

**LOCTITE 406/770** 

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

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

### 1.1. Product identifier

**LOCTITE 406/770** 

### 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 AG & Co. KGaA

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40589 Düsseldorf

Germany

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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

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

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

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

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

**Precautionary statement:** 

Disposal

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

#### 2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

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	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
REACH-Reg No.				
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 %	
Hydroquinone 123-31-9 204-617-8 01-2119524016-51	0,01-< 0,1 %	Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Carc. 2, H351 Muta. 2, H341 Acute Tox. 4, Oral, H302 Eye Dam. 1, H318 Skin Sens. 1, H317	M acute = 10 M chronic = 1	

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.

## **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

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

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

### 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

Ensure adequate ventilation.

Avoid contact with skin and eyes.

Wear protective equipment.

### 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

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.

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

Ventilation (low level) is recommended when using large volumes
Use of dispensing equipment is recommended to minimise the risk of skin or eye contact
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. 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 Germany

None

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

Name on list	Environmental		Value				Remarks
	Compartment	period					
			mg/l	ppm	mg/kg	others	
Hydroquinone	aqua		0,00057				
123-31-9	(freshwater)		mg/l				
Hydroquinone	aqua (marine		0,000057				
123-31-9	water)		mg/l				
Hydroquinone	sediment				0,0049		
123-31-9	(freshwater)				mg/kg		
Hydroquinone	sediment				0,00049		
123-31-9	(marine water)				mg/kg		
Hydroquinone	aqua		0,00134				
123-31-9	(intermittent		mg/l				
	releases)						
Hydroquinone	Soil				0,00064		
123-31-9					mg/kg		
Hydroquinone	sewage		0,71 mg/l				
123-31-9	treatment plant						
	(STP)						

#### **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	
Hydroquinone 123-31-9	Workers	dermal	Long term exposure - systemic effects		3,33 mg/kg	
Hydroquinone 123-31-9	Workers	inhalation	Long term exposure - systemic effects		2,1 mg/m3	
Hydroquinone 123-31-9	General population	dermal	Long term exposure - systemic effects		1,66 mg/kg	
Hydroquinone 123-31-9	General population	inhalation	Long term exposure - systemic effects		1,05 mg/m3	
Hydroquinone 123-31-9	General population	oral	Long term exposure - systemic effects		0,6 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.

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**

# 9.1. Information on basic physical and chemical properties

Delivery form liquid

Colour Clear, Colourless
Odor irritating
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)

Flammability The product is not flammable.

Explosive limits

Not applicable, The product is not flammable.

Flash point

Not applicable, The product is not flammable.

80 - 93 °C (176 - 199.4 °F); Tagliabue closed cup

Auto-ignition temperature 485 °C (905 °F)

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.

Viscosity (kinematic) 20 mm2/s

(40 °C (104 °F); )

Solubility (qualitative) Polymerises in presence of water.

(20 °C (68 °F); Solvent: Water)

Partition coefficient: n-octanol/water Not applicable

Mixture

 $\label{eq:vapour pressure} \textit{Vapour pressure} \qquad <700 \; mbar; no \; method \; / \; method \; unknown$ 

(50 °C (122 °F))

Vapour pressure < 0,5 mm hg

(20 °C (68 °F))

Density 1,1 g/cm3 None

(20 °C (68 °F))

Relative vapour density: 3

 $(20~^{\circ}\text{C})$ 

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	Value	Value	Species	Method
CAS-No.	type			
Ethyl 2-cyanoacrylate	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 423 (Acute Oral
7085-85-0				toxicity)
Hydroquinone	LD50	367 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
123-31-9				

# 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)
Hydroquinone 123-31-9	LD50	> 2.000 mg/kg	rabbit	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 CAS-No.	Result	Exposure time	Species	Method
Ethyl 2-cyanoacrylate	slightly	24 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute
7085-85-0	irritating	2411	Tabbit	Dermal Irritation / Corrosion)
Hydroquinone	not irritating	24 h	rabbit	Weight of evidence
123-31-9				

# Serious eye damage/irritation:

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

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

# Respiratory or skin sensitization:

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

Hazardous substances CAS-No.	Result	Test type	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	not sensitising	Skin sensitisation	guinea pig	not specified
Hydroquinone 123-31-9	sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
Hydroquinone 123-31-9	sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

# Germ cell mutagenicity:

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

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Ethyl 2-cyanoacrylate 7085-85-0	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Ethyl 2-cyanoacrylate 7085-85-0	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Hydroquinone 123-31-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Hydroquinone 123-31-9	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Hydroquinone 123-31-9	positive	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Hydroquinone 123-31-9	positive	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Hydroquinone 123-31-9	negative	oral: gavage		rat	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
Hydroquinone 123-31-9	positive	intraperitoneal		mouse	equivalent or similar to OECD Guideline 483 (Mammalian Spermatogonial Chromosome Aberration Test)

# Carcinogenicity

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

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Hydroquinone 123-31-9	carcinogenic	oral: gavage	103 w 5 d/w	rat	male/female	equivalent or similar OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Hydroquinone 123-31-9	carcinogenic	oral: gavage	103 w 5 d/w	mouse	female	equivalent or similar OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

# Reproductive toxicity:

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

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Hydroquinone 123-31-9	NOAEL P 15 mg/kg NOAEL F1 150 mg/kg NOAEL F2 150 mg/kg	Two generation study	oral: gavage	rat	EPA OTS 798.4700 (Reproduction and Fertility Effects)

# STOT-single exposure:

No data available.

# STOT-repeated exposure:

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

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Hydroquinone 123-31-9	NOAEL 50 mg/kg	oral: gavage	13 w 5 d/w	rat	not specified
Hydroquinone 123-31-9	NOAEL 73,9 mg/kg	dermal	13 w 6 h/d, 5 d/w	rat	equivalent or similar to OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

# 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. Toxicity

### Toxicity (Fish):

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydroquinone	LC50	0,638 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish,
123-31-9					Acute Toxicity Test)

## Toxicity (Daphnia):

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hydroquinone	EC50	0,134 mg/l	48 h	Daphnia magna	OECD Guideline 202
123-31-9					(Daphnia sp. Acute
					Immobilisation Test)

## Chronic toxicity to aquatic invertebrates

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydroquinone	NOEC	0,0057 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
123-31-9		_			magna, Reproduction Test)

## Toxicity (Algae):

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydroquinone	EC50	0,335 mg/l	72 h	Selenastrum capricornutum	OECD Guideline 201 (Alga,
123-31-9				(new name: Pseudokirchneriella	Growth Inhibition Test)
				subcapitata)	

## Toxicity to microorganisms

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hydroquinone	EC 50	0,038 mg/l	30 min		not specified
123-31-9					

## 12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Ethyl 2-cyanoacrylate 7085-85-0	not readily biodegradable.	aerobic	57 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Hydroquinone 123-31-9	readily biodegradable	aerobic	75 - 81 %	30 d	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)

### 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Ethyl 2-cyanoacrylate 7085-85-0	0,776	22 °C	EU Method A.8 (Partition Coefficient)
Hydroquinone 123-31-9	0,59		EU Method A.8 (Partition Coefficient)

#### 12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Ethyl 2-cyanoacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
7085-85-0	Bioaccumulative (vPvB) criteria.
Hydroquinone	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
123-31-9	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 Not dangerous goods **IMDG** 

IATA

#### 14.4. Packing group

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

**IATA** 

#### 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):

Not applicable Not applicable

Persistent organic pollutants (Regulation (EU) 2019/1021):

Not applicable

VOC content (2010/75/EC) < 3 %

### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

### National regulations/information (Germany):

WGK: WGK 1: slightly hazardous to water (Ordinance on facilities for handling

substances that are hazardous to water (AwSV) ) Classification according to AwSV, Annex 1 (5.3)

Storage class according to TRGS 510: 10

## **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:

H302 Harmful if swallowed.

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.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

ED: Substance identified as having endocrine disrupting properties

EU OEL:

Substance with a Union workplace exposure limit

EU EXPLD 1:

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

EU EXPLD 2

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

SVHC:

Substance of very high concern (REACH Candidate List)

PBT:

Substance fulfilling persistent, bioaccumulative and toxic criteria

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

bioaccumulative criteria

vPvB: Substance fulfilling very persistent and very bioaccumulative criteria

### **Further information:**

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

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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.

## **Annex - Exposure Scenarios:**

Exposure Scenarios for ethyl 2-cyanoacrylate can be downloaded under the following link: https://mysds.henkel.com/index.html#/appSelection



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# Safety Data Sheet according to (EC) No 1907/2006 as amended Page 1 of 15

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Replaces version from: 01.03.2023

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

#### 1.1. Product identifier

LOCTITE 406/770

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

Intended use:

Primer

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

Henkel AG & Co. KGaA

Henkelstr. 67

40589 Düsseldorf

Germany

Phone: +49 211 797 0

#### 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

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

# **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

## Classification (CLP):

Flammable liquids Category 2

H225 Highly flammable liquid and vapour.

Skin irritation Category 2

H315 Causes skin irritation.

Specific target organ toxicity - single exposure Category 3

H336 May cause drowsiness or dizziness.

Target organ: Central nervous system

Aspiration hazard Category 1

H304 May be fatal if swallowed and enters airways.

Acute hazards to the aquatic environment Category 1

H400 Very toxic to aquatic life.

Chronic hazards to the aquatic environment Category 1

H410 Very toxic to aquatic life with long lasting effects.

### 2.2. Label elements

### Label elements (CLP):

Hazard pictogram:



Contains n-Heptane

Signal word: Danger

**Hazard statement:** H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statement:** "\*\*\* For consumer use only: P101 If medical advice is needed, have product

container or label at hand. P102 Keep out of reach of children. P501 Dispose of

contents/container in accordance with national regulation.\*\*\*

**Precautionary statement:** 

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P261 Avoid breathing vapors.

P273 Avoid release to the environment.

**Precautionary statement:** 

Response

 $P301 + P310 \ IF \ SWALLOWED: Immediately \ call \ a \ POISON \ CENTER \ or \ doctor.$ 

P331 Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

# 2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

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 ≥ 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
n-Heptane 142-82-5 205-563-8 01-2119457603-38	50- 100 %	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 1 M chronic = 1	EU OEL
Methylcyclohexane 108-87-2 203-624-3	0,1-< 1 %	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 1 M chronic = 1	
1,8-Diazabicyclo[5.4.0]undec-7- ene 6674-22-2 229-713-7 01-2119977097-24	0,1-< 1 %	Acute Tox. 3, Oral, H301 Skin Corr. 1B, H314 Eye Dam. 1, H318 Met. Corr. 1, H290	oral:ATE = 215 mg/kg	

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.

# **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.

After ingestion or vomit: danger of product entering the lung.

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

SKIN: Redness, inflammation.

ASPIRATION: Coughing, shortness of breath, nausea. Delayed effect: bronchopneumonia or pulmonary oedema

Vapors may cause drowsiness and dizziness.

Prolonged or repeated contact may cause eye irritation.

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

Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.

Do not induce vomiting.

Seek medical attention from a specialist.

See section: Description of first aid measures

### 5.1. Extinguishing media

### Suitable extinguishing media:

Foam, extinguishing powder, carbon dioxide.

### 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.

Do not expose to direct heat.

### 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

Ensure adequate ventilation.

Avoid contact with skin and eyes.

Wear protective equipment.

#### 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:

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

Ensure good ventilation/extraction.

Store in a cool, dry place.

Do not store near sources of heat or ignition, or reactive materials.

Refer to Technical Data Sheet

### 7.3. Specific end use(s)

Primer

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

# 8.1. Control parameters

# Occupational Exposure Limits

Valid for Germany

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Heptane 142-82-5 [N-HEPTANE]	500	2.085	Time Weighted Average (TWA):	Indicative	ECTLV
Heptane 142-82-5	500	2.100	Exposure limit(s):	1	TRGS 900
Heptane 142-82-5			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
Heptane 142-82-5		1.500	Exposure limit(s):	2	TRGS 900
Heptane 142-82-5			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Methylcyclohexane 108-87-2			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Methylcyclohexane 108-87-2	200	810	Exposure limit(s):	2	TRGS 900

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

Name on list	Environmental Compartment	Value	Value			Remarks
		mg/l	ppm	mg/kg	others	
n-Heptane 142-82-5	Air					no hazard identified
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	aqua (freshwater)	0,24 mg/l				
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	aqua (marine water)	0,024 mg/l				
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	aqua (intermittent releases)	0,5 mg/l				
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	sewage treatment plant (STP)	13 mg/l				
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	sediment (freshwater)			1,46 mg/kg		
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	sediment (marine water)			0,146 mg/kg		
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	Soil			0,152 mg/kg		

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

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
n-Heptane 142-82-5	Workers	dermal	Long term exposure - systemic effects		300 mg/kg	no hazard identified
n-Heptane 142-82-5	Workers	Inhalation	Long term exposure - systemic effects		2085 mg/m3	no hazard identified
n-Heptane 142-82-5	General population	dermal	Long term exposure - systemic effects		149 mg/kg	no hazard identified
n-Heptane 142-82-5	General population	Inhalation	Long term exposure - systemic effects		447 mg/m3	no hazard identified
n-Heptane 142-82-5	General population	oral	Long term exposure - systemic effects		149 mg/kg	no hazard identified
Methylcyclohexane 108-87-2	Workers	dermal	Long term exposure - systemic effects		773 mg/kg	
Methylcyclohexane 108-87-2	Workers	Inhalation	Long term exposure - systemic effects		2035 mg/m3	
Methylcyclohexane 108-87-2	General population	dermal	Long term exposure - systemic effects		699 mg/kg	
Methylcyclohexane 108-87-2	General population	Inhalation	Long term exposure - systemic effects		608 mg/m3	
Methylcyclohexane 108-87-2	General population	oral	Long term exposure - systemic effects		699 mg/kg	
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	Workers	inhalation	Long term exposure - systemic effects		10,6 mg/m3	
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	Workers	dermal	Long term exposure - systemic effects		3 mg/kg	
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	General population	inhalation	Long term exposure - systemic effects		2,6 mg/m3	
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	General population	dermal	Long term exposure - systemic effects		1,5 mg/kg	
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	General population	oral	Long term exposure - systemic effects		1,5 mg/kg	

# **Biological Exposure Indices:**

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time		Basis of biol. exposure index	 Additional Information
Heptane	Heptan-2,5-	Urine	Sampling time: End of	250 µg/l	DE BGW	
142-82-5	dione		shift.			
[n-Heptane]						

# 8.2. Exposure controls:

Engineering controls:

Ventilate working rooms thoroughly. Avoid naked flames, sparking and sources of ignition. Switch off electrical devices. Do not smoke, do not weld. Do not empty waste into waste water drains.

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 Clear, Colourless Odor Of hydrocarbons

Physical state liquid

Melting point Not applicable, Product is a liquid

Solidification temperature -75 °C (-103 °F)
Initial boiling point 98 °C (208.4 °F)None
Flammability Flammable liquid

Explosive limits

lower 1,1 %(V); upper 6,7 %(V);

Upper/lower explosion limit

Flash point -4 °C (24.8 °F) Auto-ignition temperature 223 °C (433.4 °F)

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

0.6 mm2/s

peroxide and does not decompose under foreseen conditions of use

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

Viscosity (kinematic)

(25 °C (77 °F); )

Viscosity (kinematic) <= 20,5 mm2/s

(40 °C (104 °F); )

Solubility (qualitative) Not miscible

(20 °C (68 °F); Solvent: Water)

Partition coefficient: n-octanol/water Not applicable

Mixture 5,33 kPa

Vapour pressure (20 °C (68 °F))

Density 0,68 g/cm3 None

(20 °C (68 °F))

Relative vapour density:
(20 °C)

Particle characteristics

(Air = 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

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

Stable under normal conditions of storage and use.

## 10.5. Incompatible materials

See section reactivity.

## 10.6. Hazardous decomposition products

carbon oxides.

# **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			
n-Heptane	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral
142-82-5				Toxicity)
Methylcyclohexane	LD50	> 3.200 mg/kg	rat	not specified
108-87-2				
1,8-	Acute	215 mg/kg		Expert judgement
Diazabicyclo[5.4.0]undec	toxicity			
-7-ene	estimate			
6674-22-2	(ATE)			

# Acute dermal toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
n-Heptane 142-82-5	LD50	> 2.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Methylcyclohexane 108-87-2	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

# Acute inhalative toxicity:

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

Hazardous substances	Value	Value	Test atmosphere	Exposure	Species	Method
CAS-No.	type			time		
n-Heptane	LC50	> 29,29 mg/l	vapour	4 h	rat	equivalent or similar to OECD
142-82-5						Guideline 403 (Acute
						Inhalation Toxicity)
Methylcyclohexane	LC50	> 26,3 mg/l	vapour	1 h	rat	not specified
108-87-2						_

## Skin corrosion/irritation:

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

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
n-Heptane 142-82-5	irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Methylcyclohexane 108-87-2	not irritating	24 h	rabbit	Draize Test

## Serious eye damage/irritation:

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

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
n-Heptane 142-82-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Methylcyclohexane 108-87-2	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

# Respiratory or skin sensitization:

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

Hazardous substances	Result	Test type	Species	Method
CAS-No.				
n-Heptane	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
142-82-5		test		
Methylcyclohexane	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
108-87-2				

# Germ cell mutagenicity:

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

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
n-Heptane 142-82-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
n-Heptane 142-82-5	negative	in vitro mammalian chromosome aberration test	not applicable		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Methylcyclohexane 108-87-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Methylcyclohexane 108-87-2	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Methylcyclohexane 108-87-2	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:

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

Hazardous substances	Result / Value	Test type	Route of	Species	Method
CAS-No.			application		
n-Heptane	NOAEL P 3000 ppm		inhalation:	rat	OECD Guideline 416 (Two-
142-82-5			vapour		Generation Reproduction
	NOAEL F1 3000 ppm				Toxicity Study)
Methylcyclohexane	NOAEL P 250 mg/kg	screening	oral: gavage	rat	OECD Guideline 422
108-87-2					(Combined Repeated Dose
	NOAEL F1 1.000 mg/kg				Toxicity Study with the
					Reproduction /
					Developmental Toxicity
					Screening Test)

# STOT-single exposure:

No data available.

# STOT-repeated exposure:

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

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
n-Heptane 142-82-5		inhalation: vapour	16 weeks 12 hours/day, 7 days/week	rat	
Methylcyclohexane 108-87-2	NOAEL 250 mg/kg	oral: gavage	28 d daily	rat	OECD Guideline 422 (Combined Repeated 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.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
n-Heptane 142-82-5	LC50	> 220 - 270 mg/l	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Methylcyclohexane 108-87-2	LC50	2,07 mg/l	96 h	Oryzias latipes	other guideline:
1,8-Diazabicyclo[5.4.0]undec- 7-ene 6674-22-2	LC50	> 100 - 220 mg/l	96 h	Leuciscus idus	DIN 38412-15

# **Toxicity (Daphnia):**

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

Value	Value	Exposure time	Species	Method
type				
EC50	1,5 mg/l	48 h	Daphnia magna	other guideline:
EC50	0,326 mg/l	48 h	Daphnia magna	other guideline:
EC50	50 mg/l	48 h		OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
	EC50	type EC50 1,5 mg/l EC50 0,326 mg/l	type EC50 1,5 mg/l 48 h EC50 0,326 mg/l 48 h	type         Feet Section         Feet Section         Feet Section         Feet Section         Feet Section         Feet Section         Daphnia magna           EC50         50 mg/l         48 h         Daphnia magna           EC50         50 mg/l         48 h         Daphnia magna

### Chronic toxicity to aquatic invertebrates

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
n-Heptane	NOELR	1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
142-82-5					magna, Reproduction Test)
1,8-Diazabicyclo[5.4.0]undec-	NOEC	> 12 mg/l	21 day	Daphnia magna	OECD 211 (Daphnia
7-ene					magna, Reproduction Test)
6674-22-2					

## **Toxicity (Algae):**

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Methylcyclohexane	EC50	0,134 mg/l	72 h	Pseudokirchneriella subcapitata	other guideline:
108-87-2				(reported as Raphidocelis	
				subcapitata)	
Methylcyclohexane	NOEC	0,022 mg/l	72 h	Pseudokirchneriella subcapitata	other guideline:
108-87-2				(reported as Raphidocelis	
				subcapitata)	
1,8-Diazabicyclo[5.4.0]undec-	EC50	> 100 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal
7-ene					Inhibition test)
6674-22-2				subspicatus)	,
1,8-Diazabicyclo[5.4.0]undec-	NOEC	> 100 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal
7-ene		_		(reported as Scenedesmus	Inhibition test)
6674-22-2				subspicatus)	,

# Toxicity to microorganisms

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
1,8-Diazabicyclo[5.4.0]undec-	EC 50	330 mg/l	17 h		not specified
7-ene					
6674-22-2					

# 12.2. Persistence and degradability

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
n-Heptane	readily biodegradable	aerobic	70 %	10 d	other guideline:
142-82-5					
Methylcyclohexane	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 D (Ready
108-87-2					Biodegradability: Closed Bottle
					Test)
1,8-Diazabicyclo[5.4.0]undec-	not inherently	aerobic	< 20 %	28 day	OECD Guideline 302 B (Inherent
7-ene	biodegradable				biodegradability: Zahn-
6674-22-2					Wellens/EMPA Test)
1,8-Diazabicyclo[5.4.0]undec-	not readily biodegradable.	aerobic	< 20 %	28 day	OECD Guideline 301 A (new
7-ene					version) (Ready Biodegradability:
6674-22-2					DOC Die Away Test)

# 12.3. Bioaccumulative potential

Hazardous substances	Bioconcentratio	Exposure time	Temperature	Species	Method
CAS-No.	n factor (BCF)				
n-Heptane 142-82-5	552			calculation	QSAR (Quantitative Structure Activity Relationship)
Methylcyclohexane 108-87-2	> 95 - < 321	56 day	25 °C	Cyprinus carpio	other guideline:
1,8-Diazabicyclo[5.4.0]undec- 7-ene 6674-22-2	< 0,4	42 day		Cyprinus carpio	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)

# 12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
n-Heptane 142-82-5	4,66		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Methylcyclohexane 108-87-2	3,88		other guideline:

## 12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
n-Heptane	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
142-82-5	Bioaccumulative (vPvB) criteria.
1,8-Diazabicyclo[5.4.0]undec-7-ene	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
6674-22-2	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:

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

14 06 03 Other solvents and solvent mixtures

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	1206
RID	1206
ADN	1206
IMDG	1206
IATA	1206

# 14.2. UN proper shipping name

ADR	HEPTANES (solution)
RID	HEPTANES (solution)
ADN	HEPTANES (solution)

IMDG HEPTANES (n-Heptane) (solution)

IATA Heptanes (solution)

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

ADR	3
RID	3
ADN	3
IMDG	3
IATA	3

# 14.4. Packing group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

# 14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
DADC	M. 11

IMDG Marine pollutant IATA not applicable

### 14.6. Special precautions for user

ADR	not applicable
	Tunnelcode: (D/E)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

# 14.7. Maritime transport in bulk according to IMO instruments

not applicable

# **SECTION 15: Regulatory information**

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): 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.

### National regulations/information (Germany):

WGK: WGK 2: significantly water endangering (Ordinance on facilities for handling

substances that are hazardous to water (AwSV) ) Classification according to AwSV, Annex 1 (5.2)

Storage class according to TRGS 510:

## **SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

H225 Highly flammable liquid and vapour.

H290 May be corrosive to metals.

H301 Toxic if swallowed.

H304 May be fatal if swallowed and enters airways.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

ED: Substance identified as having endocrine disrupting properties

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

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

bioaccumulative criteria

vPvB: Substance fulfilling very persistent and very bioaccumulative criteria

### **Further information:**

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