

SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : **CHO Host Cell Protein ELISA kit**
Product number : HCP001

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

Identified uses : Laboratory chemicals, Analysis of substances

1.3 Details of the supplier of the safety data sheet

Company : Canopy Biosciences, LLC
4340 Duncan Avenue
Suite 220
ST. LOUIS, MO 63110
UNITED STATES

Telephone : +1 314 833-9764
Fax : +1 314 932-4038

1.4 Emergency telephone number : 911

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Corrosive to metals (Category 1), H290

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)	
H290	May be corrosive to metals.
H314	Causes skin irritation.
H319	Causes severe skin burns and eye damage.
Precautionary statement(s)	
P234	Keep only in original container.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/ eye protection/ face protection.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310	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/doctor.
P363	Wash contaminated clothing before reuse
P390	Absorb spillage to prevent material damage.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P390	Absorb spillage to prevent material damage.
P406	Store in corrosive resistant container with a resistant inner liner.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	CAS#	EINECS#	Concentration	Hazard Classification
Coated Clear 96 Well Plate				
Affinity purified rabbit antibodies	Not listed	Not listed	<100 µg/ml	Not Classified
Buffer used for component suspension				
Deionized water	7732-18-5	231-791-2	>97%	Not Classified
Sodium Chloride	7647-14-5	231-598-3	<1%	Irritant
Potassium Chloride	7447-40-7	231-211-8	<1%	Irritant
Sodium Phosphate Dibasic	7558-79-4	231-448-7	<1%	Not Classified
Potassium Phosphate Monobasic	7778-77-0	231-913-4	<1%	Irritant

Reporting Antibody (0.15ml) in buffer				
Biotin-labeled rabbit polyclonal antibody	Not listed	Not listed	150 µg/ml	Not Classified
Streptavidin-HRP conjugate (0.75ml) in buffer				
Streptavidin-Horse Radish Peroxidase conjugate	Not listed	Not listed	4 µg/ml	Not Classified
CHO HCP standards				
Chinese Hamster Ovary cell line cell proteins	Not listed	Not listed	<300ng/ml	Not Classified
5x Dilution Buffer (20ml)				
Deionized water	7732-18-5	231-791-2	>95%	Not Classified
Sodium Chloride	7647-14-5	231-598-3	<5%	Irritant
Potassium Chloride	7447-40-7	231-211-8	<1%	Irritant
Sodium Phosphate Dibasic	7558-79-4	231-448-7	<1%	Not Classified
Potassium Phosphate Monobasic	7778-77-0	231-913-4	<1%	Irritant
10x PBS-T (30ml)				
Deionized water	7732-18-5	231-791-2	>90%	Not Classified
Sodium Chloride	7647-14-5	231-598-3	<10%	Irritant
Potassium Chloride	7447-40-7	231-211-8	<1%	Irritant
Sodium Phosphate Dibasic	7558-79-4	231-448-7	<2%	Not Classified
Potassium Phosphate Monobasic	7778-77-0	231-913-4	<1%	Irritant
Tween20	9005-64-5		<1%	Not a hazardous substance
TMB Substrate (30ml)				
TMB substrate	Aqueous solution	Not listed	<1%	Irritant
Stop Solution (15ml)				
Distilled water	7732-18-5	231-791-2	>95%	Not Classified
Sulfuric Acid	7664-93-9	231-639-5	<5%	Corrosive

Hazardous components

Component
Sulfuric acid

Classification
Met. Corr. 1; Skin Corr. 1A;
Eye Dam. 1; H290, H314

Concentration
<5%

Formula : H₂SO₄
Molecular weight : 98.08 g/mol
CAS-No. : 7664-93-9
EC-No. : 231-639-5
Index-No. : 016-020-00-8

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Sulphur oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid inhalation of vapor or mist.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No	Value	Control parameters	Basis
Sulfuric acid	7664-93-9	TWA	0.2 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		TWA	1 mg/m ³	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	1 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

Derived No Effect Level (DNEL)

Application Area	Exposure routes	Health effect	Value
Workers	Inhalation	Acute local effects	0.1 mg/m ³
Workers	Inhalation	Long-term local effects	0.05 mg/m ³

Predicted No Effect Concentration (PNEC)

Compartment	
Marine water	0.00025 mg/l
Fresh water	0.0025 mg/l
Marine sediment	0.002 mg/kg
Fresh water sediment	0.002 mg/kg

Onsite sewage treatment plant

8.8 mg/l

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineer protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: clear, liquid
b)	Odor	No data available
c)	Odor Threshold	No data available
d)	pH	1.2 at 5 g/l
e)	Melting point/freezing point	3 °C (37 °F)
f)	Initial boiling point and boiling range	No data available
g)	Flash point	No data available
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapor pressure	1.33 hPa at 145.8 °C (294.4 °F)
l)	Vapor density	3.39 - (Air = 1.0)
m)	Relative density	1.80 - 1.84 g/cm ³
n)	Water solubility	soluble
o)	Partition coefficient: noctanol/water	No data available

p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available
p)	Auto-ignition temperature	No data available

9.2 Other safety information

Surface tension	55.1 mN/m at 20 °C (68 °F)
Relative vapor density	3.39 - (Air = 1.0)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

bases, halides, organic materials, carbides, fulminates, nitrates, picrates, cyanides, chlorates, alkali halides, zinc salts, permanganates, e.g. potassium permanganate, hydrogen peroxide, azides, perchlorates., nitromethane, phosphorous, reacts violently with:, cyclopentadiene, cyclopentanone oxime, nitroaryl amines, hexalithium disilicide, phosphorous(III) oxide, powdered metals

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sulphur oxides

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 2,140 mg/kg (Sulfuric acid)

LC50 Inhalation - Rat - 2 h - 510 mg/m³(Sulfuric acid)

Dermal: No data available (Sulfuric acid)

No data available (Sulfuric acid)

Skin corrosion/irritation

Skin - Rabbit (Sulfuric acid)

Result: Corrosive and destructive to tissue.

Serious eye damage/eye irritation

Eyes - Rabbit (Sulfuric acid)

Result: Corrosive to eyes

Respiratory or skin sensitization

No data available (Sulfuric acid)

Germ cell mutagenicity

No data available (Sulfuric acid)

Carcinogenicity

The International Agency for Research on Cancer (IARC) has determined that containing sulfuric acid is carcinogenic to humans (group 1). (Sulfuric acid)

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

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

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

Reproductive toxicity

No data available (Sulfuric acid)

Specific target organ toxicity - single exposure

No data available (Sulfuric acid)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available (Sulfuric acid)

Additional Information

RTECS: WS5600000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Pulmonary edema. Effects may be delayed., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (Sulfuric acid)

Stomach - irregularities - based on human evidence (Sulfuric acid)

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity to fish

LC50 - Gambusia affinis (Mosquito fish) - 42 mg/l - 96 h (Sulfuric acid)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 29 mg/l - 24 h (Sulfuric acid)

12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

- 12.3 Bioaccumulative potential**
No data available
- 12.4 Bioaccumulative potential**
No data available
- 12.5 Results of PBT and vPvB assessment**
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
- 12.6 Other adverse effects**

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Product Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

DOT (US)

UN number: 3264 Class: 8 Packing group: III
Proper shipping name: Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid)

Poison Inhalation Hazard: No

IMDG

IATA

UN number: 3264 Class: 8 Packing group: III
Proper shipping name: Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid)

SECTION 15: REGULATORY INFORMATION

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

SECTION 16: OTHER INFORMATION

Kit Components:

96 Well Plate
Affinity purified rabbit antibodies
Sodium Chloride
Potassium Chloride
Sodium Phosphate Dibasic
Potassium Phosphate Monobasic

Biotin-labeled rabbit polyclonal antibody
Streptavidin-Horse Radish Peroxidase conjugate
Chinese Hamster Ovary cell line cell Protein standard
TMB substrate
Purified water
Sulfuric Acid

Met. Corr. 1; Skin Irrit. 2; Eye Irrit. 2A; H290,
H315, H319

HMIS Rating

Health Hazard:	3
Chronic Health Hazard	*
Flammability:	0
Physical Hazard:	3

NFPA Rating

Health Hazard:	3
Fire Hazard:	0
Reactivity Hazard:	0

Further information

The above information is believed to be correct but does not purport to be shall not be held liable for any damage resulting from handling or from c for additional terms and conditions of sale.

Preparation Information

DISCLAIMER: This product is intended for research purposes only. Not intended for diagnostic procedures or for use in humans or animals. While this SDS is based on technical data deemed to be reliable, Canopy Biosciences assumes no responsibility for the completeness or accuracy of the information contained herein. Users should consider these data only as a supplement to other information

gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the health and safety of themselves and others associated with this kits use.