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

1.1. Product identifier

Methyleni chloridum

Item No. 15565000

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

Use of the substance/preparation

Raw material for pharmaceutical production and analysis

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)

Skin Irrit. 2	H315
Eye Irrit. 2	H319
Carc. 2	H351
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

Warning

Hazard statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H336	May cause drowsiness or dizziness.

Precautionary statements

P201	Obtain special instructions before use.
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.
P308+P313	IF expsoed or concerned: Get medicinal advice/attention.

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

contains dichloromethane

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 84.93 g/mol

Hazardous ingredients

dichloromethane

CAS No.	75-09-2		
EINECS no.	200-838-9		
Registration no.	01-2119480404-41-XXXX		
Concentration	>= 50		%
Classification (Regulation (EC) No. 1272/2008)			
	Skin Irrit. 2	H315	
	Eye Irrit. 2	H319	
	Carc. 2	H351	
	STOT SE 3	H336	Nervous system

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take affected person to fresh air. Irregular breathing/no breathing: artificial respiration. In case of persistent symptoms consult doctor.

After inhalation

Ensure supply of fresh air. Take medical treatment.

After skin contact

After contact with skin, wash immediately with plenty of water. Remove contaminated, soaked clothing immediately and dispose of safely. Take medical treatment.

After eye contact

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

After ingestion

Careful when inducomg vomiting. Do not induce vomiting - aspiration hazard. Let plenty of water be drunk in small gulps. Administer activated charcoal. Summon a doctor immediately.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

5.2. Special hazards arising from the substance or mixture

The product is not combustible. If a fire breaks out nearby evolution of dangerous gases possible. In the event of fire the following can be released: Hydrogen chloride (HCl); Phosgene

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus. Use personal protective clothing.

Other information

Suppress vapours with water spray jet. Collect contaminated fire-fighting water separately, must not be discharged into the drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove persons to safety. Do not inhale vapours. Avoid contact with skin, eyes and clothing. Ensure supply of fresh air.

6.2. Environmental precautions

Do not empty into drains.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. general-purpose binder). Clean contaminated floors and objects thoroughly, observing environmental regulations. Pump off large amounts. When picked up, treat material as prescribed under Section 13 "Disposal".

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

Work only in fume cupboards. Do not inhale substance. Avoid development of dusts/ billows/ steams.

7.2. Conditions for safe storage, including any incompatibilities

Recommended storage temperature

Value	15	-	25	°C

Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Unsuitable material: plastic materials. Unsuitable materials: Polyethylene, rubber. Do not use steel containers.

Storage classes

Storage class according to TRGS 510	6.1D	Non-combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects
Storage category (Switzerland)	10/12	Other liquid hazardous substances

Further information on storage conditions

Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

dichloromethane

List	SUVA			
Type	MAK			
Value	177	mg/m³	50	ppm(V)
Short term exposure limit	706	mg/m³	200	ppm(V)

Skin resorption / sensibilisation: H; Remarks: H C1#B B; Kopfweh; HSE NIOSH DFG

Derived No/Minimal Effect Levels (DNEL/DMEL)

dichloromethane

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	176	mg/m³

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	12	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	44	mg/m³

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	5.82	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	0.06	mg/kg/d

Predicted No Effect Concentration (PNEC)

dichloromethane

Type of value	PNEC	
Type	Freshwater	
Concentration	0.31	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0.031	mg/l
Type of value	PNEC	
Conditions	Intermittend	
Concentration	0.27	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	26	mg/l
Type of value	PNEC	
Type	Sediment	
Concentration	2.57	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0.262	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0.33	mg/kg

8.2. Exposure controls

General protective and hygiene measures

Wash contaminated clothing before reuse. Preventative skin protection. Wash hands and face after work.

Respiratory protection

Breathing apparatus in the event of vapours. Gas filterAX.

Hand protection

Protective gloves

Appropriate Material	viton		
Material thickness		0.70	mm
Breakthrough time	>	120	min

Eye protection

Safety glasses; 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

Physical state	liquid
Colour	colourless
Odour	ether-like

Melting point

Value	-95	°C
Pressure	1013 hPa	

Boiling point or initial boiling point and boiling range

Value	40	°C
Pressure	1013 hPa	

Flammability

Not applicable

Upper and lower explosive limits

Lower explosion limit	13	%(V)
Upper explosion limit	22	%(V)

Flash point

Value	°C	
Method	closed cup	
Remarks	Not applicable	

Ignition temperature

Value	605	°C
Method	DIN 51794	

pH value

Remarks	No data available

Viscosity

dynamic

Value	0.42		mPa.s
Temperature	25	°C	

Partition coefficient n-octanol/water (log value)

log Pow	1.25	
Temperature	20	°C

Vapour pressure

Value	584		hPa
Temperature	25	°C	

Density and/or relative density

Value	1.33		g/cm³
Temperature	20	°C	

9.2. Other information

Evaporation rate

Value	1.9

Solubility in water

Value	13.2		g/l
Temperature	25	°C	

Auto-ignition temperature

Value	605	°C

Explosive properties

evaluation	No data available

Oxidising properties

Remarks	No data available
Source	Safety Data Sheet Supplier

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

Protect from light.

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.

10.5. Incompatible materials

Risk of explosion with: Alkaline metals, Aluminium, NO2, Reaction with nitric acid. oxigen, Nitrogen oxides (NOx), Potassium permanganate, Sodium hypochlorite, halocarbons

10.6. Hazardous decomposition products

In the event of fire the following can be released: Hydrogen chloride (HCl), Phosgene

SECTION 11: Toxicological information

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

Acute oral toxicity (Components)

dichloromethane

Species	rat			
LD50	>	2000		mg/kg
Method	OECD 401			

dichloromethane

Species	Human			
LDLo		357		mg/kg
Source	RTECS			

dichloromethane

Species	Rats (male/female)			
NOAEL		6		mg/kg
Duration of exposure		104	Weeks	

Acute dermal toxicity (Components)

dichloromethane

Species	rat			
LD50	>	2000		mg/kg
Method	OECD 402			

Acute inhalative toxicity (Components)

dichloromethane

Species	rat			
LC50		60.14		mg/l
Duration of exposure		4	h	
Administration/Form	Vapors			
Source	Literature value			

dichloromethane

Species	Rats (male/female)			
NOAEL		0.71		mg/l
Duration of exposure		104	Weeks	
Method	OECD 453			

dichloromethane

Species	mouse			
LC50		86		mg/l
Administration/Form	Vapors			

Skin corrosion/irritation (Components)

dichloromethane

Species	rabbit
evaluation	irritant
Method	OECD 404
Remarks	Longer or repeated exposure with the product may cause dermatitis

Serious eye damage/irritation (Components)

dichloromethane

Species	rabbit
evaluation	irritant
Remarks	Risk of serious damage to eyes.

Sensitization (Components)

dichloromethane

Species	mouse
evaluation	non-sensitizing
Method	OECD 429

Mutagenicity (Components)

dichloromethane

Species	mouse
Remarks	negative

dichloromethane

Species	mammal, species unspecified
evaluation	Information on genotoxicity in vitro available.
Method	OECD 473
Remarks	positive

dichloromethane

Species	Salmonella typhimurium
evaluation	Information on genotoxicity in vitro available.
Method	OECD 471
Remarks	positive

Reproduction toxicity (Components)

dichloromethane

Remarks	Not applicable

Carcinogenicity (Components)

dichloromethane

Remarks	Suspicion about carcinogenic effect.

Specific Target Organ Toxicity (STOT) (Components)

dichloromethane

Single exposure

evaluation	May cause damage to organs. Route of exposure inhalative Organs: Nervous system

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

After resorption of toxic quantities: disorders of the central nervous system. Liver damage is possible. Kidney damange is possible. Heart damange is possible.

Other information

Observe the usual precautions for handling chemicals.

SECTION 12: Ecological information

12.1. Toxicity

Fish toxicity (Components)

dichloromethane

Species	Fathead minnow (Pimephales promelas)		
LC50	193		mg/l
Duration of exposure	96	h	

Daphnia toxicity (Components)

dichloromethane

Species	Daphnia magna		
LC50	27		mg/l
Duration of exposure	48	h	

Algae toxicity (Components)

dichloromethane

Species	Raphidocelis subcapitata		
IC50	> 662		mg/l
Duration of exposure	96	h	
Method	OECD 201		

Bacteria toxicity (Components)

dichloromethane

Species	activated sludge		
EC50	2590		mg/l
Duration of exposure	40	min	
Method	OECD 209		

12.2. Persistence and degradability

Biodegradability (Components)

dichloromethane

Value	68		%
Duration of test	28	d	
Method	OECD 301D		
Remarks	The product is readily biodegradable according to OECD criteria.		

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log value)

log Pow	1.25	
Temperature	20	°C

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

dichloromethane

log Pow	1.25
Method	experimental

12.4. Mobility in soil

Mobility in soil (Components)

dichloromethane

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 soil, 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	E		
14.1. UN number	1593	1593	1593
14.2. UN proper shipping name	DICHLOROMETHANE	DICHLOROMETHANE	DICHLOROMETHANE
14.3. Transport hazard class(es)	6.1	6.1	6.1
Label			
14.4. Packing group	III	III	III
Limited Quantity	5 l		
Transport category	2		

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 2
Remarks	Derivation of WGK according to Annex 1 No. 5.2 AwSV

15.2. Chemical safety assessment

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

SECTION 16: Other information

Hazard statements listed in Chapter 3

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.

CLP categories listed in Chapter 3

Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Eye irritation, Category 2
Skin Irrit. 2	Skin irritation, 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.