

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

**385-D; 385-SEL; 385-LMP**

Revision date: 13.05.2019

Product code: 950309

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

385-D; 385-SEL; 385-LMP

**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:	NL-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:**

Chemtrec: +44(0) 870-8200418

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Flammable liquid: Flam. Liq. 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 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**Pictograms:****Hazard statements**

H225

Highly flammable liquid and vapour.

H319

Causes serious eye irritation.

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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.

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

P312 Call a POISON CENTER/doctor if you feel unwell.

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

P403+P235 Store in a well-ventilated place. Keep cool.

**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			85 - < 90 %
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
64-17-5	ethanol, ethyl alcohol			5 - < 10 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319			
100-51-6	benzyl alcohol			1 - < 5 %
	202-859-9	603-057-00-5	01-2119492630-38	
	Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2; H332 H302 H319			
110-15-6	succinic acid			1 - < 5 %
	203-740-4			
	Skin Irrit. 2, Eye Dam. 1, STOT SE 3; H315 H318 H335			

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

**Further Information**

Product does not contain listed SVHC substances &gt; 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 respiratory tract irritation, consult a physician.

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**After contact with skin**

Take off immediately all contaminated clothing. Wash with plenty of water. In case of skin irritation, seek medical treatment.

**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 drunk 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 (CO<sub>2</sub>). 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 (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>).

**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.

**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**

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**

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

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**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Provide adequate ventilation as well as local exhaustion 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.

**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 <sup>3</sup>	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
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			
	Worker DNEL, long-term	inhalation	systemic	500 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	systemic	89 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	888 mg/kg bw/day

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Consumer DNEL, long-term	oral	systemic	26 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	319 mg/kg bw/day
64-17-5	ethanol, ethyl alcohol		
Worker DNEL, acute	inhalation	local	1900 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	343 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	950 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	local	950 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	206 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	114 mg/m <sup>3</sup>
Consumer DNEL, long-term	oral	systemic	87 mg/kg bw/day
100-51-6	benzyl alcohol		
Consumer DNEL, acute	dermal	systemic	20 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	4 mg/kg bw/day
Consumer DNEL, acute	inhalation	systemic	27 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	systemic	22 mg/m <sup>3</sup>
Consumer DNEL, long-term	oral	systemic	4 mg/kg bw/day
Worker DNEL, acute	dermal	systemic	40 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	5,4 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	8 mg/kg bw/day
Worker DNEL, acute	inhalation	systemic	110 mg/m <sup>3</sup>
Consumer DNEL, acute	oral	systemic	20 mg/kg bw/day
110-15-6	succinic acid		
Worker DNEL, acute	inhalation	systemic	10 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	systemic	10 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	systemic	10 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	local	10 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	systemic	10 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	local	10 mg/m <sup>3</sup>
Consumer DNEL, acute	dermal	systemic	67 mg/kg bw/day
Consumer DNEL, acute	inhalation	local	10 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	71 mg/kg bw/day
Worker DNEL, acute	inhalation	local	10 mg/m <sup>3</sup>
Worker DNEL, acute	dermal	systemic	67 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	43 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	67 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	43 mg/kg bw/day

**PNEC values**

CAS No	Substance	Value
	Environmental compartment	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	
	Freshwater	140,9 mg/l
	Marine water	140,9 mg/l
	Micro-organisms in sewage treatment plants (STP)	2251 mg/l

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Freshwater sediment	552 mg/kg
Marine sediment	552 mg/kg
Soil	28 mg/kg
Secondary poisoning	160 mg/kg
64-17-5	ethanol, ethyl alcohol
Freshwater	0,96 mg/l
Freshwater (intermittent releases)	2,75 mg/l
Marine water	0,79 mg/l
Marine water (intermittent releases)	2,75 mg/l
Freshwater sediment	3,6 mg/kg
Marine sediment	2,9 mg/kg
Secondary poisoning	0,72 mg/kg
Micro-organisms in sewage treatment plants (STP)	580 mg/l
Soil	0,63 mg/kg
100-51-6	benzyl alcohol
Marine sediment	0,527 mg/kg
Micro-organisms in sewage treatment plants (STP)	39 mg/l
Marine water	0,1 mg/l
Freshwater sediment	5,27 mg/kg
Freshwater	1 mg/l
Soil	0,456 mg/kg
110-15-6	succinic acid
Micro-organisms in sewage treatment plants (STP)	3 mg/l
Freshwater sediment	0,079 mg/kg
Freshwater	0,1 mg/l
Marine water	0,01 mg/l
Marine sediment	0,0079 mg/kg
Soil	0,0177 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. (DIN EN 166)

**Hand protection**

In case of prolonged or frequently repeated skin contact: Wear suitable gloves.

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Suitable material: Butyl rubber.

Thickness of glove material: 0,5 mm

penetration time (maximum wearing period): 120 min.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

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.

**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.

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

**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.

**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
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**Changes in the physical state**

Melting point:	not applicable
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
Ignition temperature:	not determined
Decomposition temperature:	not determined

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**Oxidizing properties**

none.

Vapour pressure: not determined  
(at 20 °C)

Density: 0,804 g/cm<sup>3</sup> 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

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**

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 (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>).

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**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	



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	dermal	LD50 mg/kg	>5000	Rabbit	ECHA Dossier	
64-17-5	ethanol, ethyl alcohol					
	oral	LD50 mg/kg	>5000	Rat	ECHA Dossier	
	inhalation (4 h) vapour	LC50 mg/l	124,7	Rat	ECHA Dossier	
100-51-6	benzyl alcohol					
	oral	LD50 mg/kg	1620	Rat	ECHA Dossier	
	dermal	LD50 mg/kg	>2000	Rabbit	RTECS	
	inhalation vapour	ATE	11 mg/l			
	inhalation (4 h) aerosol	LC50 mg/l	>4,178	Rat (OECD 403)	ECHA Dossier	
110-15-6	succinic acid					
	oral	LD50 mg/kg	2260	Rat.	RTECS	

**Irritation and corrosivity**

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

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

**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.

Method: OECD Guideline 451

Result: NOEL = 5000 ppm

Literature information: ECHA Dossier

Ethanol. (CAS-No.: 64-17-5):

In-vitro mutagenicity: No experimental indications of mutagenicity in-vitro exist.

Reproductive toxicity:

Exposure time: 18 weeks

Species: CD-1 Mouse.

Method: OECD Guideline 416

Result: NOAEL = 20700 mg/kg/day

Developmental toxicity/teratogenicity:

Exposure time: 19d

Species: Sprague-Dawley Rat.

Method: OECD Guideline 414

Result: NOAEL = 16000 ppm (maternal toxicity)

Result: NOAEL >= 20000 ppm (teratogenicity)

Literature information: ECHA Dossier

succinic acid (CAS-No.: 110-15-6):

Carcinogenicity :

Exposure time: ~728d

Species: Fischer 344 Rat.

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Method: OECD Guideline 451

Result: NOAEL = 2% (20g/L) ~1000 mg/kg

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

Ethanol. (CAS-No.: 64-17-5):

Subchronic oral toxicity

Exposure time: 90d

Species: Sprague-Dawley Rat.

Method: OECD Guideline 408

Result: NOAEL = 1280 mg/kg

Literature information: ECHA Dossier

succinic acid (CAS-No.: 110-15-6):

Subchronic oral toxicity:

Exposure time: 90d

Species: Fischer 344 Rat.

Method: OECD Guideline 408

Result: NOAEL = 860 - 990 mg/kg

Literature information: ECHA Dossier

benzyl alcohol (CAS-No.: 100-51-6):

Chronic oral toxicity:

Exposure time: 103 weeks

Species: Fischer 344 Rat.

Method: OECD Guideline 451

Result: NOAEL = 400 mg/kg

Subacute inhalative toxicity:

Exposure time: 28d

Species: Sprague-Dawley Rat.

Method: OECD Guideline 412

Result: NOAEC = 1072 mg/m<sup>3</sup>

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**

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**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 mg/l	9640	96 h	Pimephales promelas	ECHA Dossier
	Acute algae toxicity	ErC50 mg/l	1800		Scenedesmus quadricauda	ECHA Dossier
	Acute crustacea toxicity	EC50 mg/l	>10000	48 h	Daphnia magna (24h)	ECHA Dossier
64-17-5	ethanol, ethyl alcohol					
	Acute fish toxicity	LC50 mg/l	14200	96 h	Pimephales promelas	ECHA Dossier
	Acute algae toxicity	ErC50	275 mg/l	72 h	Chlorella vulgaris	ECHA Dossier
	Acute crustacea toxicity	EC50 mg/l	5012	48 h	Ceriodaphnia dubia	ECHA Dossier
	Crustacea toxicity	NOEC mg/l	(9,6)	9 d	Daphnia magna	ECHA Dossier
100-51-6	benzyl alcohol					
	Acute fish toxicity	LC50	460 mg/l	96 h	Pimephales promelas	ECHA Dossier
	Acute algae toxicity	ErC50	500 mg/l	72 h	Pseudokirchnella subcapitata	ECHA Dossier
	Acute crustacea toxicity	EC50	230 mg/l	48 h	Daphnia magna	ECHA Dossier
	Crustacea toxicity	NOEC	51 mg/l	21 d	Daphnia magna (OECD 211)	ECHA Dossier
110-15-6	succinic acid					
	Acute fish toxicity	LC50 mg/l	>100	96 h	Danio rerio (OECD 203)	ECHA Dossier
	Acute algae toxicity	ErC50 mg/l	>100	72 h	Pseudokirchnerella subcapitata (OECD 201)	ECHA Dossier
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	Daphnia magna	ECHA Dossier
	Acute bacteria toxicity	(>300 mg/l)		3 h	Belebtschlamm (OECD 209)	ECHA Dossier

**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
	Easily biodegradable (concerning to the criteria of the OECD)			
64-17-5	ethanol, ethyl alcohol			
	other guideline	84%	20	ECHA Dossier
	Biodegradable.			
100-51-6	benzyl alcohol			
	OECD Guideline 301 C	92-96%	14	ECHA Dossier
	Product is biodegradable.			
110-15-6	succinic acid			
	OECD 301E / EEC 92/69 annex V, C.4-B	96%	28	ECHA Dossier

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Easily biodegradable (concerning to the criteria of the OECD)

**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
64-17-5	ethanol, ethyl alcohol	-0,31
100-51-6	benzyl alcohol	1,05
110-15-6	succinic acid	-0,75

**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.

**12.6. 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****Advice on disposal**

Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to EAKV, 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 EAKV:

**Waste disposal number of waste from residues/unused products**

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

**Waste disposal number of used product**

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

**Waste disposal number of 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

**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)**

<b>14.1. UN number:</b>	UN 1987
<b>14.2. UN proper shipping name:</b>	ALCOHOLS, N.O.S. (Ethanol. / Isopropyl alcohol.)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II

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Hazard label: 3



Classification code: F1  
Special Provisions: 274 601 640D  
Limited quantity: 1 L  
Excepted quantity: E2  
Transport category: 2  
Hazard No: 33  
Tunnel restriction code: D/E

**Inland waterways transport (ADN)**

**14.1. UN number:** UN 1987

**14.2. UN proper shipping name:** ALCOHOLS, N.O.S. (Ethanol. / Isopropyl alcohol.)

**14.3. Transport hazard class(es):** 3

**14.4. Packing group:** II

Hazard label: 3



Classification code: F1  
Special Provisions: 274 601 640D  
Limited quantity: 1 L  
Excepted quantity: E2

**Marine transport (IMDG)**

**14.1. UN number:** UN 1987

**14.2. UN proper shipping name:** ALCOHOLS, N.O.S. (Ethanol. / Isopropyl alcohol.)

**14.3. Transport hazard class(es):** 3

**14.4. Packing group:** II

Hazard label: 3



Marine pollutant: NO  
Special Provisions: 274  
Limited quantity: 1 L  
Excepted quantity: E2  
EmS: F-E, S-D

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number:** UN 1987

**14.2. UN proper shipping name:** ALCOHOLS, N.O.S. (Ethanol. / Isopropyl alcohol.)

**14.3. Transport hazard class(es):** 3

**14.4. Packing group:** II

Hazard label: 3



Special Provisions: A3 A180

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Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

See section 8.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

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 40: ethanol, ethyl alcohol

2010/75/EU (VOC): 94,202 % (757,386 g/l)

2004/42/EC (VOC): 98,382 % (790,993 g/l)

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

**Additional information**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

REACH 1907/2006 Appendix XVII, No: 3, 40

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water contaminating class (D): 2 - clearly water contaminating

**Additional information**

Observe technical data sheet.

**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

ethanol, ethyl alcohol

**SECTION 16: Other information****Changes**

Rev. 1.00; 25.02.2015, Initial release

Rev. 1.1; 24.11.2016, Indication of changes - chapter: 1, 2, 3, 6, 12, 15, 16.

Rev. 1.2; 22.11.2017, Indication of changes - chapter: 1.

Rev. 2.0; 13.05.2019, Indication of changes - chapter: 2-16.

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route

CAS Chemical Abstracts Service

DNEL: Derived No Effect Level

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IMDG: International Maritime Code for Dangerous Goods

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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 level  
 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  
 VwVwS: Verwaltungsvorschrift wassergefaehrdender Stoffe  
 WGK: Wassergefaehrdungsklasse

**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
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.  
 H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.

**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.)*