

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

### Product identifier

**Product Name** Total Bilirubin E-HA Buffer

### Other means of identification

**Product Code** 417-23291,998-23291

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

**Recommended Use** For In Vitro Diagnostic Use.

**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

#### **Distributor**

Wako Life Sciences, Inc.  
Address : 1025 Terra Bella Ave., Suite A, Mountain View, CA 94043, USA  
Phone : +1 (877)714-1924

### Emergency telephone number

**Emergency telephone** +1 (800)424-9300 (CHEMTREC)

## 2. HAZARDS IDENTIFICATION

### **GHS classification**

#### Classification of the substance or mixture

**Serious eye damage/eye irritation**

Category 1

**Carcinogenicity**

Category 2

**Reproductive Toxicity**

Category 2

**Aquatic environment (acute hazard)**

Category 2

### **Pictograms**



### **Signal word**

Danger

### **Hazard statements**

H318 - Causes serious eye damage

H351 - Suspected of causing cancer

H361 - Suspected of damaging fertility or the unborn child

H401 - Toxic to aquatic life

### **Precautionary statements-(Prevention)**

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required.
- Avoid release to the environment

**Precautionary statements-(Response)**

- IF exposed or concerned: Get medical advice/attention
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER or doctor/physician

**Precautionary statements-(Storage)**

- Store locked up.

**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-%
Polyoxyethylene(n) Alkyl Ether		9005-00-9	< 5%
Hexadecyltrimethylammonium Bromide	364.45	57-09-0	< 1%
Thiourea	76.12	62-56-6	< 1%
Polyethylene glycol p-octylphenyl ether	N/A	9002-93-1	< 1%

**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** Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

**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 well-ventilated place at room temperature (preferably cool). Keep container tightly closed. Keep cool. Protect from sunlight.

**Packaging materials** Polypropylene.

**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****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**

<b>Form</b>	
<b>Color</b>	colorless
<b>Turbidity</b>	clear
<b>Appearance</b>	liquid
<b>Odor</b>	No data available
<b>pH</b>	2.9
<b>Melting point/freezing point</b>	No data available
<b>Boiling point, initial boiling point and boiling range</b>	No data available
<b>Flash point</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower flammability or explosive limits</b>	
<b>Upper :</b>	No data available
<b>Lower :</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Vapour density</b>	No data available
<b>Specific Gravity / Relative density</b>	No data available
<b>Solubilities</b>	No data available
<b>n-Octanol/water partition coefficient:(log Pow)</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity (coefficient of viscosity)</b>	No data available
<b>Dynamic viscosity</b>	No data available

## 10. STABILITY AND REACTIVITY

### Stability

<b>Stability</b>	Stable under recommended storage conditions. May be altered by light.
<b>Reactivity</b>	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
Hexadecyltrimethylammonium Bromide	410 mg/kg ( Rat )	N/A	N/A
Thiourea	1750 mg/kg ( Rat )	> 6810 mg/kg ( Rat )	> 0.9 mg/L ( Rat ) 4 h
Polyethylene glycol p-octylphenyl ether	1800mg/kg(rat)	8000mg/kg(rabbit)	16000ppm/8h(rat)

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas-source information
Hexadecyltrimethylammonium Bromide	LD50(ori, rat):410mg/kg (RTECS(2006)).	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Thiourea	LD50(ori, rat):1750 mg/kg (BUA 179 (1998))	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
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Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
Hexadecyltrimethylammonium Bromide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Thiourea	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

**Skin irritation/corrosion**

Chemical Name	Skin corrosion irritation source information
Hexadecyltrimethylammonium Bromide	Based on the NITE GHS classification results.
Thiourea	Based on the NITE GHS classification results.

**Serious eye damage/ irritation**

Chemical Name	Serious eye damage source information
Hexadecyltrimethylammonium Bromide	Based on the NITE GHS classification results.
Thiourea	Based on the NITE GHS classification results.
Polyethylene glycol p-octylphenyl ether	Based on the NITE GHS classification results.

**Respiratory or skin sensitization**

Chemical Name	Respiratory, Skin sensitization source information
Hexadecyltrimethylammonium Bromide	Based on the NITE GHS classification results.
Thiourea	Respiratory sensitization: No data, Skin sensitization: Skin sensitization to humans (CICAD No.49 (2003)).

**Reproductive cell mutagenicity**

Chemical Name	Mutagenic source information
Hexadecyltrimethylammonium Bromide	Based on the NITE GHS classification results.
Thiourea	Based on the NITE GHS classification results.

**Carcinogenicity**

Chemical Name	Carcinogenicity source information
Hexadecyltrimethylammonium Bromide	Based on the NITE GHS classification results.
Thiourea	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Thiourea 62-56-6	Reasonably Anticipated	Group 3		Group 2B

**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
Hexadecyltrimethylammonium Bromide	Based on the NITE GHS classification results.
Thiourea	Based on the NITE GHS classification results.

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
Hexadecyltrimethylammonium Bromide	Based on the NITE GHS classification results.
Thiourea	Based on the NITE GHS classification results.

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
Hexadecyltrimethylammonium Bromide	Based on the NITE GHS classification results.
Thiourea	Based on the NITE GHS classification results.

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
Hexadecyltrimethylammonium Bromide	Based on the NITE GHS classification results.
Thiourea	Based on the NITE GHS classification results.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hexadecyltrimethylammonium Bromide 57-09-0	EC50:Pseudokirchneriella subcapitata 0.09 mg/L 96 h			
Thiourea 62-56-6	EC50:Desmodesmus subspicatus 6.8 mg/L 96 h EC50:Desmodesmus subspicatus 3.8 - 10 mg/L 72 h	LC50:Pimephales promelas 600 mg/L 96 h LC50:Brachydanio rerio 10000 mg/L 96 h		EC50:Daphnia magna 35 mg/L 48 h
Polyethylene glycol p-octylphenyl ether 9002-93-1		LC50 fathead minnow- 8.9mg/l/96h		EC50 Daphnia 26m//48h

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available

**Mobility**

Chemical Name	Partition coefficient
Thiourea 62-56-6	-0.92

**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

<b>IMDG</b>	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	-
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 contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Thiourea - 62-56-6	62-56-6	< 1%	0.1

#### **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 does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### **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)
Thiourea 62-56-6	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ

### US State Regulations

#### **California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Thiourea - 62-56-6	Carcinogen

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania

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Thiourea 62-56-6	X	X	X
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**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION**

Revision Date 09-Oct-2015

**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