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

* 1.1 Product identifier

Trade name/designation Coolex® L

Art-Nr(n). 1690

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

Use of the substance/mixture
Cooling liquid brine.
Functional fluid.

1.3 Details of the supplier of the safety data sheet

Supplier
GHC Gerling, Holz & Co. Handels GmbH
Ruhrstraße 113
D-22761 Hamburg
Telephone +49 40 853 123 0
E-mail hamburg@ghc.de
Website www.ghc.com

Department responsible for information:
GHC Gerling, Holz & Co. Handels GmbH
Telephone +49 40 853 123 0

E-mail (competent person):
msds@ghc.de

* 1.4 Emergency telephone number

EN: Poison Information Center Mainz +49 6131 19240

* SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Remark
The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2 Label elements

No data available

* 2.3 Other hazards

* **Other adverse effects**
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Hazardous ingredients

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
57-55-6	200-338-0	Propane-1,2-diol	> 90 weight-%		ATE(oral): 22000 mg/kg ATE(dermal): > 2000 mg/kg ATE(inhalation vapour): > 100000 ppm

REACH No.	Substance name
01-2119456809-23	Propane-1,2-diol

Remark
Mono-propylene glycol (Propane-1,2-diol) with corrosion inhibitors.

* SECTION 4: First aid measures

* 4.1 Description of first aid measures

* **General information**
Remove contaminated, saturated clothing immediately.

Following inhalation
Remove casualty to fresh air and keep warm and at rest.
In the event of symptoms refer for medical treatment.

* **Following skin contact**
After contact with skin, wash immediately with plenty of water and soap.
In case of skin irritation, consult a physician.

* **After eye contact**
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical assistance.

* **Following ingestion**
Do NOT induce vomiting.
Rinse mouth immediately and drink plenty of water.
Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
The following symptoms may occur in case of strong exposition:
Eye Irritation
Gastrointestinal complaints

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

* SECTION 5: Firefighting measures

* 5.1 Extinguishing media

* **Suitable extinguishing media**
Extinguishing powder
alcohol resistant foam
Water spray jet
Carbon dioxide (CO_2)

Unsuitable extinguishing media
Full water jet

* **5.2 Special hazards arising from the substance or mixture**

* **Hazardous combustion products**
In case of fire formation of dangerous gases possible.
Carbon monoxide
Carbon dioxide (CO_2)

* **5.3 Advice for firefighters**

* **Special protective equipment for firefighters**
Wear a self-contained breathing apparatus and chemical protective clothing.

* **Additional information**
Use water spray jet to protect personnel and to cool endangered containers.
Exposure to fire may cause rupture / explosion of the containers.
Fire residues and contaminated firefighting 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**

* **For non-emergency personnel**
Use personal protection equipment.
Leave the danger area.

For emergency responders
Personal protection by wearing close-fitting protective clothing and breathing apparatus.
Remove persons to safety.

6.2 Environmental precautions

Do not allow to enter into soil/subsoil.
Do not allow to enter into surface water or drains.

* **6.3 Methods and material for containment and cleaning up**

* **For containment**
Prevent the liquid from spreading over a wide area (set up barriers, cover sewage systems).

* **For cleaning up**
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
Collect in closed and suitable containers for disposal.

6.4 Reference to other sections

Disposal: see section 13
Personal protection equipment: see section 8

* SECTION 7: Handling and storage

* **7.1 Precautions for safe handling**

* **Protective measures**
Use only in well-ventilated areas.
Do not inhale gases/vapours/aerosols.
Usual measures for fire prevention.
If used properly, no special measures are required

Advices on general occupational hygiene
When using do not eat, drink, smoke, sniff.
Wash hands before breaks and after work.
Remove contaminated clothing and protective equipment before entering eating areas.

* 7.2 Conditions for safe storage, including any incompatibilities

*

Requirements for storage rooms and vessels
All regulations and local requirements for the storage of containers have to be respected.
Keep container tightly closed and in a well-ventilated place.
Only use containers specifically approved for the substance/product.

Storage class
10 Combustible liquids that cannot be assigned to any of the above storage classes

*

Materials to avoid
Do not store together with explosives.
Do not store with gases.
Do not store together with pyrophoric and self-heating substances.
Do not store together with oxidizing liquids or oxidizing solids.
Do not store together with infectious substances.
Do not store together with radioactive material.
Do not store together with food or feed.

* 7.3 Specific end use(s)

*

Recommendation
See section 1.2
An exposure scenario is not required.

* SECTION 8: Exposure controls/personal protection

* 8.1 Control parameters

*

Occupational exposure limit values

CAS No.	EC No.	Substance name	occupational exposure limit value
57-55-6		Propane-1,2-diol, particulates	10 [mg/m³] (IE)
57-55-6		Propane-1,2-diol, total vapour and particulates	150 [ml/m³(ppm)] 470 [mg/m³] (IE)

DNEL worker

CAS No.	Substance name	DNEL value	DNEL type	Remark
57-55-6	Propane-1,2-diol	10 mg/m³	long-term inhalative (local)	Assessment factor 9, repeated dose toxicity.
57-55-6	Propane-1,2-diol	168 mg/m³	long-term inhalative (systemic)	Assessment factor 3, repeated dose toxicity.

*

DNEL Consumer

CAS No.	Substance name	DNEL value	DNEL type	Remark
57-55-6	Propane-1,2-diol	10 mg/m³	long-term inhalative (local)	Assessment factor 15, repeated dose toxicity.
57-55-6	Propane-1,2-diol	50 mg/m³	long-term inhalative (systemic)	Assessment factor 5, repeated dose toxicity.

*

PNEC

CAS No.	Substance name	PNEC Value	PNEC type	Remark
57-55-6	Propane-1,2-diol	26 mg/L	aquatic, marine water	Assessment factor 500
57-55-6	Propane-1,2-diol	50 mg/kg dw	soil	
57-55-6	Propane-1,2-diol	57.2 mg/kg dw	sediment, marine water	
57-55-6	Propane-1,2-diol	183 mg/L	aquatic, intermittent release	
57-55-6	Propane-1,2-diol	260 mg/L	aquatic, freshwater	Assessment factor 50, assessment factor.
57-55-6	Propane-1,2-diol	572 mg/kg dw	sediment, freshwater	
57-55-6	Propane-1,2-diol	20000 mg/L	sewage treatment plant (STP)	Assessment factor 1

* **8.2 Exposure controls**

* **Personal protection equipment**

Eye/face protection
Protective goggles according to EN 166, in case of increased risk add protective face shield.

Hand protection
Safety gloves according to EN 374:
Glove material specification [make/type, thickness, permeation time/life]: IIR, >= 0,7 mm, > 480 min

Body protection:
Safety shoes with steel toecap.
Body covering work clothing or chemical resistant suit at increased risk.

* **Respiratory protection**
Respiratory protection necessary at:
high concentrations
Suitable respiratory protection apparatus:
Short term: filter apparatus, filter A

* **Environmental exposure controls**

* **Remark**
Prevent release to the environment.

* SECTION 9: Physical and chemical properties

* **9.1 Information on basic physical and chemical properties**

Physical state
liquid

Colour
green

Odour
perceptible

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			not determined
Melting point/freezing point			not determined
Boiling point or initial boiling point and boiling range	> 100 °C pressure 1013 hPa		
flammability			none
Lower and upper explosion limit	Upper explosion limit 12.6 Vol-%		Information concerns main component.
Lower and upper explosion limit	Lower explosion limit 2.6 Vol-%		Information concerns main component.
Flash point	> 111 °C		
Auto-ignition temperature	410 °C		
Decomposition temperature	> 200 °C	DSC	
pH	approx. 8 (20°C) Concentration 100 g/L		aqueous solution
Viscosity	kinematic approx. 62 mm²/s (20°C)	DIN 51562	
Solubility(ies)	Water solubility (20°C)		miscible
Partition coefficient n-octanol/water (log value)			not applicable
Vapour pressure			not determined

	Value	Method	Source, Remark
Density and/or relative density	approx. 1.04 g/cm³ (20°C)	DIN 51757	
Relative vapour density			not determined
particle characteristics			not applicable

*** 9.2 Other information**

No data available

* SECTION 10: Stability and reactivity

10.1 Reactivity

See section "Possibility of hazardous reactions".

*** 10.2 Chemical stability**

The mixture is chemically stable under recommended conditions of storage, use and temperature.

*** 10.3 Possibility of hazardous reactions**

Reactions with strong alkalies.
Reactions with oxidising agents.

*** 10.4 Conditions to avoid**

Heat sources / heat - risk of bursting.
Ignition sources, open flames, glowing metal surfaces, etc.

*** 10.5 Incompatible materials**

Alkali (lye)
Oxidising agent

10.6 Hazardous decomposition products

When handled and stored appropriately, no dangerous decomposition products are known.

* SECTION 11: Toxicological information

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

*** Acute toxicity**

*** Animal data**

	Effective dose	Method,Evaluation	Source, Remark
Acute oral toxicity	CAS No.57-55-6 Propane-1,2-diol LD50: 22000 mg/kg Species Rat		
Acute dermal toxicity	CAS No.57-55-6 Propane-1,2-diol LD50: > 2000 mg/kg Species Rabbit		
Acute inhalation toxicity	CAS No.57-55-6 Propane-1,2-diol Acute inhalation toxicity (vapour) LC50: > 100000 ppm Species Rabbit Exposure time 2 h		

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

* **Skin corrosion/irritation**

Animal data

Result / Evaluation	Method	Source, Remark
non-irritant. Species Rabbit	OECD 404	Information concerns main component.

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

* **Serious eye damage/irritation**

Animal data

Result / Evaluation	Method	Source, Remark
non-irritant. Species Rabbit	OECD 405	Information concerns main component.

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

Sensitisation to the respiratory tract

Assessment/classification
Study scientifically not necessary.

* **Skin sensitisation**

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
not sensitising.	Species Guinea pig	OECD 406	Information concerns main component.

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

* **Repeated dose toxicity (subacute, subchronic, chronic)**

	Effective dose	Method	Specific effects:	Organs affected:	Source, Remark
Subchronic inhalation toxicity	NOAEC 1000-2200 mg/m3 Species Rat				Data apply to the main component.
Chronic oral toxicity	NOAEL 1700-2100 mg/m3 Species Rat				Data apply to the main component.

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

* **Germ cell mutagenicity**

	Value	Method	Result / Evaluation	Remark
In vitro mutagenicity/genotoxicity			negative	Information concerns main component.
In vivo mutagenicity/genotoxicity			negative	Data apply to the main component.

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

* **Carcinogenicity**

Animal data

	Value	Method	Result / Evaluation	Remark
Carcinogenicity	oral NOAEL(C): 1700- 2100 mg/kg Species Rat Exposure duration 2 a			Information concerns main component.

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

* **Reproductive toxicity**

Animal data

	Value	Method	Result / Evaluation	Remark
Reproductive toxicity	NOAEL(C): 10100 mg/kg Species Mouse			Information concerns main component.

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

* **STOT-single exposure**

* **STOT SE 1 and 2**

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

* **STOT-repeated exposure**

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

* **Aspiration hazard**

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

11.2 Information on other hazards

No data available

Other information

The product has not been tested. The information is derived from the properties of the individual components.

* SECTION 12: Ecological information

* 12.1 Toxicity

* **Aquatic toxicity**

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	LC50: 40613 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 96 h		Information concerns main component.
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	LC50 > 18340 mg/L Species Ceriodaphnia spec Test duration 48 h	OECD 202	Information concerns main component.
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	EC50 24200 mg/L Species Pseudokirchneriella subcapitata Test duration 72 h	OECD 201	Information concerns main component.

	Effective dose	Method,Evaluation	Source, Remark
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	NOEC > 20000 mg/L Species Pseudomonas putida Test duration 3 h		Information concerns main component.

*** 12.2 Persistence and degradability**

	Value	Method	Source, Remark
Biodegradation	Degradation rate 98.3 % Test duration 28 d	OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D	CAS No.57-55-6 Propane-1,2-diol

* **Assessment/classification**
Readily biodegradable (according to OECD criteria).

*** 12.3 Bioaccumulative potential**

	Value	Method	Source, Remark
Bioconcentration factor (BCF)	Bioconcentration factor (BCF) 0.09	calculated	CAS No.57-55-6 Propane-1,2-diol

* **Assessment/classification**
Based on the n-octanol/water partition coefficients of the individual components of the mixture, accumulation in organisms is not expected.

*** 12.4 Mobility in soil**

	Value	Distribution	Transport type	Method	Remark
Half-life time in soil	CAS No.57-55-6 Propane-1,2-diol 2.9				KOC value

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

*** 12.6 Endocrine disrupting properties**

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			See section 2.3

12.7 Other adverse effects

*** Additional ecotoxicological information**

* **Additional information**
The product has not been tested. The data are derived from the individual components of the mixture.

* SECTION 13: Disposal considerations

*** 13.1 Waste treatment methods**

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
160114 *	antifreeze fluids containing hazardous substances

* **Appropriate disposal / Product**
Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.
Prevent release to the environment. No disposal via the sewage.
Disposal according to local regulations.

* **Appropriate disposal / Package**
Disposal according to local regulations.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	-	-	-
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No	No	No

14.6 Special precautions for user

The protective measures listed in Sections 6, 7 and 8 of the Safety Data Sheet have to be considered.

14.7 Maritime transport in bulk according to IMO instruments

No carriage in bulk.

Land transport (ADR/RID)

Remark
Not classified for this transport carrier.

Sea transport (IMDG)

Remark
No hazardous material as defined by the prescriptions.

Air transport (ICAO-TI / IATA-DGR)

Remark
No hazardous material as defined by the prescriptions.

* SECTION 15: Regulatory information

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

*** Other regulations (EU)**

* **To follow:**
National and local regulations concerning chemicals shall be observed.

*** 15.2 Chemical Safety Assessment**

Chemical safety assessments for substances in this mixture were carried out.

* SECTION 16: Other information

Key literature references and sources for data
Information from our suppliers and data from the "GESTIS Substances Database" and the "Registered Substances" database of the European Chemicals Agency (ECHA) were used to create this safety data sheet.

* **Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]**
The mixture was classified by the manufacturer.

* **Additional information**
The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.
® registered trademark

Indication of changes
* Data changed compared with the previous version