



# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 05/11/2015

Version 1.1

## SECTION 1. Identification

### Product identifier

Product number	PX1690
Product name	1,2-Propanediol [Propylene Glycol]
CAS-No.	57-55-6

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

Identified uses	Reagent for analysis
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### Details of the supplier of the safety data sheet

Company	EMD Millipore Corporation   290 Concord Road, Billerica, MA 01821, United States of America   General Inquiries: +1-978-715-4321   Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)
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Emergency telephone	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week
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## SECTION 2. Hazards identification

### GHS-Labeling

Not a dangerous substance according to GHS.

### Other hazards

None known.

## SECTION 3. Composition/information on ingredients

Formula	CH <sub>3</sub> CH(OH)CH <sub>2</sub> OH	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub> (Hill)
Molar mass	76.09 g/mol	

Remarks	No hazardous ingredients according to the OSHA Hazard Communication Standard 29 CFR 1910.1200.
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## SECTION 4. First aid measures

### Description of first-aid measures

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### *Inhalation*

After inhalation: fresh air.

### *Skin contact*

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

### *Eye contact*

After eye contact: rinse out with plenty of water.

### *Ingestion*

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Never give anything by mouth to an unconscious person.

### **Most important symptoms and effects, both acute and delayed**

We have no description of any toxic symptoms.

### **Indication of any immediate medical attention and special treatment needed**

No information available.

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## **SECTION 5. Fire-fighting measures**

### **Extinguishing media**

#### *Suitable extinguishing media*

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

#### *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

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

Combustible.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapors possible in the event of fire.

Forms explosive mixtures with air on intense heating.

### **Advice for firefighters**

#### *Special protective equipment for fire-fighters*

In the event of fire, wear self-contained breathing apparatus.

#### *Further information*

Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## **SECTION 6. Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

### **Environmental precautions**

Do not let product enter drains.

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## Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

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## SECTION 7. Handling and storage

### Precautions for safe handling

Observe label precautions.

### Conditions for safe storage, including any incompatibilities

Tightly closed.

Store at room temperature.

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## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

Contains no substances with occupational exposure limit values.

### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

### Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

### *Hygiene measures*

Change contaminated clothing. Wash hands after working with substance.

### *Eye/face protection*

Safety glasses

### *Hand protection*

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

### *Respiratory protection*

required when vapors/aerosols are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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## SECTION 9. Physical and chemical properties

Physical state

liquid

Color

colorless

Odor

characteristic

Odor Threshold

No information available.

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pH	6 - 8 at 100 g/l 68 °F (20 °C)
Melting point	-59 °C
Boiling point/boiling range	370 °F (188 °C) at 1,013 hPa
Flash point	210 °F (99 °C) Method: c.c.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	ca.2.4 %(V)
Upper explosion limit	ca.17.4 %(V)
Vapor pressure	0.11 hPa at 68 °F (20 °C)
Relative vapor density	ca.2.6 at 59 - 68 °F (15 - 20 °C)
Density	1.04 g/cm <sup>3</sup> at 68 °F (20 °C)
Relative density	No information available.
Water solubility	at 68 °F (20 °C) miscible in all proportions
Partition coefficient: n-octanol/water	log Pow: -0.92 (experimental) (Lit.) Bioaccumulation is not expected.
Autoignition temperature	No information available.
Decomposition temperature	above boiling point
Viscosity, dynamic	45 mPa.s at 68 °F (20 °C)
Explosive properties	Not classified as explosive.
Oxidizing properties	none
Ignition temperature	700 °F (371 °C)

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Refractive index 1.43  
at 68 °F (20 °C)

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## SECTION 10. Stability and reactivity

### Reactivity

Forms explosive mixtures with air on intense heating.  
A range from approx. 15 Kelvin below the flash point is to be rated as critical.

### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### Possibility of hazardous reactions

increased reactivity with:  
Oxidizing agents, Acid anhydrides, Acid chlorides

### Conditions to avoid

Strong heating.

### Incompatible materials

various plastics

### Hazardous decomposition products

no information available

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## SECTION 11. Toxicological information

### Information on toxicological effects

#### *Likely route of exposure*

Inhalation, Eye contact, Skin contact

#### *Acute oral toxicity*

LD50 Rat: 19,400 - 36,000 mg/kg (Lit.)

#### *Acute dermal toxicity*

LD50 Rabbit: 20,800 mg/kg  
(Lit.)

#### *Skin irritation*

Rabbit  
Result: slight irritation  
(IUCLID)

#### *Eye irritation*

Rabbit  
Result: slight irritation  
(IUCLID)

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## *Sensitization*

Human experience

Result: negative

(IUCLID)

## *Genotoxicity in vitro*

Ames test

Result: negative

(IUCLID)

## *Carcinogenicity*

Did not show carcinogenic effects in animal experiments. (IUCLID)

## *Reproductive toxicity*

No impairment of reproductive performance in animal experiments. (Lit.)

## *Teratogenicity*

Did not show teratogenic effects in animal experiments. (Lit.)

## *Specific target organ systemic toxicity - single exposure*

The substance or mixture is not classified as specific target organ toxicant, single exposure.

## *Specific target organ systemic toxicity - repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

## *Aspiration hazard*

Regarding the available data the classification criteria are not fulfilled.

## **Carcinogenicity**

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

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

ACGIH

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

## **Further information**

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

Handle in accordance with good industrial hygiene and safety practice.

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## **SECTION 12. Ecological information**

### **Ecotoxicity**

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### *Toxicity to fish*

LC50 *Oncorhynchus mykiss* (rainbow trout): 51,600 mg/l; 96 h  
OECD Test Guideline 203

### *Toxicity to daphnia and other aquatic invertebrates*

EC50 *Daphnia magna* (Water flea): 34,400 mg/l; 48 h (Lit.)

### *Toxicity to algae*

IC50 *Pseudokirchneriella subcapitata* (green algae): 19,000 mg/l; 96 h  
OECD Test Guideline 201

### *Toxicity to bacteria*

EC50 *Photobacterium phosphoreum*: 26,800 mg/l; 30 min (Lit.)

EC50 activated sludge: > 1,000 mg/l; 3 h (Lit.)

## **Persistence and degradability**

### *Biodegradability*

86 %; 20 d

OECD Test Guideline 301D

87 - 92 %; 28 d

OECD Test Guideline 301C

Readily biodegradable.

## **Bioaccumulative potential**

### *Partition coefficient: n-octanol/water*

log Pow: -0.92

(experimental)

(Lit.) Bioaccumulation is not expected.

## **Mobility in soil**

No information available.

## **Other adverse effects**

### *Stability in water*

2.3 yr

reaction with hydroxyl radicals (IUCLID)

### *Additional ecological information*

Biological effects:

When discharged properly, no impairments in the function of adapted biological wastewater treatment plants are to be expected.

No ecological problems are to be expected when the product is handled and used with due care and attention.

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## **SECTION 13. Disposal considerations**

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

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## SECTION 14. Transport information

### Land transport (DOT)

Not classified as dangerous in the meaning of transport regulations.

### Air transport (IATA)

Not classified as dangerous in the meaning of transport regulations.

### Sea transport (IMDG)

Not classified as dangerous in the meaning of transport regulations.

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## SECTION 15. Regulatory information

### United States of America

#### SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### SARA 302

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

#### Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

#### DEA List I

Not listed

#### DEA List II

Not listed

### US State Regulations

#### Massachusetts Right To Know

Remarks

No components are subject to the Massachusetts Right to Know Act.

#### Pennsylvania Right To Know

*Ingredients*

Propane-1,2-diol

#### New Jersey Right To Know

*Ingredients*

Propane-1,2-diol

#### California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

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## Notification status

TSCA:

All components of the product are listed in the TSCA-inventory.

DSL:

All components of this product are on the Canadian DSL.

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## SECTION 16. Other information

### Training advice

Provide adequate information, instruction and training for operators.

### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

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The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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