

Trade name: Aether

Substance number: 150600

Version: 8 / CH

Date revised: 19.01.2023

Replaces Version: 7 / CH

Print date: 19.01.23

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

1.1. Product identifier

Aether

Item No. 15060000

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG

Industriestrasse 35

9100 Herisau

Telephone no. 0041 (0)71 353 58 58

E-mail address of sdb@haenseler.ch

person responsible

for this SDS

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 1 H224

Acute Tox. 4 H302

STOT SE 3 H336

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger

Hazard statements

H224 Extremely flammable liquid and vapour.

H302 Harmful if swallowed.

H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Trade name: Aether

Substance number: 150600

Version: 8 / CH

Date revised: 19.01.2023

Replaces Version: 7 / CH

Print date: 19.01.23

P403+P233
P501.3Store in a well-ventilated place. Keep container tightly closed.
Disposal in compliance with local and national regulations.**Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

contains *** diethyl ether

Supplemental informationEUH019
EUH066May form explosive peroxides.
Repeated exposure may cause skin dryness or cracking.**2.3. Other hazards**

The Substance does not meet PBT-criteria. This substance does not meet the vPvB-criteria. This substance does not have endocrine disrupting properties with respect to humans. This substance does not have endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients *****Molecular weight**

Value 74.12 g/mol

Hazardous ingredients *****diethyl ether**

CAS No.	60-29-7		
EINECS no.	200-467-2		
Registration no.	01-2119535785-29-XXXX		
Concentration	>= 59		%
Classification (Regulation (EC) No. 1272/2008)			
	Flam. Liq. 1	H224	
	Acute Tox. 4	H302	
	STOT SE 3	H336	

ATE oral 1'200 mg/kg

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

Remove contaminated clothing immediately and dispose of safely. Summon a doctor immediately.

After inhalation

Ensure supply of fresh air. Irregular breathing/no breathing: artificial respiration. If the patient is likely to become unconscious, place and transport in stable sideways position. When vapours are intensively inhaled, seek medical help immediately.

After skin contact

Wash off immediately with soap and water and rinse well. Remove contaminated clothing.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Summon a doctor immediately.

After ingestion

Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Take medical treatment.

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

Irritation of mucosa, Nausea, Dizziness, Intoxication, Narcosis, respiratory moderation

4.3. Indication of any immediate medical attention and special treatment needed**Hints for the physician / hazards**

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to

Trade name: Aether

Substance number: 150600

Version: 8 / CH

Date revised: 19.01.2023

Replaces Version: 7 / CH

Print date: 19.01.23

chemical pneumonia or asphyxiation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Alcohol-resistant foam, Dry chemical extinguisher, Carbon dioxide

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Vapours heavier than air. Can build mixtures of gas and air which are capable of explosion. In the event of fire the following can be released: Carbon monoxide (CO); Carbon dioxide (CO₂)

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus. Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses.

Other information

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep away from sources of ignition - No smoking. Keep away unprotected persons. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not inhale vapours.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Advise water authority if spillage has entered water course or drainage system.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (eg sand, kieselguhr). Take up mechanically and collect in suitable container for disposal. Provide adequate ventilation.

6.4. Reference to other sections

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Observe the usual precautions for handling chemicals. Avoid formation of aerosols. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Provide good ventilation of working area (local exhaust ventilation if necessary). Provide good room ventilation even at ground level (vapours are heavier than air). Avoid inhaling dusts/ billows/ steams.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Vapours can form an explosive mixture with air. Take action to prevent static discharges. Use explosion-proof equipment/fittings and non-sparking tools. Risk of explosion if the liquid enters the drains.

7.2. Conditions for safe storage, including any incompatibilities

Recommended storage temperature

Trade name: Aether

Substance number: 150600

Version: 8 / CH

Date revised: 19.01.2023

Replaces Version: 7 / CH

Print date: 19.01.23

Value	10	30	°C
-------	----	----	----

Requirements for storage rooms and vessels

explosion proof. Provide solvent-resistant and impermeable floor. Use stainless steel containers. Use aluminium containers. Unsuitable material: plastic materials. rubber. Do not use zinc containers. Store away from sources of ignition and heat.

Hints on storage assembly

Do not store with oxidizing agents. Do not store with acids.

Storage classes

Storage class according to TRGS 510	3	Flammable liquid
Storage category (Switzerland)	3	Flammable liquid

Further information on storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from exposure to air/oxygen (peroxide formation). Protect from direct sunlight.

SECTION 8: Exposure controls/personal protection *****8.1. Control parameters****Exposure limit values *******diethyl ether**

List	SUVA			
Type	MAK			
Value	1200	mg/m ³	400	ppm(V)
Short term exposure limit	1200	mg/m ³	400	ppm(V)
Remarks: ZNS, Geruch, OAWKT HU; NIOSH				

Derived No/Minimal Effect Levels (DNEL/DMEL)**diethyl ether**

Type of value	Derived No Effect Level (DNEL)			
Reference group	Worker			
Duration of exposure	Long term			
Route of exposure	inhalative			
Mode of action	Systemic effects			
Concentration	308			mg/m ³

Type of value	Derived No Effect Level (DNEL)			
Reference group	Worker			
Duration of exposure	Acute			
Route of exposure	inhalative			
Mode of action	Systemic effects			
Concentration	616			mg/m ³

Type of value	Derived No Effect Level (DNEL)			
Reference group	Worker			
Duration of exposure	Long term			
Route of exposure	dermal			
Mode of action	Systemic effects			
Concentration	44			mg/kg/d

Type of value	Derived No Effect Level (DNEL)			
Reference group	Consumer			
Duration of exposure	Long term			
Route of exposure	inhalative			
Mode of action	Systemic effects			
Concentration	54.5			mg/m ³

Trade name: Aether

Substance number: 150600

Version: 8 / CH

Date revised: 19.01.2023

Replaces Version: 7 / CH

Print date: 19.01.23

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	15.6	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	15.6	mg/kg/d

Predicted No Effect Concentration (PNEC)

diethyl ether

Type of value	PNEC	
Type	Freshwater	
Concentration	2	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0.2	mg/l

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	4.2	mg/l

Type of value	PNEC	
Type	Sediment	
Concentration	9.14	mg/kg

Type of value	PNEC	
Type	Marine sediment	
Concentration	0.914	mg/kg

Type of value	PNEC	
Type	Soil	
Concentration	0.66	mg/kg

8.2. Exposure controls

General protective and hygiene measures

Wash hands before breaks and after work. Preventative skin protection. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. At work do not eat, drink, smoke or take drugs.

Respiratory protection

Self-contained breathing apparatus. Short term: filter apparatus, filter AX

Hand protection

Gloves	
Glove type	Gloves (multilayer) - PE/EVAL/PE (PE=Polyethylene, EVAL=Ethylene-vinyl-alcohol-copolymer)
Material thickness	0.5 mm
Breakthrough time	>= 8 h

Trade name: Aether

Substance number: 150600

Version: 8 / CH

Date revised: 19.01.2023

Replaces Version: 7 / CH

Print date: 19.01.23

Not suitable: rubber gloves
 Not suitable: PVC gloves
 Not suitable
 nitrile rubber - NBR
 Fluoro carbon rubber - FKM
 Butyl rubber - Butyl

Eye protection

Tightly fitting safety glasses

Body protection

Solvent-resistant protective clothing

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

Physical state	liquid		
Colour	colourless		
Odour	sweetish		
Melting point			
Value	-116.3		°C
Boiling point or initial boiling point and boiling range			
Value	35		°C
Flammability	Flammable.		
Upper and lower explosive limits			
Lower explosion limit	1.7		%(V)
Upper explosion limit	48		%(V)
Flash point			
Value	-40		°C
Ignition temperature			
Value	170		°C
pH value			
Remarks	Not applicable		
Viscosity			
dynamic			
Value	0.23		mPa.s
Temperature	20	°C	
Vapour pressure			
Value	587		hPa
Temperature	20	°C	
Density and/or relative density			
Value	0.71		g/cm ³
Temperature	20	°C	
Remarks	Relative Density according specification		
Relative vapour density			
Value	2.55		
Temperature	20	°C	

9.2. Other information**Solubility in water**

Trade name: Aether

Substance number: 150600

Version: 8 / CH

Date revised: 19.01.2023

Replaces Version: 7 / CH

Print date: 19.01.23

Value	69		g/l
Temperature	20	°C	

Oxidising properties

evaluation None known

Other information

Forms explosive mixture with air are possible.

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

Formation of explosive gas/air mixtures. peroxides

10.2. Chemical stability

No decomposition if stored and applied as directed. Protect from light. Protect from exposure to air/oxygen (peroxide formation).

10.3. Possibility of hazardous reactions

Protect from exposure to air/oxygen (peroxide formation). Possible incompatibility with materials listed under section 10.5.

10.4. Conditions to avoid

Heat. Flames. Sparks. Protect from heat and direct sunlight. Protect from exposure to air/oxygen.

10.5. Incompatible materials

Violent reactions with air and oxidising agents. oxygen, Reaction with nitric acid. Halogens

10.6. Hazardous decomposition products

Flammable gases/vapours, Peroxides, In the event of fire the following can be released: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information *****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity**

ATE	1'200	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute oral toxicity (Components)**diethyl ether**

Species	rat	
LD50	1200	mg/kg

Acute dermal toxicity (Components)**diethyl ether**

Species	rabbit	
LD50	> 20000	mg/kg
Method	OECD 402	

Acute inhalative toxicity (Components)**diethyl ether**

Species	rat	
LC50	32000	ppm(V)
Duration of exposure	4	h
Administration/Form	Vapors	

Skin corrosion/irritation (Components)**diethyl ether**

Trade name: Aether

Substance number: 150600

Version: 8 / CH

Date revised: 19.01.2023

Replaces Version: 7 / CH

Print date: 19.01.23

Species	rabbit
Duration of exposure	4 h
evaluation	non-irritant
Method	OECD 404

Serious eye damage/irritation (Components)**diethyl ether**

Species	rabbit
evaluation	non-irritant
Method	OECD 405

Sensitization (Components)**diethyl ether**

Species	mouse
evaluation	non-sensitizing
Method	OECD 429

Mutagenicity (Components)**diethyl ether**

Species	Salmonella typhimurium
evaluation	No mutagenicity in the Ames-test.
Method	Ames test

Carcinogenicity (Components)**diethyl ether**

evaluation	No negative effects
------------	---------------------

Specific Target Organ Toxicity (STOT) (Components)**diethyl ether**

Single exposure evaluation	May cause drowsiness or dizziness.
--------------------------------------	------------------------------------

11.2 Information on other hazards**Endocrine disrupting properties with respect to humans**

This substance does not have endocrine disrupting properties with respect to humans.

Experience in practice

Inhalation causes narcotic effect/intoxication. Inhalation of vapours may lead to headache, drowsiness and dizziness. Possible risk of harm to the unborn child.

SECTION 12: Ecological information *****12.1. Toxicity****Fish toxicity (Components)****diethyl ether**

Species	golden orfe (Leuciscus idus)	
LC50	> 100	mg/l
Duration of exposure	48 h	

diethyl ether

Species	Fathead minnow (Pimephales promelas)	
LC50	2560	mg/l
Duration of exposure	96 h	
Method	OECD 203	

Daphnia toxicity (Components)**diethyl ether**

Trade name: Aether

Substance number: 150600

Version: 8 / CH

Date revised: 19.01.2023

Replaces Version: 7 / CH

Print date: 19.01.23

Species	Daphnia magna		
EC50	> 100		mg/l
Duration of exposure	48	h	

diethyl ether

Species	Daphnia magna		
EC50	165		mg/l
Duration of exposure	24	h	

diethyl ether

Species	Daphnia magna		
IC50	1380		mg/l
Duration of exposure	48	h	

Algae toxicity (Components)**diethyl ether**

Species	Desmodesmus subspicatus		
EC50	> 100		mg/l
Duration of exposure	72	h	
Method	OECD 201		

diethyl ether

Species	Desmodesmus subspicatus		
NOEC	100		mg/l
Duration of exposure	72	h	
Method	OECD 201		

Bacteria toxicity (Components)**diethyl ether**

Species	Photobacterium phosphoreum		
EC50	5600		mg/l
Duration of exposure	15	min	

12.2. Persistence and degradability**Biodegradability (Components)****diethyl ether**

evaluation	not readily degradable
------------	------------------------

12.3. Bioaccumulative potential**Octanol/water partition coefficient (log Pow) (Components)****diethyl ether**

log Pow	1.05
---------	------

12.4. Mobility in soil**Mobility in soil (Components)****diethyl ether**

Moderately mobile in soils

12.5. Results of PBT and vPvB assessment**Results of PBT and vPvB assessment *****

The Substance does not meet PBT-criteria.

This substance does not meet the vPvB-criteria.

12.6 Endocrine disrupting properties**Endocrine disrupting properties with respect to the environment**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Trade name: Aether

Substance number: 150600

Version: 8 / CH

Date revised: 19.01.2023

Replaces Version: 7 / CH

Print date: 19.01.23

General information / ecology

Innocuous to aquatic organisms. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.




SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations for the product**

Disposal in compliance with local and national regulations.

Disposal recommendations for packaging

Dispose of as unused product.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1155	1155	1155
14.2. UN proper shipping name	DIETHYL ETHER (ETHYL ETHER)	DIETHYL ETHER (ETHYL ETHER)	DIETHYL ETHER (ETHYL ETHER)
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	I	I	I
Limited Quantity	0		
Transport category	1		

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Water Hazard Class (Germany)**

Water Hazard Class WGK 1
(Germany)

Remarks Derivation of WGK according to Annex 1 No. 5.2 AwSV

SECTION 16: Other information**Hazard statements listed in Chapter 3**

H224 Extremely flammable liquid and vapour.
H302 Harmful if swallowed.
H336 May cause drowsiness or dizziness.

Trade name: Aether

Substance number: 150600

Version: 8 / CH

Date revised: 19.01.2023

Replaces Version: 7 / CH

Print date: 19.01.23

CLP categories listed in Chapter 3

Acute Tox. 4

Acute toxicity, Category 4

Flam. Liq. 1

Flammable liquid, Category 1

STOT SE 3

Specific target organ toxicity - single exposure, Category 3

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.