

Ethylene glycol**03770-5L**

Version 1.3

Revision Date 08/21/2018

Print Date 05/22/2019

SECTION 1. IDENTIFICATION

Product name : Ethylene glycol

Number : 000000020944

Product Use Description : Laboratory chemicals
Scientific research and development

Manufacturer or supplier's details : Honeywell International Inc.
1953 South Harvey Street
Muskegon, MI 49442

For more information call : 1-800-368-0050
+1-231-726-3171
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : liquid

Color : blue

Odor : No information available.

Ethylene glycol

03770-5L

Version 1.3

Revision Date 08/21/2018

Print Date 05/22/2019

Classification of the substance or mixture

Classification of the substance or mixture : Reproductive toxicity, Category 2
Reproductive toxicity, Category 2
Specific target organ toxicity - repeated exposure, Category 2, Oral, Kidney
Specific target organ toxicity - repeated exposure, Category 2, Oral, Kidney

GHS Label elements, including precautionary statements

Symbol(s)



Signal word

: Warning

Hazard statements

: Suspected of damaging fertility or the unborn child.
May cause damage to organs (/*_ORG_REP_ORAL/*) through prolonged or repeated exposure if swallowed.

Precautionary statements

: **Prevention:**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Use personal protective equipment as required.

Response:

IF exposed or concerned: Get medical advice/ attention.

Storage:

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal

Ethylene glycol**03770-5L**

Version 1.3

Revision Date 08/21/2018

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plant.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTSFormula : C₂H₆O₂

Chemical nature : Mixture

Chemical name	CAS-No.	Concentration
Ethylene Glycol	107-21-1	>=90.00 - <=100.00 %
Sodium 2-ethylhexanoate; 2-Ethylhexanoic acid sodium salt	19766-89-3	>=5.00 - <10.00 %
Water	7732-18-5	>=1.00 - <5.00 %
Sebacic acid	111-20-6	>=0.00 - <2.00 %

SECTION 4. 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.

Ethylene glycol**03770-5L**

Version 1.3

Revision Date 08/21/2018

Print Date 05/22/2019

- 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.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Dry chemical
Alcohol-resistant foam
Carbon dioxide (CO₂)
- Specific hazards during firefighting : In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO₂)
Sodium oxides
- Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- 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.

Ethylene glycol**03770-5L**

Version 1.3

Revision Date 08/21/2018

Print Date 05/22/2019

Ensure adequate ventilation.

Environmental precautions : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material.
Sweep up and shovel into suitable containers for disposal.
Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe handling : Wear personal protective equipment.
Use only in well-ventilated areas.
Avoid inhalation, ingestion and contact with skin and eyes.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.
Keep away from sources of ignition - No smoking.

Storage

Conditions for safe storage, including any incompatibilities : Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Do not breathe vapours or spray mist.
Avoid contact with skin, eyes and clothing.

Engineering measures : Use with local exhaust ventilation.

Ethylene glycol**03770-5L**

Version 1.3

Revision Date 08/21/2018

Print Date 05/22/2019

Eye protection : Safety goggles

Hand protection : Latex gloves
Gloves must be inspected prior to use.
Replace when worn.

Skin and body protection : Protective suit

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene measures : When using, do not eat, drink or smoke.
Wash hands before breaks and immediately after handling the product.
Keep working clothes separately.
Remove and wash contaminated clothing before re-use.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Ethylene Glycol	107-21-1	Ceiling : Ceiling Limit Value:	125 mg/m3 (50 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)

Ethylene Glycol	107-21-1	TWA : Time weighted average	(25 ppm)	03 2017	ACGIH:US. ACGIH Threshold Limit Values
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Further information	:	Form of exposure : Vapor fraction
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Ethylene Glycol	107-21-1	STEL : Short term exposure limit	(50 ppm)	03 2017	ACGIH:US. ACGIH Threshold Limit Values
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Further information	:	Form of exposure : Vapor fraction
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Ethylene glycol**03770-5L**

Version 1.3

Revision Date 08/21/2018

Print Date 05/22/2019

Ethylene Glycol	107-21-1	STEL : Short term exposure limit	10 mg/m3	03 2017	ACGIH:US. ACGIH Threshold Limit Values
Further information	:	Form of exposure : Aerosol, inhalable.			

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Color	:	blue
Odor	:	No information available.
pH	:	Note: no data available
Melting point/range	:	-20 °C
Boiling point/boiling range	:	Note: no data available
Flash point	:	232 °F (111 °C)
Lower explosion limit	:	3.2 %(V) Note: The physical data is that of the main component.
Upper explosion limit	:	15.3 %(V) Note: The physical data is that of the main component.
Vapor pressure	:	Note: no data available

Ethylene glycol**03770-5L**

Version 1.3

Revision Date 08/21/2018

Print Date 05/22/2019

Density	: 1.115 g/cm3
Water solubility	: Note: completely miscible
Ignition temperature	: Note: no data available
Viscosity, dynamic	: Note: no data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Heat, flames and sparks. Keep away from direct sunlight.
Incompatible materials	: Strong oxidizing agents Strong acids
Hazardous decomposition products	: In case of fire hazardous decomposition products may be produced such as: Alcohols Aldehydes carbon oxides (CO, CO2).

Ethylene glycol**03770-5L**

Version 1.3

Revision Date 08/21/2018

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SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : Note: no data available

Acute inhalation toxicity : Note: no data available

Acute dermal toxicity : Note: no data available

Skin irritation : Note: no data available

Eye irritation : Note: no data available

Sensitisation : Note: no data available

Repeated dose toxicity
Ethylene Glycol : Species: Rat
Application Route: Oral
Exposure time: (13 Weeks)
Kidney toxicity

Species: Rat
Application Route: Oral
Exposure time: (16 Weeks)
NOEL: 71 mg/kg
Kidney damage

Genotoxicity in vitro : Note: no data available

Carcinogenicity

Ethylene glycol**03770-5L**

Version 1.3

Revision Date 08/21/2018

Print Date 05/22/2019

Ethylene Glycol	: Species: Rat Application Route: Oral Exposure time: Lifetime Exposure Note: Did not show carcinogenic effects in animal experiments. Species: Mouse Application Route: Oral Exposure time: Lifetime Exposure Note: Did not show carcinogenic effects in animal experiments.
Reproductive toxicity Ethylene Glycol	: Species: Mouse Method: No toxicity to reproduction Species: Rat Method: No toxicity to reproduction
Further information Ethylene Glycol	: Note: Acute toxicity Can cause kidney toxicity, narcotic effects and metabolic acidosis.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish	: Note: no data available
Toxicity to daphnia and other aquatic invertebrates	: Note: no data available
Toxicity to algae	: Note: no data available

Ethylene glycol**03770-5L**

Version 1.3

Revision Date 08/21/2018

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Biodegradability
Ethylene Glycol : Note: Readily biodegradable.

Further information on ecology**SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT Not dangerous goods

TDG Not dangerous goods

IATA Not dangerous goods

IMDG Not dangerous goods

SECTION 15. REGULATORY INFORMATION**Inventories**

US. Toxic Substances
Control Act : Not On TSCA Inventory

Australia. Industrial
Chemical (Notification and
Assessment) Act : Not in compliance with the inventory

Canada. Canadian
Environmental Protection
Act (CEPA). Domestic
Substances List (DSL) : Not in compliance with the inventory

Ethylene glycol**03770-5L**

Version 1.3

Revision Date 08/21/2018

Print Date 05/22/2019

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. The Toxic Substances and Hazardous and Nuclear Waste Control Act : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances : 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

National regulatory information

US. EPA CERCLA Hazardous Substances (40 CFR 302) : The following component(s) of this product is/are subject to release reporting under 40 CFR 302 when release exceeds the Reportable Quantity (RQ):

Reportable quantity: 5000 lbs

TSCA : Ethylene Glycol 107-21-1
: This material must be used in compliance with the TSCA Research and Development Exemption requirements (40 CFR 720.36).
:

SARA 302 Components : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components : The following components are subject to reporting levels established by SARA Title III, Section 313:
: Ethylene Glycol 107-21-1

SARA 311/312 Hazards : Acute Health Hazard

Ethylene glycol

03770-5L

Version 1.3

Revision Date 08/21/2018

Print Date 05/22/2019

California Prop. 65

:



WARNING: This product can expose you to chemicals, listed below, known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ethylene Glycol

107-21-1

Massachusetts RTK

: Ethylene Glycol

107-21-1

New Jersey RTK

: Ethylene Glycol

107-21-1

Pennsylvania RTK

: Ethylene Glycol

107-21-1

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 2*	2
Flammability	: 1	1
Physical Hazard	: 0	
Instability	:	0

* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

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.

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Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group