

Safety Data Sheet

according to Regulation (EC) No 1907/2006

95-DRX+, 95-DRX-M+

Revision date: 05.03.2021

Product code: 950403

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

95-DRX+, 95-DRX-M+

Further trade names

This MSDS covers the following products:

Fluxes 95-DRX+, 95-DRX-M+

Flux 95-DRX+, 95-DRX-M+

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

Fluxes for soft soldering

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet**Manufacturer**

Company name:	Cobar Europe BV	
Street:	Aluminiumstraat 2	
Place:	4823 AL Breda	
Telephone:	+31 76 5445566	Telefax: +31 76 5445577
e-mail:	info@Cobar.com	

Supplier

Company name:	Balver Zinn Josef Jost GmbH & Co. KG	
Street:	Blintroper Weg 11	
Place:	D-58802 Balve	
Telephone:	+49 2375 915-0	Telefax: +49 2375 915-114
Responsible Department:	cia@BalverZinn.com	

1.4. Emergency telephone number:+49 (0) 700 24 112 112 (Contract-ID:BZW)
from USA/Canada pls call 011 49 700 24 112 112**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Flammable liquid: Flam. Liq. 2

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Highly flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

May cause drowsiness or dizziness.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

propan-2-ol; isopropyl alcohol; isopropanol

Signal word: Danger

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Pictograms:



Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Special labelling of certain mixtures

EUH208	Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol. May produce an allergic reaction.
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2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
In use, may form flammable/explosive vapour-air mixture.

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

Hazardous components

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	GHS Classification			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			50 - 60 %
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
110-94-1	glutaric acid			1 - 5 %
	203-817-2		01-2120264127-58	
	Skin Corr. 1A; H314			
124-04-9	adipic acid			1 - < 3 %
	204-673-3	607-144-00-9	01-2119457561-38	
	Eye Irrit. 2; H319			
126-86-3	2,4,7,9-tetramethyldec-5-yne-4,7-diol			0.1 - < 0.2 %
	204-809-1		01-2119954390-39	
	Eye Dam. 1, Skin Sens. 1B, Aquatic Chronic 3; H318 H317 H412			

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

Specific Conc. Limits, M-factors and ATE

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CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
67-63-0	200-661-7	propan-2-ol; isopropyl alcohol; isopropanol	50 - 60 %
		dermal: LD50 = >5000 mg/kg; oral: LD50 = >5000 mg/kg	
124-04-9	204-673-3	adipic acid	1 - < 3 %
		inhalation: LC50 = > 7,7 mg/l (dusts or mists); dermal: LD50 = 5010 mg/kg; oral: LD50 = 5560 mg/kg	
126-86-3	204-809-1	2,4,7,9-tetramethyldec-5-yne-4,7-diol	0.1 - < 0.2 %
		dermal: LD50 = >2000 mg/kg	

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Change contaminated clothing.

First aider: Pay attention to self-protection!

After inhalation

Remove person to fresh air and keep comfortable for breathing. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

After contact with skin

Take off immediately all contaminated clothing. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.

After contact with eyes

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.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. In all cases of doubt, or when symptoms persist, seek medical advice.

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

refer to chapter 2 and 11.

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**

Carbon dioxide (CO₂). Dry extinguishing powder. alcohol resistant foam.

In case of major fire and large quantities: Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Gas/vapours, irritant. Carbon monoxide. Carbon dioxide (CO₂).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

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Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray jet to protect personnel and to cool endangered containers.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General measures**

Remove persons to safety. Remove all sources of ignition. Ventilate affected area.

Do not breathe gas/vapour/aerosol. Avoid contact with skin, eyes and clothes.

Wear personal protection equipment. (See section 8.)

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover drains. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up**Other information**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Ventilate affected area.

Treat the recovered material as prescribed in the section on waste disposal.

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Provide adequate ventilation as well as local exhaust at critical locations.

Do not breathe gas/vapour/aerosol. Avoid contact with skin, eyes and clothes.

Wear suitable protective clothing. (See section 8.)

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges.

Flammable vapours can accumulate in head space of closed systems. In use, may form flammable/explosive vapour-air mixture. Heating causes rise in pressure with risk of bursting.

Further information on handling

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place. Protect against direct sunlight.

Ensure adequate ventilation of the storage area.

Make sure spills can be contained (e.g. sump pallets or kerbed areas).

Hints on joint storage

Do not store together with: Gas. Explosives. Flammable solids. Pyrophoric liquids and solids. Self-heating substances and mixtures. Substances and mixtures which, in contact with water, emit flammable gases.

Oxidizing liquids. Oxidizing solids. Ammonium nitrate and preparations containing ammonium nitrate.

Self-reactive substances and mixtures. Organic peroxides. Non-combustible toxic substances. Radioactive substances. Infectious substances.

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Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
Protect against: UV-radiation/sunlight. heat. Humidity frost.
storage temperature: refer to specifications.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
	Consumer DNEL, long-term	inhalation	systemic	89 mg/m ³
	Worker DNEL, long-term	inhalation	systemic	500 mg/m ³
	Worker DNEL, long-term	dermal	systemic	888 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	26 mg/kg bw/day
	Consumer DNEL, long-term	dermal	systemic	319 mg/kg bw/day
110-94-1	glutaric acid			
	Worker DNEL, long-term	inhalation	systemic	11,52 mg/m ³
	Worker DNEL, long-term	dermal	systemic	3,27 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	2,84 mg/m ³
	Consumer DNEL, long-term	dermal	systemic	1,63 mg/kg bw/day
	Worker DNEL, acute	inhalation	systemic	69,12 mg/m ³
	Worker DNEL, acute	dermal	systemic	19,6 mg/kg bw/day
	Consumer DNEL, acute	inhalation	systemic	17,04 mg/m ³
	Consumer DNEL, long-term	oral	systemic	1,63 mg/kg bw/day
	Consumer DNEL, acute	oral	systemic	9,8 mg/kg bw/day
124-04-9	adipic acid			
	Worker DNEL, acute	inhalation	systemic	264 mg/m ³
	Worker DNEL, acute	inhalation	local	5 mg/m ³
	Consumer DNEL, long-term	inhalation	systemic	65 mg/m ³
	Worker DNEL, long-term	dermal	systemic	38 mg/kg bw/day
	Consumer DNEL, acute	inhalation	systemic	65 mg/m ³
	Worker DNEL, acute	dermal	systemic	38 mg/kg bw/day
	Consumer DNEL, long-term	dermal	systemic	19 mg/kg bw/day

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Consumer DNEL, long-term	oral	systemic	19 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	19 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	19 mg/kg bw/day
Worker DNEL, long-term	inhalation	local	5 mg/m ³
Worker DNEL, long-term	inhalation	systemic	264 mg/m ³
126-86-3	2,4,7,9-tetramethyldec-5-yne-4,7-diol		
Worker DNEL, long-term	inhalation	systemic	1,76 mg/m ³
Worker DNEL, acute	inhalation	systemic	5,28 mg/m ³
Worker DNEL, long-term	dermal	systemic	0,5 mg/kg bw/day
Worker DNEL, acute	dermal	systemic	1,5 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,43 mg/m ³
Consumer DNEL, acute	inhalation	systemic	1,29 mg/m ³
Consumer DNEL, long-term	dermal	systemic	0,25 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	0,75 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,25 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	0,75 mg/kg bw/day

PNEC values

CAS No	Substance		Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	Environmental compartment	
		Marine sediment	552 mg/kg
		Micro-organisms in sewage treatment plants (STP)	2251 mg/l
		Soil	28 mg/kg
		Freshwater	140,9 mg/l
		Freshwater sediment	552 mg/kg
		Marine water	140,9 mg/l
		Secondary poisoning	160 mg/kg
110-94-1	glutaric acid		
		Freshwater	0,12 mg/l
		Marine water	0,012 mg/l
		Freshwater sediment	0,097 mg/kg
		Marine sediment	0,01 mg/kg
		Soil	0,002 mg/kg
124-04-9	adipic acid		
		Freshwater	0,126 mg/l
		Marine water	0,0126 mg/l
		Freshwater sediment	0,484 mg/kg
		Marine sediment	0,0484 mg/kg
		Micro-organisms in sewage treatment plants (STP)	59,1 mg/l
		Soil	0,0228 mg/kg
126-86-3	2,4,7,9-tetramethyldec-5-yne-4,7-diol		

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Freshwater	0.04 mg/l
Freshwater (intermittent releases)	0.4 mg/l
Marine water	0.004 mg/l
Freshwater sediment	0.32 mg/kg
Marine sediment	0.032 mg/kg
Micro-organisms in sewage treatment plants (STP)	7 mg/l
Soil	0.028 mg/kg

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Protective and hygiene measures

The usual precautions for handling chemicals should be considered.

Keep away from food, drink and animal feedingstuffs.

Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Protect skin by using skin protective cream. Take off contaminated clothing.

Eye/face protection

Recommended eye protection brand: Tightly sealed safety glasses. (BS/EN 166)

Hand protection

Wear suitable gloves. (BS EN 374)

Suitable material: Butyl rubber.

Thickness of glove material: 0,5 mm

penetration time (maximum wearing period): 120 min.

In the case of wanting to use the gloves again, clean them before taking off and air them well. Before using check leak tightness / impermeability.

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.

Skin protection

Wear suitable protective clothing.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

Exceeding exposure limit values

Insufficient ventilation

Suitable respiratory protective equipment: gas filtering equipment (EN 141). Type: A

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

This material and its container must be disposed of in a safe way.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid.
Colour: colourless
Odour: alcoholic.

Test method

pH-Value: not determined

Changes in the physical state

Melting point: not applicable
Boiling point or initial boiling point and boiling range: Isopropyl alcohol: 82 °C
Sublimation point: not determined
Softening point: not determined
Pour point: not determined
Flash point: Isopropyl alcohol: 12 °C

Explosive properties

In use, may form flammable/explosive vapour-air mixture. Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode.

Lower explosion limits: not determined
Upper explosion limits: not determined
Auto-ignition temperature: not determined
Decomposition temperature: not determined

Oxidizing properties

none.

Vapour pressure: not determined
(at 20 °C)

Density: 0,896 g/cm³ N/A

Water solubility: miscible.

Solubility in other solvents

not determined

Viscosity / dynamic: not determined
(at 20 °C)

Viscosity / kinematic: not determined
(at 20 °C)

Flow time: not determined

Relative vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

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The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat. moisture.
In use may form flammable/explosive vapour-air mixture.
Heating causes rise in pressure with risk of bursting.

10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong. Strong acid. strong alkalis (Base)

10.6. Hazardous decomposition products

Can be released in case of fire: Gas/vapours, irritant. Carbon monoxide. Carbon dioxide (CO₂).

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, metabolism and distribution**

No data available.

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 >5000 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 >5000 mg/kg	Rabbit	ECHA Dossier	
124-04-9	adipic acid				
	oral	LD50 5560 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 5010 mg/kg	Rat	ECHA Dossier	
	inhalation (4 h) aerosol	LC50 > 7,7 mg/l	Rat	ECHA Dossier	
126-86-3	2,4,7,9-tetramethyldec-5-yne-4,7-diol				
	dermal	LD50 >2000 mg/kg	Rat	ECHA Dossier	OECD 402

Irritation and corrosivity

Causes skin irritation.
Causes serious eye irritation.

Sensitising effects

Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol. May produce an allergic reaction.
May cause sensitisation especially in sensitive humans.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.
Isopropyl alcohol. (CAS-No.: 67-63-0):
In-vitro mutagenicity: No experimental indications of mutagenicity in-vitro exist.
Carcinogenicity :
Exposure time: 24 month
Species: Fischer 344 Rat.

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Method: OECD Guideline 451
Result: NOEL = 5000 ppm
Literature information: ECHA Dossier

adipic acid (CAS-No.: 124-04-9):
In-vitro mutagenicity: No experimental indications of mutagenicity in-vitro exist.
Carcinogenicity:
Exposure time: 24 month
Species: Carworth Farm strain Rat.
Method: no guideline followed
Result: NOAEL = >3750 mg/kg(bw)/day (male.)
Result: NOAEL = >750 mg/kg(bw)/day (female.)
Developmental toxicity/teratogenicity:
Exposure time: 10d
Species: Wistar Rat.
Method: no guideline followed
Result: NOAEL >= 288 ppm (maternal toxicity)
Result: NOAEL >= 288 ppm (developmental toxicity)
Literature information: ECHA Dossier

2,4,7,9-tetramethyldec-5-yne-4,7-diol (CAS-No.: 126-86-3)
In-vitro mutagenicity: No experimental indications of mutagenicity in-vitro exist.
Reproductive toxicity:
Exposure time: 91d
Species: Sprague-Dawley Rat.
Method: no guideline
Result: NOAEL = 500mg/kg/day
Developmental toxicity/teratogenicity:
Exposure time: 91d
Species: Sprague-Dawley Rat.
Method: no guideline
Result: NOAEL = 500 mg/kg/day
Literature information: ECHA Dossier

STOT-single exposure

May cause drowsiness or dizziness. (propan-2-ol; isopropyl alcohol; isopropanol)

STOT-repeated exposure

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

Isopropyl alcohol. (CAS-No.: 67-63-0):
Chronic inhalative toxicity
Exposure time: 24 month
Species: Fischer 344 Rat.
Method: OECD Guideline 451
Result: NOAEC = 5000 ppm
Literature information: ECHA Dossier

adipic acid (CAS-No.: 124-04-9):
Chronic oral toxicity
Exposure time: 24 month
Species: Carworth Farm strain Rat.
Method: no guideline followed
Result: NOAEL = 750 mg/kg(bw)/day
Literature information: ECHA Dossier

2,4,7,9-tetramethyldec-5-yne-4,7-diol (CAS-No.: 126-86-3)
Subacute oral toxicity:

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Exposure time: 28d
Species: Long-Evans Rat.
Method: other
Result: NOAEL = 5000 ppm
Literature information: ECHA Dossier

Aspiration hazard

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

Specific effects in experiment on an animal

No data available.

Further information

Solvent:

Symptoms: Depression of the central nervous system. Liver and kidney damage. drowsiness. vomiting.

Nausea. Dizziness. unconsciousness. Impaired consciousness. Intoxication. erythema (redness)

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 9640 mg/l	96 h	Pimephales promelas	ECHA Dossier	
	Acute algae toxicity	ErC50 1800 mg/l		Scenedesmus quadricauda	ECHA Dossier	
	Acute crustacea toxicity	EC50 >10000 mg/l	48 h	Daphnia magna (24h)	ECHA Dossier	
110-94-1	glutaric acid					
	Acute crustacea toxicity	EC50 6840 mg/l	48 h	Daphnia magna	ECHA	OECD 202
124-04-9	adipic acid					
	Acute fish toxicity	LC50 1000 mg/l	96 h	Danio rerio (OECD 203)	ECHA Dossier	
	Acute algae toxicity	ErC50 59 mg/l	72 h	Pseudokirchnerella subcapitata (IUCLID)	ECHA Dossier	
	Acute crustacea toxicity	EC50 46 mg/l	48 h	Daphnia magna (OECD 202)	ECHA Dossier	
	Fish toxicity	NOEC 6,3 mg/l	21 d	Daphnia magna (OECD 211)	ECHA Dossier	
126-86-3	2,4,7,9-tetramethyldec-5-yne-4,7-diol					
	Acute fish toxicity	LC50 36 mg/l	96 h	Pimephales promelas	ECHA Dossier	(OECD 203)
	Acute algae toxicity	ErC50 15 mg/l	72 h	Pseudokirchnerella subcapitata	ECHA Dossier	(OECD 201)
	Acute crustacea toxicity	EC50 88 mg/l	48 h	Daphnia magna	ECHA Dossier	(OECD 202)
	Acute bacteria toxicity	(630 mg/l)	0,5 h	activated sludge (OECD 209)	ECHA Dossier	(OECD 209)

12.2. Persistence and degradability

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	EU Method C.5/ EU Method C.6	53%	5	ECHA Dossier	

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	Easily biodegradable (concerning to the criteria of the OECD)			
110-94-1	glutaric acid			
	OECD 301D / EEC 92/69 annex V, C.4-E	73%	28	ECHA
	readily biodegradable			
124-04-9	adipic acid			
	OECD Guideline 301 D	83%	30	ECHA Dossier
	Product is biodegradable.			
126-86-3	2,4,7,9-tetramethyldec-5-yne-4,7-diol			
	OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C	5%	29	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05
110-94-1	glutaric acid	-0,256
124-04-9	adipic acid	0,093

BCF

CAS No	Chemical name	BCF	Species	Source
124-04-9	adipic acid	3,162	QSAR	ECHA Dossier

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.7. Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

List of Wastes Code - used product

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150202 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; absorbents, filter materials, wiping cloths and protective clothing; absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances; hazardous waste

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Contaminated packaging

Handle contaminated packages in the same way as the substance itself.
Recommended cleaning agent: Water, if necessary together with cleansing agents.
Do not empty into drains; dispose of this material and its container in a safe way.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3



Classification code: F1
Special Provisions: 601
Limited quantity: 1 L
Transport category: 2
Hazard No: 33
Tunnel restriction code: D/E

Other applicable information (land transport)

Excepted quantity: E2

Inland waterways transport (ADN)

14.1. UN number: UN 1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3



Classification code: F1
Special Provisions: 601
Limited quantity: 1 L

Other applicable information (inland waterways transport)

Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3



Marine pollutant: NO

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Special Provisions: -
Limited quantity: 1 L
EmS: F-E, S-D

Other applicable information (marine transport)

Excepted quantity: E2

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3



Special Provisions: A180
Limited quantity Passenger: 1 L
IATA-packing instructions - Passenger: 353
IATA-max. quantity - Passenger: 5 L
IATA-packing instructions - Cargo: 364
IATA-max. quantity - Cargo: 60 L

Other applicable information (air transport)Excepted quantity: E2
Passenger-LQ: Y341**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

See section 8.

14.7. Maritime transport in bulk according to IMO instruments

not relevant.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**Restrictions on use (REACH, annex XVII):
Entry 3

2010/75/EU (VOC): 57,6 % (calculated)
2004/42/EC (VOC): 505,344 g/l (calculated)
Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

Additional informationThe mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No: 3**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D): 1 - slightly hazardous to water

Additional information

Observe technical data sheet.

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15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
propan-2-ol; isopropyl alcohol; isopropanol

SECTION 16: Other information

Changes

- Rev. 1.00; 10.02.2015, Initial release
- Rev. 1.1; 24.11.2016, Indication of changes - chapter: 1, 2, 3, 6, 12, 15, 16.
- Rev. 2.0; 05.03.2021, Indication of changes - chapter: 1 - 16.

Abbreviations and acronyms

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- CAS Chemical Abstracts Service
- DNEL: Derived No Effect Level
- IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
- ICAO: International Civil Aviation Organization
- ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
- LOAEL: Lowest observed adverse effect level
- LOAEC: Lowest observed adverse effect concentration
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- NOAEL: No observed adverse effect level
- NOAEC: No observed adverse effect concentration
- NTP: National Toxicology Program
- N/A: not applicable
- OSHA: Occupational Safety and Health Administration
- PNEC: predicted no effect concentration
- PBT: Persistent bioaccumulative toxic
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- SARA: Superfund Amendments and Reauthorization Act
- SVHC: substance of very high concern
- TRGS Technische Regeln fuerGefahrstoffe
- TSCA: Toxic Substances Control Act
- VOC: Volatile Organic Compounds

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H336	Calculation method

Relevant H and EUH statements (number and full text)

- H225 Highly flammable liquid and vapour.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.

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H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol. May produce an allergic reaction.

Further Information

Classification according EC regulation 1272/2008 (CLP): - Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.

Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)