

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

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

#### 1.1. Product identifier

Product name : Ethylene glycol  
SDS-number : 000000020453  
Type of product : Substance  
Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.

Chemical name : ethanediol; ethylene glycol

Index-No. : 603-027-00-1

REACH Registration Number : no data available

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

Use of the Substance/Mixture : Laboratory chemicals  
Industrial use

Uses advised against : none

#### 1.3. Details of the supplier of the safety data sheet

Company	: Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
---------	---	--

Telephone :  
For further information, please contact: : SafetyDataSheet@Honeywell.com

#### 1.4. Emergency telephone number

Emergency telephone number : +1-703-527-3887 (ChemTrec-Transport)  
+1-303-389-1414 (Medical)  
Country based Poison Control Center : see chapter 15.1

### SECTION 2: Hazards identification

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

### 2.1. Classification of the substance or mixture

#### REGULATION (EC) No 1272/2008

Acute toxicity Category 4 - Oral

H302 Harmful if swallowed.

Specific target organ toxicity - repeated exposure Category 2

H373 May cause damage to organs through prolonged or repeated exposure.

### 2.2. Label elements

#### REGULATION (EC) No 1272/2008

Hazard pictograms



Signal word : Warning

Hazard statements : H302 Harmful if swallowed.  
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements : P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

### 2.3. Other hazards

Vapours may form explosive mixtures with air. Results of PBT and vPvB assessment, see chapter 12.5.

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

ethanediol; ethylene glycol	107-21-1 603-027-00-1 203-473-3	Acute Tox. 4; H302; Oral STOT RE 2; H373; Oral; Kidney	100 %	
-----------------------------	---------------------------------------	---	-------	--

### 3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.  
For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

*General advice:*

First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

*Inhalation:*

If breathed in, move person into fresh air. If symptoms persist, call a physician.

*Skin contact:*

After contact with skin, wash immediately with plenty of soap and water. If symptoms persist, call a physician.

*Eye contact:*

Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. If eye irritation persists, consult a specialist.

*Ingestion:*

When swallowed, allow water to be drunk. Rinse mouth. Call a physician immediately.

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

No data available

### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

See Section 11 for more detailed information on health effects and symptoms.

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

---

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

*Suitable extinguishing media:*

Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder

*Extinguishing media which shall not be used for safety reasons:*

High volume water jet

#### 5.2. Special hazards arising from the substance or mixture

In case of fire hazardous decomposition products may be produced such as:

Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)

#### 5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

---

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Wear personal protective equipment. Unprotected persons must be kept away. Avoid contact with skin and eyes. Ensure adequate ventilation.

#### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

#### 6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material.  
Pick for disposal in tightly closed containers

#### 6.4. Reference to other sections

For personal protection see section 8.

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

---

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

*Advice on safe handling:*

Exhaust ventilation at the object is necessary. Do not breathe vapour.

*Advice on protection against fire and explosion:*

Normal measures for preventive fire protection. Keep away from sources of ignition - No smoking.

#### 7.2. Conditions for safe storage, including any incompatibilities

*Further information on storage conditions:*

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store under argon

#### 7.3. Specific end use(s)

no additional data available

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
ethanediol; ethylene glycol	EU ELV SKIN_DES			Can be absorbed through the skin.
ethanediol; ethylene glycol	EH40 WEL STEL	104 mg/m3 40 ppm Vapor.		
ethanediol; ethylene glycol	EH40 WEL TWA	52 mg/m3 20 ppm Vapor.		
ethanediol; ethylene glycol	EH40 WEL TWA	10 mg/m3 Particulate.		
ethanediol; ethylene glycol	EH40 WEL SKIN_DES	Vapor.		Can be absorbed through the skin.
ethanediol; ethylene glycol	EH40 WEL SKIN_DES	Particulate.		Can be absorbed through the skin.
ethanediol; ethylene glycol	EU ELV TWA	52 mg/m3 20 ppm		Indicative
ethanediol; ethylene glycol	EU ELV STEL	104 mg/m3 40 ppm		Indicative

SKIN\_DES - Skin designation:  
STEL - Short term exposure limit  
TWA - Time weighted average

#### DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
ethanediol; ethylene glycol	Workers / Long-term local effects		35 mg/m3	Inhalation	
ethanediol; ethylene glycol	Workers / Long-term systemic effects		106mg/kg bw/d	Skin contact	

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

ethanediol; ethylene glycol	Consumers / Long-term local effects		7 mg/m <sup>3</sup>	Inhalation	
ethanediol; ethylene glycol	Consumers / Long-term systemic effects		53mg/kg bw/d	Skin contact	

Component	Environmental compartment / Value	Remarks
ethanediol; ethylene glycol	Fresh water: 10 mg/l	Assessment factor: 10
ethanediol; ethylene glycol	Marine water: 1 mg/l	Assessment factor: 100
ethanediol; ethylene glycol	Sewage treatment plant: 199,5 mg/l	Assessment factor: 10
ethanediol; ethylene glycol	Fresh water: 37 mg/kg dw	
ethanediol; ethylene glycol	Marine sediment: 3,7 mg/kg dw	
ethanediol; ethylene glycol	Soil: 1,53 mg/kg dw	

### 8.2. Exposure controls

#### Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.

Do not breathe vapours/dust.

Take off all contaminated clothing immediately.

Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### *Respiratory protection:*

In the case of vapour formation use a respirator with an approved filter.

##### *Hand protection:*

Glove material: Natural Latex

Break through time: > 480 min

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

Glove thickness: 0,6 mm

Lapren®706

Gloves must be inspected prior to use.

Replace when worn.

Remarks: Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions ( e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer's directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

*Eye protection:*

Safety goggles

*Skin and body protection:*

Protective suit

### Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: liquid
Colour	: colourless
Odour	: weak
molecular weight	: 62,07 g/mol
Melting point/range	: -16 °C
Boiling point/boiling range	: 195 - 197 °C at 1.013 hPa
Flammability	: Not applicable
Upper explosion limit	: 15,3 %(V)



## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

---

Lower explosion limit	:	3,2 %(V)
Flash point	:	111 °C Method: closed cup
Auto-ignition temperature	:	410 °C
pH	:	neutral
Viscosity, kinematic	:	No data available
Water solubility	:	completely miscible
Solubility in other solvents	:	soluble
Partition coefficient: n-octanol/water	:	log Pow -1,93
Vapour pressure	:	6,5 Pa at 20 °C
Density	:	1,11 g/cm <sup>3</sup> at 20 °C

### 9.2 Other Information

Evaporation rate	:	No data available
Viscosity, dynamic	:	No data available

---

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions.

### 10.2. Chemical stability

No decomposition if used as directed.

### 10.3. Possibility of hazardous reactions

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

Vapours may form explosive mixture with air.

### 10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

### 10.5. Incompatible materials

Strong oxidizing agents  
Strong acids  
Alkalis

### 10.6. Hazardous decomposition products

carbon oxides (CO, CO<sub>2</sub> ).  
Alcohols  
Aldehydes

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

*Acute oral toxicity:*

LD50  
Species: Rat  
Value: 7.712 mg/kg

*Acute dermal toxicity:*

LD50  
Species: Mouse  
Value: > 3.500 mg/kg

*Acute inhalation toxicity:*

No data available

*Skin irritation:*

Species: Rabbit  
Result: non-irritant

*Eye irritation:*

Species: Rabbit  
Result: non-irritant

*Respiratory or skin sensitisation:*

Species: Guinea pig  
Result: Did not cause sensitisation on laboratory animals.

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

---

Method: OECD Test Guideline 406

*Repeated dose toxicity:*

Note: Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)

*Carcinogenicity:*

Note: Not classified due to data which are conclusive although insufficient for classification.

*Germ cell mutagenicity:*

Note: Not classified due to data which are conclusive although insufficient for classification.

*Reproductive toxicity:*

Remarks: Not classified due to data which are conclusive although insufficient for classification.

*Aspiration hazard:*

No data available

### 11.2. Information on other hazards

Endocrine disrupting properties

No data available

*Other information:*

No data available

---

## SECTION 12: Ecological information

### 12.1. Toxicity

*Toxicity to fish:*

LC50

Species: Pimephales promelas (fathead minnow)

Value: 72.860 mg/l

Exposure time: 96 h

*Toxicity to aquatic plants:*

Not classified due to data which are conclusive although insufficient for classification.

*Toxicity to aquatic invertebrates:*

EC50

Species: Daphnia magna (Water flea)

Value: > 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

---

### 12.2. Persistence and degradability

*Biodegradability:*

DOC decrease

Biodegradation:  $\geq 90\%$

Exposure time: 10 d

Result: Readily biodegradable.

### 12.3. Bioaccumulative potential

No bioaccumulation is to be expected ( $\log Pow \leq 4$ ).

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6. Endocrine disrupting properties

No data available

### 12.7. Other adverse effects

Chemical Oxygen Demand : Value: 1,25 mg/g  
(COD)

Bioaccumulation is unlikely.

Should not be released into the environment.

---

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

*Product:*

Dispose according to legal requirements.

*Packaging:*

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

*Further information:*

Provisions relating to waste:

EC Directive 2006/12/EC; 2008/98/EEC

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

Regulation No. 1013/2006

For personal protection see section 8.

### SECTION 14: Transport information

#### 14.1 UN number

ADR/RID:Not dangerous goods    IMDG:Not dangerous goods    IATA:Not dangerous goods

#### 14.2 UN proper shipping name

ADR/RID:Not dangerous goods  
IMDG:Not dangerous goods  
IATA:Not dangerous goods

#### 14.3 Transport hazard class(es)

#### 14.4 Packaging group

#### 14.5 Environmental hazards

ADR/RID:no                                      Marine pollutant: no

#### 14.6 Special precautions for user

No data available

#### 14.7 Maritime transport in bulk according to IMO instruments

No data available

### SECTION 15: Regulatory information

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

Basis	Value	Remarks
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of $\geq 0.1 \%$ (w/w).

#### Poison Control Center

Country	Phone Number	Country	Phone Number
---------	--------------	---------	--------------

**Ethylene glycol**

03750-1L

Version 1.4

Revision Date 27.05.2021

Austria	+4314064343
Belgium	070 245245
Bulgaria	(+35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777
Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
Munich : 089/19240	
Latvia	+37167042473

Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	808250250
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Giftinformation);+46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

**Other inventory information**

US. Toxic Substances Control Act  
On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act  
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)  
All components of this product are on the Canadian DSL

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

Japan. Kashin-Hou Law List

On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)

On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)

On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)

On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

On the inventory, or in compliance with the inventory

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

### Text of H-statements referred to under heading 3

ethanediol; ethylene glycol : H302 Harmful if swallowed.  
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

### Further information

All directives and regulations refer to amended versions.

Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community

CAS Chemical Abstracts Service

DNEL Derived no effect level

PNEC Predicted no effect level

vPvB Very persistent and very bioaccumulative substance

PBT Persistent, bioaccumulative und toxic substance

## Ethylene glycol

03750-1L

Version 1.4

Revision Date 27.05.2021

---

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.

---