



ELECTROLYTE D12 1/2 - 17101-1

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : ELECTROLYTE D12 1/2

Product code : 17101-1.

ELECTROLYTE D12 1/2 / ELEKTROLYT D12 1/2 / ELECTROLIT D12 1/2

UFI : MM40-50H8-600H-WUND

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

Etching reagent

1.3. Details of the supplier of the safety data sheet

Registered company name : PRESI S.A.S.

Address : 11 Rue du vercors.38320.EYBENS.France.

Telephone : +33 (0)4.76.72.00.21. Fax : +33 (0)4.76.72.05.84.

presi@presi.com

www.presi.com

1.4. Emergency telephone number : +33 (0)1.45.42.59.59.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Flammable liquid, Category 3 (Flam. Liq. 3, H226).

Acute oral toxicity, Category 3 (Acute Tox. 3, H301).

Acute dermal toxicity, Category 3 (Acute Tox. 3, H311).

Acute inhalation toxicity, Category 3 (Acute Tox. 3, H331).

Skin irritation, Category 2 (Skin Irrit. 2, H315).

Eye irritation, Category 2 (Eye Irrit. 2, H319).

Specific target organ toxicity (single exposure), Category 1 (STOT SE 1, H370).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS08



GHS02



GHS06

Signal Word :

DANGER

Product identifiers :

EC 200-659-6

METHANOL

EC 203-905-0

2-BUTOXYETHANOL

Hazard statements :

H226

Flammable liquid and vapour.

H301 + H311 + H331

Toxic if swallowed, in contact with skin or if inhaled.

H315

Causes skin irritation.

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H319	Causes serious eye irritation.
H370	Causes damage to organs (if inhaled, if swallowed, in contact with skin).
Precautionary statements - Prevention :	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/...]equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/ ...
Precautionary statements - Response :	
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P302 + P352	IF ON SKIN: Wash with plenty of water/...
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311	IF exposed or concerned: Call a POISON CENTER/doctor/...
P312	Call a POISON CENTER/doctor/... if you feel unwell.
P321	Specific treatment (see ... on this label).
P330	Rinse mouth.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use... to extinguish.
Precautionary statements - Storage :	
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
Precautionary statements - Disposal :	
P501	Dispose of contents/container to ...

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) \geq 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances \geq 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

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SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	Classification (EC) 1272/2008	Note	%
CAS: 67-56-1 EC: 200-659-6 REACH: 01-2119433307-44 METHANOL	GHS06, GHS08, GHS02 Dgr Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370	[1] [XVII]	50 <= x % < 100
CAS: 111-76-2 EC: 203-905-0 REACH: 01-2119475108-36 2-BUTOXYETHANOL	GHS06 Dgr Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 3, H331	[1]	25 <= x % < 50

Specific concentration limits:

Identification	Specific concentration limits	ATE
CAS: 67-56-1 EC: 200-659-6 REACH: 01-2119433307-44 METHANOL	STOT SE 1 (Cut) : H370 C>= 10% STOT SE 2: H371 3% <= C < 10% STOT SE 1 (Oral) : H370 C>= 10% STOT SE 2: H371 3% <= C < 10% STOT SE 1 (Inh) : H370 C>= 10% STOT SE 2: H371 3% <= C < 10%	
CAS: 111-76-2 EC: 203-905-0 REACH: 01-2119475108-36 2-BUTOXYETHANOL		inhalation: ATE = 3 mg/l 4h (vapours)

Information on ingredients :

(Full text of H-phrases: see section 16)

[XVII] Restricted substance under Regulation (EC) No. 1907/2006 (REACH), Annex XVII.

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures

In the event of exposure by inhalation :

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

Do not proceed with mouth-to-mouth or mouth-to-nose resuscitation. Use the appropriate equipment.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Remove any soiled or splashed clothing immediately.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.



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If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water, administer activated medical charcoal and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

If swallowed accidentally, do not allow to drink, do not induce vomiting and transfer to hospital immediately by ambulance. Show the label to the doctor.

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

No data available.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- halon
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO₂)

Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

Avoid inhaling the vapors.



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Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Fire prevention :

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Prevent the accumulation of electrostatic charges with connections to earth.

The mixture can become electrostatically charged: always ground when decanting. Wear antistatic shoes and clothing and make floors of non-conductive

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Do not inhale vapours.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Avoid skin and eye contact with this mixture.

Avoid exposure - obtain special instructions before use.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

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Storage

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from food and drink, including those for animals.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

Avoid accumulation of electrostatic charges.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Packaging

Always keep in packaging made of an identical material to the original.

Suitable packaging materials :

- Polyethylene

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- European Union (2022/431, 2019/1831, 2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m ³ :	VME-ppm :	VLE-mg/m ³ :	VLE-ppm :	Notes :
67-56-1	260	200	-	-	Peau
111-76-2	98	20	246	50	Peau

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
67-56-1	200 ppm	250 ppm		Skin; BEI	
111-76-2	20 ppm			A3; BEI	

- Germany - AGW (BAuA - TRGS 900, 02/2022) :

CAS	VME :	VME :	Excess	Notes
67-56-1		200 ppm 270 mg/m ³		4(II)
111-76-2		10 ppm 49 mg/m ³		2(I)

- Canada / Ontario (Control of exposure to biological or chemical agents, regulation 491/2009) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
111-76-2	20 ppm	-	-	-	-

- Canada / Quebec (Regulations on occupational health and safety) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
67-56-1	200 ppm 262 mg/m ³	250 ppm 328 mg/m ³		Pc	
111-76-2	20 ppm 97 mg/m ³				

- France (INRS - Outils 65 / 2021-1849, 2021-1763, decree of 09/12/2021) :

CAS	VME-ppm :	VME-mg/m ³ :	VLE-ppm :	VLE-mg/m ³ :	Notes :	TMP No :
67-56-1	200	260	1000	1300	(12)	84
111-76-2	10	49	50	246	*	84

- Japan (JSOH, Recommendation of occupational exposure limits 2021-2022) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
67-56-1	200 ppm 260 mg/m ³				
111-76-2	20 ppm 97 mg/m ³				

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- Switzerland (Suva 2021) :

CAS	VME	VLE	Valeur plafond	Notations
67-56-1	200 ppm 260 mg/m ³	400 ppm 520 mg/m ³		
111-76-2	10 ppm 49 mg/m ³	20 ppm 98 mg/m ³		

- USA / NIOSH IDLH (National Institute for Occupational Safety and Health, Immediately Dangerous to Life or Health Concentrations) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
67-56-1	200 ppm 260 mg/m ³	250 ppm 325 mg/m ³		skin	
111-76-2	5 ppm 24 mg/m ³			skin	

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
67-56-1	200 ppm 266 mg/m ³	250 ppm 333 mg/m ³		Sk	
111-76-2	25 ppm 123 mg/m ³	50 ppm 246 mg/m ³		Sk. BMGV	

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

2-BUTOXYETHANOL (CAS: 111-76-2)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Long term systemic effects.
75 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Short term systemic effects.
89 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
98 ppm

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Short term systemic effects.
663 mg of substance/m³

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Short term local effects.
246 mg of substance/m³

Final use:

Exposure method:
Potential health effects:
DNEL :

Man exposed via the environment.

Ingestion.
Long term systemic effects.
3.2 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Ingestion.
Short term systemic effects.
13.4 mg/kg body weight/day

Exposure method:
Potential health effects:

Dermal contact.
Long term systemic effects.



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DNEL :	38 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Short term systemic effects.
DNEL :	44.5 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	49 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL :	426 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Short term local effects.
DNEL :	123 mg of substance/m3
METHANOL (CAS: 67-56-1)	
Final use:	Workers.
Exposure method:	Dermal contact.
Potential health effects:	Short term systemic effects.
DNEL :	40 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	40 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term local effects.
DNEL :	50 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Short term local effects.
DNEL :	50 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	260 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL :	260 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Long term local effects.
DNEL :	260 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Short term local effects.
DNEL :	260 mg of substance/m3



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Final use:

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:
DNEL :

Man exposed via the environment.

Ingestion.
Long term systemic effects.
8 mg/kg body weight/day

Ingestion.
Short term systemic effects.
8 mg/kg body weight/day

Dermal contact.
Long term systemic effects.
8 mg/kg body weight/day

Dermal contact.
Short term systemic effects.
8 mg/kg body weight/day

Predicted no effect concentration (PNEC):

2-BUTOXYETHANOL (CAS: 111-76-2)

Environmental compartment:
PNEC : Soil.
3.13 mg/kg

Environmental compartment:
PNEC : Fresh water.
8.8 mg/l

Environmental compartment:
PNEC : Sea water.
0.88 mg/l

Environmental compartment:
PNEC : Intermittent waste water.
9.1 mg/l

Environmental compartment:
PNEC : Fresh water sediment.
34.6 mg/kg

Environmental compartment:
PNEC : Marine sediment.
3.46 mg/kg

Environmental compartment:
PNEC : Waste water treatment plant.
463 mg/l

Environmental compartment:
PNEC : Salt water predators (oral).
0.02 g/kg

METHANOL (CAS: 67-56-1)

Environmental compartment:
PNEC : Soil.
23.5 mg/kg

Environmental compartment:
PNEC : Fresh water.
154 mg/l

Environmental compartment:
PNEC : Sea water.
15.4 mg/l

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Environmental compartment: PNEC :	Intermittent waste water. 1540 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 570.4 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 100 mg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Wear suitable protective clothing and, in particular, an apron and boots. These items of clothing shall be maintained in good condition and cleaned after use.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid inhaling vapors.

Avoid inhaling vapors. Carry out any industrial task giving rise to this risk in a closed circuit. Provide extractor fans to capture the vapors at the emission source as well as general ventilation of the premises.

If the ventilation is insufficient, wear appropriate breathing apparatus.



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When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Likewise provide safety breathing apparatus for certain short tasks of an exceptional nature or for emergency interventions

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- A2 (Brown)

- A3 (Brown)

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state : Fluid liquid.

Colour

Unspecified

Odour

Odour threshold : Not stated.

Melting point

Melting point/melting range : Not specified.

Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not specified.

Flammability

Flammability (solid, gas) : Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) : Not stated.

Explosive properties, upper explosivity limit (%) : Not stated.

Flash point

Flash Point Interval : 23°C <= FP <= 55°C

Auto-ignition temperature

Self-ignition temperature : Not specified.

Decomposition temperature

Decomposition point/decomposition range : Not specified.

pH

pH : Not relevant.

pH (aqueous solution) : Not stated.

Kinematic viscosity

Viscosity : Not stated.

Solubility

Water solubility : Soluble.

Fat solubility : Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

Vapour pressure

Vapour pressure (50°C) : Not relevant.

Density and/or relative density

Density : < 1

Relative vapour density

Vapour density : Not stated.



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9.2. Other information

VOC (g/l) : 832.20

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- accumulation of electrostatic charges.
- heating
- heat
- flames and hot surfaces

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
 - carbon dioxide (CO₂)
-

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxic if swallowed.

Toxic in contact with the skin.

Toxic by inhalation.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

Splashes in the eyes may cause irritation and reversible damage

Causes damage to organs.

11.1.1. Substances

Acute toxicity :

2-BUTOXYETHANOL (CAS: 111-76-2)

Oral route : LD50 > 1200 mg/kg bodyweight/day

Inhalation route (Vapours) : LC50 = 3 mg/l
Duration of exposure : 4 h

11.1.2. Mixture

No toxicological data available for the mixture.



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11.2. Information on other hazards

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

2-BUTOXYETHANOL (CAS: 111-76-2)

Biodegradability : Rapidly degradable.

METHANOL (CAS: 67-56-1)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :

WGK 2 : Hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2023 - IMDG 2020 [40-20] - ICAO/IATA 2023 [64]).

14.1. UN number or ID number

2929

14.2. UN proper shipping name

UN2929=TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S.

(methanol)

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14.3. Transport hazard class(es)

- Classification :



6.1+3

14.4. Packing group

II

14.5. Environmental hazards

-

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	6.1	TF1	II	6.1+3	63	100 ml	274	E4	2	D/E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	6.1	3	II	100 mL	F-E. S-D	274	E4	Category B SW2	-

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	6.1	3	II	654	5 L	662	60 L	A4 A137	E4
	6.1	3	II	Y641	1 L	-	-	A4 A137	E4

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

Container information:

No data available.

Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

The mixture contains at least one restricted substance under Annex XVII of Regulation (EC) No. 1907/2006 (REACH): <https://echa.europa.eu/substances-restricted-under-reach>. Please refer to Section 3 to identify the substance involved.

Explosives precursors :

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

Particular provisions :

No data available.

German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :

WGK 2 : Hazardous for water.

15.2. Chemical safety assessment

No data available.



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SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H370	Causes damage to organs .

Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

UFI : Unique formulation identifier.

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TMP : French Occupational Illness table

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS02 : Flame

GHS06 : Skull and crossbones

GHS08 : Health hazard

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.