



Safety Data Sheet according to Regulation (EC) No1907/2006

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LOCTITE AA 3038 A RESIN known as LOCTITE 3034 PO RESIN
490ML

SDS No. : 196346
V004.2

Revision: 06.05.2014
printing date: 24.03.2015

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

1.1. Product identifier

LOCTITE AA 3038 A RESIN known as LOCTITE 3034 PO RESIN 490ML

Contains:

Trimethylolpropane tris[3-(2-methylaziridinyl)propanoate]
2,5,8,11,14-Pentaoxapentadecane
Lithium tri-sec-butylhydroborate

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

Intended use:
Acrylic Adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Limited
2 Bishop Square Business Park
AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933
Fax-no.: +44 1606 863762

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye damage	Category 1
H318 Causes serious eye damage.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Germ cell mutagenicity	Category 2
H341 Suspected of causing genetic defects.	
Toxic to reproduction	Category 1B
H360Df May damage the unborn child. Suspected of damaging fertility.	

Classification (DPD):

Xi - Irritant
R38 Irritating to skin.
R41 Risk of serious damage to eyes.

**Toxic for reproduction -
category 1.**

R61 May cause harm to the unborn child.

Sensitizing
R43 May cause sensitisation by skin contact.
Mutagen category 3.
R68 Possible risk of irreversible effects.

**Toxic for reproduction -
category 3.**

R62 Possible risk of impaired fertility.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word: **Danger**

Hazard statement:
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H341 Suspected of causing genetic defects.
H360Df May damage the unborn child. Suspected of damaging fertility.

Supplemental information Restricted to professional users.

Precautionary statement:
Prevention P201 Obtain special instructions before use.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement:
Response P302+P352 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 remove. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

Label elements (DPD):

T - Toxic



Risk phrases:

R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R43 May cause sensitisation by skin contact.
R61 May cause harm to the unborn child.
R62 Possible risk of impaired fertility.
R68 Possible risk of irreversible effects.

Safety phrases:

S7/8 Keep container tightly closed and dry.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water.
S46 If swallowed, seek medical advice immediately and show this container or label.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S53 Avoid exposure - obtain special instructions before use.

Additional labeling:

Restricted to professional users.

Contains:

Trimethylolpropane tris[3-(2-methylaziridinyl)propanoate],
2,5,8,11,14-Pentaoxapentadecane

2.3. Other hazards

None if used properly.

SECTION 3: Composition/information on ingredients

General chemical description:

Part A of two part adhesive

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Trimethylolpropane tris[3-(2-methylaziridinyl)propanoate] 64265-57-2	264-763-3	>= 50- <= 100 %	Skin irritation 2; Dermal H315 Skin sensitizer 1; Dermal H317 Serious eye damage/eye irritation 1 H318 Germ cell mutagenicity 2 H341
2,5,8,11,14-Pentaoxapentadecane 143-24-8	205-594-7 01-2119958965-16	>= 10- < 20 %	Toxic to reproduction 1B H360Df
Lithium tri-sec-butylhydroborate 38721-52-7	254-101-1	>= 1- < 5 %	Flammable liquids 2 H225 Substances and mixtures, which on contact with water, emit flammable gases 1 H260 Skin corrosion 1A H314
Dimethylaminoethanol 108-01-0	203-542-8	>= 0,1- < 1 %	Acute toxicity 3; Inhalation H331 Acute toxicity 4; Oral H302 Flammable liquids 3 H226 Acute toxicity 4; Dermal H312 Skin corrosion 1B H314

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

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Trimethylolpropane tris[3-(2-methylaziridinyl)propanoate] 64265-57-2	264-763-3	>= 50 - <= 100 %	Xi - Irritant; R38, R41, R43 Mutagen category 3.; Xn - Harmful; R68
2,5,8,11,14-Pentaoxapentadecane 143-24-8	205-594-7 01-2119958965-16	>= 10 - < 20 %	T - Toxic; R61 Xn - Harmful; R62 R19
Lithium tri-sec-butylhydroborate 38721-52-7	254-101-1	>= 1 - < 5 %	F - Highly flammable; R11 R14/15, R19 C - Corrosive; R35

**For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.**

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation:**

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.
Obtain medical attention if irritation persists.

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

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

Water
Water spray jet

5.2. Special hazards arising from the substance or mixture

Vapours may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back.
carbon oxides.
Toxic and irritating vapors.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid skin and eye contact.
Ensure adequate ventilation.
Remove sources of ignition.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Wipe up using absorbent material.
Store in a partly filled, closed container until disposal.
Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.
Do not inhale vapors and fumes.
Ensure that workrooms are adequately ventilated.
See advice in section 8
Avoid open flames and sources of ignition.

Hygiene measures:

- Good industrial hygiene practices should be observed.
- Do not eat, drink or smoke while working.
- Wash hands before work breaks and after finishing work.

7.2. Conditions for safe storage, including any incompatibilities

- Store in a cool, well-ventilated place.
- Keep away from sources of ignition.

7.3. Specific end use(s)

Acrylic Adhesive

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational Exposure Limits**Valid for
Great Britain

Ingredient	ppm	mg/m ³	Type	Category	Remarks
2-DIMETHYLAMINOETHANOL 108-01-0	6	22	Short Term Exposure Limit (STEL):		EH40 WEL
2-DIMETHYLAMINOETHANOL 108-01-0	2	7,4	Time Weighted Average (TWA):		EH40 WEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Bis(2-(2-methoxyethoxy)ethyl) ether 143-24-8	aqua (freshwater)					32 mg/L	
Bis(2-(2-methoxyethoxy)ethyl) ether 143-24-8	aqua (marine water)					3,2 mg/L	
Bis(2-(2-methoxyethoxy)ethyl) ether 143-24-8	aqua (intermittent releases)					50 mg/L	
Bis(2-(2-methoxyethoxy)ethyl) ether 143-24-8	sediment (freshwater)				127 mg/kg		
Bis(2-(2-methoxyethoxy)ethyl) ether 143-24-8	sediment (marine water)				12,7 mg/kg		
Bis(2-(2-methoxyethoxy)ethyl) ether 143-24-8	STP					500 mg/L	
Bis(2-(2-methoxyethoxy)ethyl) ether 143-24-8	soil				6,7 mg/kg		
Bis(2-(2-methoxyethoxy)ethyl) ether 143-24-8	oral				8,32 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Bis(2-(2-methoxyethoxy)ethyl) ether 143-24-8	worker	inhalation	Long term exposure - systemic effects		22 mg/m ³	
Bis(2-(2-methoxyethoxy)ethyl) ether 143-24-8	worker	Dermal	Long term exposure - systemic effects		3 mg/kg bw/day	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Do not inhale vapors and fumes.

Use only in well-ventilated areas.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A

Hand protection:

Chemical-resistant protective gloves (EN 374).

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

nitrile rubber (NBR; ≥ 0.4 mm thickness)

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

nitrile rubber (NBR; ≥ 0.4 mm thickness)

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

Eye protection:

Wear protective glasses.

Skin protection:

Suitable protective clothing

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	gel-like yellowish
Odor	Mild
Odour threshold	No data available / Not applicable
pH	Not determined
Initial boiling point	Not determined
Flash point	> 93 °C (> 199.4 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density	1,17 g/cm ³
()	
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative)	Soluble
Solidification temperature	No data available / Not applicable
Melting point	Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	Not available.
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Strong oxidizing agents.

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

None if used properly.

10.6. Hazardous decomposition products

carbon oxides.
nitrogen oxides
Irritating organic vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:

May cause irritation to the digestive tract.

Inhalative toxicity:

May cause irritation to respiratory system.

Skin irritation:

Causes skin irritation.

Eye irritation:

Causes serious eye damage.

Sensitizing:

May cause an allergic skin reaction.

Mutagenicity:

Suspected of causing genetic defects

Reproductive toxicity:

<p>May damage the unborn child. Suspected of damaging fertility.</p>
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Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Trimethylolpropane tris[3-(2- methylaziridinyl)propano ate] 64265-57-2	LD50	3.038 mg/kg	oral		rat	
2,5,8,11,14- Pentaoxapentadecane 143-24-8	LD50	3.850 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Dimethylaminoethanol 108-01-0	Acute toxicity estimate (ATE)	500 mg/kg	oral			Expert judgement
Dimethylaminoethanol 108-01-0	LD50	2.340 mg/kg			rat	

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Dimethylaminoethanol 108-01-0	LC50	1641 ppm	inhalation	4 d	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
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Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2,5,8,11,14- Pentaoxapentadecane 143-24-8	slightly irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Dimethylaminoethanol 108-01-0	corrosive		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2,5,8,11,14- Pentaoxapentadecane 143-24-8	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Dimethylaminoethanol 108-01-0	highly irritating		rabbit	

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Dimethylaminoethanol 108-01-0	ambiguous		mouse	

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Dimethylaminoethanol 108-01-0	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Dimethylaminoethanol 108-01-0	NOAEL=0,18	oral: feed	90 days daily	rat	
Dimethylaminoethanol 108-01-0	NOAEL=24 mg/l	inhalation	13 weeks 6 h/d, 5 d/w	rat	

SECTION 12: Ecological information**General ecological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Cured Loctite products are typical polymers and do not pose any immediate environmental hazards.

12.1. Toxicity**Ecotoxicity:**

Do not empty into drains / surface water / ground water.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
2,5,8,11,14- Pentaoxapentadecane 143-24-8	EC50	7.467 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2,5,8,11,14- Pentaoxapentadecane 143-24-8	NOEC	< 625 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	8.996 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Lithium tri-sec- butylhydroborate 38721-52-7	LC50	41 mg/l	Fish	96 h	Ptychocheilus oregonensis	OECD Guideline 203 (Fish, Acute Toxicity Test)
Lithium tri-sec- butylhydroborate 38721-52-7	EC50	40,4 mg/l	Daphnia	48 h	Ceriodaphnia sp.	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Dimethylaminoethanol 108-01-0	LC50	81 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Dimethylaminoethanol 108-01-0	EC50	98,77 mg/l	Daphnia	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
Dimethylaminoethanol 108-01-0	EC50	35 mg/l	Algae	72 h	Scenedesmus sp.	OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability**Persistence and Biodegradability:**

No data available for the product.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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2,5,8,11,14-Pentaoxapentadecane 143-24-8		aerobic	< 20 %	OECD 301 A - F
Lithium tri-sec-butylhydroborate 38721-52-7	Not specified	no data	0 - 60 %	OECD 301 A - F

12.3. Bioaccumulative potential / 12.4. Mobility in soil**Mobility:**

Cured adhesives are immobile.

Bioaccumulative potential:

No data available for the product.

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
2,5,8,11,14-Pentaoxapentadecane 143-24-8	-0,84				23 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Dimethylaminoethanol 108-01-0	-0,55				23 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Product disposal:**

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Disposal must be made according to official regulations.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

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**
Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.
- 14.2. UN proper shipping name**
Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.
- 14.3. Transport hazard class(es)**
Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.
- 14.4. Packaging group**
Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.
- 14.5. Environmental hazards**
Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.
- 14.6. Special precautions for user**
Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.
- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
not applicable

SECTION 15: Regulatory information

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

VOC content < 3 %
(1999/13/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

- R11 Highly flammable.
- R14/15 Reacts violently with water, liberating extremely flammable gases.
- R19 May form explosive peroxides.
- R35 Causes severe burns.
- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitisation by skin contact.
- R61 May cause harm to the unborn child.
- R62 Possible risk of impaired fertility.
- R68 Possible risk of irreversible effects.
- H225 Highly flammable liquid and vapor.
- H226 Flammable liquid and vapor.
- H260 In contact with water releases flammable gases which may ignite spontaneously.
- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H331 Toxic if inhaled.
- H341 Suspected of causing genetic defects.
- H360Df May damage the unborn child. Suspected of damaging fertility.

Further information:

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.



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

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SDS No. : 235646
V005.0

LOCTITE AA 3038 B known as Loctite 3038 50ml Part B S/F

Revision: 26.01.2015
printing date: 24.03.2015

Replaces version from: 06.05.2014

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

1.1. Product identifier

LOCTITE AA 3038 B known as Loctite 3038 50ml Part B S/F

Contains:

Tetrahydrofurfuryl methacrylate
Methacryloyloxyethyl succinate
2-Hydroxyethyl methacrylate
2,2'-Ethylenedioxydiethyl dimethacrylate

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

Intended use:
Acrylic Adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Limited
2 Bishop Square Business Park
AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933
Fax-no.: +44 1606 863762

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin irritation Category 2

H315 Causes skin irritation.

Serious eye damage Category 1

H318 Causes serious eye damage.

Skin sensitizer Category 1

H317 May cause an allergic skin reaction.

Toxic to reproduction Category 1B

H360 May damage fertility or the unborn child.

Specific target organ toxicity - single exposure Category 3

H335 May cause respiratory irritation.

Target organ: respiratory tract irritation

Chronic hazards to the aquatic environment Category 3

H412 Harmful to aquatic life with long lasting effects.

Classification (DPD):

|| Toxic for reproduction - category 1.
 || R60 May impair fertility.
 || R61 May cause harm to the unborn child.
 Sensitizing
 R43 May cause sensitisation by skin contact.
 Xi - Irritant
 R36/37/38 Irritating to eyes, respiratory system and skin.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:	
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Signal word:	Danger
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Hazard statement:	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H335 May cause respiratory irritation. H360 May damage fertility or the unborn child. H412 Harmful to aquatic life with long lasting effects.
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Supplemental information	Restricted to professional users.
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Precautionary statement: Prevention	P201 Obtain special instructions before use. P261 Avoid breathing vapours. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection.
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Precautionary statement: Response	P302+P352 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 remove. Continue rinsing. P308+P313 IF exposed or concerned: Get medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
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Label elements (DPD):

|||T - Toxic



Risk phrases:

|||R60 May impair fertility.
|||R61 May cause harm to the unborn child.
|||R36/37/38 Irritating to eyes, respiratory system and skin.
|||R43 May cause sensitisation by skin contact.

Safety phrases:

|||S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
|||S35 This material and its container must be disposed of in a safe way.
|||S36/37 Wear suitable protective clothing and gloves.
|||S53 Avoid exposure - obtain special instructions before use.
|||S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Additional labeling:

|||Restricted to professional users.

Contains:

Tetrahydrofurfuryl methacrylate,
Methacryloyloxyethyl succinate,
2,2'-Ethylenedioxydiethyl dimethacrylate

2.3. Other hazards

None if used properly.

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.	content	Classification
Tetrahydrofurfuryl methacrylate 2455-24-5	219-529-5	40- 60 %	Skin irritation 2; Dermal H315 Serious eye irritation 2 H319 Specific target organ toxicity - single exposure 3; Inhalation H335 Toxic to reproduction 1B H360 Chronic hazards to the aquatic environment 3 H412
2-Ethylhexyl methacrylate 688-84-6	211-708-6	5- < 10 %	Specific target organ toxicity - single exposure 3 H335 Skin irritation 2 H315 Serious eye irritation 2 H319
Methacryloyloxyethyl succinate 20882-04-6	244-096-4	5- < 10 %	Skin irritation 2; Dermal H315 Skin sensitizer 1; Dermal H317 Serious eye damage 1 H318
2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0	203-652-6 01-2119969287-21	1- < 3 %	Skin sensitizer 1B H317
2-Hydroxyethyl methacrylate 868-77-9	212-782-2 01-2119490169-29	0,1- < 1 %	Skin irritation 2 H315 Skin sensitizer 1 H317 Serious eye irritation 2 H319

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

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Tetrahydrofurfuryl methacrylate 2455-24-5	219-529-5	40 - 60 %	Xi - Irritant; R36/37/38 T - Toxic; R60, R61
2-Ethylhexyl methacrylate 688-84-6	211-708-6	5 - < 10 %	Xi - Irritant; R36/37/38
Methacryloyloxyethyl succinate 20882-04-6	244-096-4	5 - < 10 %	Xi - Irritant; R38, R41, R43
2,2'-Ethylendioxydiethyl dimethacrylate 109-16-0	203-652-6 01-2119969287-21	1 - < 3 %	Xi - Irritant; R43

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation:**

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.
Obtain medical attention if irritation persists.

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.

EYE: Irritation, conjunctivitis.

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

SKIN: Redness, inflammation.

May impair fertility.

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

Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture

Do not expose to direct heat.

Oxides of carbon, oxides of nitrogen, irritating organic vapors.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid skin and eye contact.

Ensure adequate ventilation.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well-ventilated areas.

Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated place.

7.3. Specific end use(s)

Acrylic Adhesive

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational Exposure Limits**Valid for
Great Britain

Ingredient	ppm	mg/m ³	Type	Category	Remarks
SILICA, AMORPHOUS, INHALABLE DUST 112945-52-5		6	Time Weighted Average (TWA):		EH40 WEL
SILICA, AMORPHOUS, RESPIRABLE DUST 112945-52-5		2,4	Time Weighted Average (TWA):		EH40 WEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	aqua (freshwater)					0,164 mg/L	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	aqua (marine water)					0,0164 mg/L	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	STP					10 mg/L	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	aqua (intermittent releases)					0,164 mg/L	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	sediment (freshwater)					1,85 mg/kg	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	sediment (marine water)					0,185 mg/kg	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Soil					0,274 mg/kg	

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Workers	inhalation	Long term exposure - systemic effects		48,5 mg/m ³	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Workers	Dermal	Long term exposure - systemic effects		13,9 mg/kg bw/day	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	general population	inhalation	Long term exposure - systemic effects		14,5 mg/m ³	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	general population	Dermal	Long term exposure - systemic effects		8,33 mg/kg bw/day	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	general population	oral	Long term exposure - systemic effects		8,33 mg/kg bw/day	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Use only in well-ventilated areas.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A

Hand protection:

Chemical-resistant protective gloves (EN 374).

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

nitrile rubber (NBR; ≥ 0.4 mm thickness)

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

nitrile rubber (NBR; ≥ 0.4 mm thickness)

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

Eye protection:

Wear protective glasses.

Skin protection:

Wear suitable protective clothing.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance

liquid

Odor

mild

Odour threshold

No data available / Not applicable

pH

not applicable

Initial boiling point

> 150 °C (> 302 °F)

Flash point

> 100 °C (> 212 °F)

Decomposition temperature	No data available / Not applicable
Vapour pressure	< 3 mm hg
Density	1,02 g/cm ³
()	
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative)	Insoluble
(Solvent: Water)	
Solidification temperature	No data available / Not applicable
Melting point	Not available.
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	Heavier than air
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Strong oxidizing agents.
Reducing agents.
Peroxides.
Heavy metals.

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

None if used properly.

10.6. Hazardous decomposition products

carbon oxides.
Irritating organic vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

STOT-single exposure:

May cause respiratory irritation.

Oral toxicity:

This material is considered to have low toxicity if swallowed.

Skin irritation:

Causes skin irritation.

Eye irritation:

Causes serious eye damage.

Sensitizing:

May cause an allergic skin reaction.

Reproductive toxicity:

May damage fertility. May damage the unborn child.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	LD50	4.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
2-Ethylhexyl methacrylate 688-84-6	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Methacryloyloxyethyl succinate 20882-04-6	LD50	> 2.000 mg/kg	oral		rat	
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	LD50	10.837 mg/kg	oral		rat	

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
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Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
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Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	slightly irritating	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-Ethylhexyl methacrylate 688-84-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-Hydroxyethyl methacrylate 868-77-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

SECTION 12: Ecological information

General ecological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity**Ecotoxicity:**

Do not empty into drains / surface water / ground water.
Harmful to aquatic life with long lasting effects.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	LC50	34,7 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Ethylhexyl methacrylate 688-84-6	LC50	2,78 mg/l	Fish	96 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Ethylhexyl methacrylate 688-84-6	EC50	4,56 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Ethylhexyl methacrylate 688-84-6	EC50	3,53 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Ethylhexyl methacrylate 688-84-6	NOEC	0,29 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	LC50	16,4 mg/l	Fish	96 h		OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Hydroxyethyl methacrylate 868-77-9	LC50	227 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	380 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Hydroxyethyl methacrylate 868-77-9	NOEC	160 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	345 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl methacrylate 868-77-9	NOEC	24,1 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

12.2. Persistence and degradability**Persistence and Biodegradability:**

The product is not biodegradable.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Tetrahydrofurfuryl methacrylate 2455-24-5		aerobic	75 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
2-Ethylhexyl methacrylate 688-84-6	readily biodegradable		88 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	readily biodegradable		85 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
2-Hydroxyethyl methacrylate 868-77-9	readily biodegradable	aerobic	92 - 100 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

12.3. Bioaccumulative potential / 12.4. Mobility in soil**Mobility:**

Cured adhesives are immobile.

Bioaccumulative potential:

No data available.

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-Hydroxyethyl methacrylate 868-77-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product disposal:

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Disposal must be made according to official regulations.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

SECTION 14: Transport information**14.1. UN number**

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

14.4. Packaging group

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

14.5. Environmental hazards

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

14.6. Special precautions for user

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

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

not applicable

SECTION 15: Regulatory information

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

VOC content < 3 %
(1999/13/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

R36/37/38 Irritating to eyes, respiratory system and skin.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R43 May cause sensitisation by skin contact.
R60 May impair fertility.
R61 May cause harm to the unborn child.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H360 May damage fertility or the unborn child.
H412 Harmful to aquatic life with long lasting effects.

Further information:

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.

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