

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** Free Cholesterol E Color Reagent

### Other means of identification

**Product Code** 993-02501

### Recommended use of the chemical and restrictions on use

**Recommended Use** For Research Use Only (not for use in diagnostic procedures).

**Uses advised against** No information available

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

#### Manufacturer Address

Wako Pure Chemical Industries, Ltd.

1-2 Doshomachi 3-Chome

Chuo-ku, Osaka 540-8605, Japan

Phone: +81 (0)6-6203-3741

Fax: +81 (0)6-6203-4640

#### Emergency telephone

+1 (800)424-9300 (CHEMTREC)

#### Distributor

Wako Life Sciences, Inc.

Address : 1025 Terra Bella Ave., Suite A, Mountain View, CA 94043, USA

Phone : +1 (877)714-1924

## 2. HAZARDS IDENTIFICATION

### GHS classification

#### Classification of the substance or mixture

**Skin corrosion/irritation**

Category 2

**Serious eye damage/eye irritation**

Category 2A

**Skin sensitization**

Category 1

### Pictograms



### Signal word

Warning

### Hazard statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H317 - May cause an allergic skin reaction

### Precautionary statements-(Prevention)

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection Avoid breathing dust/fume/gas/mist/vapors/spray Contaminated work clothing should not be allowed out of the workplace

### Precautionary statements-(Response)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water Take off contaminated clothing and wash before reuse If skin irritation or rash occurs: Get medical advice/attention

### Precautionary statements-(Storage)

Not applicable

**Precautionary statements-(Disposal)**

Dispose of contents/container to an approved waste disposal plant

**Others****Other hazards** Not available**3. COMPOSITION/INFORMATION ON INGREDIENTS****Single Substance or Mixture** Mixture

Chemical Name	Molecular weight	CAS No.	Weight-%
2-Amino-2-hydroxymethyl-1,3-propanediol	121.14	77-86-1	< 20%
Maleic acid	116.07	110-16-7	< 10%
4-Aminoantipyrine	203.24	83-07-8	< 5%

**Impurities and/or Additives :** Not applicable**4. FIRST AID MEASURES****First aid measures**

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact** Wash skin with soap and water.

**Inhalation** Remove to fresh air.

**Ingestion** Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Most important symptoms and effects, both acute and delayed****Symptoms** No information available.**Indication of any immediate medical attention and special treatment needed****Note to physicians** Treat symptomatically.**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.**Specific hazards arising from the chemical**

No information available.

**Explosion data****Sensitivity to Mechanical Impact** none.**Sensitivity to Static Discharge** none.**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions, protective equipment and emergency procedures**      Ensure adequate ventilation, especially in confined areas.

### Environmental precautions

**Environmental precautions**      See Section 12 for additional ecological information.

### Methods and material for containment and cleaning up

**Methods and material for containment and cleaning up**      Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**      Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Protective measures**      Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Storage conditions**      Store away from sunlight in a cool (2-10 °C) well-ventilated dry place.

**Packaging materials**      Glass.

**Incompatible materials**      None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### **Engineering controls**

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

**Exposure limits**      This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### **Personal protective equipment**

**Respiratory protection**      Protective mask  
**Hand protection**      Protection gloves  
**Eye protection**      protective eyeglasses or chemical safety goggles  
**Skin and body protection**      Long-sleeved work clothes

### **General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### **Form**

<b>Color</b>	pale greenish brown
<b>Appearance</b>	lyophilisate
<b>Odor</b>	No data available
<b>pH</b>	7
<b>Melting point/freezing point</b>	No data available
<b>Boiling point, initial boiling point and boiling range</b>	No data available

Flash point	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits	
Upper :	No data available
Lower :	No data available
Vapour pressure	No data available
Vapour density	No data available
Specific Gravity / Relative density	No data available
Solubilities	No data available
n-Octanol/water partition coefficient:(log Pow)	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity (coefficient of viscosity)	No data available
Dynamic viscosity	No data available

## 10. STABILITY AND REACTIVITY

### Stability

Stability	Stable under recommended storage conditions.
Reactivity	No data available

### Hazardous reactions

None under normal processing

### Conditions to avoid

No information available

### Incompatible materials

Strong oxidizing agents

### Hazardous decomposition products

No information available

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Amino-2-hydroxymethyl-1,3-propanediol	5900mg/kg(rat)	N/A	N/A
Maleic acid	708 mg/kg ( Rat )	1560 mg/kg ( Rabbit )	> 720 mg/m <sup>3</sup> ( Rat ) 1 h
4-Aminoantipyrine	1700mg/kg(Rat)	N/A	N/A

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas-source information
Maleic acid	LD50(oral,rat): 708 mg/kg(PATY (5th, 2001)).	LD50(skn,rabbit):1560 mg/kg(PATY (5th, 2001))	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust-source information	Acute toxicity -inhalation mist-source information
Maleic acid	Based on the NITE GHS classification results.	LC50(ihl,rat):> 0.72 g/m <sup>3</sup> /1h (換算値 : 0.18 mg/L/4h)(PATY (5th, 2001)).	Based on the NITE GHS classification results.

### Skin irritation/corrosion

Chemical Name	Skin corrosion irritation source information
Maleic acid	Based on the NITE GHS classification results.

### Serious eye damage/ irritation

Chemical Name	Serious eye damage source information
---------------	---------------------------------------

Maleic acid	Based on the NITE GHS classification results.
-------------	-----------------------------------------------

**Respiratory or skin sensitization**

Chemical Name	Respiratory, Skin sensitization source information
Maleic acid	Based on the NITE GHS classification results.

**Reproductive cell mutagenicity**

Chemical Name	Mutagenic source information
Maleic acid	Based on the NITE GHS classification results.

**Carcinogenicity**

Chemical Name	Carcinogenicity source information
Maleic acid	Based on the NITE GHS classification results.

**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
Maleic acid	Based on the NITE GHS classification results.

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
Maleic acid	Based on the NITE GHS classification results.

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
Maleic acid	Based on the NITE GHS classification results.

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
Maleic acid	Based on the NITE GHS classification results.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Maleic acid 110-16-7		LC50: Bluegills 75 mg/L 96 h		EC50:Daphnia magna 250 - 400 mg/L 48 h

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available

**Mobility**

Chemical Name	Partition coefficient
Maleic acid 110-16-7	-0.79 - 0.32

**Mobility in soil**

No information available

**Other Data**

No information available

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Precautionary including method of disposing contaminated packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. TRANSPORT INFORMATION

**DOT** Not regulated  
 UN/ID No -  
 Proper shipping name:  
 UN classification  
 Subsidiary hazard class  
 Packing group  
 Marine pollutant Not applicable

**IATA** Not regulated  
 UN/ID No -  
 Proper shipping name:  
 UN classification  
 Subsidiary hazard class  
 Packing group  
 Environmentally Hazardous Substance Not applicable

**IMDG** Not regulated  
 UN/ID No -  
 Proper shipping name:  
 UN classification  
 Subsidiary hazard class  
 Packing group  
 Marine pollutant (Sea) Not applicable

## 15. REGULATORY INFORMATION

### International Inventories

TSCA Listed  
 DSL Listed  
 NDSL Listed  
 EINECS/ELINCS Listed  
 ENCS Listed

### Legend:

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*  
*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### **SARA 311/312 Hazard Categories**

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

#### **CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous
---------------	------------------	------------------------	---------------------------	-----------------

	Quantities			Substances
Maleic acid 110-16-7	5000 lb			X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Maleic acid 110-16-7	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

**US State Regulations****California Proposition 65**

This product does not contain any chemicals regulated by Proposition 65

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Maleic acid 110-16-7	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

<b>16. OTHER INFORMATION</b>
------------------------------

Revision Date 24-Oct-2016

**Revision Note**

No information available

**Disclaimer**

The information provided in this Material 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.

End of Safety Data Sheet