

Lockfast® LF454

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 8/31/2022 Revision date: 8/31/2022 Supersedes version of: 2/27/2020 Version: 1.2

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

1.1. Product identifier

Product form : Mixture
Product name : Lockfast® LF454
UFI : 7H00-W0U9-600H-CEMU
Type of product : ethyl 2-cyanoacrylate
Product group : Adhesives, sealants

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : Industrial use, Professional use, Consumer use
Use of the substance/mixture : Adhesives, binding agents
Function or use category : Adhesives, binding agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cyanotec Ltd
Bay 2 building 62 third avenue
Kingswinford
Dudley West Midlands DY6 7XT
T +44(0)1384 294753
sales@cyanotec.com
www.cyanotec.com

1.4. Emergency telephone number

Emergency number : +44 (0)1384 294753
Office hours 0900-1700hrs MONDAY TO THURSDAY

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation H335

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause respiratory irritation. Causes skin irritation. Causes serious eye irritation.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Contains :

ETHYL-2-CYANOACRYLATE

Hazard statements (CLP) :

H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.

Precautionary statements (CLP) :

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P261 - Avoid breathing dust, fume, gas, mist, spray, vapours.
P271 - Use only outdoors or in a well-ventilated area.
P405 - Store locked up.
P501 - Dispose of contents to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

EUH-statements : EUH202 - Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

2.3. Other hazards

Other hazards which do not result in classification : None under normal conditions.

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ETHYL-2-CYANOACRYLATE	CAS-No.: 7085-85-0 EC-No.: 230-391-5 EC Index-No.: 607-236-00-9 REACH-no: 01-2119527766-29, 02-0000403180-68, 05-0000403157-85, UK-01-0847871764-1-0004	50 – 100	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
HYDROQUINONE	CAS-No.: 123-31-9 EC-No.: 204-617-8 EC Index-No.: 604-005-00-4 REACH-no: 01-2119524016-51	0.01 – 0.1	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 2, H351 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

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Specific concentration limits:

Name	Product identifier	Specific concentration limits
ETHYL-2-CYANOACRYLATE	CAS-No.: 7085-85-0 EC-No.: 230-391-5 EC Index-No.: 607-236-00-9 REACH-no: 01-2119527766-29, 02-0000403180-68, 05-0000403157-85, UK-01-0847871764-1-0004	(10 ≤C < 100) STOT SE 3, H335

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Move to fresh air. Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Exothermic reaction on contact with : skin. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation	: May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing. May cause respiratory irritation.
Symptoms/effects after skin contact	: Rednesses. Irritation.
Symptoms/effects after eye contact	: Eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Clean up any spills as soon as possible, using an absorbent material to collect it.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

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6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Ventilate area. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ensure adequate ventilation, especially in confined areas.
- Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
- Incompatible products : Strong bases.
- Incompatible materials : Do not allow contact with water.

7.3. Specific end use(s)

adhesives.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

ETHYL-2-CYANOACRYLATE (7085-85-0)	
Belgium - Occupational Exposure Limits	
Local name	2-Cyanoacrylate d'éthyle # Ethyl-2-cyaanacrylaat
OEL TWA	1.04 mg/m ³
OEL TWA [ppm]	0.2 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Croatia - Occupational Exposure Limits	
Local name	Etil-cijanoakrilat
KGVI (OEL STEL)	1.5 mg/m ³
KGVI (OEL STEL) [ppm]	0.3 ppm
Remark	Koža (razvrstana kao tvar koja nadražuje kožu (H315))

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ETHYL-2-CYANOACRYLATE (7085-85-0)	
Regulatory reference	Pravilnik o zaštitu radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
Denmark - Occupational Exposure Limits	
Local name	Ethylcyanoacrylat
OEL TWA [1]	10 mg/m ³
OEL TWA [2]	2 ppm
Regulatory reference	BEK nr 2203 af 29. november 2021
Estonia - Occupational Exposure Limits	
Local name	Etüültsüanoakrülaat
OEL TWA	10 mg/m ³
OEL TWA [ppm]	2 ppm
OEL STEL	20 mg/m ³
OEL STEL [ppm]	4 ppm
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 15.05.2021, 1)
Finland - Occupational Exposure Limits	
Local name	Etyyli-2-syanoakrylaatti
HTP (OEL TWA) [1]	1 mg/m ³
HTP (OEL TWA) [2]	0.2 ppm
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
Ireland - Occupational Exposure Limits	
Local name	Cyanoacrylate, Ethyl [Ethyl cyanoacrylate]
OEL TWA [2]	0.2 ppm
OEL STEL [ppm]	1 ppm
Regulatory reference	Chemical Agents Code of Practice 2021
Lithuania - Occupational Exposure Limits	
Local name	Etil-2-ciankriatas
IPRV (OEL TWA)	10 mg/m ³
IPRV (OEL TWA) [ppm]	2 ppm
TPRV (OEL STEL)	20 mg/m ³
TPRV (OEL STEL) [ppm]	4 ppm
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Poland - Occupational Exposure Limits	
Local name	2-Cyanoakrylan etylu
NDS (OEL TWA)	1 mg/m ³
NDSch (OEL STEL)	2 mg/m ³
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	Cianoacrilato de etilo
OEL TWA [ppm]	0.2 ppm

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ETHYL-2-CYANOACRYLATE (7085-85-0)	
Regulatory reference	Norma Portuguesa NP 1796:2014
Spain - Occupational Exposure Limits	
Local name	Cianoacrilato de etilo
VLA-ED (OEL TWA) [2]	0.2 ppm
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2022. INSHT
Sweden - Occupational Exposure Limits	
Local name	Etyl-2-cyanoakrylat
NGV (OEL TWA)	10 mg/m ³
NGV (OEL TWA) [ppm]	2 ppm
KTV (OEL STEL)	20 mg/m ³
KTV (OEL STEL) [ppm]	4 ppm
Remark	M (Medicinska kontroller kan krävas för hantering av ämnet. Se vidare föreskrifterna om medicinska kontroller i arbetslivet. För vissa ämnen ska arbetsgivaren erbjuda läkarundersökning och för andra ämnen gäller krav på periodisk läkarundersökning och tjänstbarhetsbedömning); S (Ämnet är sensibiliserande. Sensibiliserande ämnen kan ge allergi eller annan överkänslighet. Överkänslighetsbesvären drabbar främst huden eller andningsorganen. Överkänslighet innebär att man reagerar vid kontakt med ämnen som normalt inte ger besvär. Allergi är en undergrupp av överkänslighet som orsakas av reaktioner i kroppens immunsystem. Särskilt låga gränsvärden har fastställts för ämnen med mer uttalat luftvägssensibiliserande egenskaper. Några ämnen med starkt sensibiliserande egenskaper får endast hanteras efter tillstånd från Arbetsmiljöverket, se föreskrifterna om kemiska arbetsmiljörisker. Dessa ämnen har inga gränsvärden men i vissa fall riktvärden); V (Vägledande korttidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Ethyl cyanoacrylate
WEL STEL (OEL STEL)	1.5 mg/m ³
WEL STEL (OEL STEL) [ppm]	0.3 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Iceland - Occupational Exposure Limits	
Local name	Etylsýanóakrylát
OEL TWA	10 mg/m ³
OEL TWA [ppm]	2 ppm
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
Switzerland - Occupational Exposure Limits	
Local name	2-Cyanoacrylate d'éthyle / Cyanacrylsäureethylester [Ethyl-2-cyanoacrylat]
MAK (OEL TWA) [1]	9 mg/m ³
MAK (OEL TWA) [2]	2 ppm
Critical toxicity	VRS, Peau / OAW, Haut
Regulatory reference	www.suva.ch, 28.03.2022

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HYDROQUINONE (123-31-9)	
Belgium - Occupational Exposure Limits	
Local name	Hydroquinone # Hydrochinon
OEL TWA	1 mg/m ³
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Bulgaria - Occupational Exposure Limits	
Local name	Хидрохинон
OEL TWA	2 mg/m ³
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.)
Croatia - Occupational Exposure Limits	
Local name	Hidrokinon; 1,4-dihidroksibenzen; kinol
GVI (OEL TWA) [1]	0.5 mg/m ³
Remark	Alergen koža (tvar koja može izazvati alergijsku reakciju na koži (H317))
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, граниčnim vrijednostima izloženosti i biološkim граниčnim vrijednostima (NN 1/2021)
Denmark - Occupational Exposure Limits	
Local name	Hydroquinon (p-Benzendiol)
OEL C	2 mg/m ³
Remark	K (betyder, at stoffet anses for at kunne være kræftfremkaldende)
Regulatory reference	BEK nr 2203 af 29. november 2021
Estonia - Occupational Exposure Limits	
Local name	Hüdrokinoon (1,4-benseendiol)
OEL TWA	0.5 mg/m ³
OEL STEL	1.5 mg/m ³
Remark	S (Sensibiliseeriv aine), 5 (Kinoon võib redutseeruda hüdrokinooniks, mis muutub õhuhapniku toimel kergesti p-bensokinooniks)
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 15.05.2021, 1)
Finland - Occupational Exposure Limits	
Local name	Hydrokinoni
HTP (OEL TWA) [1]	0.5 mg/m ³
HTP (OEL STEL)	2 mg/m ³
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	Hydroquinone
VME (OEL TWA)	2 mg/m ³
Remark	Valeurs recommandées/admises; substance classée cancérogène de catégorie 2 et mutagène de catégorie 2
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Greece - Occupational Exposure Limits	
Local name	Υδροκινόνη

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HYDROQUINONE (123-31-9)	
OEL TWA	2 mg/m ³
OEL STEL	4 mg/m ³
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Ireland - Occupational Exposure Limits	
Local name	Hydroquinone [p-Dihydroxybenzene]
OEL TWA [1]	0.5 mg/m ³
Remark	Sens. (In the workplace respiratory or dermal exposures to sensitising agents may occur. Sensitizers may evoke respiratory or dermal reactions, e.g. asthma, rhinitis and allergic contact dermatitis. The notation does not distinguish between respiratory or dermal sensitisation. Chemical agents that are sensitizers present special problems in the workplace. Should an employee become sensitised, subsequent exposure may cause intense responses, even at low exposure concentrations well below the OELV. Exposure should be eliminated or significantly reduced through control measures such as engineering and process controls and use of personal protective equipment (PPE))
Regulatory reference	Chemical Agents Code of Practice 2021
Lithuania - Occupational Exposure Limits	
Local name	Hidrochinonas
IPRV (OEL TWA)	0.5 mg/m ³
TPRV (OEL STEL)	1.5 mg/m ³
Remark	K (kancerogeninis poveikis); M (mutageninis poveikis); J (jautrinantis poveikis); p-benzchinonas (chinonas) yra oksiduojanti medžiaga, kuri redukuojasi į hidrochinoną. Hidrochinonas vėl lengvai virsta p-benzchinonu, pvz., veikiamas atmosferos deguonies.
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Poland - Occupational Exposure Limits	
Local name	Hydrochinon
NDS (OEL TWA)	1 mg/m ³
NDSCh (OEL STEL)	2 mg/m ³
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	Hidroquinona
OEL TWA	1 mg/m ³
Remark	SC (Agente com potencial para produzir sensibilização pela via cutânea); A3 (Agente carcinogénico confirmado nos animais de laboratório con relevância desconhecida no Homem)
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	1,4-dihidroxibenzen/Hidrochinonă
OEL TWA	1 mg/m ³
OEL STEL	2 mg/m ³
Remark	C2 - susceptibil de a provoca apariția cancerului; M2 - susceptibil de a provoca anomalii genetice
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021)

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HYDROQUINONE (123-31-9)	
Slovakia - Occupational Exposure Limits	
Local name	Hydrochinón (benzén-1,4-diol)
NPHV (OEL TWA) [1]	2 mg/m ³
Remark	K - znamená, že faktor môže byť ľahko absorbovaný kožou
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)
Spain - Occupational Exposure Limits	
Local name	Hidroquinona
VLA-ED (OEL TWA) [1]	2 mg/m ³
Remark	Sen (Sensibilizante).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2022. INSHT
Sweden - Occupational Exposure Limits	
Local name	Hydrokinon
NGV (OEL TWA)	0.5 mg/m ³
KTV (OEL STEL)	1.5 mg/m ³
Remark	S (Ämnet är sensibiliserande. Sensibiliserande ämnen kan ge allergi eller annan överkänslighet. Överkänslighetsbesvären drabbar främst huden eller andningsorganen. Överkänslighet innebär att man reagerar vid kontakt med ämnen som normalt inte ger besvär. Allergi är en undergrupp av överkänslighet som orsakas av reaktioner i kroppens immunsystem. Särskilt låga gränsvärden har fastställts för ämnen med mer uttalat luftvägssensibiliserande egenskaper. Några ämnen med starkt sensibiliserande egenskaper får endast hanteras efter tillstånd från Arbetsmiljöverket, se föreskrifterna om kemiska arbetsmiljörisker. Dessa ämnen har inga gränsvärden men i vissa fall riktvärden); V (Väglödande korttidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas); 10 (p-Bensokinon, kinon, kan genom reduktion övergå till hydrokinon. Hydrokinon kan lätt återbildas till p-bensokinon genom luftoxidation)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Hydroquinone
WEL TWA (OEL TWA) [1]	0.5 mg/m ³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Iceland - Occupational Exposure Limits	
Local name	Hýdrókínón (p-bensendíól)
OEL TWA	0.5 mg/m ³
OEL STEL	2 mg/m ³
Remark	O (efnið er ofnæmisvaldandi)
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 1296/2012)
Norway - Occupational Exposure Limits	
Local name	Hydrokinon
Grenseverdi (OEL TWA) [1]	0.5 mg/m ³
Remark	A: Kjemikalier som skal betraktes som at de fremkaller allergi eller annen overfølsomhet i øynene eller luftveier, eller som skal betraktes som at de fremkaller allergi ved hudkontakt; K: Kjemikalier som skal betraktes som kreftfremkallende.

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HYDROQUINONE (123-31-9)	
Regulatory reference	FOR-2021-06-28-2248
Switzerland - Occupational Exposure Limits	
Local name	Hydroquinone / 1,4-Dihydroxybenzol [Hydrochinon]
MAK (OEL TWA) [1]	2 mg/m ³ (i) / (e)
KZGW (OEL STEL)	2 mg/m ³ (i) / (e)
Critical toxicity	Yeux / Auge
Notation	R, S, C2, M2 / H, S, C2, M2
Remark	NIOSH
Regulatory reference	www.suva.ch, 28.03.2022

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

ETHYL-2-CYANOACRYLATE (7085-85-0)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	9.25 mg/m ³
Acute - local effects, inhalation	9.25 mg/m ³
Long-term - systemic effects, inhalation	9.25 mg/m ³
Long-term - local effects, inhalation	9.25 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	9.25 mg/m ³
Acute - local effects, inhalation	9.25 mg/m ³
Long-term - systemic effects, inhalation	9.25 mg/m ³
Long-term - local effects, inhalation	9.25 mg/m ³
HYDROQUINONE (123-31-9)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	3.33 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.1 mg/m ³
Long-term - local effects, inhalation	1 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.05 mg/m ³
Long-term - systemic effects, dermal	1.66 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.5 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.57 µg/l
PNEC aqua (marine water)	0.057 µg/l
PNEC aqua (intermittent, freshwater)	1.34 µg/l

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PNEC (Sediment)	
PNEC sediment (freshwater)	4.9 µg/kg dw
PNEC sediment (marine water)	0.49 µg/kg dw
PNEC (Soil)	
PNEC soil	0.64 µg/kg dw
PNEC (STP)	
PNEC sewage treatment plant	0.71 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Engineering controls. Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses		With side shields	EN 166

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Skin and body protection	
Type	Standard
Protective clothing	EN 14605

Hand protection:

Protective gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)		≥0.4 mm		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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Respiratory protection			
Device	Filter type	Condition	Standard
Full face mask	Filter A1/B1, Type A - High-boiling (>65 °C) organic compounds		EN 14387

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Appearance	: Colourless. Viscous liquid.
Odour	: characteristic.
Odour threshold	: No available data No available data
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 149 °C
Flammability	: Not applicable
Explosive properties	: No data available.
Oxidising properties	: No data available.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 80 – 93.4 °C Closed cup
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
pH	: Not applicable
Viscosity, kinematic	: ≈ 95238.095 mm ² /s
Viscosity, dynamic	: 100000 mPa.s
Solubility	: No data available. Water: No data available Ethanol: No data available Ether: No data available Acetone: No data available Organic solvent: No data available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 0.27 mbar
Vapour pressure at 50 °C	: < 0.7 bar
Density	: ≈ 1.05 g/ml
Relative density	: No data available
Relative vapour density at 20 °C	: No available data
Relative density of saturated gas/air mixture	: No data available
Relative gas density	: No data available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Critical temperature : No data available

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1) : No data available

Relative evaporation rate (ether=1) : No data available

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VOC content : < 3 %

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Incompatible with water, humid air.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

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LD50 oral rat	> 5000 mg/kg
LD50 dermal	> 2000 mg/kg

ETHYL-2-CYANOACRYLATE (7085-85-0)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

HYDROQUINONE (123-31-9)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))

Skin corrosion/irritation : Causes skin irritation.
pH: Not applicable

Serious eye damage/irritation : Causes serious eye irritation.
pH: Not applicable

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

ETHYL-2-CYANOACRYLATE (7085-85-0)	
STOT-single exposure	May cause respiratory irritation.

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STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

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Viscosity, kinematic	≈ 95238.095 mm ² /s
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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2. Other information

Potential adverse human health effects and symptoms : No data available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified
Not rapidly degradable

HYDROQUINONE (123-31-9)

LC50 - Fish [1]	0.638 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	0.134 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	0.061 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

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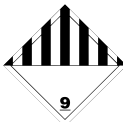
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European List of Waste (LoW) code : 08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
NOT SUBJECT				
14.1. UN number or ID number				
UN 3334	Not regulated	UN 3334	Not regulated	Not regulated
14.2. UN proper shipping name				
Aviation regulated liquid, n.o.s. (Contains cyanoacrylate)	Not regulated	Aviation regulated liquid, n.o.s. (Contains cyanoacrylate)	Not regulated	Not regulated
Transport document description				
UN 3334 Aviation regulated liquid, n.o.s. (Contains cyanoacrylate), 9	Not regulated	UN 3334 Aviation regulated liquid, n.o.s. (Contains cyanoacrylate), 9, III	Not regulated	Not regulated
14.3. Transport hazard class(es)				
9	Not regulated	9	Not regulated	Not regulated
Not applicable	Not regulated		Not regulated	Not regulated
14.4. Packing group				
Not applicable	Not regulated	III	Not regulated	Not regulated
14.5. Environmental hazards				
Dangerous for the environment: No	Not regulated	Dangerous for the environment: No	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M11
EAC code : 2Z

Transport by sea

Not regulated

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 100L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 220L
Special provisions (IATA) : A27
ERG code (IATA) : 9A

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Inland waterway transport

Not regulated

Rail transport

Not regulated

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(b)	Lockfast® LF454

REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

VOC Directive (2004/42)

VOC content : < 3 %

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 65	Eczematiform lesions of allergic mechanism
RG 66	Occupational rhinitis and asthma

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

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Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed
SZW-lijst van reprotoxische stoffen –
Vruchtbaarheid : None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Class for fire hazard : Class III-1
Store unit : 50 liter
Classification remarks : Flammable according to the Danish Ministry of Justice; Emergency management guidelines for the storage of flammable liquids must be followed
Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

A chemical safety assessment has been carried out
No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

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
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration

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Abbreviations and acronyms:	
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Muta. 2	Germ cell mutagenicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.