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

SDS No. : 364241
V010.1

LOCTITE EDAG 440 AS E&C known as ELECTRODAG 440 AS 5 KG

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

1.1. Product identifier

LOCTITE EDAG 440 AS E&C known as ELECTRODAG 440 AS 5 KG
UFI: E8PT-WWJ2-K20V-KTF5

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

Intended use:
EMC product

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

For Safety Data Sheet updates please visit our website www.mysds.henkel.com or www.henkel-adhesives.com.
SDSinfo.Adhesive@henkel.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 2
H225 Highly flammable liquid and vapour.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Carcinogenicity	Category 2
H351 Suspected of causing cancer.	
Toxic to reproduction	Category 2
H361d Suspected of damaging the unborn child.	
Specific target organ toxicity - single exposure	Category 3
H336 May cause drowsiness or dizziness.	
Target organ: Central nervous system	
Specific target organ toxicity - repeated exposure	Category 1
H372 Causes damage to organs through prolonged or repeated exposure.	
Chronic hazards to the aquatic environment	Category 3
H412 Harmful to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:

Contains

Nickel powder [particle diameter < 1 mm]

n-butyl acetate

Propanol, 1(or 2)-ethoxy-

Toluene

methyl methacrylate

Signal word:

Danger

Hazard statement:

H225 Highly flammable liquid and vapour.
H317 May cause an allergic skin reaction.
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.

Precautionary statement: Prevention

P201 Obtain special instructions before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe mist/vapours.
P280 Wear protective gloves.

Precautionary statement: Response

P370+P378 In case of fire: Use CO2, dry chemical, or foam for extinction.
P308+P313 IF exposed or concerned: Get medical advice/attention.

2.3. Other hazards

None if used properly.

Following substances are present in a concentration ≥ 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 ≥ 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
Nickel powder [particle diameter < 1 mm] 7440-02-0 231-111-4 01-2119438727-29	40- 60 %	STOT RE 1, H372 Skin Sens. 1, H317 Aquatic Chronic 3, H412 Carc. 2, H351		
n-butyl acetate 123-86-4 204-658-1 01-2119485493-29	10- < 20 %	Flam. Liq. 3, H226 STOT SE 3, H336		EU OEL
Propanol, 1(or 2)-ethoxy- 52125-53-8 610-784-1	5- < 10 %	Flam. Liq. 3, H226 STOT SE 3, H336 Eye Irrit. 2, H319		
Toluene 108-88-3 203-625-9 01-2119471310-51	5- < 10 %	Flam. Liq. 2, H225 Repr. 2, H361d Asp. Tox. 1, H304 STOT RE 2, Inhalation, H373 Skin Irrit. 2, H315 STOT SE 3, Inhalation, H336 Aquatic Chronic 3, H412		EU OEL
Ethanol 64-17-5 200-578-6 01-2119457610-43	1- < 5 %	Eye Irrit. 2, H319 Flam. Liq. 2, H225	Eye Irrit. 2; H319; C >= 50 %	
Xylene - mixture of isomeres 1330-20-7 215-535-7 01-2119488216-32	1- < 5 %	Asp. Tox. 1, H304 Acute Tox. 4, Inhalation, H332 Acute Tox. 4, Dermal, H312 Skin Irrit. 2, H315 Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 3, H412	dermal:ATE = 1.700 mg/kg oral:ATE = 3.523 mg/kg inhalation:ATE = 11 mg/l;vapour	EU OEL
methyl methacrylate 80-62-6 201-297-1 01-2119452498-28	0,1- < 1 %	Flam. Liq. 2, H225 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317		EU OEL

If no ATE values are displayed, please refer to LD/LC50 values in Section 11.
For full text of the H - statements and other abbreviations see section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

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:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

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
SKIN: Rash, Urticaria.

Vapors may cause drowsiness and dizziness.

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:
Carbon dioxide, foam, powder
Fine water spray

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
Formation of toxic gases is possible during heating or in fires.

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

Additional information:
Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes.
Danger of slipping on spilled product.

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up
Dispose of contaminated material as waste according to Section 13.
Remove with liquid-absorbing material (sand, peat, sawdust).

6.4. Reference to other sections
See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid skin and eye contact.
Ensure that workrooms are adequately ventilated.
See advice in section 8
Take measures to prevent the build-up of electrostatic charges.
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 when using this product.

7.2. Conditions for safe storage, including any incompatibilities
Ensure good ventilation/extraction.
Temperatures between + 5 °C and + 40 °C.

7.3. Specific end use(s)
EMC product

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Nickel 7440-02-0 [NICKEL AND ITS INORGANIC COMPOUNDS (EXCEPT NICKEL TETRACARBONYL): NICKEL AND WATER-INSOLUBLE NICKEL COMPOUNDS (AS NI)]		0,5	Time Weighted Average (TWA):		EH40 WEL
Nickel 7440-02-0 [NICKEL AND ITS INORGANIC COMPOUNDS (EXCEPT NICKEL TETRACARBONYL): NICKEL AND WATER-INSOLUBLE NICKEL COMPOUNDS (AS NI)]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
n-Butyl acetate 123-86-4 [BUTYL ACETATE]	150	724	Time Weighted Average (TWA):		EH40 WEL
n-Butyl acetate 123-86-4 [N-BUTYL ACETATE]	150	723	Short Term Exposure Limit (STEL):	Indicative	ECTLV
n-Butyl acetate 123-86-4 [N-BUTYL ACETATE]	50	241	Time Weighted Average (TWA):	Indicative	ECTLV
n-Butyl acetate 123-86-4 [BUTYL ACETATE]	200	966	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Toluene 108-88-3 [TOLUENE]	50	191	Time Weighted Average (TWA):		EH40 WEL
Toluene 108-88-3 [TOLUENE]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Toluene 108-88-3 [TOLUENE]	50	192	Time Weighted Average (TWA):	Indicative	ECTLV
Toluene 108-88-3 [TOLUENE]	100	384	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Toluene 108-88-3 [TOLUENE]	100	384	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Ethanol 64-17-5 [ETHANOL]	1.000	1.920	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica		4	Time Weighted Average (TWA):		EH40 WEL

68611-44-9 [Dust, respirable dust]					
Xylene 1330-20-7 [XYLENE, O-, M-, P- OR MIXED ISOMERS]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Xylene 1330-20-7 [XYLENE, O-, M-, P- OR MIXED ISOMERS]	50	220	Time Weighted Average (TWA):		EH40 WEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	50	221	Time Weighted Average (TWA):	Indicative	ECTLV
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	100	442	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Xylene 1330-20-7 [XYLENE, O-, M-, P- OR MIXED ISOMERS]	100	441	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	50	208	Time Weighted Average (TWA):		EH40 WEL
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	100		Short Term Exposure Limit (STEL):	Indicative	ECTLV
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	50		Time Weighted Average (TWA):	Indicative	ECTLV
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	100	416	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**
Nickel 7440-02-0 [NICKEL]		0,5	Time Weighted Average (TWA):		IR_OEL
n-Butyl acetate 123-86-4 [N-BUTYL ACETATE]	150	723	Short Term Exposure Limit (STEL):	Indicative	ECTLV
n-Butyl acetate 123-86-4 [N-BUTYL ACETATE]	50	241	Time Weighted Average (TWA):	Indicative	ECTLV
n-Butyl acetate 123-86-4 [Butyl acetate]	150	723	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
n-Butyl acetate 123-86-4 [Butyl acetate]	50	241	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Toluene 108-88-3 [TOLUENE]	50	192	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Toluene 108-88-3 [TOLUENE]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Toluene 108-88-3 [TOLUENE]	50	192	Time Weighted Average (TWA):	Indicative	ECTLV
Toluene 108-88-3 [TOLUENE]	100	384	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Toluene 108-88-3 [TOLUENE]	100	384	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
Ethanol 64-17-5	1.000		Short Term Exposure Limit (STEL):	15 minutes	IR_OEL

[ETHANOL]					
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [DUSTS NON-SPECIFIC]		10	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS]		2,4	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS]		6	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [DUSTS NON-SPECIFIC]		4	Time Weighted Average (TWA):		IR_OEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS]	50	221	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	50	221	Time Weighted Average (TWA):	Indicative	ECTLV
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	100	442	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS]	100	442	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	50		Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	100		Short Term Exposure Limit (STEL):	Indicative	ECTLV
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	50		Time Weighted Average (TWA):	Indicative	ECTLV
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	100		Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Nickel 7440-02-0	Soil				29,9 mg/kg		
Nickel 7440-02-0	aqua (freshwater)		0,0071 mg/l				
Nickel 7440-02-0	aqua (marine water)		0,0086 mg/l				
Nickel 7440-02-0	sewage treatment plant (STP)		0,33 mg/l				
Nickel 7440-02-0	sediment (freshwater)				109 mg/kg		
Nickel 7440-02-0	sediment (marine water)				109 mg/kg		
Nickel 7440-02-0	oral				0,12 mg/kg		
Nickel 7440-02-0	aqua (intermittent releases)		0 mg/l				
n-Butyl acetate 123-86-4	aqua (freshwater)		0,18 mg/l				
n-Butyl acetate 123-86-4	aqua (marine water)		0,018 mg/l				
n-Butyl acetate 123-86-4	aqua (intermittent releases)		0,36 mg/l				
n-Butyl acetate 123-86-4	sewage treatment plant (STP)		35,6 mg/l				
n-Butyl acetate 123-86-4	sediment (freshwater)				0,981 mg/kg		
n-Butyl acetate 123-86-4	sediment (marine water)				0,0981 mg/kg		
n-Butyl acetate 123-86-4	Soil				0,0903 mg/kg		
n-Butyl acetate 123-86-4	Air						no hazard identified
n-Butyl acetate 123-86-4	Predator						no potential for bioaccumulation
Toluene 108-88-3	aqua (freshwater)		0,68 mg/l				
Toluene 108-88-3	sediment (freshwater)				16,39 mg/kg		
Toluene 108-88-3	sediment (marine water)				16,39 mg/kg		
Toluene 108-88-3	Soil				2,89 mg/kg		
Toluene 108-88-3	sewage treatment plant (STP)		13,61 mg/l				
Toluene 108-88-3	aqua (marine water)		0,68 mg/l				
Toluene 108-88-3	aqua (intermittent releases)		0,68 mg/l				
Ethanol 64-17-5	aqua (freshwater)		0,96 mg/l				
Ethanol 64-17-5	aqua (marine water)		0,79 mg/l				
Ethanol 64-17-5	aqua (intermittent releases)		2,75 mg/l				
Ethanol 64-17-5	sewage treatment plant (STP)		580 mg/l				
Ethanol 64-17-5	sediment (freshwater)				3,6 mg/kg		

Ethanol 64-17-5	sediment (marine water)				2,9 mg/kg		
Ethanol 64-17-5	Soil				0,63 mg/kg		
Ethanol 64-17-5	oral				380 mg/kg		
Xylene - mixture of isomeres 1330-20-7	aqua (freshwater)		0,327 mg/l				
Xylene - mixture of isomeres 1330-20-7	sediment (freshwater)				12,46 mg/kg		
Xylene - mixture of isomeres 1330-20-7	Soil				2,31 mg/kg		
Xylene - mixture of isomeres 1330-20-7	aqua (marine water)		0,327 mg/l				
Xylene - mixture of isomeres 1330-20-7	Freshwater - intermittent		0,327 mg/l				
Xylene - mixture of isomeres 1330-20-7	sewage treatment plant (STP)		6,58 mg/l				
Xylene - mixture of isomeres 1330-20-7	sediment (marine water)				12,46 mg/kg		
Xylene - mixture of isomeres 1330-20-7	Predator						no potential for bioaccumulation
methyl methacrylate 80-62-6	aqua (freshwater)		0,94 mg/l				
methyl methacrylate 80-62-6	aqua (marine water)		0,94 mg/l				
methyl methacrylate 80-62-6	aqua (intermittent releases)		0,94 mg/l				
methyl methacrylate 80-62-6	sewage treatment plant (STP)		10 mg/l				
methyl methacrylate 80-62-6	sediment (freshwater)				5,74 mg/kg		
methyl methacrylate 80-62-6	Soil				1,47 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Nickel 7440-02-0	Workers	inhalation	Long term exposure - systemic effects		0,05 mg/m3	
Nickel 7440-02-0	Workers	inhalation	Long term exposure - local effects		0,05 mg/m3	
Nickel 7440-02-0	Workers	inhalation	Acute/short term exposure - local effects		11,9 mg/m3	
Nickel 7440-02-0	Workers	dermal	Long term exposure - local effects		0,035 mg/cm2	
Nickel 7440-02-0	General population	inhalation	Long term exposure - systemic effects		0,06 mg/m3	
Nickel 7440-02-0	General population	inhalation	Long term exposure - local effects		0,06 mg/m3	
Nickel 7440-02-0	General population	inhalation	Acute/short term exposure - local effects		0,8 mg/m3	
Nickel 7440-02-0	General population	dermal	Long term exposure - systemic effects		0,035 mg/cm2	
Nickel 7440-02-0	General population	oral	Long term exposure - systemic effects		0,011 mg/kg	
Nickel 7440-02-0	General population	oral	Acute/short term exposure - systemic effects		0,37 mg/kg	
n-Butyl acetate 123-86-4	Workers	inhalation	Long term exposure - systemic effects		300 mg/m3	no hazard identified
n-Butyl acetate 123-86-4	Workers	inhalation	Acute/short term exposure - systemic effects		600 mg/m3	no hazard identified
n-Butyl acetate 123-86-4	Workers	inhalation	Long term exposure - local effects		300 mg/m3	no hazard identified
n-Butyl acetate 123-86-4	Workers	inhalation	Acute/short term exposure - local effects		600 mg/m3	no hazard identified
n-Butyl acetate 123-86-4	Workers	dermal	Long term exposure - systemic effects		11 mg/kg	no hazard identified
n-Butyl acetate 123-86-4	Workers	dermal	Acute/short term exposure - systemic effects		11 mg/kg	no hazard identified
n-Butyl acetate 123-86-4	General population	inhalation	Long term exposure - systemic effects		35,7 mg/m3	no hazard identified
n-Butyl acetate 123-86-4	General population	inhalation	Acute/short term exposure - systemic effects		300 mg/m3	no hazard identified
n-Butyl acetate 123-86-4	General population	inhalation	Acute/short term exposure - local effects		300 mg/m3	no hazard identified
n-Butyl acetate 123-86-4	General population	dermal	Long term exposure - systemic effects		6 mg/kg	no hazard identified
n-Butyl acetate 123-86-4	General population	dermal	Acute/short term exposure - systemic effects		6 mg/kg	no hazard identified
n-Butyl acetate 123-86-4	General population	oral	Long term exposure - systemic effects		2 mg/kg	no hazard identified
n-Butyl acetate 123-86-4	General population	oral	Acute/short term exposure -		2 mg/kg	no hazard identified

			systemic effects			
n-Butyl acetate 123-86-4	General population	inhalation	Long term exposure - local effects		35,7 mg/m3	no hazard identified
Toluene 108-88-3	Workers	Inhalation	Acute/short term exposure - local effects		384 mg/m3	
Toluene 108-88-3	Workers	Inhalation	Acute/short term exposure - systemic effects		384 mg/m3	
Toluene 108-88-3	Workers	Inhalation	Long term exposure - local effects		192 mg/m3	
Toluene 108-88-3	Workers	Inhalation	Long term exposure - systemic effects		192 mg/m3	
Toluene 108-88-3	Workers	dermal	Long term exposure - systemic effects		384 mg/kg	
Toluene 108-88-3	General population	Inhalation	Acute/short term exposure - local effects		226 mg/m3	
Toluene 108-88-3	General population	Inhalation	Acute/short term exposure - systemic effects		226 mg/m3	
Toluene 108-88-3	General population	Inhalation	Long term exposure - systemic effects		56,5 mg/m3	
Toluene 108-88-3	General population	dermal	Long term exposure - systemic effects		226 mg/kg	
Toluene 108-88-3	General population	oral	Long term exposure - systemic effects		8,13 mg/kg	
Toluene 108-88-3	General population	inhalation	Long term exposure - local effects		56,5 mg/m3	
Ethanol 64-17-5	Workers	dermal	Long term exposure - systemic effects		343 mg/kg	
Ethanol 64-17-5	Workers	inhalation	Long term exposure - systemic effects		950 mg/m3	
Ethanol 64-17-5	General population	dermal	Long term exposure - systemic effects		206 mg/kg	
Ethanol 64-17-5	General population	inhalation	Long term exposure - systemic effects		114 mg/m3	
Ethanol 64-17-5	General population	oral	Long term exposure - systemic effects		87 mg/kg	
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Long term exposure - systemic effects		221 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Acute/short term exposure - systemic effects		442 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Long term exposure - local effects		221 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	Workers	inhalation	Acute/short term exposure - local effects		442 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	Workers	dermal	Long term exposure - systemic effects		212 mg/kg	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Long term exposure - systemic effects		65,3 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Acute/short term exposure - systemic effects		260 mg/m3	no potential for bioaccumulation

Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Long term exposure - local effects		65,3 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	inhalation	Acute/short term exposure - local effects		260 mg/m3	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	dermal	Long term exposure - systemic effects		125 mg/kg	no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	Workers	dermal	Acute/short term exposure - systemic effects			no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	Workers	dermal	Acute/short term exposure - local effects			no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	dermal	Acute/short term exposure - systemic effects			no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	dermal	Acute/short term exposure - local effects			no potential for bioaccumulation
Xylene - mixture of isomeres 1330-20-7	General population	oral	Long term exposure - systemic effects		5 mg/kg	no potential for bioaccumulation
methyl methacrylate 80-62-6	Workers	Inhalation	Long term exposure - systemic effects		348,4 mg/m3	
methyl methacrylate 80-62-6	Workers	Inhalation	Long term exposure - local effects		208 mg/m3	
methyl methacrylate 80-62-6	Workers	inhalation	Acute/short term exposure - local effects		416 mg/m3	
methyl methacrylate 80-62-6	Workers	dermal	Long term exposure - systemic effects		13,67 mg/kg	
methyl methacrylate 80-62-6	Workers	dermal	Long term exposure - local effects		1,5 mg/cm2	
methyl methacrylate 80-62-6	Workers	dermal	Acute/short term exposure - local effects		1,5 mg/cm2	
methyl methacrylate 80-62-6	General population	Inhalation	Long term exposure - systemic effects		74,3 mg/m3	
methyl methacrylate 80-62-6	General population	Inhalation	Long term exposure - local effects		104 mg/m3	
methyl methacrylate 80-62-6	General population	inhalation	Acute/short term exposure - local effects		208 mg/m3	
methyl methacrylate 80-62-6	General population	dermal	Long term exposure - systemic effects		8,2 mg/kg	
methyl methacrylate 80-62-6	General population	dermal	Long term exposure - local effects		1,5 mg/cm2	
methyl methacrylate 80-62-6	General population	dermal	Acute/short term exposure - local effects		1,5 mg/cm2	
methyl methacrylate 80-62-6	General population	oral	Long term exposure - systemic effects			

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Xylene 1330-20-7 [XYLENE O-, M-, P-, OR MIXED ISOMERS]	Methylhippuric acids	Creatinine in urine	Sampling time: End of shift.		UKEH40BMGV		

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/suction at the workplace.

Respiratory protection:
In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (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): Isobutylene-isoprene rubber (IIR; >= 0.7 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Isobutylene-isoprene rubber (IIR; >= 0.7 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:
Protective goggles
Protective eye equipment should conform to EN166.

Skin protection:
Suitable protective clothing
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:
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 form	liquid
Colour	grey
Odor	Solvent
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	< 0 °C (< 32 °F)
Initial boiling point	> 100 °C (> 212 °F)
Flammability	Flammable liquid
Explosive limits	
lower	1,2 %(V);
upper	19,0 %(V); Upper/lower explosion limit
Flash point	17 °C (62.6 °F)
Auto-ignition temperature	> 200 °C (> 392 °F)
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use
pH	Not applicable, Product is non-soluble (in water).
Viscosity (kinematic)	> 1.000 mm2/s

(20 °C (68 °F);)	
Viscosity, dynamic (Brookfield; Instrument: RVT; 20 °C (68 °F); speed of rotation: 20 min-1)	4.500 - 7.000 mPa.s no method / method unknown
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Insoluble
Partition coefficient: n-octanol/water	Not applicable Mixture
Vapour pressure (20 °C (68 °F))	< 30 hPa
Vapour pressure (50 °C (122 °F))	< 150 hPa
Density (20 °C (68 °F))	2,025 g/cm3 no method / method unknown
Relative vapour density: (20 °C)	> 1
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
Reaction with strong oxidants.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
No decomposition if used according to specifications.

10.5. Incompatible materials
See section reactivity.

10.6. Hazardous decomposition products
None if used for intended purpose.
In case of fire toxic gases can be released.

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 CAS-No.	Value type	Value	Species	Method
Nickel powder [particle diameter < 1 mm] 7440-02-0	LD50	> 9.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
n-butyl acetate 123-86-4	LD50	10.760 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
Propanol, 1(or 2)-ethoxy- 52125-53-8	LD50	> 5.000 mg/kg	rat	not specified
Toluene 108-88-3	LD50	5.580 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))
Ethanol 64-17-5	LD50	10.470 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Xylene - mixture of isomeres 1330-20-7	LD50	3.523 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))
Xylene - mixture of isomeres 1330-20-7	Acute toxicity estimate (ATE)	3.523 mg/kg		Expert judgement
methyl methacrylate 80-62-6	LD50	9.400 mg/kg	rat	not specified

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
n-butyl acetate 123-86-4	LD50	> 14.112 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Propanol, 1(or 2)-ethoxy- 52125-53-8	LD50	> 5.000 mg/kg	rabbit	not specified
Toluene 108-88-3	LD50	> 5.000 mg/kg	rabbit	not specified
Ethanol 64-17-5	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Xylene - mixture of isomeres 1330-20-7	LD50	1.700 mg/kg	rabbit	not specified
Xylene - mixture of isomeres 1330-20-7	Acute toxicity estimate (ATE)	1.700 mg/kg		Expert judgement
methyl methacrylate 80-62-6	LD50	> 5.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative 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	Test atmosphere	Exposure time	Species	Method
n-butyl acetate 123-86-4	LC50	> 23,4 mg/l	mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Toluene 108-88-3	LC50	28,1 mg/l	vapour	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
Ethanol 64-17-5	LC50	124,7 mg/l	vapour	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Xylene - mixture of isomeres 1330-20-7	LC50	11 mg/l	vapour	4 h	rat	not specified
Xylene - mixture of isomeres 1330-20-7	Acute toxicity estimate (ATE)	11 mg/l	vapour			Expert judgement
methyl methacrylate 80-62-6	LC50	29,8 mg/l	vapour	4 h	rat	not specified

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
n-butyl acetate 123-86-4	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Toluene 108-88-3	irritating	4 h	rabbit	EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion)
Ethanol 64-17-5	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Xylene - mixture of isomeres 1330-20-7	moderately irritating		rabbit	not specified

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
n-butyl acetate 123-86-4	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Toluene 108-88-3	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Ethanol 64-17-5	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Xylene - mixture of isomeres 1330-20-7	slightly irritating		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**
n-butyl acetate 123-86-4	not sensitising	Guinea pig maximisation test	guinea pig	not specified
Toluene 108-88-3	not sensitising	Guinea pig maximisation test	guinea pig	EU Method B.6 (Skin Sensitisation)
Ethanol 64-17-5	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Ethanol 64-17-5	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Xylene - mixture of isomeres 1330-20-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
methyl methacrylate 80-62-6	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

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
n-butyl acetate 123-86-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
n-butyl acetate 123-86-4	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Toluene 108-88-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		EU Method B.13/14 (Mutagenicity)
Toluene 108-88-3	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Ethanol 64-17-5	negative	bacterial reverse mutation assay (e.g Ames test)			OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Ethanol 64-17-5	negative	in vitro mammalian chromosome aberration test	without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Ethanol 64-17-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Xylene - mixture of isomeres 1330-20-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Xylene - mixture of isomeres 1330-20-7	negative	in vitro mammalian chromosome aberration test	with and without		EU Method B.10 (Mutagenicity)
Xylene - mixture of isomeres 1330-20-7	negative	sister chromatid exchange assay in mammalian cells	with and without		EU Method B.19 (Sister Chromatid Exchange Assay In Vitro)
methyl methacrylate 80-62-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
n-butyl acetate 123-86-4	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Toluene 108-88-3	negative	intraperitoneal		rat	not specified
Toluene 108-88-3	negative	inhalation: vapour		mouse	OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
Ethanol 64-17-5	negative				OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
Xylene - mixture of isomeres 1330-20-7	negative	intraperitoneal		rat	OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal 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
Toluene 108-88-3	not carcinogenic	inhalation: vapour	103 w 6.5 h/d, 5 d/w	rat	male/female	equivalent or similar OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Ethanol 64-17-5	not carcinogenic					Expert judgement
Xylene - mixture of isomeres 1330-20-7	not carcinogenic	oral: gavage	103 w 5 d/w	rat	male/female	EU Method B.32 (Carcinogenicity Test)

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
Toluene 108-88-3	NOAEL P 7500 mg/m3 NOAEL F1 1875 mg/m3 NOAEL F2 1875 mg/m3	Two generation study	inhalation: vapour	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
Toluene 108-88-3	NOAEL P 2261 mg/m3 NOAEL F1 2261 mg/m3	fertility	inhalation: vapour	rat	not specified
Ethanol 64-17-5	NOAEL P 13.800 mg/kg	Two generation study	oral: unspecified	mouse	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

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
n-butyl acetate 123-86-4	NOAEL 125 mg/kg	oral: gavage	6 (interim sacrifice) or 13 w daily	rat	EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)
Toluene 108-88-3	NOAEL 625 mg/kg	oral: gavage	13 w daily, 5 d/w	rat	EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Toluene 108-88-3	NOAEL 1131 mg/m3	inhalation: vapour	24 m 6.5 h/d, 5 d/w	rat	equivalent or similar to OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Toluene 108-88-3	NOAEL 2355 mg/m3	inhalation: vapour	15 w 6.5 h/d, 5 d/w	rat	EU Method B.29 (Sub-Chronic Inhalation Toxicity Test:90-Day Repeated Inhalation Dose Study Using Rodent Species)
Xylene - mixture of isomeres 1330-20-7	NOAEL 150 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
methyl methacrylate 80-62-6	LOAEL 2000 ppm	inhalation	14 weeks 6 hrs/day, 5 days/wk	mouse	Dose Range Finding Study
methyl methacrylate 80-62-6	NOAEL 1000 ppm	inhalation	14 weeks 6 hrs/day, 5 days/wk	mouse	Dose Range Finding Study

Aspiration hazard:

The mixture is classified based on Viscosity data.

Hazardous substances CAS-No.	Viscosity (kinematic) Value	Temperature	Method	Remarks
Toluene 108-88-3	0,57 mm2/s	40 °C	not specified	

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:
Do not empty into drains / surface water / ground water.

12.1. Toxicity

Toxicity (Fish):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Nickel powder [particle diameter < 1 mm] 7440-02-0	LC50	Toxicity > Water solubility	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
n-butyl acetate 123-86-4	LC50	18 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Propanol, 1(or 2)-ethoxy- 52125-53-8	LC50	> 5 mg/l	24 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Toluene 108-88-3	NOEC	3,2 mg/l	28 d	Cyprinodon variegatus	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Toluene 108-88-3	LC50	5,5 mg/l	96 h	Oncorhynchus kisutch	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethanol 64-17-5	LC50	14.200 mg/l	96 h	Pimephales promelas	EPA-660 (Methods for Acute Toxicity Tests with Fish, Macroinvertebrates and Amphibians)
Ethanol 64-17-5	NOEC	250 mg/l	120 h	Danio rerio	OECD Guideline 212 (Fish, Short-term Toxicity Test on Embryo and Sac-Fry Stages)
Xylene - mixture of isomeres 1330-20-7	LC50	2,6 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Xylene - mixture of isomeres 1330-20-7	NOEC	> 1,3 mg/l	56 d	Oncorhynchus mykiss	other guideline:
methyl methacrylate 80-62-6	LC50	350 mg/l	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (aquatic invertebrates):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Nickel powder [particle diameter < 1 mm] 7440-02-0	EC50	Toxicity > Water solubility	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
n-butyl acetate 123-86-4	EC50	44 mg/l	48 h	Daphnia sp.	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Toluene 108-88-3	EC50	3,78 mg/l	48 h	Ceriodaphnia dubia	other guideline:
Ethanol 64-17-5	EC50	5.012 mg/l	48 h	Ceriodaphnia dubia	other guideline:
Xylene - mixture of isomeres 1330-20-7	EC50	3,1 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
methyl methacrylate 80-62-6	EC50	69 mg/l	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)

Chronic toxicity (aquatic invertebrates):

The table below presents the data of the classified substances present in the mixture.

Hazardous substances **CAS-No.**	**Value type**	**Value**	**Exposure time**	**Species**	**Method**
n-butyl acetate 123-86-4	NOEC	23,2 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Toluene 108-88-3	NOEC	0,74 mg/l	7 d	Ceriodaphnia dubia	other guideline:
Ethanol 64-17-5	NOEC	9,6 mg/l	9 d	Daphnia magna	not specified
Xylene - mixture of isomeres 1330-20-7	NOEC	0,96 mg/l	7 d	Ceriodaphnia dubia	other guideline:
methyl methacrylate 80-62-6	NOEC	37 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
n-butyl acetate 123-86-4	EC50	674,7 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
n-butyl acetate 123-86-4	EC10	295,5 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propanol, 1(or 2)-ethoxy- 52125-53-8	EC0	> 10 mg/l			OECD Guideline 201 (Alga, Growth Inhibition Test)
Toluene 108-88-3	IC50	12 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethanol 64-17-5	EC50	275 mg/l	72 h	Chlorella vulgaris	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethanol 64-17-5	EC10	11,5 mg/l	72 h	Chlorella vulgaris	OECD Guideline 201 (Alga, Growth Inhibition Test)
Xylene - mixture of isomeres 1330-20-7	EC50	4,36 mg/l	73 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Xylene - mixture of isomeres 1330-20-7	EC10	1,9 mg/l	73 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
methyl methacrylate 80-62-6	EC50	170 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella 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)

Toxicity (microorganisms):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
n-butyl acetate 123-86-4	IC50	356 mg/l	40 h	Ciliate (Tetrahymena pyriformis)	other guideline:
Propanol, 1(or 2)-ethoxy- 52125-53-8	EC10	4.600 mg/l			not specified
Toluene 108-88-3	NOEC	29 mg/l	16 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
Ethanol 64-17-5	IC50	> 1.000 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
methyl methacrylate 80-62-6	EC20	> 150 - 200 mg/l	30 min	activated sludge, domestic	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
n-butyl acetate 123-86-4	readily biodegradable	aerobic	83 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Propanol, 1(or 2)-ethoxy- 52125-53-8	readily biodegradable		67 - 79 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Toluene 108-88-3	readily biodegradable	aerobic	80 %	20 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Ethanol 64-17-5	readily biodegradable	aerobic	80 - 85 %	30 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Xylene - mixture of isomeres 1330-20-7	readily biodegradable	aerobic	90 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
methyl methacrylate 80-62-6	readily biodegradable	aerobic	94 %	14 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Toluene 108-88-3	90	3 d		Leuciscus idus melanotus	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Xylene - mixture of isomeres 1330-20-7	25,9	56 d		Oncorhynchus mykiss	not specified

12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances **CAS-No.**	**LogPow**	**Temperature**	**Method**
n-butyl acetate 123-86-4	2,3	25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Toluene 108-88-3	2,73	20 °C	EU Method A.8 (Partition Coefficient)
Ethanol 64-17-5	-0,35	24 °C	not specified
Xylene - mixture of isomeres 1330-20-7	3,16	20 °C	not specified
methyl methacrylate 80-62-6	1,38	20 °C	other guideline:

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances **CAS-No.**	**PBT / vPvB**
Nickel powder [particle diameter < 1 mm] 7440-02-0	According to Annex XIII to Regulation (EC) No 1907/2006, a PBT and vPvB assessment shall not be conducted for inorganic substances.
n-butyl acetate 123-86-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Propanol, 1(or 2)-ethoxy- 52125-53-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Toluene 108-88-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Ethanol 64-17-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Xylene - mixture of isomeres 1330-20-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
methyl methacrylate 80-62-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects
Do not empty into drains, soil or bodies of water.

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

080111

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.

SECTION 14: Transport information

14.1. UN number or ID number

ADR	1993
RID	1993
ADN	1993
IMDG	1993
IATA	1993

14.2. UN proper shipping name

ADR	FLAMMABLE LIQUID, N.O.S. (n-Butylacetate,Toluene)
RID	FLAMMABLE LIQUID, N.O.S. (n-Butylacetate,Toluene)
ADN	FLAMMABLE LIQUID, N.O.S. (n-Butylacetate,Toluene)
IMDG	FLAMMABLE LIQUID, N.O.S. (n-Butylacetate,Toluene)
IATA	Flammable liquid, n.o.s. (n-Butylacetate,Toluene)

14.3. Transport hazard class(es)

ADR	3
RID	3
ADN	3
IMDG	3
IATA	3

14.4. Packing group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

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	Special provision 640D Tunnelcode: (D/E)
RID	Special provision 640D
ADN	Special provision 640D
IMDG	not applicable
IATA	not applicable

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):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EU)	30,5 %

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

National regulations/information (Great Britain):

Remarks	Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, e.g COSHH Essentials. EH40 Occupational Exposure Limits Chemicals (Hazard Information & Packaging for Supply) Regulations. The Personnel Protective Equipment at Work Regulations. The Carriage of Dangerous Goods by Road Regulations. The Health & Safety at Work Act 1974. (Note: Use latest editions/amendments of above referenced documents.)

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.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful 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.
H373 May cause damage to organs through prolonged or repeated exposure.
H373 May cause 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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