acc. to Regulation (EC) No. 1907/2006 (REACH)



date of compilation: 2023-03-23

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# Acetic acid ethyl ester ≥99,5 %, VLSI Grade

article number: **20T3** Version: **2.0 en** Replaces version of: 2023-03-23 Version: (1)

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

1.1 Product identifier

Identification of the substance	<b>Acetic acid ethyl ester</b> ≥99,5 %, VLSI Grade
Article number	20T3
Index No (GB CLP)	607-022-00-5
EC number	205-500-4
CAS number	141-78-6
Alternative name(s)	Ethyl acetate

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

Relevant identified uses:

Uses advised against:

Do not use for private purposes (household). Food, drink and animal feedingstuffs.

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

Carl Roth GmbH + Co KG Schoemperlenstr. 3-5 D-76185 Karlsruhe Germany

**Telephone:**+49 (0) 721 - 56 06 0 **Telefax:** +49 (0) 721 - 56 06 149 **e-mail:** sicherheit@carlroth.de **Website:** www.carlroth.de

Competent person responsible for the safety data Department Health, Safety and Environment sheet:

# e-mail (competent person):

# sicherheit@carlroth.de

Laboratory chemical

Laboratory and analytical use

# 1.4 Emergency telephone number

	Name	Street	Postal code/city	Telephone	Website
Nationa	l Poisons Information Service City Hospital	Dudley Rd	B187QH Birmingham	844 892 0111	

# **SECTION 2: Hazards identification**

# 2.1 Classification of the substance or mixture

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Classification acc. to GHS	C	lassifi	cation	acc.	to	GHS
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Section	Hazard class		Hazard class and category	Hazard statement
2.6	Flammable liquid	2	Flam. Liq. 2	H225
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.8D	Specific target organ toxicity - single exposure (narcotic effects, drowsiness)	3	STOT SE 3	H336

#### Supplemental hazard information

Code	Supplemental hazard information
EUH066	repeated exposure may cause skin dryness or cracking

For full text of abbreviations: see SECTION 16

# The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

# 2.2 Label elements

# Labelling

Signal word Danger

#### **Pictograms**

GHS02, GHS07



# **Hazard statements**

H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

# **Precautionary statements**

#### **Precautionary statements - prevention**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition
	sources. No smoking
DO 40	

P243 Take action to prevent static discharges

# **Precautionary statements - response**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

# Supplemental hazard information

EUH066 Repeated exposure may cause skin dryness or cracking.

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# 2.3 Other hazards

# Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

#### **Endocrine disrupting properties**

Does not contain an endocrine disruptor (EDC) in a concentration of  $\ge 0,1\%$ .

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

## 3.1 Substances

Name of substance	Acetic acid ethyl ester
Molecular formula	C₄H <sub>8</sub> O <sub>2</sub>
Molar mass	88,11 <sup>g</sup> / <sub>mol</sub>
CAS No	141-78-6
EC No	205-500-4
Index No (GB CLP)	607-022-00-5

# **SECTION 4: First aid measures**

## 4.1 Description of first aid measures



# **General notes**

Take off contaminated clothing.

# **Following inhalation**

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower.

#### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

# **Following ingestion**

Rinse mouth. Call a doctor if you feel unwell.

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

Following inhalation: Headaches and dizziness may occur, Breathing difficulties, Dizziness, Drowsiness, Narcosis, Following skin contact: Has degreasing effect on the skin, Irritant effects, After eye contact: Irritation, Following ingestion: Nausea, Aspiration hazard, Vomiting

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

none

acc. to Regulation (EC) No. 1907/2006 (REACH)

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# SECTION 5: Firefighting measures

# 5.1 Extinguishing media



# Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

## Unsuitable extinguishing media

water jet

# 5.2 Special hazards arising from the substance or mixture

Combustible. In case of insufficient ventilation and/or in use, may form flammable/explosive vapourair mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours may form explosive mixtures with air.

# Hazardous combustion products

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

# 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

# **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures



# For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

# 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

# 6.3 Methods and material for containment and cleaning up

# Advice on how to contain a spill

Covering of drains.

# Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

# Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

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# 6.4 Reference to other sections

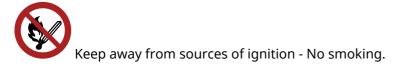
Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

# **SECTION 7: Handling and storage**

# 7.1 Precautions for safe handling

Provision of sufficient ventilation.

# Measures to prevent fire as well as aerosol and dust generation



Take precautionary measures against static discharge. Due to danger of explosion, prevent leakage

of vapours into cellars, flues and ditches.

# Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. When using do not smoke.

# 7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Store in a dry place. Protect against: Direct light irradiation. May cause decomposition by long-term light influence.

# Incompatible substances or mixtures

Observe hints for combined storage.

# Consideration of other advice:

Ground/bond container and receiving equipment.

#### Ventilation requirements

Use local and general ventilation.

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

# 7.3 Specific end use(s)

No information available.

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

# 8.1 Control parameters

**National limit values** 

acc. to Regulation (EC) No. 1907/2006 (REACH)



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# **Occupational exposure limit values (Workplace Exposure Limits)**

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m³]	STE L [pp m]	STEL [mg/ m³]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m³]	Nota- tion	Source
EU	ethyl acetate	141-78-6	IOELV	200	734	400	1.468				2017/ 164/EU
GB	ethyl acetate	141-78-6	WEL	200	734	400	1.468				EH40/ 2005

#### Notation

Ceiling value is a limit value above which exposure should not occur Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified) Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified) Ceiling-C STEL

TWA

## Human health values

## **Relevant DNELs and other threshold levels**

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	734 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	1.468 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic effects
DNEL	734 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
DNEL	1.468 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects
DNEL	63 mg/kg bw/ day	human, dermal	worker (industry)	chronic - systemic effects

# **Environmental values**

Relevant PNECs and other threshold levels								
End- point	Threshold level	Organism	Environmental com- partment	Exposure time				
PNEC	1,65 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	water	intermittent release				
PNEC	0,24 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	freshwater	short-term (single instance)				
PNEC	0,024 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	marine water	short-term (single instance)				
PNEC	650 <sup>mg</sup> /l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)				
PNEC	1,15 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	freshwater sediment	short-term (single instance)				
PNEC	0,115 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	marine sediment	short-term (single instance)				
PNEC	0,148 <sup>mg</sup> / <sub>kg</sub>	terrestrial organisms	soil	short-term (single instance)				

#### 8.2 **Exposure controls**

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# Individual protection measures (personal protective equipment)

# **Eye/face protection**



Use safety goggle with side protection.

# **Skin protection**



# hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a consider-able reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

#### • type of material

Butyl caoutchouc (butyl rubber)

#### material thickness

0,7mm

#### • breakthrough times of the glove material

>120 minutes (permeation: level 4)

#### other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Flame-retardant protective clothing.

#### **Respiratory protection**



Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

# Environmental exposure controls

Keep away from drains, surface and ground water.

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

9.1	Information on basic physical and chemical pro			
<b>7.</b> I	Physical state	liquid		
	Colour	colourless		
	Odour			
	Odour threshold	fruity		
		50 ppm		
	Melting point/freezing point	-83,6 °C at 1.013 hPa (ECHA)		
	Boiling point or initial boiling point and boiling range	77,1 °C at 1.013 hPa (ECHA)		
	Flammability	flammable liquid in accordance with GHS criteria		
	Lower and upper explosion limit	73 g/m³ (LEL) - 470 g/m³ (UEL) / 2,2 vol% (LEL) - 11,5 vol% (UEL)		
	Flash point	-4 °C at 1.013 hPa (ECHA)		
	Auto-ignition temperature	427 °C at 1.013 hPa (ECHA) (auto-ignition temper ature (liquids and gases))		
	Decomposition temperature	not relevant		
	pH (value)	not determined		
	Kinematic viscosity	0,501 <sup>mm²</sup> / <sub>s</sub> at 20 °C		
	Dynamic viscosity	0,451 mPa s at 20 °C		
	Solubility(ies)			
	Water solubility	80 <sup>g</sup> / <sub>l</sub> at 25 °C (ECHA)		
	Partition coefficient			
	Partition coefficient n-octanol/water (log value):	0,68 (pH value: 7, 25 °C) (ECHA)		
	Vapour pressure	97 hPa at 20 °C		
	Density and/or relative density			
	Density	0,9003 <sup>g</sup> / <sub>cm³</sub> at 20 °C (ECHA)		
	Relative vapour density	3,04 (air = 1)		
	Particle characteristics	not relevant (liquid)		
	Other safety parameters			
	Oxidising properties	none		
2	Other information			
	Information with regard to physical hazard classes:	There is no additional information.		

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Other safety characteristics:	
Gas group (explosion group)	IIA Maximum Experimental Safe Gap value; MESG > 0,9 mm
Maximum explosion pressure	9,5 bar
Refractive index	1,372

# **SECTION 10: Stability and reactivity**

# 10.1 Reactivity

It's a reactive substance. Risk of ignition. Vapours may form explosive mixtures with air.

# If heated

Risk of ignition.

# 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

# 10.3 Possibility of hazardous reactions

Exothermic reaction with: Fluorine, strong oxidiser, Danger of explosion: Alkali metals, Alkaline earth metal, Violent reaction with: Strong alkali, Strong acid

#### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Direct light irradiation. Protect from moisture.

#### 10.5 Incompatible materials

different plastics

# 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

# **SECTION 11: Toxicological information**

# 11.1 Information on toxicological effects

# **Classification acc. to GHS**

## Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	5.620 <sup>mg</sup> / <sub>kg</sub>	rat		TOXNET
dermal	LD50	>20.000 <sup>mg</sup> / <sub>kg</sub>	rabbit		ECHA

# Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

# Serious eye damage/eye irritation

Causes serious eye irritation.

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# Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

# Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

# Carcinogenicity

Shall not be classified as carcinogenic.

# **Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

# Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

# Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

# **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

# Symptoms related to the physical, chemical and toxicological characteristics

# If swallowed

nausea, vomiting, aspiration hazard

# • If in eyes

Causes serious eye irritation, Irritating to eyes

#### • If inhaled

fatigue, narcosis, headache, vertigo, breathing difficulties, dizziness, drowsiness, narcosis

# • If on skin

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation)

# • Other information

none

# 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\ge 0,1\%$ .

# 11.3 Information on other hazards

There is no additional information.

# **SECTION 12: Ecological information**

# 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

acc. to Regulation (EC) No. 1907/2006 (REACH)

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Aquatic toxicity (acute)				
Endpoint	Value	Species	Source	Exposure time
LC50	230 <sup>mg</sup> / <sub>l</sub>	fish	ECHA	96 h
EC50	220 <sup>mg</sup> / <sub>l</sub>	fish	ECHA	96 h

# 12.2 Persistence and degradability

Theoretical Oxygen Demand: 1,816 <sup>mg</sup>/<sub>mg</sub> Theoretical Carbon Dioxide: 1,998 <sup>mg</sup>/<sub>mg</sub>

# **Biodegradation**

The substance is readily biodegradable.

Process of degradability		
Process	Degradation rate	Time
biotic/abiotic	100 %	28 d
oxygen depletion	62 %	5 d

# 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)	0,68 (pH value: 7, 25 °C) (ECHA)
BCF	30 (ECHA)

# 12.4 Mobility in soil

Data are not available.

# 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

# 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\ge 0,1\%$ .

# 12.7 Other adverse effects

Data are not available.

# **SECTION 13: Disposal considerations**

# 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

# Sewage disposal-relevant information

Do not empty into drains.

acc. to Regulation (EC) No. 1907/2006 (REACH)

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# Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

# 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

## Properties of waste which render it hazardous

- HP 3 flammable
- HP 4 irritant skin irritation and eye damage

#### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

# **SECTION 14: Transport information**

# 14.1 UN number or ID number

	ADRRID	UN 1173
	IMDG-Code	UN 1173
	ICAO-TI	UN 1173
14.2	UN proper shipping name	
	ADRRID	ETHYL ACETATE
	IMDG-Code	ETHYL ACETATE
	ICAO-TI	Ethyl acetate
14.3	Transport hazard class(es)	
	ADRRID	3
	IMDG-Code	3
	ICAO-TI	3
14.4	Packing group	
	ADRRID	II
	IMDG-Code	II
	ICAO-TI	II
14.5	Environmental hazards	non-environmentally hazardous acc. to the dan- gerous goods regulations

# 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

# 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

# 14.8 Information for each of the UN Model Regulations

# Safety data sheet Safety data sheet acc. to Regulation (EC) No. 1907/2006 (REACH)

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Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)Additional information		
Proper shipping name	ETHYL ACETATE	
Particulars in the transport document	UN1173, ETHYL ACETATE, 3, II, (D/E)	
Classification code	F1	
Danger label(s)	3	
Excepted quantities (EQ)	E2	
Limited quantities (LQ)	1 L	
Transport category (TC)	2	
Tunnel restriction code (TRC)	D/E	
Hazard identification No	33	
Emergency Action Code	3YE	
Regulations concerning the International Conference of the Internation	arriage of Dangerous Goods by Rail (RID)Additional	
Classification code	F1	
Danger label(s)	3	
Excepted quantities (EQ)	E2	
Limited quantities (LQ)	1 L	
Transport category (TC)	2	
Hazard identification No	33	
International Maritime Dangerous Goods Co	ode (IMDG) - Additional information	
Proper shipping name	ETHYL ACETATE	
Particulars in the shipper's declaration	UN1173, ETHYL ACETATE, 3, II, -4°C c.c.	
Marine pollutant	-	
Danger label(s)	3	
Special provisions (SP)	-	
Excepted quantities (EQ)	E2	
Limited quantities (LQ)	1L	
EmS	F-E, S-D	
Stowage category	В	

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International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information			
Proper shipping name	Ethyl acetate		
Particulars in the shipper's declaration	UN1173, Ethyl acetate, 3, II		
Danger label(s)	3		
Excepted quantities (EQ)	E2		
Limited quantities (LQ)	1 L		

# **SECTION 15: Regulatory information**

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

# Seveso Directive

2012/18/EU (Seveso III)				
Νο	Dangerous substance/hazard categories	Qualifying quantity plication of lower quirer		Notes
P5c	flammable liquids (cat. 2, 3)	5.000	50.000	51)

Notation

51) Flammable liquids, categories 2 or 3 not covered by P5a and P5b

# **Deco-Paint Directive**

VOC content	100 %
VOC content (Water content was discounted)	900,3 <sup>g</sup> / <sub>l</sub>

# Industrial Emissions Directive (IED)

VOC content	100 %
VOC content (Water content was discounted)	900,3 <sup>g</sup> / <sub>l</sub>

# Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

# Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

#### Water Framework Directive (WFD)

not listed

#### Regulation on the marketing and use of explosives precursors

not listed

# **Regulation on drug precursors** not listed

notinsteu

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# **Regulation on substances that deplete the ozone layer (ODS)**

not listed

# Regulation concerning the export and import of hazardous chemicals (PIC)

not listed

# **Regulation on persistent organic pollutants (POP)**

not listed

# National regulations(GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list not listed

# **Restrictions according to GB REACH, Annex 17**

Dangerous substances with restrictions (GB REACH, Annex 17)			
Name of substance	Name acc. to inventory	CAS No	Νο
Acetic acid ethyl ester	this product meets the criteria for classi- fication in accordance with Regulation No 1272/2008/EC		3
Acetic acid ethyl ester	flammable / pyrophoric		40

# **Other information**

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

# National inventories

Country	Inventory	Status
AU	AIIC	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
JP	CSCL-ENCS	substance is listed
KR	KECI	substance is listed
MX	INSQ	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TR	CICR	substance is listed
TW	TCSI	substance is listed
US	TSCA	substance is listed (ACTIVE)
VN	NCI	substance is listed

#### Legend AIIC

CICR

Australian Inventory of Industrial Chemicals

Chemical Inventory and Control Regulation List of Existing and New Chemical Substances (CSCL-ENCS) Domestic Substances List (DSL) EC Substance Inventory (EINECS, ELINCS, NLP) ČSČL-ENCS DSL ECSI

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Legend	
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
KECI	Korea Existing Chémicals Inventory
NCI	National Chemical Inventory
NZIoC	New Zealand Inventory of Ćhemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

# 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

# **SECTION 16: Other information**

# Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
15.1		National inventories: change in the listing (table)	yes

# Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2017/164/EU	Commission Directive establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/ 161/EU
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identi- fier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-li- cence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
GB CLP	The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended)
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions
IATA	International Air Transport Association

acc. to Regulation (EC) No. 1907/2006 (REACH)

# Acetic acid ethyl ester ≥99,5 %, VLSI Grade



# article number: 20T3

Abbr.	Descriptions of used abbreviations
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LEL	Lower explosion limit (LEL)
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
TWA	Time-weighted average
UEL	Upper explosion limit (UEL)
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

#### Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

# List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

# Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.