Safety Data Sheet
Permlastic Adhesive

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : Permlastic Adhesive

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

Relevant identified uses

Main use category : Professional use

Use of the substance/mixture : Preparation intended for dental medical use

Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier
KERRHAWE S.A.
Via Strecce n°4
6934 Bioggio (Switzerland)
T 00-800-41-050-505

Manufacturer
Kerr Italia S.r.l.
Via Passanti, 332
84018 Scafati (SA) - Italy
T +39-081-850-8311

Contact person : safety@kerrhawe.com - tel. 00-800-41-050-505 (08.00-17.00)

1.4. Emergency telephone number

Emergency number : CHEMTREC® Emergency Call Center. Emergency Telephone Number (for USA only) 001-800-424-9300 International and Maritime Telephone Number +1 (703) 527-3887

Country	Organisation/Company	Address	Emergency number
Gibraltar	GHA Call Centre Zone 2, Level3, St Bernard's Hospital	Harbour Views Road	+350 200 79700 +350 200 72266
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504
United Kingdom	National Poisons Information Service (Newcastle Unit)	Claremont Place Newcastle-upon-Tyne, Newcastle	+44 191 2606182/+44 191 2606180 24H

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Repr. 2	H361d
STOT SE 3	H336
STOT RE 2	H373
Aquatic Chronic 3	H412

Full text of H statements : see section 16

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS02 GHS07 GHS08

Signal word (CLP) : Danger

Hazardous ingredients : acetone, propan-2-one, propanone; toluene

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H361d - Suspected of damaging the unborn child.
H373 - May cause damage to organs (nervous system, sense organs) through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, open flames, sparks. No smoking.
P260 - Do not breathe vapours, spray, mist.
P280 - Wear protective gloves.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P370+P378 - In case of fire: Use carbon dioxide (CO2), extinguishing powder to extinguish.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

Extra phrases : The product is seen as a medical device and therefore not subject to labelling (EU-regulation 1272/2008, article 1, paragraph 5d).
A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
acetone, propan-2-one, propanone	(CAS-No.) 67-64-1 (EC-No.) 200-662-2 (EC Index-No.) 606-001-00-8 (REACH-no) 01-2119471330-49	45 - 50	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
butanone, ethyl methyl ketone	(CAS-No.) 78-93-3 (EC-No.) 201-159-0 (EC Index-No.) 606-002-00-3 (REACH-no) 01-2119457290-43	10 - 15	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
toluene	(CAS-No.) 108-88-3 (EC-No.) 203-625-9 (EC Index-No.) 601-021-00-3 (REACH-no) 01-2119471310-51	10 - 15	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
Butadiene-Acrylonitrile Copolymers	(CAS-No.) 9003-18-3	7 - 13	Not classified
Resin acids and Rosin acids, esters with glycerol	(CAS-No.) 8050-31-5 (EC-No.) 232-482-5	5 - 10	Not classified
P-tert-butylphenol-formaldehyde resin		3 - 7	Not classified
salicylic acid	(CAS-No.) 69-72-7 (EC-No.) 200-712-3 (REACH-no) 01-2119486984-17	< 2	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Repr. 2, H361d

zinc oxide	(CAS-No.) 1314-13-2 (EC-No.) 215-222-5 (EC Index-No.) 030-013-00-7 (REACH-no) 01-2119463881-32	< 1.5	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4-tert-butylphenol	(CAS-No.) 98-54-4 (EC-No.) 202-679-0 (EC Index-No.) 604-090-00-8	< 1	Skin Irrit. 2, H315 Eye Dam. 1, H318 Repr. 2, H361f Aquatic Chronic 1, H410
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	(CAS-No.) 68411-46-1 (EC-No.) 270-128-1	< 0.5	Aquatic Acute 1, H400

Full text of H-statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general : If medical advice is needed, have product container or label at hand.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : Gently wash with plenty of soap and water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Get medical advice/attention if you feel unwell.

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

Symptoms/effects : SDS section 11 toxicity hazard phrases.

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

No additional information available

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Carbon dioxide. Chemical powder.

5.2. Special hazards arising from the substance or mixture

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Hazardous decomposition products in case of fire : Carbon dioxide. Carbon monoxide. Hydrocarbons. Aldehydes. Ketones. Hydrogen cyanide.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers.

Protection during firefighting : Do not enter fire area without proper personal protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Remove ignition sources. No open flames. No smoking. Use special care to avoid static electric charges. Mechanically ventilate the spillage area. Do not eat, drink or smoke in areas where product is used. Avoid contact with skin and eyes. Do not breathe vapour.

For non-emergency personnel

Protective equipment : See Heading 8.

For emergency responders

No additional information available

6.2. Environmental precautions

Discharging into rivers and drains is forbidden. Stop leak if safe to do so. Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

For containment : Collect all waste in suitable and labelled containers and dispose according to local legislation.

Methods for cleaning up : Take up liquid spill into absorbent material. Mechanically recover the product. Ground/bond container and receiving equipment. This material and its container must be disposed of in a safe way, and as per local legislation. Ventilate well.

6.4. Reference to other sections

For further information refer to section 13. See Heading 8. Exposure controls and personal protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Additional hazards when processed : Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours.

Precautions for safe handling : For professional use only. Provide good ventilation in process area to prevent formation of vapour. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Ground/bond container and receiving equipment. Wear personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Protect from sunlight. Do not expose to heat.

Incompatible materials : Oxidizing substances. Acids.

7.3. Specific end use(s)

No additional information available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

acetone, propan-2-one, propanone (67-64-1)		
EU	Local name	Acetone
EU	IOELV TWA (mg/m³)	1210 mg/m³
EU	IOELV TWA (ppm)	500 ppm
Gibraltar	Eight hours mg/m3	1210 mg/m³
Gibraltar	Eight hours ppm	500 ppm
Ireland	Local name	Acetone
Ireland	OEL (8 hours ref) (mg/m³)	1210 mg/m³
Ireland	OEL (8 hours ref) (ppm)	500 ppm
Ireland	Notes (IE)	IOELV
Malta	Local name	Acetone
Malta	OEL TWA (mg/m³)	1210 mg/m³
Malta	OEL TWA (ppm)	500 ppm
United Kingdom	Local name	Acetone
United Kingdom	WEL TWA (mg/m³)	1210 mg/m³
United Kingdom	WEL TWA (ppm)	500 ppm
United Kingdom	WEL STEL (mg/m³)	3620 mg/m³
United Kingdom	WEL STEL (ppm)	1500 ppm

butanone, ethyl methyl ketone (78-93-3)		
EU	Local name	Butanone
EU	IOELV TWA (mg/m³)	600 mg/m³
EU	IOELV TWA (ppm)	200 ppm
EU	IOELV STEL (mg/m³)	900 mg/m³
EU	IOELV STEL (ppm)	300 ppm
Gibraltar	Eight hours mg/m3	600 mg/m³
Gibraltar	Eight hours ppm	200 ppm
Gibraltar	Short-term mg/m3	900 mg/m³
Gibraltar	Short-term ppm	300 ppm
Ireland	Local name	Methyl ethyl ketone (MEK)
Ireland	OEL (8 hours ref) (mg/m³)	600 mg/m³
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Ireland	OEL (15 min ref) (mg/m3)	900 mg/m³
Ireland	OEL (15 min ref) (ppm)	300 ppm
Ireland	Notes (IE)	Sk, IOELV
Malta	Local name	Butanone
Malta	OEL TWA (mg/m³)	600 mg/m³
Malta	OEL TWA (ppm)	200 ppm
Malta	OEL STEL (mg/m³)	900 mg/m³
Malta	OEL STEL (ppm)	300 ppm

butanone, ethyl methyl ketone (78-93-3)		
United Kingdom	Local name	Butan-2-one (methyl ethyl ketone)
United Kingdom	WEL TWA (mg/m³)	600 mg/m³
United Kingdom	WEL TWA (ppm)	200 ppm
United Kingdom	WEL STEL (mg/m³)	899 mg/m³
United Kingdom	WEL STEL (ppm)	300 ppm
United Kingdom	Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity), BMGV (Biological monitoring guidance values are listed in Table 2)

toluene (108-88-3)		
EU	Local name	Toluene
EU	IOELV TWA (mg/m³)	192 mg/m³
EU	IOELV TWA (ppm)	50 ppm
EU	IOELV STEL (mg/m³)	384 mg/m³
EU	IOELV STEL (ppm)	100 ppm
EU	Notes	skin
Gibraltar	Eight hours mg/m3	192 mg/m³
Gibraltar	Eight hours ppm	50 ppm
Gibraltar	Short-term mg/m3	384 mg/m³
Gibraltar	Short-term ppm	100 ppm
Ireland	Local name	Toluene
Ireland	OEL (8 hours ref) (mg/m³)	192 mg/m³
Ireland	OEL (8 hours ref) (ppm)	50 ppm
Ireland	OEL (15 min ref) (mg/m3)	384 mg/m³
Ireland	OEL (15 min ref) (ppm)	100 ppm
Ireland	Notes (IE)	Sk, IOELV
Malta	Local name	Toluene
Malta	OEL TWA (mg/m³)	192 mg/m³
Malta	OEL TWA (ppm)	50 ppm
Malta	OEL STEL (mg/m³)	384 mg/m³
Malta	OEL STEL (ppm)	100 ppm
United Kingdom	Local name	Toluene
United Kingdom	WEL TWA (mg/m³)	191 mg/m³
United Kingdom	WEL TWA (ppm)	50 ppm
United Kingdom	WEL STEL (mg/m³)	384 mg/m³
United Kingdom	WEL STEL (ppm)	100 ppm
United Kingdom	Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)

zinc oxide (1314-13-2)		
EU	Local name	Zinc oxide
EU	Notes	(Ongoing)
Ireland	Local name	Zinc oxide, fume
Ireland	OEL (8 hours ref) (mg/m³)	2 mg/m³ R (Respirable)
Ireland	OEL (15 min ref) (mg/m3)	10 mg/m³

8.2. Exposure controls

Appropriate engineering controls : If used outside of a hood, adequate ventilation will be required to prevent exposure. Use spark-/explosionproof appliances and lighting system.

Personal protective equipment : Gloves. Safety glasses. Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the protective equipment.

Hand protection	:	Wear suitable gloves. Nitrile rubber gloves. Layer thickness : 0,09mm. Breakthrough time : >480 min. STANDARD EN 374.
Eye protection	:	Chemical goggles or safety glasses. STANDARD EN 166.
Skin and body protection	:	Wear suitable protective clothing
Respiratory protection	:	In case of insufficient ventilation, wear suitable respiratory equipment. Extra personal protection: A/P2 filter respirator for organic vapour and harmful dust. EN 136. EN 140

Other information	:	Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the protective equipment. Do not eat, drink or smoke during use. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	brown.
Odour	:	Ketones.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	1.9
Melting point	:	Not determined
Freezing point	:	Not determined
Boiling point	:	>= 55.8 °C Acetone
Flash point	:	-18 °C Acetone
Auto-ignition temperature	:	Not determined
Decomposition temperature	:	Not determined
Flammability (solid, gas)	:	No data available
Vapour pressure	:	Not determined
Relative vapour density at 20 °C	:	Not determined
Relative density	:	0.86 - 0.89 g/cm3
Solubility	:	Not determined.
Log Pow	:	Not determined
Viscosity, kinematic	:	Not determined
Viscosity, dynamic	:	175 - 350 mPa.s [@ 25°C]
Explosive properties	:	Not determined.
Oxidising properties	:	Highly flammable liquid and vapour.
Explosive limits	:	Not determined

9.2. Other information

VOC content	:	74 - 78 %

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Can react with. Acids. Oxidation agents.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No polymerization.

10.4. Conditions to avoid

No flames, no sparks. Eliminate all sources of ignition. Keep away from heat and direct sunlight.

10.5. Incompatible materials

Oxidizing agent. Acids.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity : Not classified

On ingestion :
Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination
May cause gastrointestinal irritation, nausea, vomiting and diarrhoea

acetone, propan-2-one, propanone (67-64-1)	
LD50 oral rat	5800 mg/kg
LD50 dermal rabbit	> 15688 mg/kg
LC50 inhalation rat (mg/l)	76 mg/l
LC50 inhalation rat (Vapours - mg/l/4h)	76 mg/l/4h

butanone, ethyl methyl ketone (78-93-3)	
LD50 oral rat	2193 mg/kg
LD50 dermal rabbit	5000 mg/kg
LC50 inhalation rat (mg/l)	34 mg/l/4h

toluene (108-88-3)	
LD50 oral rat	5550 mg/kg
LD50 dermal rabbit	12000 mg/kg
LC50 inhalation rat (mg/l)	30 mg/l/4h

Butadiene-Acrylonitrile Copolymers (9003-18-3)	
LD50 oral rat	> 30000 mg/kg
LD50 dermal rabbit	> 15000 mg/kg

Resin acids and Rosin acids, esters with glycerol (8050-31-5)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

P-tert-butylphenol-formaldehyde resin	
LD50 oral rat	5660 mg/kg
LD50 dermal rabbit	5000 mg/kg

salicylic acid (69-72-7)	
LD50 oral rat	891 mg/kg
LD50 dermal rat	> 2000 mg/kg

zinc oxide (1314-13-2)	
LD50 oral rat	> 15000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	5.7 mg/l/4h

4-tert-butylphenol (98-54-4)	
LD50 oral rat	4000 mg/kg
LD50 dermal rabbit	2318 mg/kg
LC50 inhalation rat (mg/l)	> 5.6 mg/l/4h

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation : Causes skin irritation.

May cause eczema
Itching

Serious eye damage/irritation : Causes serious eye irritation.

Redness, pain
Lacrimation

Respiratory or skin sensitisation : Not classified

Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

Based on available data, the classification criteria are not met

Reproductive toxicity : Suspected of damaging the unborn child.

STOT-single exposure	:	May cause drowsiness or dizziness. May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination
STOT-repeated exposure	:	May cause damage to organs (nervous system, sense organs) through prolonged or repeated exposure.
Aspiration hazard	:	Not classified Based on available data, the classification criteria are not met

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - water : Harmful to aquatic life with long lasting effects.

acetone, propan-2-one, propanone (67-64-1)	
LC50 fish 1	5540 mg/l Oncorhynchus mykiss (Rainbow trout)
EC50 Daphnia 1	13500 mg/l (48 hours - Daphnia magna)
NOEC (chronic)	1000 mg/l

butanone, ethyl methyl ketone (78-93-3)	
LC50 fish 1	> 100 mg/l LC50 96 h - fish [mg/l]
LC50 other aquatic organisms 1	> 402 mg/l (96 hours)
NOEC (chronic)	100 mg/l
NOEC chronic algae	93 mg/l
Threshold limit algae 1	110 mg/l

toluene (108-88-3)	
LC50 fish 1	5.5 mg/l
EC50 Daphnia 1	3.78 mg/l
LC50 fish 2	6.41 mg/l
NOEC chronic fish	1.39 mg/l
NOEC chronic algae	0.74 mg/l

Resin acids and Rosin acids, esters with glycerol (8050-31-5)	
LC50 fish 1	> 100 mg/l
EC50 Daphnia 1	> 100 mg/l
NOEC chronic algae	> 100 mg/l

salicylic acid (69-72-7)	
LC50 fish 1	> 100 mg/l
EC50 Daphnia 1	870 mg/l

zinc oxide (1314-13-2)	
LC50 fish 1	0.21 mg/l (96 hours - Rainbow trout)
EC50 Daphnia 1	0.24 mg/l (48 hours - Daphnia magna)
NOEC (chronic)	72 hours - Pseudokirchnerella subcapitata
NOEC chronic fish	0.049 mg/l
NOEC chronic crustacea	0.007 mg/l

4-tert-butylphenol (98-54-4)	
LC50 fish 1	5.1 mg/l
LC50 other aquatic organisms 1	1.9 mg/l
EC50 Daphnia 1	3.9 mg/l
IC50 algae	14 mg/l (96 hours - Pseudokirchneriella subcapitata)
NOEC chronic fish	0.01 mg/l
NOEC chronic crustacea	0.73 mg/l
NOEC chronic algae	0.32 mg/l

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
LC50 fish 1	> 71 mg/l
EC50 other aquatic organisms 1	0.82 mg/l
NOEC chronic algae	> 10 mg/l

12.2. Persistence and degradability

Permlastic Adhesive	
Persistence and degradability	May cause long-term adverse effects in the environment.

acetone, propan-2-one, propanone (67-64-1)	
Persistence and degradability	Biodegradable.
BOD (% of ThOD)	0.96 % ThOD BOD5/COD
Biodegradation	< 78 % (OECD 301D method)

toluene (108-88-3)	
Biodegradation	80 %

salicylic acid (69-72-7)	
Biodegradation	88.1 % (OECD 301C method)

4-tert-butylphenol (98-54-4)	
Biodegradation	98 %

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
Biodegradation	<= 1 % (OECD 301B method)

12.3. Bioaccumulative potential

Permlastic Adhesive	
Log Pow	Not determined
Bioaccumulative potential	No data.

acetone, propan-2-one, propanone (67-64-1)	
Bioconcentration factor (BCF REACH)	0.65
Log Pow	-0.27

butanone, ethyl methyl ketone (78-93-3)	
Log Pow	0.61

toluene (108-88-3)	
Log Pow	2.73

Resin acids and Rosin acids, esters with glycerol (8050-31-5)	
Log Pow	< 1.5

salicylic acid (69-72-7)	
Log Pow	2.26

zinc oxide (1314-13-2)	
Bioconcentration factor (BCF REACH)	< 217

4-tert-butylphenol (98-54-4)	
Bioconcentration factor (BCF REACH)	88

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
Bioconcentration factor (BCF REACH)	1730

12.4. Mobility in soil

Permlastic Adhesive	
Ecology - soil	No data.

12.5. Results of PBT and vPvB assessment

Permlastic Adhesive
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Other adverse effects : None to our knowledge.

Additional information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Regional legislation (waste) : Dispose as hazardous waste.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Do not discharge into drains.

Product/Packaging disposal recommendations : Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.
Dispose of contents/container to a hazardous or special waste collection point.

Ecology - waste materials : Avoid release to the environment.

European List of Waste (LoW) code : 08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances
20 01 27* - paint, inks, adhesives and resins containing dangerous substances

SECTION 14: TRANSPORT INFORMATION

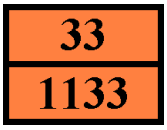
In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1133	1133	1133	1133	1133
14.2. UN proper shipping name				
ADHESIVES	ADHESIVES	Adhesives	ADHESIVES	ADHESIVES
Transport document description				
UN 1133 ADHESIVES, 3, II, (D/E)	UN 1133 ADHESIVES, 3, II			
14.3. Transport hazard class(es)				
3	3	3	3	3
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Special provisions (ADR) : 640D
Limited quantities (ADR) : 5l
Excepted quantities (ADR) : E2
Hazard identification number (Kemler No.) : 33
Orange plates :



EAC code : •3YE

- Transport by sea

Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E2
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-D
Flash point (IMDG) : -18°C

- Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y341
Special provisions (IATA) : A3

Rail transport

No data available

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

IBC code : Not applicable.

SECTION 15: REGULATORY INFORMATION

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

EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

VOC content : 74 - 78 %

National regulations

EC-regulation 2015/830 /EC, 1907/2006/EC (REACH), 1272/2008/EC (CLP), 790/2009/EC. Transport of dangerous goods (ADR/RID, IMDG, IATA/ICAO). Workplace exposure limits.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: OTHER INFORMATION

Indication of changes:

2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.2	Hazard pictograms (CLP)	Modified	
2.2	Precautionary statements (CLP)	Modified	
2.2	Hazard statements (CLP)	Modified	
3	Composition/information on ingredients	Modified	
4.1	First-aid measures after skin contact	Modified	
4.1	First-aid measures after ingestion	Modified	
4.2	Symptoms/effects	Modified	
5.1	Suitable extinguishing media	Modified	
5.2	Explosion hazard	Added	
5.2	Hazardous decomposition products in case of fire	Modified	
6.1	General measures	Modified	
6.2	Environmental precautions	Modified	
6.3	Methods for cleaning up	Modified	
7.1	Additional hazards when processed	Added	
7.1	Precautions for safe handling	Modified	
7.2	Storage conditions	Modified	
8.2	Respiratory protection	Modified	
8.2	Hand protection	Modified	
8.2	Personal protective equipment	Modified	
8.2	Appropriate engineering controls	Modified	
10.1	Reactivity	Modified	
10.6	Hazardous decomposition products	Modified	
12.1	Ecology - water	Modified	
12.2	Persistence and degradability	Modified	
12.3	Log Pow	Added	
13.1	Waste treatment methods	Modified	
13.1	Waste disposal recommendations	Modified	
15.1	VOC content	Added	

Data sources : EC-regulation 2015/830 /EC, 1907/2006/EC (REACH), 1272/2008/EC (CLP), 790/2009/EC. Transport of dangerous goods (ADR/RID, IMDG, IATA/ICAO). Workplace exposure limits.

Date of issue : 23/02/2004

Revision date : 30/12/2017

Supersedes	:	03/03/2016
Date of total revision	:	30/12/2017
Version	:	6.0
Signature	:	A. Åsebø Murel

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
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.
H412	Harmful to aquatic life with long lasting effects.

The information in this safety data sheet is based on information from the manufacturer/supplier, present european and national legislation, and presupposes that the product is used within the specified area of application.