

CODE: 99-2900

MSDS No. 2000050E1
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IDENTITY CETP Test

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CETP Test

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] Antibody-Coated Plate :		
Monoclonal antibody ①	Not listed	0.15%
Albumin, bovine ②	9048-46-8	19.97%
[2] Detergent Solution :		
Sodium dodecylsulfate③	151-21-3	0.50%
[3] Assay Buffer :		
Disodium hydrogenphosphate④	7558-79-4	0.29%
Potassium dihydrogenphosphate⑤	7778-77-0	0.02%
Sodium chloride ⑥	7647-14-5	0.87%
Albumin, bovine ②	9048-46-8	0.99%
[4] Conjugate Concentrate :		
Horse radish peroxidase labeled- Monoclonal antibody ⑦	Not listed	0.03%
Disodium hydrogenphosphate④	7558-79-4	0.29%
Potassium dihydrogenphosphate⑤	7778-77-0	0.04%
Albumin, bovine ②	9048-46-8	0.99%
[5] Conjugate Dilution :		
Disodium hydrogenphosphate④	7558-79-4	0.29%
Potassium dihydrogenphosphate⑤	7778-77-0	0.04%
Albumin, bovine ②	9048-46-8	0.99%

107 substrate .

o-Phenylenedimamine dihydrochloride⑧	Not listed	20.7%
Sodium carbonate⑨	497-19-8	23.8%
Succinic acid⑩	110-15-6	46.0%

[7] Hydrogen Peroxide Solution :

Citric Acid monohydrate⑪	5949-29-1	0.87%
Disodium hydrogenphosphate④	7558-79-4	4.11%
Sodium hydroxide⑫	1310-73-2	0.12%
Sodium benzoate⑬	532-32-1	0.10%
Hydrogen peroxide⑭	7722-84-1	0.02%

[8] Reaction Stopper :

Sulfuric acid⑮	7664-93-9	26.9%
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[9] Wash Concentrate :

Disodium hydrogenphosphate④	7558-79-4	5.13%
Potassium dihydrogenphosphate⑤	7778-77-0	0.35%
Sodium chloride ⑥	7647-14-5	15.51%
Polyoxyethylene (20) sorbitan monolaurate⑯	9005-64-5	0.97%

[10] Calibrator I :

Sheep Serum⑰	Not listed	99.88%
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[11] Calibrator II :

CETP⑱	111274-16-9	0.00047%
Sheep Serum⑰	Not listed	99.88%

- SYNONYMS : ②= Bovine serum albumin
 ③= Sodium lauryl sulfate
 ④= Sodium phosphate, dibasic, anhydrous
 ⑤= Potassium phosphate, monobasic
 ⑥= Common salt
 ⑧= OPD dihydrochloride
 ⑨= Disodium carbonate
 ⑩= Butanedioic acid
 ⑪= 2-Hydroxy-1,2,3-propanetricarboxylic acid monohydrate
 ⑫= Caustic soda
 ⑬= Benzoic acid sodium salt
 ⑮= Hydrogen sulfate
 ⑯= Polysorbate 20, Tween 20
 ⑱= Cholesteryl ester transfer protein

FORMULA : ③= C₁₂H₂₅NaO₄S, ④= NaHPO₄, ⑤= KH₂PO₄, ⑥= NaCl, ⑧= C₆H₈N₂·2HCl, ⑨= Na₂CO₃,
 ⑩= C₄H₆O₄, ⑪= C₆H₈O₇·H₂O, ⑫= NaOH, ⑬= C₇H₅O₂Na, ⑭= H₂O₂, ⑮= H₂SO₄,
 ⑯= C₅₈H₁₁₄O₂₆, ①, ②, ⑦, ⑰, ⑱= Not listed

MOLECULAR WEIGHT : ③= 288.38, ④= 141.96, ⑤= 136.09, ⑥= 58.44, ⑧= 181.06, ⑨= 105.99,
 ⑩= 118.09, ⑪= 210.14, ⑫= 40.00, ⑬= 144.11, ⑭= 34.02, ⑮= 98.08,
 ⑯= 1227.72, ①, ②, ⑦, ⑰, ⑱= Not listed

TSCA INVENTORY : ②, ③, ④, ⑤, ⑥, ⑨, ⑩, ⑪, ⑫, ⑬, ⑭, ⑮, ⑯= Listed
 ①, ⑦, ⑧, ⑰, ⑱= Not listed (See section 15)

EINECS No. : ②= 232-936-2, ③= 205-788-1, ④= 231-448-7, ⑤= 231-913-4, ⑥= 231-598-3,
 ⑨= 207-838-8, ⑩= 203-740-4, ⑪ (as Anhydrous)= 201-069-1, ⑫= 215-185-5,
 ⑬= 208-534-8, ⑭= 231-765-0, ⑮= 231-639-5
 ①, ⑦, ⑧, ⑯, ⑰, ⑱= Not listed (See section 15)

INDICATION OF DANGER : C (as [8]) , R 35 (as [8])

3. HAZARDS IDENTIFICATION

[8] ; Causes severe burns.

Harmful if inhaled and ingested.

[Other Reagents] ; 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 :

[8] ; Move victim to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, administer artificial respiration. Maintain normal body temperature with a blanket. If irritation persists, transport to a hospital immediately.

[Other Reagents] ; Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

SKIN CONTACT:

[8] ; Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, transport to a hospital immediately.

[Other Reagents] ; 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:

[8] ; 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, transport to a hospital immediately.

[Other Reagents] ; 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 :

[8] ; Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Transport to a hospital immediately.

[Other Reagents] ; 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.

[8] ; Do not touch spilled material without suitable protection(See section8). Take up spilled material with ashes or other incombustible absorbents and dilute it with plenty of water and neutralize with soda ash. 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.

[Other Reagents] ; 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.

7. HANDLING AND STORAGE

Research use only, Not for use in diagnostic procedures.

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, strong alkalis, water-reactive materials(Alkali metals etc.)

CAUTION : Deal similarly with patient serum.

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) ; Necessary Special; Closed system is recommended.

CONTROL PARAMETER : ⑫; OSHA Final Limits ; TWA= 2mg/m³

ACGIH TLV(s) ; Ceiling= 2mg/m³

⑭; OSHA Final Limits ; TWA= 1ppm, 1.4mg/m³

ACGIH TLV(s) ; TWA= 1ppm, 1.4mg/m³

⑮; OSHA Final Limits ; TWA= 1mg/m³

ACGIH TLV(s) ; TWA= 1mg/m³; STEL= 3mg/m³

①, ②, ③, ④, ⑤, ⑥, ⑦, ⑧, ⑨, ⑩, ⑪, ⑬, ⑰, ⑱= None established

PERSONAL PROTECTION :

Respiratory protection ; NIOSH/MSHA approved respirator

Hand protection ; Impervious gloves

Eye protection ; Safety glasses(goggles)

Skin protection ; Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : [1] ; Colorless plate
 [2] ; Colorless clear liquid
 [3] ; Pale yellow clear liquid
 [4] ; Brown clear liquid
 [5] ; Pale yellow clear liquid
 [6] ; White tablet
 [7] ; Colorless clear liquid
 [8] ; Colorless clear liquid
 [9] ; Colorless clear liquid
 [10] ; Brown clear liquid
 [11] ; Brown clear liquid

ODOR : [1] ~ [11] ; Odorless

pH : [3] , [4] , [5] ; 7.2 (at 25 °C = 77 ° F), [7] ; 5.6 (at 25 °C = 77 ° F)

[8] ; <1 (at 25 °C = 77 ° F), [9] ; 6.5 (at 25 °C = 77 ° F)

[10] , [11] ; 8.0 (at 25 °C = 77 ° F)

[1] , [6] ; Not available

BOILING POINT : Not available

MELTING POINT : Not available

FLASH POINT : Not available

FLAMMABILITY (solid, gas) : Not available

DECOMPOSITION TEMPERATURE : Not available

EXPLOSIVE LIMITS : Not available

VAPOR PRESSURE : Not available

SPECIFIC GRAVITY : [2] ; 1.00, [3] , [4] , [5] ; 1.01, [7] ; 1.01, [8] ; 1.14,

[9] ; 1.13, [10] ; 1.02, [11] ; 1.02,

[1] , [6] ; Not available

SOLUBILITY IN : WATER ; [2] , [3] , [4] , [5] , [7] , [8] , [9] , [10] , [11] ; Miscible

[1] ; Insoluble, [6] ; Soluble

log Po/w : Not available

10. STABILITY AND REACTIVITY

CONDITION TO AVOID : Sunlight, heat

INCOMPATIBILITY (MATERIAL TO AVOID) : Strong oxidizers, strong alkalis, 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

①= LD50 (orl, rat) : 1288mg/kg (FCTXAV 5, 763, 67)

④= LD50 (orl, rat) : 17 gm/kg (28ZPAK -, 16, 72)

⑤= LDLo (orl, rat) : 4640 mg/kg (NTIS** OTS0571153)

LD50 (skin, rat) : >4640 mg/kg (NTIS** OTS0571153)

⑥= LD50 (orl, rat) : 3000mg/kg (TXAPA9 20, 57, 71)

⑨= LD50 (orl, rat) : 4220mg/kg (TXAPA9 6, 726, 64)

⑪ (as Anhydrous) = LD50 (orl, rat) : 6730mg/kg (28ZPAK -, 105, 72)

⑫= LDLo (orl, rabbit) : 500mg/kg (AEPPAE 184, 587, 37)

⑬= LD50 (orl, rat) : 4070mg/kg (JIHTAB 30, 63, 48)

⑭ (as Hydrogen peroxide, 90%) =

LD50 (orl, mouse) : 2gm/kg (GISAAA 48 (6), 28, 83)

LCLo (ihl, mouse) : 227ppm (AEHLAU 4, 327, 62)

⑮= LD50 (orl, rat) : 2140mg/kg (AIHAAP 30, 470, 69)

⑯= LD50 (orl, rat) : 37gm/kg (FOREAE 21, 348, 56)

IRRITATION DATA :

Not available as the mixture

④= Skin; rabbit; 500 mg/24H; Mild (28ZPAK -, 16, 72)

Eye; rabbit; 500 mg/24H; Mild (28ZPAK -, 16, 72)

⑥= Eye; rabbit; 500mg/24H; Mild (28ZPAK -, 8, 72)

⑨= Eye; rabbit; 100mg rinse; Mild (TXCYAC 23, 281, 82)

Skin; rabbit; 500mg/24H; Mild (28ZPAK -, 7, 72)

⑩= Eye; rabbit; 1179 µg; Severe (AJOPAA 29, 1363, 46)

⑪ (as Anhydrous) = Eye; rabbit; 750 µg/24H; Severe (28ZPAK -, 105, 72)

⑫= Eye; rabbit; 50 µg/24H; Severe (28ZPAK -, 7, 72)

Skin; rabbit; 500mg/24H; Severe (28ZPAK -, 7, 72)

MUTATION DATA :

- ④- Eye, rabbit, 100mg dose, severe (ALCAL 23, 281, 82)
⑫= Skin; human; 15mg/3D-I; mild (85DKA8 -, 127, 77)
Not available as the mixture
③= DNA inhibition; guinea pig; kidney; 60 μ mol/L
(FCTXAV 14, 431, 76)
⑥= Cytogenetic analysis; hamster: lung; 7500mg/L
(GMCRCDC 27, 95, 81)
⑫= Cytogenetic analysis; grasshopper-parenteral; 20mg
(NULSAK 9, 119, 66)
⑬= Cytogenetic analysis; hamster: lung; 1gm/L (ATSUDG 4,
41, 80)
⑭ (Hydrogen peroxide, 90%) = Cytogenetic analysis; hamster:
lung; 100 μ mol/L (IDZAAW 56, 1, 81)

REPRODUCTIVE EFFECTS DATA :

- Not available as the mixture
③= TDLo (skn, mouse): 480mg/kg (6-13D preg): Effects on
embryo or fetus (TRENAF 27, 113, 76)
⑥= TDLo (orl, rat): 145gm/kg (7D pre/1-22D preg) Effects on
newborn (JCINAO 41, 710, 62)
⑨= TDLo (iut, mouse): 84800ng/kg (4D preg); Effects on
fertility (JRPFA4 63, 365, 81)
⑬= TDLo (orl, rat): 44gm/kg (1-22D preg); Specific
developmental abnormalities (ESKH5 (96), 47, 78)

TUMORIGENIC DATA :

- Not available as the mixture
⑭ (Hydrogen peroxide, 30%) = TDLo (orl, mouse): 622gm/kg/2Y-C;
Tumorigenic; Gastrointestinal (HIUN**)

ADDITIONAL INFORMATION :

- NTP ; Not listed,
IARC ; ⑭= Not Classifiable as to Carcinogenicity to
Humans (Group 3)
OSHA; Not listed, ACGIH; Not listed
⑤ (as Hydrogen peroxide, 30%) = EPA GENETOX PROGRAM 1986,
Positive; E coli polA without S9
⑬= EPA GENETOX PROGRAM 1986, Negative TRP reversion

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY : Not available
BIOACCUMULATION POTENTIAL : Not available
AQUATIC TOXICITY : Not available
OTHER INFORMATION : ④= WGK;1, ⑫= WGK; 1

13. DISPOSAL CONSIDERATION

[8] ; Cautiously add to a large stirred excess of water. Adjusting the pH to neutral, separate any insoluble solids or liquids and package them for hazardous-waste disposal. Flush the aqueous solutions down the drain with plenty of water. 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).

[Other Reagents] ; Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency specific rules).

14. TRANSPORT INFORMATION

[8] ; IATA:

PROPER SHIPPING NAME ; Sulphuric acid with not more than 51% acid
CLASS or DIVISION ; Corrosives. (Class 8)
UN or ID No. ; UN2796

DOT (Department of Transportation) :

PROPER SHIPPING NAME ; Sulfuric acid with not more than 51% acid
HAZARD CLASS ; Corrosive material (Class 8)
IDENTIFICATION NUMBER; UN2796

[Other Reagents] ;

IATA: Not Restricted

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

15. REGULATORY INFORMATION

US REGULATIONS :

- ③; Canad. WHMIS IDL 1% conc.
- ④; CWA/311 Haz., CERCLA Haz. Subst., DOT Haz. Sub. and Rep. Quant., Mass. Subst. List, New Jers. RTK Haz. Subst. List, Penn. Haz. Subst. List, EPA : CERCLA RQ= 5000lb
- ⑨; Canad. WHMIS IDL 1% conc.
- ⑩; CAA/111 Volat. Org. Comp. Canad. WHMIS IDL 1% conc.
- ⑫; CWA/311 Haz., NIOSH Recommend. Subst., CERCLA Haz. Subst., DOT Haz. Mat., Mass. Subst. List, New Jers. RTK Haz. Subst. List, Canad. WHMIS IDL 1% conc. Penn. Haz. Subst. List,
- ⑬; CAA/111 Volat. Org. Comp.
- ⑭; Mass. Subst. List, New Jers. RTK Haz. Subst. List, Penn. Haz. Subst. List, Canad. WHMIS IDL 1% conc.
- ⑮= CWA/311 Haz., NIOSH Recommend. Subst., CERCLA Haz. Subst., SARA III/302 Extre. Haz. Subst., SARA III/313 Tox. Chem., DEA Essen. Chem., DOT Haz. Mat., DOT Haz. Sub. and Rep. Quant., Mass. Subst. List, New Jers. RTK Haz. Subst. List, Penn. Haz. Subst. List, Canad. WHMIS IDL 1% conc.
EPA : CERCLA RQ= 1000lb, SRA RQ= 1000lb, TPQ= 1000lb
EPCRA section 313 de minimis concentration is 1.0%.
- ⑯= TSCA CHIPS
- ①, ②, ⑤, ⑥, ⑦, ⑧, ⑪, ⑰, ⑱= 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 : C (as [8])

R-phrases : 35 (as [8])

Causes severe burns.

S-phrases : 26-45 (as [8])

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of accident or if you feel unwell, seek medical advice immediately.

EC index No. : ⑫= 011-002-00-6, ⑭= 008-003-00-9, ⑮= 016-020-00-8

①, ②, ③, ④, ⑤, ⑥, ⑦, ⑧, ⑨, ⑩, ⑪, ⑬, ⑯, ⑰, ⑱= 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.

MSDS No. 2000050E1 [8/8]