

Safety Data Sheet

according to Regulation (EC) No 1907/2006

385-D; 385-SEL; 385-LMP

Revision date: 22.11.2017

Product code: 950309

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

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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 915-1700
Responsible Department:	sds@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.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 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+P233 Store in a well-ventilated place. Keep container tightly closed.

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	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
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	
67-56-1	methanol	< 1 %
	200-659-6	603-001-00-X
	01-2119433307-44	
	Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H331 H311 H301 H370	

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

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!

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After inhalation

Remove person to fresh air and keep comfortable for breathing. In case of respiratory tract irritation, consult a physician.

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 (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). Nitrogen oxides (NO_x).

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.

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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 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).

Advice on storage compatibility

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. moisture. frost.
storage temperature: refer to specifications.

7.3. Specific end use(s)

refer to chapter 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
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

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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 ³
Consumer DNEL, long-term		inhalation	systemic	89 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
64-17-5	ethanol, ethyl alcohol			
Worker DNEL, long-term		inhalation	systemic	950 mg/m ³
Worker DNEL, long-term		dermal	systemic	343 mg/kg bw/day
Consumer DNEL, acute		inhalation	local	950 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	114 mg/m ³
Consumer DNEL, long-term		dermal	systemic	206 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	87 mg/kg bw/day
Worker DNEL, acute		inhalation	local	1900 mg/m ³
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 ³
Worker DNEL, long-term		inhalation	systemic	22 mg/m ³
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 ³
Worker DNEL, long-term		dermal	systemic	8 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	110 mg/m ³
Consumer DNEL, acute		oral	systemic	20 mg/kg bw/day
110-15-6	succinic acid			
Worker DNEL, acute		inhalation	systemic	10 mg/m ³
Worker DNEL, long-term		inhalation	systemic	10 mg/m ³
Consumer DNEL, acute		inhalation	systemic	10 mg/m ³
Worker DNEL, long-term		inhalation	local	10 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	10 mg/m ³
Consumer DNEL, long-term		inhalation	local	10 mg/m ³
Consumer DNEL, acute		dermal	systemic	67 mg/kg bw/day
Consumer DNEL, acute		inhalation	local	10 mg/m ³
Worker DNEL, long-term		dermal	systemic	71 mg/kg bw/day
Worker DNEL, acute		inhalation	local	10 mg/m ³
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

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67-56-1	methanol			
Worker DNEL, acute		inhalation	local	260 mg/m ³
Worker DNEL, acute		dermal	systemic	40 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	260 mg/m ³
Worker DNEL, long-term		inhalation	local	260 mg/m ³
Consumer DNEL, long-term		oral	systemic	8 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	40 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	260 mg/m ³
Consumer DNEL, acute		inhalation	local	50 mg/m ³
Consumer DNEL, acute		dermal	systemic	8 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	8 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	50 mg/m ³
Consumer DNEL, long-term		inhalation	local	50 mg/m ³
Consumer DNEL, long-term		dermal	systemic	8 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	50 mg/m ³

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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
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	
Soil		0,63 mg/kg
Freshwater		0,96 mg/l
Marine water		0,79 mg/l
Freshwater sediment		3,6 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
67-56-1	methanol	
Marine water		15,4 mg/l
Marine sediment		570,4 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		23,5 mg/kg
Freshwater		154 mg/l

8.2. Exposure controls



Appropriate engineering controls

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



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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.
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

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

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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

Oxidizing properties

none.

Vapour pressure:
(at 20 °C) not determinedDensity: 0,804 g/cm³ N/A

Water solubility: miscible.

Solubility in other solvents

not determined

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

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 productsCan be released in case of fire: Gas/vapours, irritant. Carbon monoxide Carbon dioxide (CO₂). Nitrogen oxides (NO_x).**SECTION 11: Toxicological information**

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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	
	dermal	LD50 >5000 mg/kg	Rabbit	ECHA Dossier	
64-17-5	ethanol, ethyl alcohol				
	oral	LD50 >5000 mg/kg	Rat.	ECHA Dossier	
	dermal	LD50 >2000 mg/kg	Rabbit.	MSDS extern.	
	inhalative (4 h) vapour	LC50 124,7 mg/l	Rat.	ECHA Dossier	
100-51-6	benzyl alcohol				
	oral	LD50 1620 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 >2000 mg/kg	Rabbit	RTECS	
	inhalative vapour	ATE 11 mg/l			
	inhalative (4 h) aerosol	LC50 >4,178 mg/l	Rat (OECD 403)	ECHA Dossier	
110-15-6	succinic acid				
	oral	LD50 2260 mg/kg	Rat.	RTECS	
67-56-1	methanol				
	oral	ATE 100 mg/kg			
	dermal	ATE 300 mg/kg			
	inhalative vapour	ATE 3 mg/l			
	inhalative aerosol	ATE 0,5 mg/l			

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

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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.

Method: OECD Guideline 451

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

Literature information: ECHA Dossier

N-(n-octyl)-2-pyrrolidone (CAS-No.: 2687-94-7):

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

Literature information: ECHA Dossier

STOT-single exposure

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

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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/m³

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**

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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	9,6 mg/l	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
67-56-1	methanol					
	Acute fish toxicity	LC50 mg/l	15400	96 h	Lepomis macrochirus	ECHA Dossier
	Acute algae toxicity	ErC50 mg/l	22000	96 h	Pseudokirchnerella subca	ECHA Dossier
	Acute crustacea toxicity	EC50 mg/l	18260	48 h	Daphnia magna	ECHA Dossier

12.2. Persistence and degradability

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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	
	Product is 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	
	Easily biodegradable (concerning to the criteria of the OECD)				
67-56-1	methanol				
	other guideline	76%	20	ECHA Dossier	
	Product is biodegradable.				

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
67-56-1	methanol	-0,7

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

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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)

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
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 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

Other applicable information (inland waterways transport)

Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1987

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14.2. UN proper shipping name: ALCOHOLS, N.O.S.
(ethanol / isopropanol)

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
EmS: F-E, S-D

Other applicable information (marine transport)

Excepted quantity: E2

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1987

14.2. UN proper shipping name: ALCOHOLS, N.O.S.
(ethanol / isopropanol)

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3



Special Provisions: A3 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. 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

2010/75/EU (VOC): 94,252 % (calculated)
2004/42/EC (VOC): 791,395 g/l (calculated)
Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

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Additional information

The 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 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.

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
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

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Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H370	Causes damage to organs.

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.)