

MATERIAL SAFETY DATA SHEET

CODE: 43-1750

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IDENTITY Cholesterol E

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : Cholesterol E

MANUFACTURER : Wako Pure Chemical Industries, Ltd.

SUPPLIER(In JAPAN) : Wako Pure Chemical Industries, Ltd.

ADDRESS : 1-2, Doshomachi 3-chome, Chuo-ku, Osaka, 540-8605, Japan

TELEPHONE NUMBER & EMERGENCY TELEPHONE NUMBER: (06)6203-3741

SUPPLIER(In U.S.A.) : Wako Chemicals USA, Inc.

ADDRESS : 1600 Bellwood Road, Richmond, VA 23237, U.S.A.

TELEPHONE NUMBER : (800)992-9256

EMERGENCY TELEPHONE NUMBER : (800)424-9300 (CHEMTREC)

SUPPLIER(In EUROPE) : Wako Chemicals GmbH, Germany

ADDRESS : Nissanstrasse 2, D-41468 Neuss, GERMANY

TELEPHONE NUMBER & EMERGENCY TELEPHONE NUMBER : (02131)311-0

2. COMPOSITION/INFORMATION ON INGREDIENTS

<i>CHEMICAL NAME</i>	<i>CAS NUMBER</i>	<i>CONTENT</i>
[1] Buffer solution; 50mM Good's buffer (pH6.1)	_____	_____
[2] Color reagent;		
Cholesterol esterase ①	9026-00-0	_____
Cholesterol oxidase ②	9028-76-6	_____
Peroxidase ③	9003-99-0	_____
DAOS ④	83777-30-4	26.1%
4-Aminoantipyrine ⑤	83-07-8	3.11%
Ascorbate oxidase ⑥	9029-44-1	_____
[3] Standard solution;		
Cholesterol ⑦	57-88-5	0.20%

SYNONYMS : ①= Acylcholesterol lipase, Cholesterase, E.C. 3.1.1.13

②= E.C. 1.1.3.6

③= Myeloperoxidase, Lactoperoxidase, E.C. 1.11.1.7

④= 3-((3,5-Dimethoxyphenyl)ethylamino)-2-hydroxy-1-propanoic acid monosodium salt

⑤= 4-Amino-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one, Ampyrone

⑥= Ascorbase, Ascorbic acid oxidase, E.C. 1.10.3.3

⑦= (3β)-Cholest-5-en-3-ol, 5-Cholesten-3β-ol

FORMULA : ①, ②, ③, ⑥= Not available, ④= C₁₃H₂₁NO₆SNa, ⑤= C₁₁H₁₃N₃O, ⑦= C₂₇H₄₆O

MOLECULAR WEIGHT : ①, ②, ③, ⑥= Not available, ④= 342.37, ⑤= 203.24, ⑦= 386.66

TSCA INVENTORY : ①, ②, ③, ⑤, ⑦= Listed, ④, ⑥= Not listed (See section 15)

EINECS No. : ①= 232-808-6, ②= 232-842-1, ③= 232-668-6, ④= Not listed, ⑤= 201-452-3,

⑥= 232-852-6, ⑦= 200-353-2

INDICATION OF DANGER : SYMBOL : _____ , R-phrases : _____

3. HAZARDS IDENTIFICATION

May be harmful if inhaled and ingested.

May cause eye and skin irritation.

4. FIRST AID MEASURES

GENERAL ADVICE : Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

INHALATION : Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

SKIN CONTACT: Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.

EYE CONTACT: Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

INGESTION : Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Carbon dioxide, dry chemical powder, foam, water

FIRE & EXPLOSION HAZARDS : Toxic, irritating fumes or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS : Firemen should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS : Remove ignition sources and ventilate area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS : Prevent spills from entering sewers, watercourses or low areas.

METHODS FOR CLEAN UP :

[1] [3] ; Do not touch spilled material without suitable protection(See section 8). Take up spilled material with ashes or other absorbents. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

[2] ; Do not touch spilled material without suitable protection(See section 8). After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

For in vitro diagnostic use.

HANDLING : Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection.

STORAGE : Store away from sunlight in a cool(2~10°C = 35.6~50° F) well-ventilated dry place. Keep container tightly closed.

See the package insert for further handling information.

INCOMPATIBLE PRODUCTS : Strong oxidizers, water-reactive materials(Alkali metals etc.)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES : Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION : Local Exhaust ; Necessary, Mechanical(General) ; Recommended

CONTROL PARAMETER :

OSHA Final Limits, ACGIH TLV(s) ; None established

PERSONAL PROTECTION :

Respiratory protection ; NIOSH/MSHA approved respirator

Hand protection ; Chemical resistant gloves

Eye protection ; Safety glasses(goggles)

Skin protection ; Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : [1] , [3] ; Colorless clear liquid, [2] ; Pale brown lyophilized powder

ODOR : [1] , [2] ; Odorless, [3] ; Characteristic odor

pH : [1] ; 6.10, [2] , [3] ; Not available

BOILING POINT : Not available

MELTING POINT : Not available

FLASH POINT : Not available

FLAMMABILITY (solid, gas) : [1] , [3] ; ——— , [2] ; Not available

DECOMPOSITION TEMPERATURE : Not available

EXPLOSIVE LIMITS : Not available

VAPOR PRESSURE : Not available

SPECIFIC GRAVITY : [1] ; 1.006, [3] ; 0.998, [2] ; Not available

SOLUBILITY IN :

WATER ; [1] , [3] ; Miscible, [2] ; Soluble

log Po/w : Not available

10. STABILITY AND REACTIVITY

CONDITION TO AVOID : Sunlight, heat

INCOMPATIBILITY (MATERIAL TO AVOID) : Strong oxidizers, water-reactive materials (Alkali metals etc.)

HAZARDOUS DECOMPOSITION PRODUCTS : Carbon monoxide, nitrogen oxides, sulfur oxides and sodium compounds may be formed.

HAZARDOUS POLYMERIZATION : Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA : Not available as the mixture

⑤= LD50 (orl, mouse) : 800 mg/kg (CCCCAK 47, 636, 82)

IRRITATION DATA : Not available as the mixture and components

MUTATION DATA : Not available as the mixture

⑦= Microbial mutation without S9; S. typhimurium;
500 µg/plate (FCTOD7 20, 35, 82)

REPRODUCTIVE EFFECTS DATA : Not available as the mixture

⑦= TDLo (orl, rabbit) : 6gm/kg (1-31D preg); Effects on
embryo or fetus (JONUAI 102, 1681, 72)

TUMORIGENIC DATA : Not available as the mixture

⑦= TDLo (ipr, rat) : 800mg/kg/43W-I; Tumorigenic
(EMSUA8 3, 95, 45)

ADDITIONAL INFORMATION : NTP ; Not listed

⑦; IARC ; Not Classifiable as to Carcinogenicity to
Humans (Group 3)

OSHA; Not listed

ACGIH; Not listed

⑤; EPA GENETOX PROGRAM 1986, Negative: Cell
transform. -SA7/SHE

⑦; EPA GENETOX PROGRAM 1986, Negative: SHE-clonal
assay

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY : Not available

BIOACCUMULATION POTENTIAL : Not available

AQUATIC TOXICITY : Not available

OTHER DATA : Not available

13. DISPOSAL CONSIDERATION

[1] , [3] ; Take up the material with combustible absorbents and burn in small portion in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules).

[2] ; Burn in small portion in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules).

14. TRANSPORT INFORMATION

IATA: Not Restricted

DOT (Department of Transportation) : Not a Hazardous Material for DOT shipping.

15. REGULATORY INFORMATION

US REGULATIONS :

EPA: CERCLA RQ, EPCRA TPQ= Not listed

OSHA: TQ= Not listed

TSCA : Use of this product must be restricted to research or analysis for the development of a product in accordance with the Act.

EU REGULATIONS :

SYMBOL : _____

R-phrases : _____

S-phrases : _____

EC index No. : ①~⑦= Not listed

16. OTHER INFORMATION

No specific notes

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. This product is intended to be used by expert persons having chemical knowledge and skill, at their own discretion and risk and Wako shall not be held liable for any damage resulting from handling or from contact with the above material.