatment plant		5 mg/1				
100 120	(STP)						
Styrene	sediment				0,614		
100-42-5	(freshwater)				mg/kg		
Styrene	sediment				0,307		
100-42-5	(marine water)				mg/kg		
Styrene 100-42-5	Soil				0,2 mg/kg		
Styrene	Air						no hazard identified
100-42-5	7 111						no nazaru identified
Styrene	Predator		1	t			no potential for
100-42-5							bioaccumulation
Vinyltoluene	aqua		0,000319				
25013-15-4	(freshwater)		mg/l	ļ			
Vinyltoluene	Freshwater -		0,00319				
25013-15-4 Vinyltoluene	intermittent aqua (marine		mg/l				
25013-15-4	aqua (marine water)		0 mg/l				
Vinyltoluene	Marine water -		0,000319				
25013-15-4	intermittent		mg/l				
Vinyltoluene	sewage		5,92 mg/l				
25013-15-4	treatment plant		_				
	(STP)						
Vinyltoluene	sediment				0,032		
25013-15-4 Vinyltoluene	(freshwater) sediment				mg/kg 0,0032		
25013-15-4	(marine water)				mg/kg		
Vinyltoluene	Soil				0,00621		
25013-15-4					mg/kg		
Vinyltoluene	Predator						no potential for
25013-15-4							bioaccumulation
methyl methacrylate	aqua		0,94 mg/l				
80-62-6 methyl methacrylate	(freshwater)		0.04 /1				
80-62-6	aqua (marine water)		0,94 mg/l				
methyl methacrylate	aqua		0,94 mg/l				
80-62-6	(intermittent		0,9 T mg/T				
	releases)						
methyl methacrylate	sewage		10 mg/l				
80-62-6	treatment plant						
methyl methacrylate	(STP) sediment				5,74 mg/kg		
80-62-6	(freshwater)				5,74 mg/kg		
methyl methacrylate	Soil				1,47 mg/kg		
80-62-6					,		
maleic anhydride	aqua		0,038 mg/l				
108-31-6	(freshwater)						
maleic anhydride	aqua (marine		0,004 mg/l				
108-31-6 maleic anhydride	water) Soil				0,037		
108-31-6	5011				0,037 mg/kg		
maleic anhydride	sediment		1	1	0,296		
108-31-6	(freshwater)				mg/kg		
maleic anhydride	sediment				0,03 mg/kg		
108-31-6	(marine water)						
maleic anhydride	sewage		44,6 mg/l				
108-31-6	treatment plant						
maleic anhydride	(STP) Freshwater -		0,379 mg/l	<u> </u>			
108-31-6	intermittent		0,579 mg/1				
	merimuent	1	1	1		1	

maleic anhydride	Marine water -	0,038 mg/l		
108-31-6	intermittent	_		
2-butoxyethanol	aqua	8,8 mg/l		
111-76-2	(freshwater)			
2-butoxyethanol	aqua (marine	0,88 mg/l		
111-76-2	water)			
2-butoxyethanol	sewage	463 mg/l		
111-76-2	treatment plant			
	(STP)			
2-butoxyethanol	sediment		34,6 mg/kg	
111-76-2	(freshwater)			
2-butoxyethanol	sediment		3,46 mg/kg	
111-76-2	(marine water)			
2-butoxyethanol	Soil		2,33 mg/kg	
111-76-2				
2-butoxyethanol	oral		20 mg/kg	
111-76-2				
2-butoxyethanol	Freshwater -	26,4 mg/l		
111-76-2	intermittent			

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Titanium dioxide	Workers	inhalation	Long term		0,17 mg/m3	
13463-67-7			exposure - local effects			
Titanium dioxide	General	inhalation	Long term		0,028 mg/m3	
13463-67-7	population		exposure - local effects			
Styrene	Workers	Inhalation	Acute/short term		289 mg/m3	no hazard identified
100-42-5			exposure - systemic effects			
Styrene	Workers	Inhalation	Acute/short term		306 mg/m3	no hazard identified
100-42-5			exposure - local effects			
Styrene	Workers	dermal	Long term		406 mg/kg	no hazard identified
100-42-5			exposure - systemic effects			
Styrene	Workers	Inhalation	Long term		85 mg/m3	no hazard identified
100-42-5			exposure - systemic effects			
Styrene	General	Inhalation	Acute/short term		174,25 mg/m3	no hazard identified
100-42-5	population		exposure - systemic effects			
Styrene	General	Inhalation	Acute/short term		182,75 mg/m3	no hazard identified
100-42-5	population		exposure - local effects			
Styrene	General	dermal	Long term		343 mg/kg	no hazard identified
100-42-5	population		exposure - systemic effects			
Styrene	General	Inhalation	Long term		10,2 mg/m3	no hazard identified
100-42-5	population		exposure - systemic effects			
Styrene	General	oral	Long term		2,1 mg/kg	no hazard identified
100-42-5	population		exposure - systemic effects			
Vinyltoluene	Workers	inhalation	Long term		37 mg/m3	no potential for
25013-15-4			exposure - systemic effects		-	bioaccumulation
Vinyltoluene	Workers	inhalation	Acute/short term		37 mg/m3	no potential for
25013-15-4			exposure - systemic effects		U U	bioaccumulation
methyl methacrylate	Workers	dermal	Acute/short term		1,5 mg/cm2	
80-62-6			exposure - local effects			
methyl methacrylate	Workers	dermal	Long term		13,67 mg/kg	
80-62-6			exposure - systemic effects			
methyl methacrylate	Workers	Inhalation	Long term		208 mg/m3	
80-62-6			exposure - systemic effects		-	
methyl methacrylate	Workers	dermal	Long term		1,5 mg/cm2	
80-62-6			exposure - local effects			
methyl methacrylate	Workers	Inhalation	Long term		208 mg/m3	
80-62-6	() officies		exposure - local		200 mg mo	
methyl methacrylate	General	dermal	effects Acute/short term	+	1,5 mg/cm2	
80-62-6	population	Jerman	exposure - local		1,5 mg/0m2	
mathul matheomilate	General	dorma1	effects	}	8.2 mg/l-2	
methyl methacrylate 80-62-6	population	dermal	Long term exposure -		8,2 mg/kg	
mothril moth comilate	Cananal	Inhol-t'	systemic effects		$71.2 ma/m^2$	
methyl methacrylate 80-62-6	General population	Inhalation	Long term exposure -		74,3 mg/m3	
mothril moth comilate	Comorol	dama -1	systemic effects	<u> </u>	1.5 mg/on-2	
methyl methacrylate 80-62-6	General population	dermal	Long term exposure - local		1,5 mg/cm2	
weathed weather and the	Comonal	Indust. (*	effects		104	
methyl methacrylate 80-62-6	General population	Inhalation	Long term exposure - local		104 mg/m3	
			effects	l		

maleic anhydride 108-31-6	Workers	inhalation	Acute/short term exposure - systemic effects	0,2 mg/m3	
maleic anhydride 108-31-6	Workers	inhalation	Acute/short term exposure - local effects	0,2 mg/m3	
maleic anhydride 108-31-6	Workers	inhalation	Long term exposure - systemic effects	0,081 mg/m3	
maleic anhydride 108-31-6	Workers	inhalation	Long term exposure - local effects	0,081 mg/m3	
2-butoxyethanol 111-76-2	Workers	inhalation	Long term exposure - systemic effects	98 mg/m3	
2-butoxyethanol 111-76-2	Workers	inhalation	Acute/short term exposure - local effects	246 mg/m3	
2-butoxyethanol 111-76-2	Workers	inhalation	Acute/short term exposure - systemic effects	1091 mg/m3	
2-butoxyethanol 111-76-2	General population	inhalation	Long term exposure - systemic effects	59 mg/m3	
2-butoxyethanol 111-76-2	General population	inhalation	Acute/short term exposure - systemic effects	426 mg/m3	
2-butoxyethanol 111-76-2	General population	inhalation	Acute/short term exposure - local effects	147 mg/m3	
2-butoxyethanol 111-76-2	General population	oral	Long term exposure - systemic effects	6,3 mg/kg	
2-butoxyethanol 111-76-2	General population	oral	Acute/short term exposure - systemic effects	26,7 mg/kg	

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	 Basis of biol. exposure index	 Additional Information
2-Butoxyethanol	Butoxyacetic	Creatinine in	Sampling time: End of	UKEH40BMG	
111-76-2	acid	urine	shift.	V	
[2-BUTOXYETHANOL]					

8.2. Exposure controls:

Engineering controls:

Use only in well ventilated areas.

Respiratory protection:

The product should only be used at workplaces with intensive ventilation/extraction.

If intensive ventilation/extraction is not possible respiratory protection equipment with ABEK P2 filter (EN 14387) should be worn.

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection: Goggles which can be tightly sealed. Protective eye equipment should conform to EN166.

Skin protection: Wear protective equipment. Protective clothing that covers arms and legs. Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway), or equivalent.

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Delivery formpasteColourwhiteOdorcharacteristicMelting pointNot applicable, Product is a liquidInitial boiling point $116 ^{\circ}C (240.8 ^{\circ}F)$ FlammabilityCurrently under determinationExplosive limitsCurrently under determinationFlash point $41 ^{\circ}C (105.8 ^{\circ}F)$ Auto-ignition temperature $238 ^{\circ}C (460.4 ^{\circ}F)$ Decomposition temperatureNot applicablepHNot applicable, Product is non-soluble (in water).Viscosity (kinematic)> 20,5 mm2/s(40 $^{\circ}C (104 ^{\circ}F);$)Currently under determination
OdorcharacteristicMelting pointNot applicable, Product is a liquidInitial boiling point $116 ^{\circ}C (240.8 ^{\circ}F)$ FlammabilityCurrently under determinationExplosive limitsCurrently under determinationFlash point $41 ^{\circ}C (105.8 ^{\circ}F)$ Auto-ignition temperature $238 ^{\circ}C (460.4 ^{\circ}F)$ Decomposition temperatureNot applicablepHNot applicable, Product is non-soluble (in water).Viscosity (kinematic)> 20,5 mm2/s(40 $^{\circ}C (104 ^{\circ}F);)$
Melting pointNot applicable, Product is a liquidInitial boiling point $116 ^{\circ}C (240.8 ^{\circ}F)$ FlammabilityCurrently under determinationExplosive limitsCurrently under determinationFlash point $41 ^{\circ}C (105.8 ^{\circ}F)$ Auto-ignition temperature $238 ^{\circ}C (460.4 ^{\circ}F)$ Decomposition temperatureNot applicablepHNot applicable, Product is non-soluble (in water).Viscosity (kinematic)> 20,5 mm2/s(40 $^{\circ}C (104 ^{\circ}F);)$
Initial boiling point $116 \ ^{\circ}C (240.8 \ ^{\circ}F)$ FlammabilityCurrently under determinationExplosive limitsCurrently under determinationFlash point $41 \ ^{\circ}C (105.8 \ ^{\circ}F)$ Auto-ignition temperature $238 \ ^{\circ}C (460.4 \ ^{\circ}F)$ Decomposition temperatureNot applicablepHNot applicable, Product is non-soluble (in water).Viscosity (kinematic) $> 20,5 \ \text{mm2/s}$
FlammabilityCurrently under determinationExplosive limitsCurrently under determinationFlash point41 °C (105.8 °F)Auto-ignition temperature238 °C (460.4 °F)Decomposition temperatureNot applicablepHNot applicable, Product is non-soluble (in water).Viscosity (kinematic)> 20,5 mm2/s(40 °C (104 °F);)
Explosive limitsCurrently under determinationFlash point $41 ^{\circ}C (105.8 ^{\circ}F)$ Auto-ignition temperature $238 ^{\circ}C (460.4 ^{\circ}F)$ Decomposition temperatureNot applicablepHNot applicable, Product is non-soluble (in water).Viscosity (kinematic)> 20,5 mm2/s(40 $^{\circ}C (104 ^{\circ}F);$)
Flash point41 °C (105.8 °F)Auto-ignition temperature238 °C (460.4 °F)Decomposition temperatureNot applicablepHNot applicable, Product is non-soluble (in water).Viscosity (kinematic)> 20,5 mm2/s(40 °C (104 °F);)>
Auto-ignition temperature238 °C (460.4 °F)Decomposition temperatureNot applicablepHNot applicable, Product is non-soluble (in water).Viscosity (kinematic)> 20,5 mm2/s
Decomposition temperatureNot applicablepHNot applicable, Product is non-soluble (in water).Viscosity (kinematic)> 20,5 mm2/s(40 °C (104 °F);)>
pHNot applicable, Product is non-soluble (in water).Viscosity (kinematic) (40 °C (104 °F);)> 20,5 mm2/s
Viscosity (kinematic) > 20,5 mm2/s (40 °C (104 °F);)
(40 °C (104 °F);)
Solubility (qualitative) Currently under determination
Solutinity (quantative)
Partition coefficient: n-octanol/water Not applicable
Mixture
Vapour pressure 886 Pa
(20 °C (68 °F))
Vapour pressure 4409 Pa
(50 °C (122 °F))
Vapour pressure 2183 Pa
(20 °C (68 °F))
Vapour pressure 11,46 kPa
(50 °C (122 °F))
Density 1,35 g/cm3 no method
(20 °C (68 °F))
Relative vapour density: Currently under determination
Particle characteristics Not applicable
Product is a liquid

9.2. Other information Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity Oxidizers.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Heat, flames, sparks and other sources of ignition.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

No decomposition if used according to specifications.

SECTION 11: Toxicological information

General toxicological information:

Persons suffering from allergic reactions to acrylates should avoid contact with the product.

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type		_	
Titanium dioxide 13463-67-7	LD50	> 5.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
Styrene 100-42-5	LD50	6.600 - 8.000 mg/kg	rat	not specified
Vinyltoluene 25013-15-4	LD50	2.255 mg/kg	rat	not specified
methyl methacrylate 80-62-6	LD50	9.400 mg/kg	rat	not specified
maleic anhydride 108-31-6	LD50	1.090 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
2-Butoxyethanol 111-76-2	Acute toxicity estimate (ATE)	1.200 mg/kg		Expert judgement

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Titanium dioxide 13463-67-7	LD50	> 10.000 mg/kg	rabbit	not specified
Styrene 100-42-5	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
methyl methacrylate 80-62-6	LD50	> 5.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
maleic anhydride 108-31-6	LD50	2.620 mg/kg	rabbit	not specified
2-Butoxyethanol 111-76-2	LD50	> 2.000 mg/kg	guinea pig	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

Hazardous substances	Value	Value	Test atmosphere	-	Species	Method
CAS-No.	type			time		
Titanium dioxide 13463-67-7	LC50	> 6,82 mg/l	dust	4 h	rat	not specified
Styrene 100-42-5	LC50	11,8 mg/l	vapour	4 h	rat	not specified
Vinyltoluene 25013-15-4	LC50	> 5,02 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Vinyltoluene 25013-15-4	LC50	> 16,9 mg/l	vapour	4 h	rat	not specified
Vinyltoluene 25013-15-4	Acute toxicity estimate (ATE)	5,1 mg/l	dust/mist			Expert judgement
methyl methacrylate 80-62-6	LC50	29,8 mg/l	vapour	4 h	rat	not specified
2-Butoxyethanol 111-76-2	Acute toxicity estimate (ATE)	3 mg/l	vapour	4 h		Expert judgement

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Titanium dioxide 13463-67-7	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Vinyltoluene	irritating or		Human,	OECD Guideline 439 (In Vitro Skin Irritation:
25013-15-4	corrosive		EpiDermTM SIT (EPI-200),	Reconstructed Human Epidermis (RHE) Test Method)
			Reconstructed	
			Human Epidermis (RHE)	
Vinyltoluene	not corrosive		Human,	OECD Guideline 431 (In Vitro Skin Corrosion:
25013-15-4			EpiDermTM SIT (EPI-200),	Reconstructed Human Epidermis (RHE) Test Method)
			Reconstructed Human Epidermis (RHE)	
Vinyltoluene 25013-15-4	mildly irritating	24 h	rabbit	other guideline:
Vinyltoluene 25013-15-4	irritating	24 h	rabbit	not specified
maleic anhydride 108-31-6	highly irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-Butoxyethanol 111-76-2	irritating	4 h	rabbit	EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Titanium dioxide 13463-67-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Vinyltoluene 25013-15-4	no prediction can be made		Bovine, cornea, in vitro test	OECD Guideline 437 (BCOP)
Vinyltoluene 25013-15-4	slightly irritating		rabbit	not specified
maleic anhydride 108-31-6	corrosive		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-Butoxyethanol 111-76-2	irritating	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Titanium dioxide 13463-67-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Titanium dioxide 13463-67-7	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Styrene 100-42-5	not sensitising	Guinea pig maximisation test	guinea pig	Magnusson and Kligman Method
methyl methacrylate 80-62-6	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
maleic anhydride 108-31-6	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
2-Butoxyethanol 111-76-2	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

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Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Titanium dioxide 13463-67-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Titanium dioxide 13463-67-7	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Titanium dioxide 13463-67-7	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Titanium dioxide 13463-67-7	negative	in vitro mammalian cell micronucleus test	without		equivalent or similar to OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Styrene 100-42-5	positive	sister chromatid exchange assay in mammalian cells	with and without		OECD Guideline 479 (Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells)
methyl methacrylate 80-62-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
maleic anhydride 108-31-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-Butoxyethanol 111-76-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-Butoxyethanol 111-76-2	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2-Butoxyethanol 111-76-2	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Titanium dioxide 13463-67-7	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Styrene 100-42-5	negative	inhalation: vapour		mouse	not specified
maleic anhydride 108-31-6	negative	inhalation		rat	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
2-Butoxyethanol 111-76-2	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Titanium dioxide 13463-67-7	not carcinogenic	oral: feed	103 w daily	rat	male/female	not specified
Styrene 100-42-5	not carcinogenic	inhalation: vapour	104 w 6 h/d, 5 d/w	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Titanium dioxide 13463-67-7	NOAEL P >= 1.000 mg/kg NOAEL F1 >= 1.000 mg/kg	one- generation study	oral: feed	rat	OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study)
maleic anhydride 108-31-6	NOAEL P 55 mg/kg NOAEL F1 55 mg/kg	Two generation study	oral: gavage	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
2-Butoxyethanol 111-76-2	NOAEL P 720 mg/kg NOAEL F1 720 mg/kg NOAEL F2 720 mg/kg	Two generation study	oral: drinking water	mouse	not specified

STOT-single exposure:

May cause respiratory irritation.

No substance data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result / Value	Route of	Exposure time /	Species	Method
CAS-No.		application	Frequency of		
			treatment		
Titanium dioxide	NOAEL > 1.000 mg/kg	oral: gavage	92 d	rat	OECD Guideline 408
13463-67-7			daily		(Repeated Dose 90-Day
					Oral Toxicity in Rodents)
Styrene	NOAEL 1.000 mg/kg	oral: gavage	78 w	rat	not specified
100-42-5			daily (5 d/w)		
methyl methacrylate	LOAEL 2000 ppm	inhalation	14 weeks	mouse	Dose Range Finding
80-62-6			6 hrs/day, 5 days/wk		Study
methyl methacrylate	NOAEL 1000 ppm	inhalation	14 weeks	mouse	Dose Range Finding
80-62-6			6 hrs/day, 5 days/wk		Study
maleic anhydride	NOAEL 40 mg/kg	oral: feed	90 d	rat	not specified
108-31-6			daily		_
2-Butoxyethanol	NOAEL 0,121 mg/l	inhalation	42 or 90 days	rat	not specified
111-76-2			6 hours/day, 5		-
			days/week		
2-Butoxyethanol	NOAEL < 69 mg/kg	oral:	90 d	rat	equivalent or similar to
111-76-2		drinking	continous		OECD Guideline 408
		water			(Repeated Dose 90-Day
					Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Titanium dioxide	LC50	Toxicity > Water	48 h	Leuciscus idus	OECD Guideline 203 (Fish,
13463-67-7		solubility			Acute Toxicity Test)
Styrene	LC50	4,02 mg/l	96 h	Pimephales promelas	EU Method C.1 (Acute
100-42-5					Toxicity for Fish)
Vinyltoluene	LC50	5,2 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish,
25013-15-4					Acute Toxicity Test)
methyl methacrylate	LC50	350 mg/l	96 h	Leuciscus idus	OECD Guideline 203 (Fish,
80-62-6					Acute Toxicity Test)
maleic anhydride	LC50	115 mg/l			OECD Guideline 203 (Fish,
108-31-6					Acute Toxicity Test)
2-Butoxyethanol	LC50	1.474 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish,
111-76-2					Acute Toxicity Test)
2-Butoxyethanol	NOEC	> 100 mg/l	21 d	Brachydanio rerio (new name:	OECD Guideline 204 (Fish,
111-76-2				Danio rerio)	Prolonged Toxicity Test:
					14-day Study)

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Titanium dioxide	EC50	Toxicity > Water	48 h	Daphnia magna	OECD Guideline 202
13463-67-7		solubility			(Daphnia sp. Acute
					Immobilisation Test)
Styrene	EC50	4,7 mg/l	48 h	Daphnia magna	OECD Guideline 202
100-42-5					(Daphnia sp. Acute
					Immobilisation Test)
Vinyltoluene	EC50	1,3 mg/l	48 h	Daphnia magna	OECD Guideline 202
25013-15-4					(Daphnia sp. Acute
					Immobilisation Test)
methyl methacrylate	EC50	69 mg/l	48 h	Daphnia magna	EPA OTS 797.1300
80-62-6					(Aquatic Invertebrate Acute
					Toxicity Test, Freshwater
					Daphnids)
maleic anhydride	EC50	42,81 mg/l	48 h	Daphnia magna	OECD Guideline 202
108-31-6					(Daphnia sp. Acute
					Immobilisation Test)
2-Butoxyethanol	EC50	1.550 mg/l	48 h	Daphnia magna	OECD Guideline 202
111-76-2					(Daphnia sp. Acute
					Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Titanium dioxide	NOEC	Toxicity > Water	21 d	Daphnia magna	OECD Guideline 202
13463-67-7		solubility			(Daphnia sp. Chronic
					Immobilisation Test)
Styrene	NOEC	1,01 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
100-42-5					magna, Reproduction Test)
methyl methacrylate	NOEC	37 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
80-62-6					magna, Reproduction Test)
2-Butoxyethanol	NOEC	100 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
111-76-2					magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type		-	-	
Titanium dioxide 13463-67-7	EC50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Titanium dioxide 13463-67-7	NOEC	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Styrene 100-42-5	EC10	0,28 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
Styrene 100-42-5	EC50	6,3 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
Vinyltoluene 25013-15-4	EC50	0,319 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Vinyltoluene 25013-15-4	EC10	0,25 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
methyl methacrylate 80-62-6	EC50	170 mg/l	96 h	subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methyl methacrylate 80-62-6	NOEC	100 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
maleic anhydride 108-31-6	EC50	29 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
maleic anhydride 108-31-6	EC10	23 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Butoxyethanol 111-76-2	EC50	1.840 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Butoxyethanol 111-76-2	NOEC	286 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Titanium dioxide	EC0	Toxicity > Water	24 h	Pseudomonas fluorescens	DIN 38412, part 8
13463-67-7		solubility			(Pseudomonas
					Zellvermehrungshemm-
					Test)
Styrene	EC50	500 mg/l	30 min	activated sludge of a	OECD Guideline 209
100-42-5				predominantly domestic sewage	(Activated Sludge,
					Respiration Inhibition Test)
Vinyltoluene	EC0	592 mg/l	3 h	activated sludge of a	EU Method C.11
25013-15-4				predominantly domestic sewage	·
					Sludge Respiration
					Inhibition Test)
methyl methacrylate	EC20	> 150 - 200 mg/l	30 min	activated sludge, domestic	ISO 8192 (Test for
80-62-6					Inhibition of Oxygen
					Consumption by Activated
					Sludge)
maleic anhydride	EC0	> 10.000 mg/l	30 min		not specified
108-31-6					
2-Butoxyethanol	EC0	1.000 mg/l	30 min		not specified
111-76-2					

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Styrene 100-42-5	readily biodegradable	aerobic	70,9 %	28 d	ISO DIS 9408 (Ultimate Aerobic BiodegradabilityMethod by Determining the Oxygen Demand in a Closed Respirometer)
Styrene 100-42-5	inherently biodegradable	aerobic	100 %	14 d	OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II))
Vinyltoluene 25013-15-4	not readily biodegradable.	aerobic	36,7 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
methyl methacrylate 80-62-6	readily biodegradable	aerobic	94 %	14 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
maleic anhydride 108-31-6	readily biodegradable	aerobic	98 %	7 d	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
2-Butoxyethanol 111-76-2	readily biodegradable	aerobic	73 %	30 d	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)

12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
Styrene 100-42-5	74				other guideline:
Vinyltoluene 25013-15-4	> 96 - 180	30 d		Lepomis macrochirus	other guideline:

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Styrene 100-42-5	2,96	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Vinyltoluene 25013-15-4	3,44	25 °C	QSAR (Quantitative Structure Activity Relationship)
methyl methacrylate 80-62-6	1,38	20 °C	other guideline:
maleic anhydride 108-31-6	1,62		not specified
2-Butoxyethanol 111-76-2	0,81	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Titanium dioxide	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not
13463-67-7	be conducted for inorganic substances.
Styrene	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
100-42-5	Bioaccumulative (vPvB) criteria.
Vinyltoluene	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
25013-15-4	Bioaccumulative (vPvB) criteria.
methyl methacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
80-62-6	Bioaccumulative (vPvB) criteria.
maleic anhydride	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
108-31-6	Bioaccumulative (vPvB) criteria.
2-Butoxyethanol	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
111-76-2	Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you. 080409

SECTION 14: Transport information

14.1.	UN number or ID number		
	ADR	1866	
	RID	1866	
	ADN	1866	
	IMDG	1866	
	IATA	1866	
14.2.	UN proper shipping name		
	ADR	RESIN SOLUTION	
	RID	RESIN SOLUTION	
	ADN	RESIN SOLUTION	
	IMDG	RESIN SOLUTION	
	IATA	Resin solution	

14.3. Transport hazard class(es)

ADR	3
RID	3
ADN	3
IMDG	3
IATA	3

14.4. Packing group

ADR	III
RID	III
ADN	III
IMDG	III
IATA	III

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR not applicable

	Tunnelcode: (D/E)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

When shipping as a set (component A and B), the following dangerous goods classification 'UN 3269 Polyester Resin Multi-Component System' can be used.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Persistent organic pollutants (Regulation (EU) 2019/1021): VOC content 28,9 % (2010/75/EU) Not applicable Not applicable Not applicable

VOC Paints and Varnishes (EU):

Regulatory Basis: Product (sub)category: Phase I (from 1.1.2007): max. VOC content: Directive 2004/42/EC B(b) Bodyfiller/stopper 250 g/l 140 g/l

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows: H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H331 Toxic if inhaled. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer. H361d Suspected of damaging the unborn child. H372 Causes damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very
	bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

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Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.