

**LOCTITE HY 4070** 

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

Page 1 of 12

SDS No.: 737923 V001.1

Revision: 26.07.2023

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Replaces version from: 15.08.2022

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

#### 1.1. Product identifier

LOCTITE HY 4070

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

Intended use:

Adhesive

## 1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

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

### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)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 irritation Category 2

H319 Causes serious eye irritation.

Specific target organ toxicity - single exposure Category 3

H335 May cause respiratory irritation.

Target organ: respiratory tract irritation

### 2.2. Label elements

#### Label elements (CLP):

## Hazard pictogram:



Contains

Ethyl 2-cyanoacrylate

Signal word: Warning

**Hazard statement:** H315 Causes skin irritation.

H319 Causes serious eye irritation. H335 May cause respiratory irritation.

Supplemental information Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of

children.

**Precautionary statement:** P261 Avoid breathing vapors.

**Prevention** P280 Wear protective gloves/eye protection.

**Precautionary statement:** P337+P313 If eye irritation persists: Get medical advice/attention.

**Response** P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

**Precautionary statement:** 

Disposal

P501 Dispose of contents/container in accordance with national regulation.

#### 2.3. Other hazards

None if used properly.

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

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

## **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

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

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
Ethyl 2-cyanoacrylate 7085-85-0 230-391-5 01-2119527766-29	50- 100 %	Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315	STOT SE 3; H335; C >= 10 %	

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

## **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

Inhalation:

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

#### Skin contact:

If lips are accidentally stuck together apply warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth.

Peel or roll lips apart. Do not try to pull the lips apart with direct opposing action.

Cyanoacrylates give off heat on solidification. In rare cases a large drop will generate enough heat to cause a burn.

Burns should be treated normally after the adhesive has been removed from the skin.

Do not pull bonded skin apart. It may be gently peeled apart using a blunt object such as a spoon, preferably after soaking in warm soapy water.

#### Eye contact:

If the eye is bonded closed, release eyelashes with warm water by covering with wet pad.

Keep eye covered until debonding is complete, usually within 1-3 days.

Cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to debond the adhesive.

Do not force eye open. Medical advice should be sought in case solid particles of cyanoacrylate trapped behind the eyelid cause any abrasive damage.

#### Ingestion:

Ensure that breathing passages are not obstructed. The product will polymerise immediately in the mouth making it almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth (several hours).

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

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

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

#### 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:

Foam, extinguishing powder, carbon dioxide.

Fine water spray

#### Extinguishing media which must not be used for safety reasons:

None known

### 5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

#### 5.3. Advice for firefighters

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

#### **Additional information:**

In case of fire, keep containers cool with water spray.

#### **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

#### 6.2. Environmental precautions

Do not empty into drains  $\slash$  surface water  $\slash$  ground water.

### 6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13.

Do not use cloths for mopping up. Flood with water to complete polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste.

### **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.

See advice in section 8

Ventilation (low level) is recommended when using large volumes

Use of dispensing equipment is recommended to minimise the risk of skin or eye contact

## 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

Ensure good ventilation/extraction.

Refer to Technical Data Sheet

## 7.3. Specific end use(s)

Adhesive

## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

## **Occupational Exposure Limits**

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Ethyl 2-cyanoacrylate	0,3	1,5	Short Term Exposure	15 minutes	EH40 WEL
7085-85-0			Limit (STEL):		
[ETHYL CYANOACRYLATE]			· ·		

### **Occupational Exposure Limits**

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Ethyl 2-cyanoacrylate 7085-85-0 [ETHYL 2-CYANOACRYLATE; ETHYL CYANOACRYLATE]	1		Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Ethyl 2-cyanoacrylate 7085-85-0 [ETHYL 2-CYANOACRYLATE; ETHYL CYANOACRYLATE]	0,2		Time Weighted Average (TWA):		IR_OEL

#### **Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Ethyl 2-cyanoacrylate 7085-85-0	Workers	Inhalation	Long term exposure - local effects		9,25 mg/m3	
Ethyl 2-cyanoacrylate 7085-85-0	Workers	Inhalation	Long term exposure - systemic effects		9,25 mg/m3	
Ethyl 2-cyanoacrylate 7085-85-0	General population	Inhalation	Long term exposure - local effects		9,25 mg/m3	
Ethyl 2-cyanoacrylate 7085-85-0	General population	Inhalation	Long term exposure - systemic effects		9,25 mg/m3	

### **Biological Exposure Indices:**

None

#### 8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

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 (EN 14387)

#### 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.

Polyethylene or polypropylene gloves are recommended when using large volumes.

Do not use PVC, rubber or nylon gloves.

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

# Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing. Protective eye equipment should conform to EN166.

### Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

### Advices to personal protection equipment:

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

## **SECTION 9: Physical and chemical properties**

Delivery form

Colorless to light yellow

Odor characteristic
Physical state liquid

Melting point Not applicable, Product is a liquid

Solidification temperature < -25 °C (< -13 °F)
Initial boiling point 149 °C (300.2 °F)None
Flammability The product is not flammable.

Explosive limits Not applicable, The product is not flammable.

Flash point 80 - 93 °C (176 - 199.4 °F); None

Auto-ignition temperature Not applicable, The product is not flammable.

Decomposition temperature

Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use

Not applicable, Product reacts with water.

Polymerises in presence of water.

1,05 g/cm3 no method / method unknown

Viscosity (kinematic) > 20,5 mm2/s

(40 °C (104 °F); )

pН

Viscosity, dynamic >= 2.000,0 mPa.s LCT STM 738; Rheological Data from flow curves

< 700 mbar

equivalent), Cone MK 22; 25 °C (77 °F); Shear

gradient: 20 s-1)

Solubility (qualitative)

(20 °C (68 °F); Solvent: Water) Partition coefficient: n-octanol/water

Partition coefficient: n-octanol/water Not applicable Mixture

Vapour pressure (20 °C (68 °F))

Density

(20 °C (68 °F))

Relative vapour density:

(20 °C)

Particle characteristics

Not applicable

Product is a liquid

### 9.2. Other information

Other information not applicable for this product

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

## 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

See section reactivity

## 10.4. Conditions to avoid

Stable under normal conditions of storage and use.

#### 10.5. Incompatible materials

See section reactivity.

## 10.6. Hazardous decomposition products

None if used for intended purpose.

## **SECTION 11: Toxicological information**

### General toxicological information:

Cyanoacrylates are considered to have relatively low toxicity. Acute oral LD50 is >5000mg/kg (rat). It is almost impossible to swallow as it rapidly polymerises in the mouth.

Prolonged exposure to high concentrations of vapours may lead to chronic effects in sensitive individuals

In dry atmosphere with < 50% humidity, vapours may irritate the eyes and respiratory system

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

### Acute oral toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Ethyl 2-cyanoacrylate	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 423 (Acute Oral
7085-85-0				toxicity)

### Acute dermal toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	LD50	> 2.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)

#### Acute inhalative toxicity:

No data available.

### Skin corrosion/irritation:

Bonds skin in seconds. Considered to be of low toxicity: acute dermal LD50 (rabbit)>2000mg/kg Due to polymerisation at the skin surface allergic reaction is unlikely to occur

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Ethyl 2-cyanoacrylate	slightly	24 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute
7085-85-0	irritating			Dermal Irritation / Corrosion)

### Serious eye damage/irritation:

Liquid product will bond eyelids. In a dry atmosphere (RH<50%) vapours may cause irritation and lachrymatory effect

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)

### Respiratory or skin sensitization:

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

Hazardous substances	Result	Test type	Species	Method
CAS-No.			_	
Ethyl 2-cyanoacrylate 7085-85-0	not sensitising	Skin sensitisation	guinea pig	not specified

## Germ cell mutagenicity:

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

Hazardous substances	Result	Type of study /	Metabolic	Species	Method
CAS-No.		Route of	activation /		
		administration	Exposure time		
Ethyl 2-cyanoacrylate	negative	bacterial reverse	with and without		equivalent or similar to OECD
7085-85-0		mutation assay (e.g			Guideline 471 (Bacterial
		Ames test)			Reverse Mutation Assay)
Ethyl 2-cyanoacrylate	negative	in vitro mammalian	with and without		OECD Guideline 473 (In vitro
7085-85-0		chromosome			Mammalian Chromosome
		aberration test			Aberration Test)
Ethyl 2-cyanoacrylate	negative	mammalian cell	with and without		OECD Guideline 476 (In vitro
7085-85-0		gene mutation assay			Mammalian Cell Gene
					Mutation Test)

7085-85-0	C	gene mutation assay		Mammalian Cell Gene Mutation Test)	
Carcinogenicity					
No data available.					
Reproductive toxicity:					
No data available.					
STOT-single exposure:					
No data available.					
STOT-repeated exposu	re:				
No data available.					
Aspiration hazard:					
No data available.					

# 11.2 Information on other hazards

not applicable

## **SECTION 12: Ecological information**

## General ecological information:

Do not empty into drains / surface water / ground water. Biological and Chemical Oxygen Demands (BOD and COD) are insignificant.

12.1. T	oxicity
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<del></del>
Toxicity (Fish):
No data available.
Toxicity (aquatic invertebrates):
No data available.
Chronic toxicity (aquatic invertebrates):
No data available.
Toxicity (Algae):

## Toxicity (microorganisms):

No data available.

No data available.

## 12.2. Persistence and degradability

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

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Ethyl 2-cyanoacrylate	not readily biodegradable.	aerobic	57 %	28 d	OECD Guideline 301 D (Ready
7085-85-0					Biodegradability: Closed Bottle
					Test)

## 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

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

Hazardous substances CAS-No.	LogPow	Temperature	Method
Ethyl 2-cyanoacrylate	0,776	22 °C	EU Method A.8 (Partition Coefficient)
7085-85-0			

### 12.5. Results of PBT and vPvB assessment

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

Hazardous substances CAS-No.	PBT / vPvB
Ethyl 2-cyanoacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
7085-85-0	Bioaccumulative (vPvB) criteria.

### 12.6. Endocrine disrupting properties

not applicable

### 12.7. Other adverse effects

No data available.

## **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

Product disposal:

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

Dispose of in accordance with local and national regulations.

Cured adhesive: Dispose of as water insoluble non-toxic solid chemical in authorised landfill or incinerate under controlled conditions.

Contribution of this product to waste is very insignificant in comparison to article in which it is used

## 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.

## 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 or ID number

ADR Not dangerous goods
RID Not dangerous goods
ADN Not dangerous goods
IMDG Not dangerous goods

IATA 3334

## 14.2. UN proper shipping name

ADR Not dangerous goods
RID Not dangerous goods
ADN Not dangerous goods
IMDG Not dangerous goods

IATA Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)

#### 14.3. Transport hazard class(es)

ADR Not dangerous goods
RID Not dangerous goods
ADN Not dangerous goods
IMDG Not dangerous goods

IATA 9

## 14.4. Packing group

ADR Not dangerous goods
RID Not dangerous goods
ADN Not dangerous goods
IMDG Not dangerous goods

IATA III

## 14.5. Environmental hazards

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

## 14.6. Special precautions for user

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

IATA Primary packs containing less than 500ml are unregulated by this mode of transport

and may be shipped unrestricted.

## 14.7. Maritime transport in bulk according to IMO instruments

not applicable

## **SECTION 15: Regulatory information**

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Persistent organic pollutants (Regulation (EU) 2019/1021):

Not applicable Not applicable Not applicable

VOC content < 3 %

(2010/75/EC)

#### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

### **SECTION 16: Other information**

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

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

ED: Substance identified as having endocrine disrupting properties

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

PBT/vPvB: Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very

bioaccumulative criteria

vPvB: Substance fulfilling very persistent and very bioaccumulative criteria

#### **Further information:**

This Safety Data Sheet has been produced for sales from Henkel to parties purchasing from Henkel, is based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulations of the European Union only. In that respect, no statement, warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory other than the European Union. When exporting to territories other than the European Union, please consult with the respective Safety Data Sheet of the concerned territory to ensure compliance or liaise with Henkel's Product Safety and Regulatory Affairs Department (SDSinfo.Adhesive@henkel.com) prior to export to other territories than the European Union.

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

### Dear Customer,

Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your\_company.com).

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.



**LOCTITE HY 4070** 

# Safety Data Sheet according to (EC) No 1907/2006 as amendedPage 1 of 12

SDS No.: 737920 V001.1

Revision: 26.07.2023

printing date: 13.02.2024

Replaces version from: 25.07.2023

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

### 1.1. Product identifier

LOCTITE HY 4070

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

Intended use:

Adhesive

### 1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

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

### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)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 irritation Category 2

H319 Causes serious eye irritation.

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.

#### 2.2. Label elements

## Label elements (CLP):

### Hazard pictogram:



Contains

Hexanediol dimethacrylate

Signal word: Warning

**Hazard statement:** H315 Causes skin irritation.

H319 Causes serious eye irritation. H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

**Supplemental information** Contains: 3,4,5,6-tetrahydrophthalic anhydride May produce an allergic reaction.

**Precautionary statement:** P273 Avoid release to the environment.

**Prevention** P261 Avoid breathing vapors.

**Precautionary statement:** P337+P313 If eye irritation persists: Get medical advice/attention. **Response** P302+P352 IF ON SKIN: Wash with plenty of soap and water.

### 2.3. Other hazards

None if used properly.

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

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

## **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

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

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
Hexanediol dimethacrylate 6606-59-3 229-551-7 01-2120760621-59	50- 100 %	STOT SE 3, H335 Aquatic Chronic 3, H412 Skin Irrit. 2, H315 Eye Irrit. 2, H319	STOT SE 3; H335; C >= 10 %	
3,4,5,6-tetrahydrophthalic anhydride 2426-02-0 219-374-3	0,1-< 1 %	Eye Dam. 1, H318 Resp. Sens. 1, H334 Aquatic Chronic 3, H412 Skin Sens. 1, H317		

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

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

Inhalation:

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

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

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

#### 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:

water, carbon dioxide, foam, powder

### Extinguishing media which must not be used for safety reasons:

High pressure waterjet

#### 5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

### **5.3.** Advice for firefighters

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

#### Additional information:

In case of fire, keep containers cool with water spray.

## **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

Keep away from sources of ignition.

## 6.2. Environmental precautions

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

## 6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13.

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.

### **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.

See advice in section 8

## 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

Ensure good ventilation/extraction. Keep container tightly sealed. Refer to Technical Data Sheet

## 7.3. Specific end use(s)

Adhesive

## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

## **Occupational Exposure Limits**

Valid for

Great Britain

None

## **Occupational Exposure Limits**

Valid for

Ireland

None

## **Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
1,6-hexanediyl bismethacrylate	aqua		0,00488				
6606-59-3	(freshwater)		mg/l				
1,6-hexanediyl bismethacrylate	aqua (marine		0,000488				
6606-59-3	water)		mg/l				
1,6-hexanediyl bismethacrylate 6606-59-3	aqua (intermittent releases)		0,045 mg/l				
1,6-hexanediyl bismethacrylate 6606-59-3	sediment (freshwater)				0,262 mg/kg		
1,6-hexanediyl bismethacrylate	aqua (marine				0,026		
6606-59-3	water)				mg/kg		
1,6-hexanediyl bismethacrylate 6606-59-3	Soil				0,05 mg/kg		
1,6-hexanediyl bismethacrylate 6606-59-3	Sewage treatment plant		800 mg/l				

# **Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
1,6-hexanediyl bismethacrylate 6606-59-3	Workers	inhalation	Long term exposure - systemic effects		14,5 mg/m3	
1,6-hexanediyl bismethacrylate 6606-59-3	Workers	dermal	Long term exposure - systemic effects		4,2 mg/kg	
1,6-hexanediyl bismethacrylate 6606-59-3	General population	inhalation	Long term exposure - systemic effects		4,3 mg/m3	
1,6-hexanediyl bismethacrylate 6606-59-3	General population	oral	Long term exposure - systemic effects		2,5 mg/kg	
1,6-hexanediyl bismethacrylate 6606-59-3	General population	dermal	Long term exposure - systemic effects		2,5 mg/kg	

#### **Biological Exposure Indices:**

None

#### 8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

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 (EN 14387)

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:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

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

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Delivery form liquid

Colour colourless to yellow

Odor acrylic Physical state liquid

Melting point Not applicable, Product is a liquid

Solidification temperature < -25 °C (< -13 °F) Initial boiling point > 315 °C (> 599 °F)

Flammability The product is not flammable.

Explosive limits Not applicable, The product is not flammable. Flash point  $> 150 \,^{\circ}\text{C} (> 302 \,^{\circ}\text{F})$ ; no method / method unknown Auto-ignition temperature Not applicable, The product is not flammable.

Decomposition temperature Not applicable, Substance/mixture is not self-reactive, no organic

peroxide and does not decompose under foreseen conditions of use

Not applicable, Product is non-soluble (in water).

Viscosity (kinematic) > 20,5 mm2/s

(40 °C (104 °F); )

Viscosity, dynamic 1,0 - 30,0 mPa.s LCT STM 740; cone & plate viscosity

(Cone and plate; 25 °C (77 °F); Shear gradient:

3.000 s-1)

рH

Solubility (qualitative) Insoluble

(20 °C (68 °F); Solvent: Water)

Partition coefficient: n-octanol/water Not applicable

Vapour pressure < 0.02 mm hg  $(20 ^{\circ}\text{C } (68 ^{\circ}\text{F}))$ 

Density (20 °C (68 °F))

Relative vapour density:

(20 °C)

Particle characteristics

0,98 - 1,1 g/cm3 no method / method unknown

> 1

Not applicable Product is a liquid

### 9.2. Other information

Other information not applicable for this product

## **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Reacts with strong oxidants.

Acids.

Reducing agents.

Strong bases.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

See section reactivity

## 10.4. Conditions to avoid

Stable under normal conditions of storage and use.

#### 10.5. Incompatible materials

See section reactivity.

## 10.6. Hazardous decomposition products

carbon oxides.

Hydrocarbons

nitrogen oxides

Rapid polymerisation may generate excessive heat and pressure.

## **SECTION 11: Toxicological information**

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

## Acute oral toxicity:

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

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Hexanediol	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
dimethacrylate				
6606-59-3				
3,4,5,6-tetrahydrophthalic	LD50	3.200 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
anhydride				_
2426-02-0				

## Acute dermal toxicity:

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

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
3,4,5,6-tetrahydrophthalic	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
anhydride				
2426-02-0				

Acute inhalative toxicity:		
No data available.		

## Skin corrosion/irritation:

No data available.

## Serious eye damage/irritation:

No data available.

## Respiratory or skin sensitization:

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

Hazardous substances CAS-No.	Result	Test type	Species	Method
Hexanediol dimethacrylate 6606-59-3	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Hexanediol dimethacrylate 6606-59-3	not sensitising	Guinea pig maximisation test	guinea pig	Magnusson and Kligman Method

## Germ cell mutagenicity:

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

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Hexanediol dimethacrylate 6606-59-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Hexanediol dimethacrylate 6606-59-3	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

## Carcinogenicity

No data available.

## Reproductive toxicity:

No data available.

## STOT-single exposure:

No data available.

## STOT-repeated exposure:

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

Hazardous substances	Result / Value	Route of	Exposure time /	Species	Method
CAS-No.		application	Frequency of		
			treatment		
Hexanediol	NOAEL 300 mg/kg	oral: gavage	5 weeks (male), 8	rat	OECD Guideline 422
dimethacrylate			weeks (fem.)		(Combined Repeated
6606-59-3			daily		Dose Toxicity Study with
					the Reproduction /
					Developmental Toxicity
					Screening Test)

## **Aspiration hazard:**

No data available.

### 11.2 Information on other hazards

not applicable

# **SECTION 12: Ecological information**

### General ecological information:

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

## 12.1. Toxicity

## Toxicity (Fish):

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

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hexanediol dimethacrylate 6606-59-3	LC50	4,5 mg/l	96 h		OECD Guideline 203 (Fish, Acute Toxicity Test)
Hexanediol dimethacrylate	NOEC	0,138 mg/l	32 d	Pimephales promelas	OECD Guideline 210 (fish
6606-59-3					early lite stage toxicity test)

## **Toxicity (aquatic invertebrates):**

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

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hexanediol dimethacrylate 6606-59-3	EC50	11,2 mg/l	48 h	Daphnia magna	QSAR (Quantitative Structure Activity Relationship)
3,4,5,6-tetrahydrophthalic anhydride 2426-02-0	EC50	117 mg/l	24 h	Daphnia magna	not specified

## Chronic toxicity (aquatic invertebrates):

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hexanediol dimethacrylate 6606-59-3	NOEC	0,488 mg/l	21 d	1 0	QSAR (Quantitative Structure Activity
					Relationship)

## Toxicity (Algae):

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

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hexanediol dimethacrylate 6606-59-3	EC50	5,33 mg/l	72 h	Algae	QSAR (Quantitative Structure Activity Relationship)
Hexanediol dimethacrylate 6606-59-3	NOEC	1,11 mg/l	72 h	Algae	QSAR (Quantitative Structure Activity Relationship)
3,4,5,6-tetrahydrophthalic anhydride 2426-02-0	EC10	45,4 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	not specified
3,4,5,6-tetrahydrophthalic anhydride 2426-02-0	EC50	65,7 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	not specified

### **Toxicity (microorganisms):**

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

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hexanediol dimethacrylate 6606-59-3	EC0	800 mg/l	16 h	Pseudomonas putida	ISO 10712: Determination of the inhibitory effect of water constituents on bacteria (Pseudomonas cell
					bacteria (Pseudomonas cel inhibition test)

## 12.2. Persistence and degradability

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

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Hexanediol dimethacrylate 6606-59-3	readily biodegradable	aerobic	91,1 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
3,4,5,6-tetrahydrophthalic anhydride 2426-02-0	not readily biodegradable.		< 60 %	28 day	OECD 301 A - F

## 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

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

Hazardous substances	LogPow	Temperature	Method
CAS-No.			
Hexanediol dimethacrylate	4,08		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC
6606-59-3			Method)
3,4,5,6-tetrahydrophthalic	0,02		not specified
anhydride			
2426-02-0			

### 12.5. Results of PBT and vPvB assessment

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

Hazardous substances CAS-No.	PBT / vPvB
Hexanediol dimethacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
6606-59-3	Bioaccumulative (vPvB) criteria.

## 12.6. Endocrine disrupting properties

not applicable

#### 12.7. Other adverse effects

No data available.

# **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

Product disposal:

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

Dispose of in accordance with local and national regulations.

## Disposal of uncleaned packages:

will be happy to advise you.

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.

## 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

## **SECTION 14: Transport information**

## 14.1. UN number or ID number

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

### 14.2. UN proper shipping name

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

### 14.3. Transport hazard class(es)

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

## 14.4. Packing group

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

### 14.5. Environmental hazards

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

## 14.6. Special precautions for user

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

## 14.7. Maritime transport in bulk according to IMO instruments

not applicable

## **SECTION 15: Regulatory information**

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

< 3 %

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Persistent organic pollutants (Regulation (EU) 2019/1021):

Not applicable Not applicable Not applicable

VOC content

(2010/75/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:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

ED: Substance identified as having endocrine disrupting properties

EU OEL:

EU EXPLD 1:

Substance with a Union workplace exposure limit

EU EXPLD 1:

Substance listed in Annex I, Reg (EC) No. 2019/1148

EU EXPLD 2

Substance listed in Annex II, Reg (EC) No. 2019/1148

SVHC:

Substance of very high concern (REACH Candidate List)

PBT:

Substance fulfilling persistent, bioaccumulative and toxic criteria

PBT/vPvB: Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very

bioaccumulative criteria

vPvB: Substance fulfilling very persistent and very bioaccumulative criteria

#### **Further information:**

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