

Safety Data Sheet

according to UK REACH Regulation

Formalin-Acetone-Fixing mixture

Revision date: 01.02.2024

Product code: 17897.xxxxx

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

1.1. Product identifier

Formalin-Acetone-Fixing mixture

UFI: J0TX-TR3C-5MH3-7KH4

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

Use of the substance/mixture

Use as laboratory reagent. Intended for scientific research and development.

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name: MORPHISTO GmbH
Street: Schumannstr. 142/144
Place: D-63069 Offenbach
Telephone: +49 (0) 69 / 400 3019-60 Telefax: +49 (0) 69 / 400 3019-64
E-mail: info@morphisto.de
Contact person: Morphisto GmbH
E-mail: gefahrstoffmanagement@morphisto.de
Internet: http://www.morphisto.de

1.4. Emergency telephone number:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 2; H225
Acute Tox. 3; H331
Acute Tox. 4; H302
Skin Irrit. 2; H315
Eye Dam. 1; H318
Skin Sens. 1; H317
Muta. 2; H341
Carc. 1B; H350
STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

propionaldehyde
formaldehyde%
methanol

Signal word: Danger

Pictograms:



Hazard statements

H225 Highly flammable liquid and vapour.

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H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.

Precautionary statements

P201	Obtain special instructions before use.
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.
P310	Immediately call a POISON CENTER/doctor.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Special labelling of certain mixtures

EUH019	May form explosive peroxides.
EUH071	Corrosive to the respiratory tract. Restricted to professional users.

Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

Pictograms:



Hazard statements

H317-H318-H331-H341-H350

Precautionary statements

P201-P305+P351+P338-P310

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain any components that are considered to be hazardous according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in amounts of 0.1 % or more have endocrine disrupting properties. Toxicological information: The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1 % or more have endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
123-38-6	propionaldehyde			60 - < 65 %
	204-623-0	605-018-00-8	01-2119456625-33	
	Flam. Liq. 2, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, STOT SE 3; H225 H332 H302 H315 H318 H335			
67-64-1	Acetone			15 - < 20 %
	200-662-2	606-001-00-8	01-2119471330-49	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			
50-00-0	formaldehyde%			5 - < 10 %
	200-001-8	605-001-00-5	01-2119488953-20	
	Carc. 1B, Muta. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Skin Sens. 1; H350 H341 H331 H311 H301 H314 H317			
67-56-1	methanol			1 - < 5 %
	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.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
123-38-6	204-623-0	propionaldehyde	60 - < 65 %
	inhalation: LC50 = 10,9 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 2460 mg/kg; oral: LD50 = 1690 mg/kg		
67-64-1	200-662-2	Acetone	15 - < 20 %
	inhalation: LC50 = 76 mg/l (vapours); dermal: LD50 = 20000 mg/kg; oral: LD50 = 5800 mg/kg		
50-00-0	200-001-8	formaldehyde%	5 - < 10 %
	inhalation: LC50 = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: LD50 = 292 mg/kg; oral: LD50 = 100 mg/kg Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 5 - < 25 Eye Irrit. 2; H319: >= 5 - < 25 Skin Sens. 1; H317: >= 0,2 - 100 STOT SE 3; H335: >= 5 - 100		
67-56-1	200-659-6	methanol	1 - < 5 %
	inhalation: LC50 = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: LD50 = 300 mg/kg; oral: LD50 = 100 mg/kg STOT SE 1; H370: >= 10 - 100 STOT SE 2; H371: >= 3 - < 10		

Further Information

This product contains no substances of very high concern (SVHC) (>0,1%) which are included in the Candidate List according to Article 59 of REACH.

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

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. Provide fresh air. Take off immediately all contaminated clothing and wash it before reuse. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately. If unconscious but

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breathing normally, place in recovery position and seek medical advice. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Call a physician immediately.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

After ingestion

Call a physician immediately. Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs.

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

Acute effects: Mucous membrane irritation after eye contact or inhalation.

Delayed effects: Impairment of inhibitory functions of the central nervous system, skin redness, nausea after ingestion of large amounts.

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. Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours can form explosive mixtures with air. In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO₂). Formaldehyde

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit. In case of fire and/or explosion do not breathe fumes.

Additional information

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

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

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Ventilate affected area. Special danger of slipping by leaking/spilling product.

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Do not allow to enter into surface water or drains. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. 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

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Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Ventilate affected area. Clear contaminated areas thoroughly.

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**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment. (See section 8.) Use extractor hood (laboratory).

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Always close containers tightly after the removal of product. Wash contaminated clothing prior to re-use. Street clothing should be stored separately from work clothing.

Further information on handling

Flammable vapours can accumulate in head space of closed systems.
General protection and hygiene measures: refer to chapter 8

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

Keep container tightly closed. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep/Store only in original container. Protect from direct sunlight.

Ensure adequate ventilation of the storage area. Concentrated vapours are heavier than air.

Suitable material for Container: Stainless steel. (1.4301 (V2), 1.4401 (V4)); iron. solvent resistant plastics.

Unsuitable materials for Container: Aluminium. Rubber. various plastics.

Hints on joint storage

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

Oxidizing liquids. ammonium nitrate. Organic peroxides. Non-combustible toxic substances. Radioactive substances. Infectious substances.

Further information on storage conditions

Recommended storage temperature: 15-25 °C Protect against: UV-radiation/sunlight. heat.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
67-64-1	Acetone	500	1210		TWA (8 h)	WEL
		1500	3620		STEL (15 min)	WEL
50-00-0	Formaldehyde	2	2.5		TWA (8 h)	WEL
		2	2.5		STEL (15 min)	WEL
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL
57-55-6	Propane-1,2-diol, total vapour and particulates	150	474		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
67-64-1	Acetone			
	Worker DNEL, long-term	inhalation	systemic	1210 mg/m ³
	Worker DNEL, acute	inhalation	local	2420 mg/m ³
	Worker DNEL, long-term	dermal	systemic	186 mg/kg bw/day
50-00-0	formaldehyde%			
	Worker DNEL, acute	inhalation	systemic	1 mg/m ³
	Worker DNEL, long-term	dermal	systemic	240 mg/kg bw/day
	Worker DNEL, long-term	inhalation	systemic	0,5 mg/m ³
	Worker DNEL, long-term	inhalation	local	0,375 mg/m ³
	Worker DNEL, acute	inhalation	local	0,75 mg/m ³
	Worker DNEL, long-term	dermal	local	0,037 mg/cm ²
57-55-6	1,2-propanediol			
	Worker DNEL, long-term	inhalation	systemic	168 mg/m ³
	Worker DNEL, long-term	inhalation	local	10 mg/m ³
	Consumer DNEL, long-term	inhalation	systemic	50 mg/m ³
	Consumer DNEL, long-term	inhalation	local	10 mg/m ³
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
	Worker DNEL, long-term	dermal	systemic	40 mg/kg bw/day
	Worker DNEL, long-term	inhalation	systemic	260 mg/m ³

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PNEC values

CAS No	Substance	Value
Environmental compartment		
67-64-1	Acetone	
Freshwater		10,6 mg/l
Freshwater (intermittent releases)		21 mg/l
Marine water		1,06 mg/l
Marine water (intermittent releases)		21 mg/l
Freshwater sediment		30,4 mg/kg
Marine sediment		3,04 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		29,5 mg/kg
50-00-0	formaldehyde%	
Freshwater		0,44 mg/l
Freshwater (intermittent releases)		4,44 mg/l
Marine water		0,44 mg/l
Freshwater sediment		2,3 mg/kg
Marine sediment		2,3 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,19 mg/l
Soil		0,2 mg/kg
57-55-6	1,2-propanediol	
Freshwater		260 mg/l
Freshwater (intermittent releases)		183 mg/l
Marine water		26 mg/l
Freshwater sediment		572 mg/kg
Marine sediment		57,2 mg/kg
Micro-organisms in sewage treatment plants (STP)		20000 mg/l
Soil		50 mg/kg
67-56-1	methanol	
Freshwater		20,8 mg/l
Marine water		2,08 mg/l
Marine water (intermittent releases)		1540 mg/l
Freshwater sediment		77 mg/kg
Marine sediment		7,7 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		3,18 mg/kg

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Process within closed systems. Use extractor hood (laboratory).

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Individual protection measures, such as personal protective equipment**Eye/face protection**

Suitable eye protection: goggles. Tightly sealed safety glasses. Full-face mask or mouthpiece with particulate filter: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 15 times the exposure limit. P3 filter: up to a max. of EN 166

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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. Tested protective gloves are to be worn:

Suitable material:

Butyl rubber. (0,5 mm, Breakthrough time ≥ 60 min):

NBR (Nitrile rubber). (0,4 mm, Breakthrough time 40 min)

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

Before using check leak tightness / impermeability.

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing Protective clothing. (fire retardant.)

Suitable protective clothing: Lab apron.

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

Respiratory protection

In case of inadequate ventilation wear respiratory protection. With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

Insufficient ventilation.

exceeding exposure limit values

generation/formation of aerosols

Suitable respiratory protective equipment: Self-contained respirator (breathing apparatus) Suitable respiratory

protective equipment: gas filtering equipment (EN 141). AX

Details on the requirements for use and maximum concentrations can be found in the "Rules for the use of respiratory protective devices" (BGR 190).

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	colourless
Odour:	stinging
Melting point/freezing point:	-81 °C
Boiling point or initial boiling point and boiling range:	49 °C
Flammability:	not applicable
Lower explosion limits:	2,5 vol. %
Upper explosion limits:	72 vol. %
Flash point:	-30 °C
Auto-ignition temperature:	195 °C
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / kinematic:	not determined

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Water solubility:	completely miscible
Solubility in other solvents	
not determined	
Vapour pressure:	400,46 hPa
(at 20 °C)	
Density (at 20 °C):	0,84 g/cm ³
Relative vapour density:	not determined

9.2. Other information**Information with regard to physical hazard classes**

Explosive properties

May form explosive peroxides.

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

not applicable

Gas:

not determined

Oxidizing properties

none

Other safety characteristics

Evaporation rate:

not determined

Solvent separation test:

not determined

Solvent content:

not determined

Solid content:

not determined

Sublimation point:

not determined

Softening point:

not determined

Pour point:

not determined

Viscosity / dynamic:

not determined

Flow time:

not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

Highly flammable. Explosive

10.2. Chemical stability

Stable under normal storage and handling conditions. Thermal decomposition: Danger of spontaneous combustion

10.3. Possibility of hazardous reactions

Explosion risk in contact with: Methacrylate Oxidizing agents, strong. nitric acid. Hydrogenium peroxide. alkali hydroxide

Exothermic reactions with: Alkali metals. Alkaline earth metals. Mineral acids Reducing agents, strong.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. Risk of explosion by shock, friction, fire or other sources of ignition (R2). Remove all sources of ignition. Keep away from heat. Protect from direct sunlight. Protect from moisture.

In use may form flammable/explosive vapour-air mixture.

Heating causes rise in pressure with risk of bursting. Recommended storage temperature: 5-20 °C

10.5. Incompatible materials

Protect against: Contact with air/oxygen. Materials to avoid: Nitrogen oxides (NOx). Nitric acid. Hydrogenium peroxide. Aniline. Performic acid, perchloric acid Oxidizing agents, strong. Strong acid.

10.6. Hazardous decomposition productsMay form explosive peroxides. In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO₂).

Formaldehyde

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SECTION 11: Toxicological information
11.1. Information on hazard classes as defined in GB CLP Regulation
Acute toxicity

Toxic if inhaled. (On basis of test data)

Harmful if swallowed. (On basis of test data)

ATEmix calculated

ATE (oral) 1410 mg/kg; ATE (dermal) 2460 mg/kg; ATE (inhalation vapour) 4,600 mg/l; ATE (inhalation dust/mist) 1,772 mg/l

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
123-38-6	propionaldehyde					
	oral	LD50 mg/kg	1690	Rat	suppliers SDS.	
	dermal	LD50 mg/kg	2460	Rabbit	suppliers SDS.	
	inhalation (4 h) vapour	LC50	10,9 mg/l	Mouse	suppliers SDS.	
	inhalation dust/mist	ATE	1,5 mg/l			
67-64-1	Acetone					
	oral	LD50 mg/kg	5800	Rat	RTECS	
	dermal	LD50 mg/kg	20000	Rabbit	IUCLID	
	inhalation (4 h) vapour	LC50	76 mg/l	Rat		
50-00-0	formaldehyde%					
	oral	LD50 mg/kg	100	Rat	GESTIS	
	dermal	LD50 mg/kg	292	Rabbit	GESTIS	
	inhalation (4 h) vapour	LC50	3 mg/l	Rat	suppliers SDS.	
	inhalation dust/mist	ATE	0,5 mg/l			
67-56-1	methanol					
	oral	LD50 mg/kg	100	Rat	suppliers SDS.	
	dermal	LD50 mg/kg	300	Rabbit	suppliers SDS.	
	inhalation (4 h) vapour	LC50	3 mg/l	Rat	suppliers SDS.	
	inhalation dust/mist	ATE	0,5 mg/l			

Irritation and corrosivity

Causes skin irritation.

Causes serious eye damage.

Corrosive to the respiratory tract.

Sensitising effects

May cause an allergic skin reaction. (formaldehyde%)

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing genetic defects. (formaldehyde%)

May cause cancer. (formaldehyde%)

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

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STOT-single exposure

May cause respiratory irritation. (propionaldehyde; formaldehyde%)

STOT-repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards
Endocrine disrupting properties

This product does not contain any substance that has endocrine disrupting properties in humans as no ingredient meets the criteria.

Other information

Depending on the ingested quantity the following symptoms can be induced: a reduction of inhibitions, euphoria but also dysphoria, aggressiveness, impaired motoric skills, impaired responsiveness, blurred vision and fatigue.

SECTION 12: Ecological information

12.1. Toxicity

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

CAS No	Chemical name						
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method	
123-38-6	propionaldehyde						
	Acute fish toxicity	LC50	14 mg/l	96 h	Pimephales promelas (fathead minnow)	ECHA	
	Acute algae toxicity	ErC50	260 mg/l	72 h	Desmodesmus subspicatus	suppliers SDS.	
	Acute crustacea toxicity	EC50 mg/l	88,7	48 h	Daphnia magna	suppliers SDS.	
67-64-1	Acetone						
	Acute fish toxicity	LC50 mg/l	5540	96 h	Oncorhynchus mykiss	ECHA	
	Acute crustacea toxicity	EC50 mg/l	6100	48 h	Daphnia magna	ECHA	
	Acute bacteria toxicity	EC50 mg/l ()	61150	0,5 h		ECHA	
50-00-0	formaldehyde%						
	Acute fish toxicity	LC50 mg/l	24,1	96 h	Pimephales promelas	ECHA Dossier	
	Acute algae toxicity	ErC50 mg/l	4,89	72 h	Desmodesmus subspicatus	ECHA Dossier	
	Acute crustacea toxicity	EC50	5,8 mg/l	48 h	Daphnia pulex (water flea)	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	Pseudokirchneriella subcapitata	ECHA Dossier	
	Acute crustacea toxicity	EC50 mg/l	>1000	48 h	Daphnia magna	ECHA Dossier	OECD 202

12.2. Persistence and degradability

The product has not been tested.

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CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
123-38-6	propionaldehyde			
	Biodegradability	91 - 97%	28	
	Easily biodegradable (concerning to the criteria of the OECD)			
67-64-1	Acetone			
	Formation of carbon dioxide	90,9 %	28	
50-00-0	formaldehyde%			
	OECD Guideline 301 C	91 %	14	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)			
	OECD Guideline 301 D	90	28	ECHA Dossier
	Product is biodegradable.			
67-56-1	methanol			
	other guideline	96%	20	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
123-38-6	propionaldehyde	0,59
67-64-1	Acetone	-0,24
50-00-0	formaldehyde%	0,35
67-56-1	methanol	-0,77

BCF

CAS No	Chemical name	BCF	Species	Source
67-56-1	methanol	<10		

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

The product has not been tested.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. 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:

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List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: UN 1275
14.2. UN proper shipping name: PROPIONALDEHYDE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3



Classification code: F1
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 or ID number: UN 1275
14.2. UN proper shipping name: PROPIONALDEHYDE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3



Classification code: F1
Limited quantity: 1 L
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number or ID number: UN 1275
14.2. UN proper shipping name: PROPIONALDEHYDE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3

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Special Provisions: -
 Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1275
14.2. UN proper shipping name: PROPIONALDEHYDE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



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

Warning: Combustible liquid. Refer to section 6-8

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, Entry 40, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): H2 ACUTE TOXIC

Additional information: P5c

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

Additional information

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

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water hazard class (D): 3 - highly hazardous to water

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Skin resorption/Sensitization: Permeates easily through outer skin and causes poisoning.

Additional information

The product is subject to the Chemicals Prohibition Ordinance (ChemVerbotsV). Observe the requirements and restrictions for handling and dispensing in Section 3 of the ChemVerbotsV, among others.

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

Acetone

formaldehyde%

methanol

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16.

Rev. 1.00; 28.05.2020, Initial release

Rev. 2,0; 01.02.2024; general adjustment(s), Change of transport labelling

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Abbreviations and acronyms

Flam. Liq: Flammable liquids
Acute Tox: Acute toxicity
Skin Corr: Skin corrosion
Skin Irrit: Skin irritation
Eye Dam: Eye damage
Eye Irrit: Eye irritation
Skin Sens: Skin sensitisation
Muta: Germ cell mutagenicity
Carc: Carcinogenicity
STOT SE: Specific target organ toxicity - single exposure
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
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate

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NOEC: No Observed Effect Concentration
 BCF: Bio-concentration factor
 PBT: persistent, bioaccumulative, toxic
 vPvB: very persistent, very bioaccumulative
 ADR: Accord européen sur le transport des marchandises dangereuses par Route
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Regulations concerning the international carriage of dangerous goods by rail
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation
 intérieures)
 EmS: Emergency Schedules
 MFAG: Medical First Aid Guide
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships
 IBC: Intermediate Bulk Container
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Acute Tox. 3; H331	On basis of test data
Acute Tox. 4; H302	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Muta. 2; H341	Calculation method
Carc. 1B; H350	Calculation method
STOT SE 3; H335	Calculation method

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.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
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.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H370	Causes damage to organs.
EUH019	May form explosive peroxides.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. Classification according

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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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)