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

1.1. Product identifier

Alcohol isopropylicus

Item No. 15540000

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

Use of the substance/preparation

industry

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)

Flam. Liq. 2	H225
Eye Irrit. 2	H319
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

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
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.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501.3	Disposal in compliance with local and national regulations.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains propan-2-ol

Reduced labeling (<= 125 ml)

Hazard pictograms *

Signal word *

Danger

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 60.10 g/mol

Hazardous ingredients

propan-2-ol

CAS No.	67-63-0	
EINECS no.	200-661-7	
Registration no.	01-21194557558-25-XXXX	
Concentration	>= 50	%
Classification (Regulation (EC) No. 1272/2008)		
	Flam. Liq. 2	H225
	Eye Irrit. 2	H319
	STOT SE 3	H336

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take affected person to fresh air. Remove contaminated, soaked clothing immediately and dispose of safely.

After inhalation

Ensure supply of fresh air. Irregular breathing/no breathing: artificial respiration. Heat. 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

Wash off immediately with soap and water and rinse well. Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). By continuous complaints consult a physician.

After ingestion

Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Summon a doctor immediately.

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

Headache, Dizziness, Nausea, Intoxication, Narcosis

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 chemical pneumonia or asphyxiation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide, Dry powder, Water spray jet, Extinguish greater fire with alcohol-resistant foam.

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Carbon monoxide (CO); Can build mixtures of gas and air which are capable of explosion.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus.

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 unprotected persons.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Prevent spread over a wide area (e.g. by containment or oil barriers). Advise water authority if spillage has entered water course or drainage system.

6.3. Methods and material for containment and cleaning up

Ensure adequate ventilation. Take up with absorbent material (eg sand, kieselguhr). When picked up, treat material as prescribed under Section 13 "Disposal".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Handle and open container with care. Avoid formation of aerosols. Provide good ventilation of working area (local exhaust ventilation if necessary). Provide good room ventilation even at ground level (vapours are heavier than air).

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

Requirements for storage rooms and vessels

explosion proof. Provide solvent-resistant and impermeable floor. Do not use light metal drums.

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 container tightly closed. Keep container tightly closed, cool and dry. Product is hygroscopic.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

propan-2-ol

List	SUVA			
Type	MAK			
Value	500	mg/m³	200	ppm(V)
Short term exposure limit	1000	mg/m³	400	ppm(V)

Pregnancy group: S Remarks: B SSc; Auge & OAW, ZNS, LeberKT AN; INRS, NIOSH

Derived No/Minimal Effect Levels (DNEL/DMEL)

propan-2-ol

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	888	mg/kg/d

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	500	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer use	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	319	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	89	mg/m³

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	26	mg/kg

Predicted No Effect Concentration (PNEC)

propan-2-ol

Type of value	PNEC	
Type	Freshwater	
Concentration	140.9	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	140.9	mg/l

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	2251	mg/l

Type of value	PNEC	
Type	Sediment	
Concentration	552	mg/kg

Type of value	PNEC	
Type	Soil	
Concentration	28	mg/kg

8.2. Exposure controls

General protective and hygiene measures

Wash hands before breaks and after work. Keep away from food-stuffs, beverages and feed-stocks. Do not inhale gases/vapours/aerosols. At work do not eat, drink, smoke or take drugs. Avoid contact with skin and eyes. Hold eye wash fountain available.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Breathing apparatus in the event of aerosol or mist formation. Gas filterA. combination filter A-P2; At intensive and longer exposition use self-contained breathing apparatus. EN 14387

Hand protection

Gloves (solvent-resistant)

Appropriate Material	nitrile rubber - NBR		
Material thickness		0.35	mm
Breakthrough time	>=	8	h
Appropriate Material	Butyl rubber - Butyl		
Material thickness		0.5	mm
Breakthrough time	>=	8	h
Appropriate Material	Fluoro carbon rubber - FKM		
Material thickness		0.4	mm

Breakthrough time >= 8 h
Hand protection must comply with EN 374.

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, clear			
Odour	alcohol-like			
Melting point				
Value	-89			°C
Method	DIN 51761			
Boiling point or initial boiling point and boiling range				
Value	82			°C
Method	ASTM D 1078			
Upper and lower explosive limits				
Lower explosion limit	2			%(V)
Upper explosion limit	13			%(V)
Flash point				
Value	12			°C
Method	ASTM D 56			
Auto-ignition temperature				
Value	425			°C
Method	ASTM D 2155			
pH value				
Remarks	Not applicable			
Viscosity				
dynamic				
Value	2.43			mPa.s
Temperature	20	°C		
Method	ASTM D 445			
kinematic				
Value	2.66			mm^2/s
Temperature	25	°C		
Method	ASTM D 7042			
Partition coefficient n-octanol/water (log value)				
log Pow	0.05			
Vapour pressure				
Value	41			hPa
Temperature	20	°C		
Density and/or relative density				
Value	785	to	786	kg/m^3
Temperature	20	°C		
Method	ASTM D 4052			
Value	0.786			

Temperature		20	°C

Relative vapour density

Value	>	1	

9.2. Other information

Solubility in water

Remarks: Completely miscible

Oxidising properties

evaluation: None known

Other information

Forms esplosive mixture with air are possible.

SECTION 10: Stability and reactivity

10.1. Reactivity

None known

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

Heat. Flames. Sparks

10.5. Incompatible materials

Developpment of toxic gases/vapours. Reactions with alkali metals. Reactions with earth alkali metals. Reactions with acids and strong oxidising agents.

10.6. Hazardous decomposition products

Flammable gases/vapours, 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

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

Acute oral toxicity (Components)

propan-2-ol

Species	rat	
LD50	5840	mg/kg
Method	OECD 401	

Acute dermal toxicity

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

Acute dermal toxicity (Components)

propan-2-ol

Species	rabbit	
LD50	13900	mg/kg
Method	OECD 402	

Acute inhalational toxicity

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

Acute inhalative toxicity (Components)

propan-2-ol

Species	rat
LC50	> 25 mg/l
Duration of exposure	6 h
Administration/Form	Vapors
Method	OECD 403

Skin corrosion/irritation

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

Skin corrosion/irritation (Components)

propan-2-ol

evaluation	non-irritant
Method	OECD 404
Remarks	Repeated and prolonged skin contact may lead to defatting and irritation of the skin.

Serious eye damage/irritation

evaluation	irritant
Remarks	The classification criteria are met.

Serious eye damage/irritation (Components)

propan-2-ol

evaluation	irritant
Method	OECD 405

Sensitization

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

Sensitization (Components)

propan-2-ol

Route of exposure	dermal
Species	guinea pig
evaluation	non-sensitizing
Method	OECD 406

Mutagenicity

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

Mutagenicity (Components)

propan-2-ol

Species	Salmonella typhimurium
Method	OECD 471
Remarks	None

propan-2-ol

Species	hamster
evaluation	No experimental information on genotoxicity in vitro available.
Method	OECD 476

propan-2-ol

Species	mouse
evaluation	No mutagenicity in the micronucleus test.
Method	OECD 474

propan-2-ol

Species	rat
Dose	400 mg/kg
evaluation	No experimental indications on genotoxicity in vivo found.

Method	OECD 414		

Reproductive toxicity

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

Reproduction toxicity (Components)

propan-2-ol

Route of exposure	oral		
Species	rat		
Dose		853	mg/kg
Duration of exposure		1	d
evaluation	No negative effects		
Method	OECD 416		

propan-2-ol

Route of exposure	oral		
Species	rat		
Dose		500	mg/kg
Method	OECD 414		

Carcinogenicity

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

Carcinogenicity (Components)

propan-2-ol

Route of exposure	inhalative		
Species	mouse		
Dose	<=	5000	ppm(m)
Duration of exposure		5	d
evaluation	No negative effects		
Method	OECD 451		

Specific Target Organ Toxicity (STOT)

Single exposure

Remarks: The classification criteria are met.

evaluation: May cause drowsiness or dizziness.

Repeated exposure

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

Specific Target Organ Toxicity (STOT) (Components)

propan-2-ol

Organs: Nervous system

Aspiration hazard

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

Aspiration hazard (Components)

propan-2-ol

Harmful: may cause lung damage if swallowed.

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)

propan-2-ol

Species	Fathead minnow (Pimephales promelas)		
LC50	9640		mg/l
Duration of exposure	96	h	
Method	OECD 203		

Daphnia toxicity (Components)

propan-2-ol

Species	Daphnia magna		
LC50	9714		mg/l
Duration of exposure	24	h	
Method	OECD 202		

Algae toxicity (Components)

propan-2-ol

Species	Scenedesmus subspicatus		
EC50	> 100		mg/l
Duration of exposure	72	h	

Bacteria toxicity (Components)

propan-2-ol

EC50	> 100		mg/l

12.2. Persistence and degradability

Biodegradability (Components)

propan-2-ol

Value	53		%
Duration of test	5	d	
evaluation	Readily biodegradable		

12.3. Bioaccumulative potential

General information

Not applicable

Partition coefficient n-octanol/water (log value)

log Pow 0.05

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

propan-2-ol

log Pow 0.05

12.4. Mobility in soil

Mobility in soil (Components)

propan-2-ol

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 envrionment

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

12.7. Other adverse effects

General information / ecology

Do not allow it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

EWC waste code — No not dispose with rubbish.
EWC waste code — Should not be released into the sanitary sewer system.
In accordance with regulations for special waste, must be taken, to an authorised special waste incineration plant.

Disposal recommendations for packaging

Unpurified packings can contain mixtures of gas and air which are capable of explosion.
Disposal in compliance with local and national regulations.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number or ID number	1219	1219	1219
14.2. UN proper shipping name	ISOPROPANOL (ISOPROPYL ALCOHOL)	ISOPROPANOL (ISOPROPYL ALCOHOL)	ISOPROPANOL
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	II	II	II
Limited Quantity	1 l	1 l	
Transport category	2		
Tunnel restriction code	D/E		

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

Other information ***

The product does not contain substances according to Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH) with a content of >= 0.1% w/w.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

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

Flam. Liq. 2	H225	On basis of test data
Eye Irrit. 2	H319	Calculation method
STOT SE 3	H336	Calculation method

Hazard statements listed in Chapter 2/3

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

CLP categories listed in Chapter 2/3

Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
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.