# Sicherheitsdatenblatt



Produkt:	HM1642
Hersteller:	PERMABOND ENGINEERING ADHESIVES
Warengruppe:	KLEBSTOFF
Artikelgruppe:	ANAEROB
Download:	20.04.2024

## PERMABOND® HM1642

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## SAFETY DATA SHEET Permabond HM1642

SECTION 1: Identification of the substance/mixture and of the company/undertaking		
1.1. Product identifier		
Product name	Permabond HM1642	
1.2. Relevant identified uses of the substance or mixture and uses advised against		
Identified uses	Adhesive. Sealant.	
1.3. Details of the supplier of t	he safety data sheet	
Supplier	Permabond Engineering Adhesives Ltd. Wessex Way Colden Common Winchester Hampshire. SO21 1WP United Kingdom Tel: +44 (0)1962 711 661 Fax: +44 (0)1962 711 662 info.europe@permabond.com	
1.4. Emergency telephone nu	mber	
Emergency telephone	UK +44 (0)1962 711 661 USA 0800 640 7599 Asia +86 (0)21 5773 4913	
SECTION 2: Hazards identific	ation	
2.1. Classification of the subst Classification (EC 1272/2008) Physical hazards Health hazards Environmental hazards 2.2. Label elements Pictogram		
Signal word	Warning	
Hazard statements	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation.	
Precautionary statements	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352a IF ON SKIN: Wash with plenty of soap and water P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 IF exposed or concerned: Get medical advice/ attention.	

Contains	2-HYDROXYETHYL METHACRYLATE, ACRYLIC ACID
Supplementary precautionary statements	<ul> <li>P261 Avoid breathing vapour/ spray.</li> <li>P264 Wash contaminated skin thoroughly after handling.</li> <li>P271 Use only outdoors or in a well-ventilated area.</li> <li>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li> <li>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</li> <li>P337+P313 If eye irritation persists: Get medical advice/ attention.</li> <li>P362+P364 Take off contaminated clothing and wash it before reuse.</li> <li>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</li> <li>P501 Dispose of contents/container in accordance with existing Community, National and local regulations.</li> </ul>

#### 2.3. Other hazards

None under normal conditions.

SECTION 3: Composition/informat	tion on ingredients	
3.2. Mixtures		
2-HYDROXYETHYL METHACRY	′LATE	10-30%
CAS number: 868-77-9	EC number: 212-782-2	REACH registration number: 01- 2119490169-29-XXXX
<b>Classification</b> Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317		
BISPHENOL A ETHOXYLATE DI	METHACRYLATE	1-5%
CAS number: 41637-38-1	EC number: 609-946-4	REACH registration number: 01- 2119980659-17-XXXX
<b>Classification</b> Aquatic Chronic 4 - H413		
ACRYLIC ACID		1-<3%
CAS number: 79-10-7	EC number: 201-177-9	REACH registration number: 01- 2119452449-31-XXXX
M factor (Acute) = 1		
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1A - H314 Eye Dam. 1 - H318 STOT SE 3 - H335		
Aquatic Acute 1 - H400		

ETHANEDIOL		<1%
CAS number: 107-21-1	EC number: 203-473-3 REACH registration number: 0 2119456816-28-XXXX	1-
Classification		
Acute Tox. 4 - H302		
STOT RE 2 - H373		
TERT-BUTYL HYDROPER	OXIDE	<1%
CAS number: 75-91-2	EC number: 200-915-7 REACH registration number: 0 2119446670-40-XXXX	1-
Classification		
Flam. Liq. 3 - H226		
Org. Perox. C - H242		
Acute Tox. 4 - H302		
Acute Tox. 3 - H311		
Acute Tox. 2 - H330		
Skin Corr. 1B - H314		
Eye Dam. 1 - H318		
Skin Sens. 1 - H317		
Muta. 2 - H341		
Aquatic Chronic 2 - H411		
CUMENE HYDROPEROXI	DE	<1%
CAS number: 80-15-9	EC number: 201-254-7 REACH registration number: 0	1-
	2119475796-19-XXXX	
Classification	2119475796-19-XXXX	
Classification	2119475796-19-XXXX	
Org. Perox. E - H242	2119475796-19-XXXX	
Org. Perox. E - H242 Acute Tox. 4 - H302	2119475796-19-XXXX	
Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312	2119475796-19-XXXX	
Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331	2119475796-19-XXXX	
Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314	2119475796-19-XXXX	
Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331	2119475796-19-XXXX	
Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318	2119475796-19-XXXX	
Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335	2119475796-19-XXXX	
Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Aquatic Chronic 2 - H411	2119475796-19-XXXX atements is displayed in Section 16.	
Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Aquatic Chronic 2 - H411 The full text for all hazard sta	atements is displayed in Section 16.	
Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Aquatic Chronic 2 - H411 The full text for all hazard sta SECTION 4: First aid measure	atements is displayed in Section 16. <b>Ires</b>	
Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Aquatic Chronic 2 - H411	atements is displayed in Section 16. <b>Ires</b>	nues.
Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Aquatic Chronic 2 - H411 The full text for all hazard sta SECTION 4: First aid measure 4.1. Description of first aid measure	atements is displayed in Section 16. <b>Ires</b> <b>Ieasures</b>	

Eye contact	Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
4.2. Most important symptoms	and effects, both acute and delayed
Inhalation	May cause irritation.
Skin contact	Skin irritation. Mild dermatitis, allergic skin rash.
Eye contact	Irritating and may cause redness and pain.
4.3. Indication of any immedia	te medical attention and special treatment needed
Notes for the doctor	No specific recommendations. Treat symptomatically.
SECTION 5: Firefighting meas	sures
5.1. Extinguishing media	
Suitable extinguishing media	Foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Water.
5.2. Special hazards arising fr	om the substance or mixture
Hazardous combustion products	Burning produces irritating, toxic and obnoxious fumes. Carbon monoxide, carbon dioxide, and unknown hydrocarbons.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
for mongritoro	olouing.
SECTION 6: Accidental release	-
SECTION 6: Accidental release	-
SECTION 6: Accidental release	e measures
SECTION 6: Accidental releas 6.1. Personal precautions, pro	tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet.
SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions	tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet.
SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions 6.2. Environmental precaution	tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. S Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains.
SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions 6.2. Environmental precaution Environmental precautions	tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. S Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains.
SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for	<b>be measures</b> tective equipment and emergency procedures         Wear protective clothing as described in Section 8 of this safety data sheet. <b>s</b> Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. <b>containment and cleaning up</b> Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal.
SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up	<b>be measures</b> tective equipment and emergency procedures         Wear protective clothing as described in Section 8 of this safety data sheet. <b>s</b> Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. <b>containment and cleaning up</b> Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal.
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SECTION 6: Accidental releas 6.1. Personal precautions, pro Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections	<b>be measures</b> tective equipment and emergency procedures   Wear protective clothing as described in Section 8 of this safety data sheet.   s   Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains.   containment and cleaning up   Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal.   ns   For personal protection, see Section 8. For waste disposal, see section 13.
SECTION 6: Accidental release 6.1. Personal precautions, pro- Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections SECTION 7: Handling and stor	tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. S Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. containment and cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal. ns For personal protection, see Section 8. For waste disposal, see section 13. rage
SECTION 6: Accidental release 6.1. Personal precautions, pro- Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections SECTION 7: Handling and sto 7.1. Precautions for safe hand Usage precautions	tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. S Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. Containment and cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal. S For personal protection, see Section 8. For waste disposal, see section 13. rage ling Use in a well ventilated area. Avoid contact with skin and eyes. Avoid eating, drinking and
SECTION 6: Accidental release 6.1. Personal precautions, pro- Personal precautions 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections SECTION 7: Handling and sto 7.1. Precautions for safe hand Usage precautions	tective equipment and emergency procedures Wear protective clothing as described in Section 8 of this safety data sheet. S Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains. containment and cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal. ns For personal protection, see Section 8. For waste disposal, see section 13. rage ling Use in a well ventilated area. Avoid contact with skin and eyes. Avoid eating, drinking and smoking when using the product.

Specific end use(s)This product is not recommended for use in joints which will be in contact with either pure<br/>oxygen or steam.

Usage description Adhesive. Sealant.

#### SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

Occupational exposure limits

#### ETHANEDIOL

Long-term exposure limit (8-hour TWA): WEL 20 ppm 52 mg/m<sup>3</sup> vapour Short-term exposure limit (15-minute): WEL 40 ppm 104 mg/m<sup>3</sup> vapour Sk Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> particulate Sk WEL = Workplace Exposure Limit Sk = Can be absorbed through the skin.

#### 8.2. Exposure controls

Protective equipment





Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.
The following protection should be worn: Chemical splash goggles or face shield. Personal eye protection should conform to EN 166
Nitrile rubber or Viton <sup>™</sup> gloves are recommended. Gloves should conform to EN 374. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
Employee must wear appropriate protective clothing and equipment to prevent any possibility of skin contact with this substance.
Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Use of good industrial hygiene practices is required.
Ensure adequate ventilation of the working area. Respiratory protection may be required if excessive airborne contamination occurs. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Organic vapour filter. Type A.

#### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Green.
Odour	Acrylic
Odour threshold	Not available.
рН	Not relevant.
Melting point	Not available.
Initial boiling point and range	Not applicable.

Flash point	>100°C
Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.1
Solubility(ies)	Slightly soluble in water. Miscible with the following materials: Organic solvents.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	≈9000 mPa s @ 23°C
Oxidising properties	Not available.
9.2. Other information	
Other information	Not relevant.
SECTION 10: Stability and rea	Ictivity
10.1. Reactivity	
Reactivity	The following materials may react with the product: Strong oxidising agents.
10.2. Chemical stability	
Stability	Stable at normal ambient temperatures.
10.3. Possibility of hazardous	reactions
Possibility of hazardous reactions	There are no known reactivity hazards associated with this product.
<u>10.4. Conditions to avoid</u> Conditions to avoid 10.5. Incompatible materials	Avoid the absence of air, and metal contamination.
Materials to avoid	Metals and their salts. Free radical initiators.
10.6. Hazardous decompositio	n products
Hazardous decomposition products	Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.
SECTION 11: Toxicological int	formation
11.1. Information on toxicologi	cal effects
Toxicological effects	The toxicological properties of this product have not been fully evaluated. Avoid direct contact with skin or eyes. Do not ingest or inhale.
Skin corrosion/irritation Animal data Serious eye damage/irritation Serious eye damage/irritation	Irritating to skin. Causes serious eye irritation.

Skin sensitisation Skin sensitisation	May cause sensitisation by skin contact.
Aspiration hazard Aspiration hazard	None under normal conditions.
Inhalation	In high concentrations, vapours may irritate throat and respiratory system and cause

coughing.

### Toxicological information on ingredients.

#### 2-HYDROXYETHYL METHACRYLATE

Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	5,000.0
Species	Rat
ATE oral (mg/kg)	5,000.0
Acute toxicity - dermal	
Acute toxicity dermal (LD₅₀ mg/kg)	3,000.0
Species	Rabbit
ATE dermal (mg/kg)	3,000.0
	BISPHENOL A ETHOXYLATE DIMETHACRYLATE
Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	2,000.1
Species	Rat
ATE oral (mg/kg)	2,000.1
Acute toxicity - dermal	
Acute toxicity dermal (LD₅₀ mg/kg)	2,000.1
Species	Rat
ATE dermal (mg/kg)	2,000.1
Skin corrosion/irritation	
Skin corrosion/irritation	Not irritating.
Serious eye damage/irritatio	on
Serious eye damage/irritation	Not irritating.
Skin sensitisation	
Skin sensitisation	Not sensitising.
Germ cell mutagenicity	

Genotoxicity - in vitro Chromosome aberration: Negative.

#### ACRYLIC ACID

Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	1,405.0
Species	Rat
ATE oral (mg/kg)	500.0
Acute toxicity - dermal	
Acute toxicity dermal (LD₅₀ mg/kg)	2,000.0
Species	Rabbit
ATE dermal (mg/kg)	1,100.0
Acute toxicity - inhalation	
Acute toxicity inhalation (LC50 dust/mist mg/l)	3.6
Species	Rat
ATE inhalation (dusts/mists mg/l)	3.6
Carcinogenicity	
IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.
Reproductive toxicity	
Reproductive toxicity - fertility	- NOAEL 460 mg/l, Oral, Rat P, F1
Reproductive toxicity - development	Fetotoxicity: - NOAEC: >= 0.673 mg/l, Inhalation, Rabbit
	TERT-BUTYL HYDROPEROXIDE
Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	560.0
Species	Rat
ATE oral (mg/kg)	560.0
Acute toxicity - dermal	
Acute toxicity dermal (LD₅₀ mg/kg)	440.0
Species	Rabbit
ATE dermal (mg/kg)	440.0
Acute toxicity - inhalation	

	Acute toxicity inhalation (LC₅₀ gases ppmV)	1.85	
	Species	Rat	
	ATE inhalation (gases ppm)	100.0	
	Skin corrosion/irritation		
	Animal data	Corrosive to skin.	
	Serious eye damage/irritation		
	Serious eye damage/irritation	Corrosive	
	Skin sensitisation		
	Skin sensitisation	Sensitising.	
	Reproductive toxicity		
	Reproductive toxicity - fertility	- NOAEL 21 mg/kg/day, Oral, Rat P	
	Inhalation	Irritating to respiratory system.	
		CUMENE HYDROPEROXIDE	
	Acute toxicity - oral		
	ATE oral (mg/kg)	500.0	
	Acute toxicity - dermal		
	ATE dermal (mg/kg)	1,100.0	
	Acute toxicity - inhalation		
	ATE inhalation (vapours mg/l)	3.0	
	Skin corrosion/irritation		
	Animal data	Highly irritating.	
	Serious eye damage/irritat	ion	
	Serious eye damage/irritation	Irritating to eyes.	
	Skin sensitisation		
	Skin sensitisation	Not sensitising.	
SECTION 1	2: Ecological Information		
Ecotoxicity	The pro-	duct is not expected to be hazardous to the environment.	
12.1. Toxicit	—		
Toxicity	No data	available.	
Ecological information on ingredients.			
		2-HYDROXYETHYL METHACRYLATE	

Acute toxicity - fish	LC₅₀, 96 hours: > 100 mg/l, Oryzias latipes (Red killifish)
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 380 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC₅₀, 72 hours: 836 mg/l, Selenastrum capricornutum NOEC, 72 hours: 400 mg/l, Selenastrum capricornutum
Acute toxicity - microorganisms	EC₅₀, 16 hours: > 3000 mg/l, Pseudomonas fluorescens
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 24.1 mg/l, Daphnia magna
	BISPHENOL A ETHOXYLATE DIMETHACRYLATE
Acute toxicity - fish	LL₅₀, 96 hours: >100 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	NOELR, 48 hours: 100 mg/l, Daphnia magna
Acute toxicity - microorganisms	NOEC, 3 hours: 10 mg/l, Activated sludge
	ACRYLIC ACID
Acute aquatic toxicity	
LE(C)₅₀	$0.1 < L(E)C50 \le 1$
M factor (Acute)	1
Acute toxicity - fish	LC₅₀, 96 hours: 222 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - aquatic invertebrates	LC₅₀, 24 hours: 270 mg/l, Daphnia magna EC₅₀, 48 hours: 95 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC₅₀, 72 hours: 0.04 mg/l, Desmodesmus subspicatus EC₅₀, 96 hours: 0.17 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	EC <sub>20</sub> , 30 minutes: 900 mg/l, Activated sludge
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 19 mg/l, Daphnia magna
	TERT-BUTYL HYDROPEROXIDE
Acute toxicity - fish	LC₅₀, 96 hours: 29.6 mg/l, Pimephales promelas (Fat-head Minnow) LC₅₀, 96 hours: 56.9 mg/l, Poecilia reticulata (Guppy)
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 14.1 mg/l, Daphnia magna
Acute toxicity - microorganisms	EC₅₀, 30 minutes: 17 mg/l, Activated sludge
	CUMENE HYDROPEROXIDE

Acute toxicity - fish LC<sub>50</sub>, 96 hour: 3.9 mg/l, Onchorhynchus mykiss (Rainbow trout)

## 12.2. Persistence and degradability

Persistence and degradability No data available.

Ecological information on ingredients.

	2-HYDROXYETHYL METHACRYLATE
Biodegradation	Water - Degradation 84%: 28 days
	BISPHENOL A ETHOXYLATE DIMETHACRYLATE
Persistence and degradability	The product is biodegradable.
	ACRYLIC ACID
Biodegradation	Water - Degradation 81%: 28 days
	TERT-BUTYL HYDROPEROXIDE
Biodegradation	The product is not readily biodegradable. Water - 0 %: 28 days
	CUMENE HYDROPEROXIDE
Biodegradation	The substance is readily biodegradable.
12.3. Bioaccumulative potential	
Bioaccumulative potential No data	a available on bioaccumulation.
Ecological information on ingredients.	
	2-HYDROXYETHYL METHACRYLATE
Bioaccumulative potential	BCF: 1.34 - 1.54,
	BISPHENOL A ETHOXYLATE DIMETHACRYLATE
Partition coefficient	log Pow: 5.30~5.62
	ACRYLIC ACID
Partition coefficient	log Kow: 0.46
12.4. Mobility in soil	
Mobility No data	a available.
Ecological information on ingredients.	
	2-HYDROXYETHYL METHACRYLATE
Adsorption/desorption coefficient	Water - Koc: 42.7 @ 20°C
	ACRYLIC ACID
Surface tension	69.6 mN/m @ 20°C

#### TERT-BUTYL HYDROPEROXIDE

Surface tension	69.9 mN/m @ 20°C	
12.5. Results of PBT and vPvB	3 assessment	
Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.	
Ecological information on ingre	edients.	
	TERT-BUTYL HYDROPEROXIDE	
Results of PBT ar assessment	<b>nd vPvB</b> This product does not contain any substances classified as PBT or vPvB.	
12.6. Other adverse effects		
Other adverse effects	None known.	
SECTION 13: Disposal conside	erations	
13.1. Waste treatment methods	<u>S</u>	
General information	Waste disposal should be in accordance with existing Community, National and local regulations Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.	
Disposal methods	Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.	
Waste class	08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances.	
SECTION 14: Transport inform	nation	
General	The product is not classified as dangerous for carriage.	
14.1. UN number		
Not applicable.		
14.2. UN proper shipping name	e	
Not applicable.		
14.3. Transport hazard class(e	<u>s)</u>	
Not applicable.		
14.4. Packing group		
Not applicable.		
14.5. Environmental hazards		
Environmentally hazardous sul No.	bstance/marine pollutant	
14.6. Special precautions for us	ser	
Not applicable.		
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code		

#### Transport in bulk according to Not applicable. Annex II of MARPOL 73/78 and the IBC Code

#### SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture			
National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).		
EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)		
Guidance	Workplace Exposure Limits EH40. CHIP for everyone HSG228. Approved Classification and Labelling Guide (Sixth edition) L131. Safety Data Sheets for Substances and Preparations.		

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

#### SECTION 16: Other information

Revision date	27/06/2017
Revision	3
Supersedes date	05/05/2017
Hazard statements in full	<ul> <li>H226 Flammable liquid and vapour.</li> <li>H242 Heating may cause a fire.</li> <li>H302 Harmful if swallowed.</li> <li>H311 Toxic in contact with skin.</li> <li>H312 Harmful in contact with skin.</li> <li>H314 Causes severe skin burns and eye damage.</li> <li>H315 Causes skin irritation.</li> <li>H317 May cause an allergic skin reaction.</li> <li>H318 Causes serious eye damage.</li> <li>H319 Causes serious eye damage.</li> <li>H319 Toxic if inhaled.</li> <li>H331 Toxic if inhaled.</li> <li>H332 Harmful if inhaled.</li> <li>H335 May cause respiratory irritation.</li> <li>H341 Suspected of causing genetic defects.</li> <li>H373 May cause damage to organs through prolonged or repeated exposure.</li> <li>H400 Very toxic to aquatic life.</li> <li>H411 Toxic to aquatic life with long lasting effects.</li> <li>H413 May cause long lasting harmful effects to aquatic life.</li> </ul>

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.