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

1.1. Product identifier

Konservierungsmittel-Mischung / F. Hunziker
Item No. 33014000

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

Use of the substance/preparation

Preservative

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 person responsible for this SDS sdb@haenseler.ch

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)
Aquatic Chronic 3 H412
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 statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.
P501.3 Disposal in compliance with local and national regulations.

SECTION 3: Composition/information on ingredients

Hazardous ingredients

methyl 4-hydroxybenzoate

CAS No. 99-76-3
EINECS no. 202-785-7
Registration no. 01-2119463264-40-0003
Concentration >= 10 < 25 %
Classification (Regulation (EC) No. 1272/2008)
Aquatic Chronic 2 H411

Further ingredients

Propane-1,2-diol

CAS No.	57-55-6				
EINECS no.	200-338-0				
Registration no.	01-2119456809-23				
Concentration		>=	50		%
Advice: [4]					

4-hydroxybenzoic acid propyl ester

CAS No.	94-13-3				
EINECS no.	202-307-7				
Registration no.	01-2119969462-29				
Concentration	>=	1	<	10	%
Advice: [4]					

Note

[4] Voluntary information

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated, soaked clothing immediately and dispose of safely. In all cases of doubt, or when symptoms persist, seek medical attention.

After inhalation

Ensure supply of fresh air. In the event of symptoms take medical treatment. If the patient is likely to become unconscious, place and transport in stable sideways position.

After skin contact

After contact with skin, wash immediately with plenty of water. Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Remove contact lenses. Take medical treatment.

After ingestion

Do not induce vomiting. Never give anything by mouth to an unconscious person. If individual is drowsy or unconscious place in recovery position (on left side, with head down). Summon a doctor immediately. If swallowed, rinse mouth with water (only if the person is conscious).

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

Irritaion of respiratory organs, CNS Disturbance, Irritation of mucosa

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide, Dry powder, Water spray jet, Extinguish greater fire with water spray or alcohol-resistant foam. Extinguishing measures to suit surroundings

5.2. Special hazards arising from the substance or mixture

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. Do not inhale explosion and/or combustion gases. Use personal protective clothing.

Other information

Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use breathing apparatus if exposed to vapours/dust/aerosol. Use personal protective clothing. Ensure adequate ventilation. Keep away unprotected persons.

6.2. Environmental precautions

Do not allow to enter drains or waterways. Advise water authority if spillage has entered water course or drainage system.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder, sawdust). Take up mechanically and collect in suitable container for disposal.

6.4. Reference to other sections

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

Provide good ventilation of working area (local exhaust ventilation if necessary). Handle and open container with care.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take action to prevent static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Recommended storage temperature

Value	8	15	°C

Requirements for storage rooms and vessels

Keep tightly closed in a dry and cool place.

Storage classes

Storage class according to TRGS 510	10	Flammable liquids
Storage category (Switzerland)	10/12	Other liquid hazardous substances

Further information on storage conditions

Protect from heat and direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Derived No/Minimal Effect Levels (DNEL/DMEL)

Propane-1,2-diol

Type of value	Derived No Effect Level (DNEL)
Reference group	General Population
Duration of exposure	Long term
Route of exposure	inhalative

Mode of action	Systemic effects	
Concentration	50	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Concentration	168	mg/m³

Predicted No Effect Concentration (PNEC)

Propane-1,2-diol

Type of value	PNEC	
Type	Soil	
Concentration	50	mg/kg
Type of value	PNEC	
Type	Saltwater	
Concentration	26	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	20000	mg/l
Type of value	PNEC	
Type	Freshwater	
Concentration	260	mg/l
Type of value	PNEC	
Type	Marine sediment	
Concentration	57.2	mg/kg
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	572	mg/kg

8.2. Exposure controls

General protective and hygiene measures

Observe the usual precautions for handling chemicals.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. combination filter A-P2

Hand protection

The glove material must be sufficient impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location.

Appropriate Material	nitrile rubber - NBR	
Material thickness	0.11	
Breakthrough time	480	min

Hand protection must comply with EN 374.

Eye protection

Safety glasses with side protection shield; Eye protection must comply with EN 166.

Body protection

Protective clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form liquid, clear

Colour colourless

pH value

Remarks not determined

Melting point

Remarks not determined

Freezing point

Remarks not determined

Initial boiling point and boiling range

Remarks not determined

Flash point

Value	appr.	98.9	°C

Vapour pressure

Value	appr.	0.07	hPa

Vapour density

Remarks not determined

Density

Value	1.062	to	1.072	g/ml
Temperature	20	°C		

Remarks Relative Density according specification

Solubility in water

Remarks not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Violent reaction under influence of oxidising agents.

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Possible incompatibility with materials lister under section 10.5.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat. Heat. Flames. Sparks. Protect from sun.

10.5. Incompatible materials

Incompatible with: Strong oxidising agents

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide, Toxic gases/vapours

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity (Components)

4-hydroxybenzoic acid propyl ester

Species	rat			
LD50	>	5000		mg/kg

methyl 4-hydroxybenzoate

Species	rat			
LD50		2100		mg/kg
Method	OECD 401			

methyl 4-hydroxybenzoate

Species	guinea pig			
LD50		3000		mg/kg

methyl 4-hydroxybenzoate

Species	rabbit			
LC50		6000		mg/kg

Propane-1,2-diol

Species	rat			
LD50		20000		mg/kg

Propane-1,2-diol

Species	rat			
LD50		6660		mg/kg
Remarks	intraperitoneal			

Propane-1,2-diol

Species	mouse			
LD50		9718		mg/kg
Remarks	intraperitoneal			

Propane-1,2-diol

Species	rat			
LD50		22000		mg/kg
Method	OECD 401			

Acute dermal toxicity (Components)

Propane-1,2-diol

Species	rabbit			
		20800		mg/kg

Propane-1,2-diol

Species	rabbit			
LD50	>	2000		mg/kg
Duration of exposure		24	h	
Method	OECD 402			

Acute inhalative toxicity (Components)

Propane-1,2-diol

Species	rabbit			
LC50		317042		mg/m³
Duration of exposure		2	h	
Method	OECD 403			

Skin corrosion/irritation (Components)

methyl 4-hydroxybenzoate

Species	rabbit		
Duration of exposure	24	h	
Observation Period	72	h	
evaluation	Moderately irritating		
Method	Draize method		

Propane-1,2-diol

Duration of exposure	7	d	
evaluation	slightly irritant		

Serious eye damage/irritation (Components)

methyl 4-hydroxybenzoate

Species	rabbit		
Observation Period	48	h	
evaluation	Moderately irritating		
Method	Draize method		

Propane-1,2-diol

Species	rabbit
evaluation	slightly irritant

Sensitization (Components)

4-hydroxybenzoic acid propyl ester

Route of exposure	dermal
Species	mouse
evaluation	non-sensitizing
Method	OECD 429

methyl 4-hydroxybenzoate

Species	guinea pig
evaluation	non-sensitizing
Method	OECD 406

Propane-1,2-diol

Remarks	No data available.

Subacute, subchronic, chronic toxicity (Components)

4-hydroxybenzoic acid propyl ester

Sub-chronic toxicity			
Route of exposure	oral		
Species	rat		
NOAEL	980		mg/kg
Duration of exposure	4	Weeks	

methyl 4-hydroxybenzoate

Species	rat		
NOAEL	>= 250		mg/kg
Duration of exposure	28	d	

Propane-1,2-diol

Remarks	No data available.

Mutagenicity (Components)

4-hydroxybenzoic acid propyl ester

evaluation	No mutagenicity according to various in vitro tests.
Method	OECD 471

methyl 4-hydroxybenzoate

evaluation	No mutagenicity according to various in vitro tests.
Method	OECD 471

Propane-1,2-diol

Remarks	No data available.

Reproduction toxicity (Components)

Propane-1,2-diol

Remarks	No data available.

Carcinogenicity (Components)

Propane-1,2-diol

Remarks	No data available.

Specific Target Organ Toxicity (STOT) (Components)

Propane-1,2-diol

Remarks	Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Fish toxicity (Components)

4-hydroxybenzoic acid propyl ester

Species	zebra fish (Brachydanio rerio)		
LC50	6.4		mg/l
Duration of exposure	96	h	

methyl 4-hydroxybenzoate

Species	golden orfe (Leuciscus idus)		
NOEC	50		mg/l
Duration of exposure	48	h	

methyl 4-hydroxybenzoate

Species	Oryzias latipes		
LC50	59.5		mg/l
Duration of exposure	96	h	
Method	OECD 203		

Propane-1,2-diol

Species	Fathead minnow (Pimephales promelas)		
NOEC	52930		mg/l
Duration of exposure	96	h	

Propane-1,2-diol

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	40613		mg/l
Duration of exposure	96	h	

Daphnia toxicity (Components)

4-hydroxybenzoic acid propyl ester

Species	Daphnia magna		
EC50	15.4		mg/l
Duration of exposure	48	h	
Method	ISO 6341		

methyl 4-hydroxybenzoate

Species	Daphnia magna		
NOEC	0.2		mg/l
Duration of exposure	21	d	
Method	OECD 211		
Source	Manufacturer's data		

methyl 4-hydroxybenzoate

Species	Daphnia magna		
EC50	11.2		mg/l
Duration of exposure	48	h	

Propane-1,2-diol

Species	Daphnia		
NOEC	13020		mg/l

Propane-1,2-diol

Species	Daphnia magna		
EC50	> 10000		mg/l
Duration of exposure	48	h	

Propane-1,2-diol

Species	Ceriodaphnia dubia		
LC50	18340		mg/l
Duration of exposure	48	h	
Method	static test		
Source	EPA 600/489/001		

Algae toxicity (Components)

4-hydroxybenzoic acid propyl ester

Species	Pseudokirchneriella subcapitata		
EC50	15		mg/l
Duration of exposure	72	h	
Method	ISO 8692		

4-hydroxybenzoic acid propyl ester

Species	Pseudokirchneriella subcapitata		
NOEC	2.1		mg/l
Duration of exposure	72	h	
Method	OECD 201		

4-hydroxybenzoic acid propyl ester

Species	Pseudokirchneriella subcapitata		
EC50	16		mg/l
Duration of exposure	72	h	
Method	OECD 201		

methyl 4-hydroxybenzoate

Species	Desmodesmus subspicatus		
EC50	91		mg/l
Duration of exposure	72	h	

methyl 4-hydroxybenzoate

NOEC	17		mg/l
Duration of exposure	72	h	
Method	OECD 201		

Propane-1,2-diol

Species	Pseudokirchneriella subcapitata		
EC50	19000		mg/l
Duration of exposure	96	h	
Method	OECD 201		

Bacteria toxicity (Components)

methyl 4-hydroxybenzoate

Species	Pseudomonas fluorescens		
EC0	500		mg/l

Propane-1,2-diol

Remarks No data available.

12.2. Persistence and degradability

Physico-chemical eliminability (Components)

Propane-1,2-diol

Remarks No data available.

Biodegradability (Components)

4-hydroxybenzoic acid propyl ester

Value	91.5		%
Duration of test	28	d	
evaluation	Readily biodegradable		
Method	OECD 301F		

methyl 4-hydroxybenzoate

Value	92.2		%
Duration of test	28	d	
evaluation	Readily biodegradable		
Method	OECD 301F		

methyl 4-hydroxybenzoate

Value	89		%
Duration of test	28	d	
evaluation	Readily biodegradable		
Method	OECD 301 B		

Propane-1,2-diol

Remarks	The product is biodegradable.

Ready degradability (Components)

Propane-1,2-diol

Remarks	No data available.

12.3. Bioaccumulative potential

Octanol/water partition coefficient (log Pow) (Components)

4-hydroxybenzoic acid propyl ester

log Pow	2.8

methyl 4-hydroxybenzoate

log Pow	1.98

12.4. Mobility in soil

Mobility in soil (Components)

4-hydroxybenzoic acid propyl ester

Highly mobile in soils

methyl 4-hydroxybenzoate

Highly mobile in soils

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

Disposal in compliance with local and national regulations.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	-		
14.1. UN number	3082	3082	3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3. Transport hazard class(es)	9	9	9
Label			
14.4. Packing group	III	III	III
Limited Quantity	5 l		
Transport category	3		

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

SECTION 16: Other information

Hazard statements listed in Chapter 3

H411 Toxic to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Aquatic Chronic 2 Hazardous to the aquatic environment, chronic, Category 2

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.