



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

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LOCTITE 416/7455 KIT

SDS No. : 696989  
V002.0

Revision: 11.02.2026

printing date: 13.02.2026

Replaces version from: 18.12.2023

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### Kit/Multi-component Product

1. SDS No.738263 - LOCTITE 416
2. SDS No.179504 - LOCTITE SF 7455



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

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LOCTITE 416

SDS No. : 738263  
V002.0

Revision: 11.02.2026

printing date: 13.02.2026

Replaces version from: 30.03.2023

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

#### 1.1. Product identifier

LOCTITE 416

UFI: 8TP9-0W84-020W-5QHU

#### 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 [www.mysds.henkel.com](http://www.mysds.henkel.com) or [www.henkel-adhesives.com](http://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

|                                                |                                                                                                                                                                                                                        |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Signal word:</b>                            | Warning                                                                                                                                                                                                                |
| <b>Hazard statement:</b>                       | H315 Causes skin irritation.<br>H319 Causes serious eye irritation.<br>H335 May cause respiratory irritation.                                                                                                          |
| <b>Supplemental information</b>                | Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.                                                                                                                              |
| <b>Precautionary statement:<br/>Prevention</b> | P261 Avoid breathing vapors.<br>P280 Wear protective gloves/eye protection.                                                                                                                                            |
| <b>Precautionary statement:<br/>Response</b>   | P337+P313 If eye irritation persists: Get medical advice/attention.<br>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| <b>Precautionary statement:<br/>Disposal</b>   | 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<br>CAS No.<br>EC No<br>UK-REACH-Reg. No. | Concentration | Classification                                               | Specific Conc. Limits, M-factors and ATEs | Add. Information |
|---------------------------------------------------------------|---------------|--------------------------------------------------------------|-------------------------------------------|------------------|
| Ethyl 2-cyanoacrylate<br>7085-85-0<br>230-391-5               | 50- 100 %     | Eye Irrit. 2, H319<br>STOT SE 3, H335<br>Skin Irrit. 2, H315 | STOT SE 3; H335; C $\geq$ 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 (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) 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 / surface water / 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**

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/m <sup>3</sup> | Value type                        | Short term exposure limit category / Remarks | Regulatory list |
|-------------------------------------------------------------|-----|-------------------|-----------------------------------|----------------------------------------------|-----------------|
| Ethyl 2-cyanoacrylate<br>7085-85-0<br>[ETHYL CYANOACRYLATE] | 0,3 | 1,5               | Short Term Exposure Limit (STEL): | 15 minutes                                   | EH40 WEL        |

**Occupational Exposure Limits**

Valid for

Ireland

| Ingredient [Regulated substance]                                                   | ppm | mg/m <sup>3</sup> | Value type                        | Short term exposure limit category / Remarks | Regulatory list |
|------------------------------------------------------------------------------------|-----|-------------------|-----------------------------------|----------------------------------------------|-----------------|
| Ethyl 2-cyanoacrylate<br>7085-85-0<br>[ETHYL 2-CYANOACRYLATE; ETHYL CYANOACRYLATE] | 1   |                   | Short Term Exposure Limit (STEL): | 15 minutes                                   | IR_OEL          |
| Ethyl 2-cyanoacrylate<br>7085-85-0<br>[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<br>7085-85-0 | Workers            | Inhalation        | Long term exposure - local effects    |               | 9,25 mg/m <sup>3</sup> |         |
| Ethyl 2-cyanoacrylate<br>7085-85-0 | Workers            | Inhalation        | Long term exposure - systemic effects |               | 9,25 mg/m <sup>3</sup> |         |
| Ethyl 2-cyanoacrylate<br>7085-85-0 | General population | Inhalation        | Long term exposure - local effects    |               | 9,25 mg/m <sup>3</sup> |         |
| Ethyl 2-cyanoacrylate<br>7085-85-0 | General population | Inhalation        | Long term exposure - systemic effects |               | 9,25 mg/m <sup>3</sup> |         |

**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 &gt; 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 &gt; 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 / Colorless                                                                                                       |
| 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)                                                                                                               |
| Flammability                                                  | Not applicable<br>Non flammable product (flash point is greater than 93°C)                                                          |
| Explosive limits                                              | Not applicable, The product is not flammable.                                                                                       |
| Flash point                                                   | 80 - 93 °C (176 - 199.4 °F)                                                                                                         |
| Auto-ignition temperature                                     | The product is not flammable., Not applicable                                                                                       |
| Decomposition temperature                                     | Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use |
| pH                                                            | Product reacts with water., Not applicable                                                                                          |
| Viscosity (kinematic)<br>(40 °C (104 °F); )                   | > 20,5 mm <sup>2</sup> /s                                                                                                           |
| Viscosity, dynamic<br>(; 25 °C (77 °F))                       | 400 - 4.000 mPa.s                                                                                                                   |
| Solubility (qualitative)<br>(22 °C (71.6 °F); Solvent: Water) | Reacts with water.                                                                                                                  |
| Partition coefficient: n-octanol/water                        | Not applicable<br>insoluble in water                                                                                                |
| Vapour pressure<br>(77 °F (25 °C))                            | < 0,5 mm hg                                                                                                                         |
| Vapour pressure<br>(50 °C (122 °F))                           | < 700 mbar                                                                                                                          |
| Density<br>( )                                                | 1,1 g/cm <sup>3</sup>                                                                                                               |
| Relative vapour density:<br>(25 °C)                           | > 1                                                                                                                                 |
| Particle characteristics                                      | Not applicable<br>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.

Based on available data, the classification criteria are not met.

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

#### Acute dermal toxicity:

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

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No.    | Value<br>type | Value         | Species | Method                                                              |
|------------------------------------|---------------|---------------|---------|---------------------------------------------------------------------|
| Ethyl 2-cyanoacrylate<br>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<br>CAS-No.    | Result                 | Exposure<br>time | Species | Method                                                                            |
|------------------------------------|------------------------|------------------|---------|-----------------------------------------------------------------------------------|
| Ethyl 2-cyanoacrylate<br>7085-85-0 | slightly<br>irritating | 24 h             | rabbit  | equivalent or similar to OECD Guideline 404 (Acute 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<br>CAS-No.    | Result     | Exposure<br>time | Species | Method                                                                         |
|------------------------------------|------------|------------------|---------|--------------------------------------------------------------------------------|
| Ethyl 2-cyanoacrylate<br>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.

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No.    | Result          | Test type                       | Species    | Method                                                           |
|------------------------------------|-----------------|---------------------------------|------------|------------------------------------------------------------------|
| Ethyl 2-cyanoacrylate<br>7085-85-0 | not sensitising | Guinea pig maximisation<br>test | guinea pig | equivalent or similar to OECD Guideline 406 (Skin Sensitisation) |

**Germ cell mutagenicity:**

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

Based on available data, the classification criteria are not met.

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

**Carcinogenicity**

No data available.

**Reproductive toxicity:**

No data available.

**STOT-single exposure:**

No data available.

**STOT-repeated exposure:**

No data available.

**Aspiration hazard:**

No data available.

**11.2 Information on other hazards****11.2.1 Endocrine disrupting properties**

No data available.

**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):**

No data available.

**Toxicity (aquatic invertebrates):**

No data available.

**Chronic toxicity (aquatic invertebrates):**

No data available.

**Toxicity (Algae):**

No data available.

**Toxicity (microorganisms):**

No data available.

**12.2. Persistence and degradability****Biodegradability (Screening Tests):**

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

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

**(Bio)degradability (Simulation Tests):**

No data available.

**12.3. Bioaccumulative potential****Partition Coefficient (octanol/water)**

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

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

**Bioconcentration factor (BCF)**

No data available.

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT / vPvB / PMT / vPvM assessment****PBT/vPvB**

This mixture does not contain any substances that are assessed to be a PBT or vPvB.  
Based on available data, the classification criteria are not met.

**PMT/vPvM**

This mixture does not contain any substances that are assessed to be a PMT or vPvM.  
Based on available data, the classification criteria are not met.

**12.6. Endocrine disrupting properties**

No data available.

**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 2024/590): Not applicable

Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Not applicable

Persistent organic pollutants (Regulation (EU) 2019/1021): Not applicable

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

Seveso III (2012/18/EU): Not applicable

**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.

Abbreviations and acronyms:

ADG(-Code): Australian Dangerous Goods (Code)  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road  
ASTM: American Society for Testing and Materials  
ATE: acute toxicity estimate  
AS: Australian Standard  
AwSV: Ordinance on Installations for the Handling of Substances Hazardous to Water  
CAS: Chemical Abstract Service  
CLP: Regulation (EC) No 1272/2008  
CMR: cancerogenic, mutagenic or reprotoxic  
DIN: German Institute for Standardization  
ECx: Effective concentration (x% effective level)  
ECHA: European Chemicals Agency  
EC-Nummer: Substance number in the EU-inventories EINECS/ELINCS  
ECTLV: European community threshold limit value  
ED: Substance identified as having endocrine disrupting properties  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
EN : European Standard  
ENCS: Japanese chemical inventory  
EPA: US Environmental Protection Agency  
EU: European Union  
EU EXPLD1: Substance listed in Annex I, Reg (EC) No. 2019/1148  
EU EXPLD2: Substance listed in Annex II, Reg (EC) No. 2019/1148  
EWC: European Waste Catalogue  
GHS: Globally Harmonised System for Classification and Labelling of Chemicals  
GLP: Good Laboratory Practice  
HSNO: Hazardous Substances and New Organisms  
IARC: International Agency for Research of Cancer  
IATA: International Air Transport Association  
IBC-Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50: half maximal inhibitory concentration  
ICAO: International Civil Aviation Organization  
IMDG-Code: International Maritime Code for Dangerous Goods  
IMO: International Maritime Organization  
ISO: International Standardization Organisation  
LC50: Median lethal concentration  
LD50: Median lethal dose  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
n.o.s.: not otherwise specified  
NO(A)EC: No (adverse) effect concentration  
NO(A)EL: No (adverse) effect level  
NZS: New Zealand Standard  
OECD: Organisation for Economic Co-operation and Development  
OEL: Occupational Exposure Limit  
OPPT: US EPA Office of Pollution Prevention and Toxics  
OPPTS: US EPA Office of Prevention, Pesticides and Toxic Substances  
PBT: Persistent, bioaccumulative, toxic  
PMT: Persistent, mobile and toxic  
(Q)SAR: (Quantitative) structure–activity relationship  
REACH: Regulation (EC) No. 1907/2006  
RID: Regulations concerning the International Transport of Dangerous Goods by Rail  
SADT: Self Accelerating Decomposition Temperature  
SDS: Safety Data Sheet  
STOT: Specific Target Organ Toxicity  
STOT SE: Specific Target Organ Toxicity - single exposure  
STOT RE: Specific Target Organ Toxicity - repeated exposure  
SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons  
SVHC: Substance of very high concern (REACH Candidate List)

TRGS: German Technical Rules for hazardous substances  
UN: United Nations  
VOC: Volatile Organic Compound  
814.018 VOC Reg CH: Swiss Ordinance 814.018 on the Incentive Tax on Volatile Organic Compounds  
vPvB: Very persistent, very bioaccumulative  
vPvM: Very persistent and very mobile  
VwVwS: Administrative Regulation on Substances Hazardous to Waters  
WGK: Water hazard class

**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>



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

SDS No. : 179504

V002.0

LOCTITE SF 7455

Revision: 11.02.2026

printing date: 13.02.2026

Replaces version from: 10.02.2026

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

#### 1.1. Product identifier

LOCTITE SF 7455

UFI: P0CF-3017-K00H-6R8G

#### 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 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 [www.mysds.henkel.com](http://www.mysds.henkel.com) or [www.henkel-adhesives.com](http://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):

Flammable aerosols

Category 1

H222 Extremely flammable aerosol.

H229 Pressurized container: May burst if heated.

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

Chronic hazards to the aquatic environment

Category 2

H411 Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Label elements (CLP):

**Hazard pictogram:****Contains**

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

**Signal word:**

Danger

**Hazard statement:**

H222 Extremely flammable aerosol.  
 H229 Pressurized container: May burst if heated.  
 H315 Causes skin irritation.  
 H336 May cause drowsiness or dizziness.  
 H411 Toxic to aquatic life with long lasting effects.

**Supplemental information**

Contains: N-tert-Butyl-2-benzothiazolesulfenamide May produce an allergic reaction.

**Precautionary statement:**

P251 Do not pierce or burn, even after use.  
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.  
 P211 Do not spray on an open flame or other ignition source.  
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P102 Keep out of reach of children.  
 "\*\*\*\*" \*\*\*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**

P261 Avoid breathing vapors.  
 P273 Avoid release to the environment.

**Precautionary statement:  
Response**

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

**2.3. Other hazards**

None if used properly.  
 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<br>CAS No.<br>EC No<br>UK-REACH-Reg. No.   | Concentration | Classification                                                                                                                                    | Specific Conc. Limits, M-factors and ATEs | Add. Information |
|-----------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------|
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0  | 50- < 100 %   | Aquatic Chronic 2, H411<br>Asp. Tox. 1, H304<br>Skin Irrit. 2, H315<br>Flam. Liq. 2, H225<br>STOT SE 3, H336                                      | inhalation:ATE = 23,31 mg/l;vapour        |                  |
| Propane<br>74-98-6<br>200-827-9                                 | 10- < 20 %    | Flam. Gas 1A, H220<br>Press. Gas H280                                                                                                             |                                           |                  |
| cyclohexane<br>110-82-7<br>203-806-2                            | 5- < 10 %     | Asp. Tox. 1, H304<br>STOT SE 3, H336<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410<br>Flam. Liq. 2, H225<br>Skin Irrit. 2, H315             | M acute = 1<br>M chronic = 1              | EU OEL           |
| n-Hexane<br>110-54-3<br>203-777-6                               | 0,1- < 1 %    | Aquatic Chronic 2, H411<br>Flam. Liq. 2, H225<br>Repr. 2, H361f<br>Asp. Tox. 1, H304<br>STOT RE 1, H372<br>Skin Irrit. 2, H315<br>STOT SE 3, H336 |                                           | SVHC<br>EU OEL   |
| N-tert-Butyl-2-benzothiazolesulfenamide<br>95-31-8<br>202-409-1 | 0,1- < 1 %    | Skin Sens. 1, H317<br>Aquatic Chronic 1, H410<br>Aquatic Acute 1, H400                                                                            | M acute = 10<br>M chronic = 1             |                  |

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".

The hazard classification of this product is based solely on the mixture present within the aerosol, excluding the propellant gases. The information provided in Section 3 is based on the combination of the mixture and propellant gases.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation:

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

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

SKIN: Redness, inflammation.

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**

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 (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) 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**

Store in a cool, dry place.

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  
Great Britain

| Ingredient [Regulated substance]         | ppm | mg/m <sup>3</sup> | Value type                        | Short term exposure limit category / Remarks | Regulatory list |
|------------------------------------------|-----|-------------------|-----------------------------------|----------------------------------------------|-----------------|
| Cyclohexane<br>110-82-7<br>[CYCLOHEXANE] | 100 | 350               | Time Weighted Average (TWA):      |                                              | EH40 WEL        |
| Cyclohexane<br>110-82-7<br>[CYCLOHEXANE] | 200 | 700               | Time Weighted Average (TWA):      | Indicative                                   | ECTLV           |
| Cyclohexane<br>110-82-7<br>[CYCLOHEXANE] | 300 | 1.050             | Short Term Exposure Limit (STEL): | 15 minutes                                   | EH40 WEL        |
| n-Hexane<br>110-54-3<br>[N-HEXANE]       | 20  | 72                | Time Weighted Average (TWA):      |                                              | EH40 WEL        |
| n-Hexane<br>110-54-3<br>[N-HEXANE]       | 20  | 72                | Time Weighted Average (TWA):      | Indicative                                   | ECTLV           |

**Occupational Exposure Limits**Valid for  
Ireland

| Ingredient [Regulated substance]         | ppm | mg/m <sup>3</sup> | Value type                   | Short term exposure limit category / Remarks | Regulatory list |
|------------------------------------------|-----|-------------------|------------------------------|----------------------------------------------|-----------------|
| Cyclohexane<br>110-82-7<br>[CYCLOHEXANE] | 200 | 700               | Time Weighted Average (TWA): | Indicative OELV                              | IR_OEL          |
| Cyclohexane<br>110-82-7<br>[CYCLOHEXANE] | 200 | 700               | Time Weighted Average (TWA): | Indicative                                   | ECTLV           |
| n-Hexane<br>110-54-3<br>[N-HEXANE]       |     |                   | Skin designation:            | Can be absorbed through the skin.            | IR_OEL          |
| n-Hexane<br>110-54-3<br>[N-HEXANE]       | 20  | 72                | Time Weighted Average (TWA): | Indicative                                   | ECTLV           |
| n-Hexane<br>110-54-3<br>[n-Hexane]       | 20  | 72                | Time Weighted Average (TWA): | Indicative OELV                              | IR_OEL          |

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

| Name on list                                        | Environmental Compartment       | Exposure period | Value        |     |             |        | Remarks                          |
|-----------------------------------------------------|---------------------------------|-----------------|--------------|-----|-------------|--------|----------------------------------|
|                                                     |                                 |                 | mg/l         | ppm | mg/kg       | others |                                  |
| cyclohexane<br>110-82-7                             | aqua<br>(freshwater)            |                 | 0,207 mg/l   |     |             |        |                                  |
| cyclohexane<br>110-82-7                             | aqua (marine water)             |                 | 0,207 mg/l   |     |             |        |                                  |
| cyclohexane<br>110-82-7                             | aqua<br>(intermittent releases) |                 | 0,207 mg/l   |     |             |        |                                  |
| cyclohexane<br>110-82-7                             | sediment<br>(freshwater)        |                 |              |     | 16,68 mg/kg |        |                                  |
| cyclohexane<br>110-82-7                             | sediment<br>(marine water)      |                 |              |     | 16,68 mg/kg |        |                                  |
| cyclohexane<br>110-82-7                             | Soil                            |                 |              |     | 3,38 mg/kg  |        |                                  |
| cyclohexane<br>110-82-7                             | sewage treatment plant (STP)    |                 | 3,24 mg/l    |     |             |        |                                  |
| cyclohexane<br>110-82-7                             | Air                             |                 |              |     |             |        |                                  |
| cyclohexane<br>110-82-7                             | Predator                        |                 |              |     |             |        | no potential for bioaccumulation |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | aqua<br>(freshwater)            |                 | 0,0023 mg/l  |     |             |        |                                  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | Freshwater - intermittent       |                 | 0,00071 mg/l |     |             |        |                                  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | aqua (marine water)             |                 | 0,00023 mg/l |     |             |        |                                  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | sewage treatment plant (STP)    |                 | 100 mg/l     |     |             |        |                                  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | sediment<br>(freshwater)        |                 |              |     | 0,08 mg/kg  |        |                                  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | sediment<br>(marine water)      |                 |              |     | 0,008 mg/kg |        |                                  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | Soil                            |                 |              |     | 0,796 mg/kg |        |                                  |

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

| Name on list                                                   | Application Area   | Route of Exposure | Health Effect                                | Exposure Time | Value      | Remarks                          |
|----------------------------------------------------------------|--------------------|-------------------|----------------------------------------------|---------------|------------|----------------------------------|
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | Workers            | dermal            | Long term exposure - systemic effects        |               | 300 mg/kg  |                                  |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | Workers            | inhalation        | Long term exposure - systemic effects        |               | 2085 mg/m3 |                                  |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | General population | dermal            | Long term exposure - systemic effects        |               | 149 mg/kg  |                                  |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | General population | inhalation        | Long term exposure - systemic effects        |               | 447 mg/m3  |                                  |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | General population | oral              | Long term exposure - systemic effects        |               | 149 mg/kg  |                                  |
| cyclohexane<br>110-82-7                                        | Workers            | inhalation        | Acute/short term exposure - local effects    |               | 700 mg/m3  | no potential for bioaccumulation |
| cyclohexane<br>110-82-7                                        | Workers            | inhalation        | Acute/short term exposure - systemic effects |               | 700 mg/m3  | no potential for bioaccumulation |
| cyclohexane<br>110-82-7                                        | Workers            | inhalation        | Long term exposure - systemic effects        |               | 700 mg/m3  | no potential for bioaccumulation |
| cyclohexane<br>110-82-7                                        | Workers            | inhalation        | Long term exposure - local effects           |               | 700 mg/m3  | no potential for bioaccumulation |
| cyclohexane<br>110-82-7                                        | Workers            | dermal            | Long term exposure - systemic effects        |               | 2016 mg/kg | no potential for bioaccumulation |
| cyclohexane<br>110-82-7                                        | General population | inhalation        | Acute/short term exposure - systemic effects |               | 412 mg/m3  | no potential for bioaccumulation |
| cyclohexane<br>110-82-7                                        | General population | inhalation        | Acute/short term exposure - local effects    |               | 412 mg/m3  | no potential for bioaccumulation |
| cyclohexane<br>110-82-7                                        | General population | dermal            | Long term exposure - systemic effects        |               | 1186 mg/kg | no potential for bioaccumulation |
| cyclohexane<br>110-82-7                                        | General population | oral              | Long term exposure - systemic effects        |               | 59,4 mg/kg | no potential for bioaccumulation |
| cyclohexane<br>110-82-7                                        | General population | inhalation        | Long term exposure - systemic effects        |               | 206 mg/m3  | no potential for bioaccumulation |
| cyclohexane<br>110-82-7                                        | General population | inhalation        | Long term exposure - local effects           |               | 206 mg/m3  | no potential for bioaccumulation |
| n-Hexane<br>110-54-3                                           | Workers            | inhalation        | Long term exposure - systemic effects        |               | 75 mg/m3   |                                  |
| n-Hexane<br>110-54-3                                           | Workers            | dermal            | Long term exposure - systemic effects        |               | 11 mg/kg   |                                  |
| n-Hexane<br>110-54-3                                           | General population | inhalation        | Long term exposure - systemic effects        |               | 16 mg/m3   |                                  |
| n-Hexane<br>110-54-3                                           | General population | dermal            | Long term exposure - systemic effects        |               | 5,3 mg/kg  |                                  |
| n-Hexane<br>110-54-3                                           | General population | oral              | Long term exposure - systemic effects        |               | 4 mg/kg    |                                  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8            | Workers            | inhalation        | Long term exposure - systemic effects        |               | 14 mg/m3   |                                  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8            | Workers            | inhalation        | Acute/short term exposure - systemic effects |               | 14 mg/m3   |                                  |

|                                                     |                       |            |                                                    |  |           |  |
|-----------------------------------------------------|-----------------------|------------|----------------------------------------------------|--|-----------|--|
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | Workers               | inhalation | Long term<br>exposure - local<br>effects           |  | 14 mg/m3  |  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | Workers               | inhalation | Acute/short term<br>exposure - local<br>effects    |  | 14 mg/m3  |  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | Workers               | dermal     | Long term<br>exposure -<br>systemic effects        |  | 67 mg/kg  |  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | Workers               | dermal     | Acute/short term<br>exposure -<br>systemic effects |  | 534 mg/kg |  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | General<br>population | inhalation | Long term<br>exposure -<br>systemic effects        |  | 3,5 mg/m3 |  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | General<br>population | inhalation | Acute/short term<br>exposure -<br>systemic effects |  | 3,5 mg/m3 |  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | General<br>population | inhalation | Long term<br>exposure - local<br>effects           |  | 3,5 mg/m3 |  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | General<br>population | inhalation | Acute/short term<br>exposure - local<br>effects    |  | 3,5 mg/m3 |  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | General<br>population | dermal     | Long term<br>exposure -<br>systemic effects        |  | 33 mg/kg  |  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | General<br>population | dermal     | Acute/short term<br>exposure -<br>systemic effects |  | 266 mg/kg |  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | General<br>population | oral       | Long term<br>exposure -<br>systemic effects        |  | 1 mg/kg   |  |
| N-tert-Butylbenzothiazole-2-sulphenamide<br>95-31-8 | General<br>population | oral       | Acute/short term<br>exposure -<br>systemic effects |  | 8 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 &gt; 30 minutes permeation time as per EN 374):

nitrile rubber (NBR;  $\geq 0.4$  mm thickness)

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

nitrile rubber (NBR;  $\geq 0.4$  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 / Colorless                                                                                                              |
| Odor                                                        | Aliphatic                                                                                                                           |
| Physical state                                              | liquid                                                                                                                              |
| Melting point                                               | Not applicable, Product is a liquid                                                                                                 |
| Solidification temperature                                  | < -30 °C (< -22 °F)                                                                                                                 |
| Initial boiling point                                       | 96 - 98 °C (204.8 - 208.4 °F)                                                                                                       |
| Flammability                                                | Flammable liquid                                                                                                                    |
| Explosive limits                                            | Currently under determination                                                                                                       |
| Flash point                                                 | Not applicable to aerosols.                                                                                                         |
| Auto-ignition temperature                                   | 220 °C (428 °F)                                                                                                                     |
| Decomposition temperature                                   | Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use |
| pH                                                          | Not applicable, Product is non-soluble (in water).                                                                                  |
| Viscosity (kinematic)<br>(40 °C (104 °F); )                 | <= 20,5 mm <sup>2</sup> /s                                                                                                          |
| Solubility (qualitative)<br>(20 °C (68 °F); Solvent: Water) | Not miscible                                                                                                                        |
| Partition coefficient: n-octanol/water                      | Not applicable                                                                                                                      |
| Vapour pressure<br>(20 °C (68 °F))                          | Mixture<br>35 mm hg                                                                                                                 |
| Vapour pressure<br>(20 °C (68 °F))                          | 5,33 kPa                                                                                                                            |
| Vapour pressure<br>(50 °C (122 °F))                         | 18,8 kPa                                                                                                                            |
| Density<br>(20 °C (68 °F))                                  | 0,68 g/cm <sup>3</sup> None                                                                                                         |
| Relative vapour density:<br>(20 °C)                         | 3,5                                                                                                                                 |
| Particle characteristics                                    | Heavier than air<br>Not applicable<br>Product is a liquid                                                                           |

**9.2. Other information****9.2.1. Information with regard to physical hazard classes**

|           |                                                                                                                                                                                                                      |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aerosols: | Classified as Aerosol category 1 because it contains more than 1 % (by mass) flammable components or has a heat of combustion of at least 20 kJ/g and is not submitted to the flammability classification procedures |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## SECTION 10: Stability and reactivity

**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**

None if used properly.

**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.

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No.                                | Value<br>type | Value         | Species | Method                                                            |
|----------------------------------------------------------------|---------------|---------------|---------|-------------------------------------------------------------------|
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | LD50          | > 5.840 mg/kg | rat     | not specified                                                     |
| cyclohexane<br>110-82-7                                        | LD50          | > 5.000 mg/kg | rat     | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| n-Hexane<br>110-54-3                                           | LD50          | 16.000 mg/kg  | rat     | OECD Guideline 401 (Acute Oral Toxicity)                          |
| N-tert-Butyl-2-benzothiazolesulfenamide<br>95-31-8             | LD50          | 6.850 mg/kg   | rat     | not specified                                                     |

**Acute dermal toxicity:**

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

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No.                                | Value<br>type | Value         | Species | Method                                                              |
|----------------------------------------------------------------|---------------|---------------|---------|---------------------------------------------------------------------|
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | LD50          | > 2.800 mg/kg | rat     | other guideline:                                                    |
| cyclohexane<br>110-82-7                                        | LD50          | > 2.000 mg/kg | rabbit  | equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity) |
| n-Hexane<br>110-54-3                                           | LD50          | > 2.000 mg/kg | rabbit  | not specified                                                       |
| N-tert-Butyl-2-benzothiazolesulfenamide<br>95-31-8             | LD50          | > 7.940 mg/kg | rabbit  | not specified                                                       |

**Acute inhalative toxicity:**

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

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No.                                | Value<br>type                 | Value         | Test atmosphere | Exposure<br>time | Species | Method                                                                  |
|----------------------------------------------------------------|-------------------------------|---------------|-----------------|------------------|---------|-------------------------------------------------------------------------|
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | LC50                          | > 23,3 mg/l   | vapour          | 4 h              | rat     | equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | Acute toxicity estimate (ATE) | 23,31 mg/l    | vapour          |                  |         | Expert judgement                                                        |
| Propane<br>74-98-6                                             | LC50                          | > 800000 ppm  | gas             | 15 min           | rat     | not specified                                                           |
| cyclohexane<br>110-82-7                                        | LC50                          | > 32,880 mg/l | vapour          | 4 h              | rat     | equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) |
| n-Hexane<br>110-54-3                                           | LC50                          | > 31,86 mg/l  | vapour          | 4 h              | rat     | not specified                                                           |

**Skin corrosion/irritation:**

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

| Hazardous substances<br>CAS-No.                                | Result         | Exposure<br>time | Species | Method                                                                            |
|----------------------------------------------------------------|----------------|------------------|---------|-----------------------------------------------------------------------------------|
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | irritating     | 4 h              | rabbit  | equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| cyclohexane<br>110-82-7                                        | irritating     |                  | rabbit  | Weight of evidence                                                                |
| n-Hexane<br>110-54-3                                           | not irritating |                  | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion)                          |

**Serious eye damage/irritation:**

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

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No.                                | Result              | Exposure<br>time | Species | Method                                                                         |
|----------------------------------------------------------------|---------------------|------------------|---------|--------------------------------------------------------------------------------|
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | not irritating      |                  | rabbit  | FDA Guideline                                                                  |
| cyclohexane<br>110-82-7                                        | slightly irritating |                  | rabbit  | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| n-Hexane<br>110-54-3                                           | not irritating      |                  | rabbit  | not specified                                                                  |

**Respiratory or skin sensitization:**

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

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No.                                | Result          | Test type                          | Species    | Method                                                           |
|----------------------------------------------------------------|-----------------|------------------------------------|------------|------------------------------------------------------------------|
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | not sensitising | Guinea pig maximisation test       | guinea pig | OECD Guideline 406 (Skin Sensitisation)                          |
| cyclohexane<br>110-82-7                                        | not sensitising | Buehler test                       | guinea pig | equivalent or similar to OECD Guideline 406 (Skin Sensitisation) |
| n-Hexane<br>110-54-3                                           | not sensitising | Mouse local lymphnode assay (LLNA) | mouse      | 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.

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No.                    | Result    | Type of study /<br>Route of<br>administration    | Metabolic<br>activation /<br>Exposure time | Species                 | Method                                                                                         |
|----------------------------------------------------|-----------|--------------------------------------------------|--------------------------------------------|-------------------------|------------------------------------------------------------------------------------------------|
| Propane<br>74-98-6                                 | negative  | bacterial reverse mutation assay (e.g Ames test) | with and without                           |                         | OECD Guideline 471 (Bacterial Reverse Mutation Assay)                                          |
| Propane<br>74-98-6                                 | negative  | in vitro mammalian chromosome aberration test    | with and without                           |                         | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)                             |
| cyclohexane<br>110-82-7                            | negative  | bacterial reverse mutation assay (e.g Ames test) | with and without                           |                         | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)                 |
| cyclohexane<br>110-82-7                            | negative  | mammalian cell gene mutation assay               | with and without                           |                         | equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)       |
| n-Hexane<br>110-54-3                               | negative  | bacterial reverse mutation assay (e.g Ames test) | with and without                           |                         | OECD Guideline 471 (Bacterial Reverse Mutation Assay)                                          |
| n-Hexane<br>110-54-3                               | negative  | mammalian cell gene mutation assay               | with and without                           |                         | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)                                |
| N-tert-Butyl-2-benzothiazolesulfenamide<br>95-31-8 | negative  | bacterial reverse mutation assay (e.g Ames test) | with and without                           |                         | OECD Guideline 471 (Bacterial Reverse Mutation Assay)                                          |
| N-tert-Butyl-2-benzothiazolesulfenamide<br>95-31-8 | ambiguous | in vitro mammalian chromosome aberration test    | with and without                           |                         | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)                             |
| Propane<br>74-98-6                                 | negative  |                                                  |                                            | Drosophila melanogaster | not specified                                                                                  |
| Propane<br>74-98-6                                 | negative  | inhalation: gas                                  |                                            | rat                     | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)                                   |
| cyclohexane<br>110-82-7                            | negative  | inhalation: vapour                               |                                            | rat                     | equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test) |
| n-Hexane<br>110-54-3                               | negative  | inhalation: vapour                               |                                            | mouse                   | not specified                                                                                  |
| n-Hexane<br>110-54-3                               | negative  | inhalation: vapour                               |                                            | rat                     | not specified                                                                                  |

**Carcinogenicity**

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

Based on available data, the classification criteria are not met.

| Hazardous components<br>CAS-No. | Result           | Route of<br>application | Exposure<br>time /<br>Frequency<br>of treatment | Species | Sex    | Method                                             |
|---------------------------------|------------------|-------------------------|-------------------------------------------------|---------|--------|----------------------------------------------------|
| n-Hexane<br>110-54-3            | not carcinogenic | inhalation:<br>vapour   | 2 y<br>6 h/d; 5 d/w                             | mouse   | female | OECD Guideline 451<br>(Carcinogenicity<br>Studies) |

**Reproductive toxicity:**

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

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No. | Result / Value                                             | Test type                   | Route of<br>application | Species | Method                                                                                                                                  |
|---------------------------------|------------------------------------------------------------|-----------------------------|-------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Propane<br>74-98-6              | NOAEL P 21,6 mg/l<br>NOAEL F1 21,6 mg/l                    | screening                   | inhalation:<br>gas      | rat     | OECD Guideline 422<br>(Combined Repeated Dose<br>Toxicity Study with the<br>Reproduction /<br>Developmental Toxicity<br>Screening Test) |
| cyclohexane<br>110-82-7         | NOAEL F1 7000 ppm                                          | two-<br>generation<br>study | inhalation:<br>vapour   | rat     | equivalent or similar to<br>OECD Guideline 416 (Two-<br>Generation Reproduction<br>Toxicity Study)                                      |
| n-Hexane<br>110-54-3            | NOAEL P 9000 ppm<br>NOAEL F1 3000 ppm<br>NOAEL F2 3000 ppm | Two<br>generation<br>study  | inhalation:<br>vapour   | rat     | OECD Guideline 416 (Two-<br>Generation Reproduction<br>Toxicity Study)                                                                  |

**STOT-single exposure:**

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

| Hazardous substances<br>CAS-No. | Assessment                            | Route of<br>exposure | Target Organs | Remarks |
|---------------------------------|---------------------------------------|----------------------|---------------|---------|
| cyclohexane<br>110-82-7         | Category 3 with narcotic effects.     |                      |               |         |
| n-Hexane<br>110-54-3            | May cause drowsiness or<br>dizziness. |                      |               |         |

**STOT-repeated exposure:**

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

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No.                        | Result / Value     | Route of<br>application | Exposure time /<br>Frequency of<br>treatment | Species | Method                                                                                                                                  |
|--------------------------------------------------------|--------------------|-------------------------|----------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Propane<br>74-98-6                                     |                    | inhalation:<br>gas      | 28 d<br>6 h/d, 7 d/w                         | rat     | OECD Guideline 422<br>(Combined Repeated<br>Dose Toxicity Study with<br>the Reproduction /<br>Developmental Toxicity<br>Screening Test) |
| cyclohexane<br>110-82-7                                |                    | inhalation:<br>vapour   | 13-14 w<br>6 h/d, 5 d/w                      | mouse   | EPA OPPTS 870.3465<br>(90-Day Inhalation<br>Toxicity)                                                                                   |
| n-Hexane<br>110-54-3                                   | NOAEL 40 mg/kg     | oral: gavage            | 13 weeks<br>daily                            | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents)                                                                |
| n-Hexane<br>110-54-3                                   | NOAEL 13,2 mg/kg   | oral: gavage            | 90-120 d<br>5 d / week                       | rat     | not specified                                                                                                                           |
| N-tert-Butyl-2-<br>benzothiazolesulfenamide<br>95-31-8 | LOAEL >= 200 mg/kg | oral: gavage            | daily                                        | rat     | not specified                                                                                                                           |

**Aspiration hazard:**

The mixture is classified based on Viscosity data.

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No. | Viscosity (kinematic)<br>Value | Temperature | Method        | Remarks |
|---------------------------------|--------------------------------|-------------|---------------|---------|
| cyclohexane<br>110-82-7         | 0,41 mm <sup>2</sup> /s        | 40 °C       | not specified |         |
| n-Hexane<br>110-54-3            | 0,45 mm <sup>2</sup> /s        | 25 °C       | not specified |         |

**11.2 Information on other hazards****11.2.1 Endocrine disrupting properties**

No data available.

## 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<br>CAS-No.                                   | Value<br>type | Value         | Exposure time | Species             | Method                                                                                           |
|-------------------------------------------------------------------|---------------|---------------|---------------|---------------------|--------------------------------------------------------------------------------------------------|
| Hydrocarbons, C7, n-alkanes,<br>isoalkanes, cyclics<br>64742-49-0 | LL50          | 8,2 mg/l      | 96 h          | Pimephales promelas | EPA-660 (Methods for<br>Acute Toxicity Tests with<br>Fish, Macroinvertebrates<br>and Amphibians) |
| cyclohexane<br>110-82-7                                           | LC50          | 4,53 mg/l     | 96 h          | Pimephales promelas | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)                                                |
| n-Hexane<br>110-54-3                                              | LC50          | > 1 - 10 mg/l | 96 h          | not specified       | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)                                                |
| N-tert-Butyl-2-<br>benzothiazolesulfenamide<br>95-31-8            | LC50          | 1,38 mg/l     | 96 h          | Oryzias latipes     | OECD Guideline 203 (Fish,<br>Acute 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<br>CAS-No.                                   | Value<br>type | Value    | Exposure time | Species       | Method                                                           |
|-------------------------------------------------------------------|---------------|----------|---------------|---------------|------------------------------------------------------------------|
| Hydrocarbons, C7, n-alkanes,<br>isoalkanes, cyclics<br>64742-49-0 | EL50          | 4,5 mg/l | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| cyclohexane<br>110-82-7                                           | EC50          | 0,9 mg/l | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| n-Hexane<br>110-54-3                                              | EC50          | 2,1 mg/l | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| N-tert-Butyl-2-<br>benzothiazolesulfenamide<br>95-31-8            | EC50          | 1,3 mg/l | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |

#### Chronic 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<br>CAS-No.                                   | Value<br>type | Value     | Exposure time | Species       | Method                                         |
|-------------------------------------------------------------------|---------------|-----------|---------------|---------------|------------------------------------------------|
| Hydrocarbons, C7, n-alkanes,<br>isoalkanes, cyclics<br>64742-49-0 | NOELR         | 2,6 mg/l  | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test) |
| N-tert-Butyl-2-<br>benzothiazolesulfenamide<br>95-31-8            | NOEC          | 0,08 mg/l | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test) |

#### 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<br>CAS-No.                                | Value<br>type | Value         | Exposure time | Species                                                                  | Method                                            |
|----------------------------------------------------------------|---------------|---------------|---------------|--------------------------------------------------------------------------|---------------------------------------------------|
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | EL50          | 3,1 mg/l      | 72 h          | Pseudokirchneriella subcapitata                                          | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | NOELR         | 0,5 mg/l      | 72 h          | Pseudokirchneriella subcapitata                                          | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| cyclohexane<br>110-82-7                                        | EC50          | 9,317 mg/l    | 72 h          | Selenastrum capricornutum<br>(new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| cyclohexane<br>110-82-7                                        | NOEC          | 0,95 mg/l     | 72 h          | Selenastrum capricornutum<br>(new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| n-Hexane<br>110-54-3                                           | EC50          | > 1 - 10 mg/l | 72 h          | not specified                                                            | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| N-tert-Butyl-2-benzothiazolesulfenamide<br>95-31-8             | EC50          | 0,071 mg/l    | 72 h          | Scenedesmus capricornutum                                                | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| N-tert-Butyl-2-benzothiazolesulfenamide<br>95-31-8             | NOEC          | 0,023 mg/l    | 72 h          | Scenedesmus capricornutum                                                | OECD Guideline 201 (Alga, Growth Inhibition Test) |

#### 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<br>CAS-No. | Value<br>type | Value         | Exposure time | Species       | Method                                                             |
|---------------------------------|---------------|---------------|---------------|---------------|--------------------------------------------------------------------|
| cyclohexane<br>110-82-7         | IC50          | 29 mg/l       | 15 h          | other:        | not specified                                                      |
| n-Hexane<br>110-54-3            | EC50          | > 1 - 10 mg/l | 3 h           | not specified | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |

## 12.2. Persistence and degradability

#### Biodegradability (Screening Tests):

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

| Hazardous substances<br>CAS-No.                                | Result                     | Test type | Degradability | Exposure time | Method                                                                      |
|----------------------------------------------------------------|----------------------------|-----------|---------------|---------------|-----------------------------------------------------------------------------|
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics<br>64742-49-0 | readily biodegradable      | aerobic   | 77,05 %       | 28 d          | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| Propane<br>74-98-6                                             | readily biodegradable      | aerobic   | > 60 %        | 28 d          | OECD 301 A - F                                                              |
| cyclohexane<br>110-82-7                                        | readily biodegradable      | aerobic   | 77 %          | 28 d          | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| n-Hexane<br>110-54-3                                           | readily biodegradable      | aerobic   | 81 %          | 28 d          | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| N-tert-Butyl-2-benzothiazolesulfenamide<br>95-31-8             | not readily biodegradable. | aerobic   | 0 %           | 28 d          | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))       |

#### (Bio)degradability (Simulation Tests):

No data available.

## 12.3. Bioaccumulative potential

**Partition Coefficient (octanol/water)**

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

| Hazardous substances<br>CAS-No.                                   | LogPow | Temperature | Method                                                                      |
|-------------------------------------------------------------------|--------|-------------|-----------------------------------------------------------------------------|
| Hydrocarbons, C7, n-alkanes,<br>isoalkanes, cyclics<br>64742-49-0 | 4,66   |             | EU Method A.8 (Partition Coefficient)                                       |
| cyclohexane<br>110-82-7                                           | 3,44   | 25 °C       | QSAR (Quantitative Structure Activity Relationship)                         |
| n-Hexane<br>110-54-3                                              | 4      | 20 °C       | other guideline:                                                            |
| N-tert-Butyl-2-<br>benzothiazolesulfenamide<br>95-31-8            | 3,36   | 25 °C       | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |

**Bioconcentration factor (BCF)**

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

| Hazardous substances<br>CAS-No. | Bioconcentration<br>factor (BCF) | Exposure<br>time | Temperature | Species                | Method                                                    |
|---------------------------------|----------------------------------|------------------|-------------|------------------------|-----------------------------------------------------------|
| cyclohexane<br>110-82-7         | 167                              |                  |             | Pimephales<br>promelas | QSAR (Quantitative<br>Structure Activity<br>Relationship) |

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT / vPvB / PMT / vPvM assessment****PBT/vPvB**

This mixture does not contain any substances that are assessed to be a PBT or vPvB.  
Based on available data, the classification criteria are not met.

**PMT/vPvM**

This mixture does not contain any substances that are assessed to be a PMT or vPvM.  
Based on available data, the classification criteria are not met.

**12.6. Endocrine disrupting properties**

No data available.

**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

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  | 1950 |
| RID  | 1950 |
| ADN  | 1950 |
| IMDG | 1950 |
| IATA | 1950 |

**14.2. UN proper shipping name**

|      |                      |
|------|----------------------|
| ADR  | AEROSOLS             |
| RID  | AEROSOLS             |
| ADN  | AEROSOLS             |
| IMDG | AEROSOLS (n-Heptane) |
| IATA | Aerosols, flammable  |

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

|      |     |
|------|-----|
| ADR  | 2.1 |
| RID  | 2.1 |
| ADN  | 2.1 |
| IMDG | 2.1 |
| IATA | 2.1 |

**14.4. Packing group**

|      |
|------|
| ADR  |
| RID  |
| ADN  |
| IMDG |
| IATA |

**14.5. Environmental hazards**

|      |                           |
|------|---------------------------|
| ADR  | Environmentally Hazardous |
| RID  | Environmentally Hazardous |
| ADN  | Environmentally Hazardous |
| IMDG | Marine Pollutant          |
| IATA | not applicable            |

**14.6. Special precautions for user**

|      |                 |
|------|-----------------|
| ADR  | not applicable  |
|      | Tunnelcode: (D) |
| 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 2024/590): | Not applicable |
| Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):    | Not applicable |
| Persistent organic pollutants (Regulation (EU) 2019/1021):     | Not applicable |

VOC content  
(2010/75/EC) 99,7 %

Seveso III (2012/18/EU): E2, Hazardous to the Aquatic Environment in Category Chronic 2  
P3b, Flammable aerosols  
34, Petroleum products: (a) gasolines and naphthas, (b) kerosenes  
(including jet fuels), (C) gas oils (including diesel fuels, home heating oils  
and gas oil blending streams), (d) heavy fuel oils (e) alternative fuels  
serving the same purposes and with similar

**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:

H220 Extremely flammable gas.  
H225 Highly flammable liquid and vapour.  
H280 Contains gas under pressure; may explode if heated.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H336 May cause drowsiness or dizziness.  
H361f Suspected of damaging fertility.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms:

ADG(-Code): Australian Dangerous Goods (Code)  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road  
ASTM: American Society for Testing and Materials  
ATE: acute toxicity estimate  
AS: Australian Standard  
AwSV: Ordinance on Installations for the Handling of Substances Hazardous to Water  
CAS: Chemical Abstract Service  
CLP: Regulation (EC) No 1272/2008  
CMR: cancerogenic, mutagenic or reprotoxic  
DIN: German Institute for Standardization  
ECx: Effective concentration (x% effective level)  
ECHA: European Chemicals Agency  
EC-Nummer: Substance number in the EU-inventories EINECS/ELINCS  
ECTLV: European community threshold limit value  
ED: Substance identified as having endocrine disrupting properties  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
EN : European Standard  
ENCS: Japanese chemical inventory  
EPA: US Environmental Protection Agency  
EU: European Union  
EU EXPLD1: Substance listed in Annex I, Reg (EC) No. 2019/1148  
EU EXPLD2: Substance listed in Annex II, Reg (EC) No. 2019/1148  
EWC: European Waste Catalogue  
GHS: Globally Harmonised System for Classification and Labelling of Chemicals  
GLP: Good Laboratory Practice  
HSNO: Hazardous Substances and New Organisms  
IARC: International Agency for Research of Cancer  
IATA: International Air Transport Association  
IBC-Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50: half maximal inhibitory concentration  
ICAO: International Civil Aviation Organization  
IMDG-Code: International Maritime Code for Dangerous Goods  
IMO: International Maritime Organization  
ISO: International Standardization Organisation  
LC50: Median lethal concentration  
LD50: Median lethal dose  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
n.o.s.: not otherwise specified  
NO(A)EC: No (adverse) effect concentration  
NO(A)EL: No (adverse) effect level  
NZS: New Zealand Standard  
OECD: Organisation for Economic Co-operation and Development  
OEL: Occupational Exposure Limit  
OPPT: US EPA Office of Pollution Prevention and Toxics  
OPPTS: US EPA Office of Prevention, Pesticides and Toxic Substances

PBT: Persistent, bioaccumulative, toxic  
PMT: Persistent, mobile and toxic  
(Q)SAR: (Quantitative) structure–activity relationship  
REACH: Regulation (EC) No. 1907/2006  
RID: Regulations concerning the International Transport of Dangerous Goods by Rail  
SADT: Self Accelerating Decomposition Temperature  
SDS: Safety Data Sheet  
STOT: Specific Target Organ Toxicity  
STOT SE: Specific Target Organ Toxicity - single exposure  
STOT RE: Specific Target Organ Toxicity - repeated exposure  
SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons  
SVHC: Substance of very high concern (REACH Candidate List)  
TRGS: German Technical Rules for hazardous substances  
UN: United Nations  
VOC: Volatile Organic Compound  
814.018 VOC Reg CH: Swiss Ordinance 814.018 on the Incentive Tax on Volatile Organic Compounds  
vPvB: Very persistent, very bioaccumulative  
vPvM: Very persistent and very mobile  
VwVwS: Administrative Regulation on Substances Hazardous to Waters  
WGK: Water hazard class

**Further information:**

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