

# MATERIAL SAFETY DATA SHEET

## OPM-CHO CDP3 Medium

### Section 1 Product and Company Identification

- Product Name: OPM-CHO CDP3 Medium
- Catalogue Number: P081863
- Company: Shanghai OPM Biosciences Co., Ltd.
- Address: No. 28 Building, Lane 908, Ziping Road, Pudong New District, Shanghai. 201321, P.R.China
- E-mail: tech-support@opmbiosciences.com
- Emergency Phone: 86-21-20780255

### Section 2 Hazards Identification

- Hazards Identification
  - GHS Classification:
  - Skin Corrosion: Category 3
- Emergency Overview:
  - Causes mild skin irritation
  - Harmful to aquatic life

### Section 3 Information of Ingredients

Ingredients	Concentration	Cas. No.	EC No.
Animo acid salts	<35.40%	/	/
Inorganic compounds containing barium	<0.01%	/	/
Inorganic compounds containing silver	<0.01%	/	/
Inorganic compounds containing copper	<0.01%	/	/
Inorganic compounds containing iron	<0.01%	/	/
Inorganic compounds containing zinc	<0.01%	/	/
2-Mercaptoethanol	<0.01%	/	/
Calcium chloride	<0.2%	/	/

The remaining ingredients are the trade secret

### Section 4 First-aid Measures

- Skin Exposure
  - In case of contact, immediately wash skin with soap and copious amount

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of water. If irritation persists, call a physician.

- **Eye Exposure**
  - In case of contact with eyes, flush with copious amount of water at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. If irritation persists, call a physician.
- **Inhalation Exposure:** If inhaled, remove to fresh air. If breathing is difficult, give oxygen.
- **Oral Exposure:** If victim is conscious, wash mouth out with water. Get medical aid immediately.

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### **Section 5 Fire Fighting Measures**

- **Extinguishing Media:** Suitable: Water spray, Dry Chemical, Carbon dioxide or appropriate foam.
- **Firefighting: Protective Equipment:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
Fire-extinguishing work is done from the windward. Uninvolved persons should evacuate to a safe place

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### **Section 6 Accidental Release Measurements**

- **Procedure of Personal Precaution:** Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Avoid breathing vapors, mist or gas. Entry to noninvolved personnel should be controlled around the leakage area by roping off, etc.
- **Methods for Cleaning up:** Mix with inert material (e. g. dry sand, vermiculite) and transfer to a dry, clean, lidded container for disposal. Provide ventilation.
- **Environmental precautions:** Do not let product enter drains. Discharge into the environment must be avoided.

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### **Section 7 Handling and Storage**

- **Handling:** Wear appropriate protective clothing and chemical safety gloves. Avoid inhalation. Avoid contact with eyes, skin and clothing. Prevent generation of vapor or mist. Handling is performed in a well ventilated place. Keep away from ignition sources, heat and flame. Incompatibilities: Strong oxidizing agents, Strong acids. Wash hands and face thoroughly after

handling. No smoking at working site.

- **Storage:** Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks, and flame. Keep away from sources of ignition. Incompatible: Strong oxidizing agents, Strong acids.

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### Section 8 Exposure Control/PPE

- **Engineering Controls:** Safety shower and eye bath. Mechanical exhaust required.
- **Personal Protective Equipment:**
  - **Respiratory:** Government approved respirator if needed.
  - **Eye:** Chemical safety goggles.
  - **Clothing:** Wear appropriate protective clothing.
- **Other Protect:** No smoking, drinking and eating at working site. Wash thoroughly after handling.

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### Section 9 Physical/Chemical Properties

Appearance:	Red clear liquid
Odor:	Weak odor
Initial Boiling Point:	101°C
Flash Point (Closed Cup)	>96 °C
pH Value:	7.0~7.4
Solubility:	Miscible in water

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### Section 10 Stability and Reactivity

- **Stability:** Stable under normal temperatures and pressures.
- **Materials to Avoid:** Strong oxidizing agents, Strong acids.
- **Hazardous Polymerization:** Will not occur.
- **Hazardous Decomposition Products:** Carbon oxides, Nitrogen oxides (Nox), Sulphur oxides, Metal oxides etc.

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### Section 11 Toxicological Information

- **Acute toxicity:**
  - **L-Cysteine:** Rat Oral LD<sub>50</sub>: 1890mg/kg

- Sodium chloride : Rat Oral LD<sub>50</sub> 3550 mg/kg
- Rat Inhalation LC<sub>50</sub> >42000 mg/m<sup>3</sup>/h
- Rabbit Skin LD<sub>50</sub>: >10000mg/kg Potassium chloride: Rat Oral LD<sub>50</sub>: 2600mg/kg Magnesium chloride: Rat Oral LD<sub>50</sub>: 2800 mg/kg ,  
Monometallic sodium orthophosphate: Rat Oral LD<sub>50</sub>: 8290 mg/kg
- Skin Corrosion/irritation:
- Causes mild skin irritation.
- Eye damage/irritation:
  - No data available

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## Section 12 Ecological Information

- Toxicity:
  - L-Serine: Toxicity to daphnia and other aquatic invertebrates static test EC<sub>50</sub>- Daphnia magna (Water flea)- >83 mg/l-48 h(OECD Test Guideline 202).Toxicity to algae static test NOEC-Pseudokirchneriella subcapitata (green algae) - 1.000 mg/l – 72h (OECD Test Guideline 201)
  - L-Alanine: Toxicity to daphnia and other aquatic invertebrates static test EC<sub>30</sub> - Daphnia magna (Water flea)- 100 mg/l-48 h(OECD Test Guideline 202)
  - L-Cysteine: Toxicity to fish semi-static test LC<sub>30</sub> - Danio rerio (zebra fish) : 100 mg/l, 96 h (OECD Test Guideline 203). Toxicity to daphnia and other aquatic invertebrates semi-static test EC<sub>30</sub> - Daphnia magna (Water flea) -> 100 mg/l, 48 h (OECD Test Guideline 202)
  - L-Glutamic acid: Toxicity to fish static test LC<sub>50</sub>~Cyprinus carpio (Carp) – > 100 mg/l - 96 h (OECD Test Guideline 203).Toxicity to daphnia and other aquatic invertebrates static test EC<sub>50</sub>-Daphnia magna (Water flea)- 100 mg/l - 48 h(OECD Test Guideline 202).Toxicity to algae static test EC<sub>50</sub>- Pseudokirchneriella subcapitata (green algae) - > 31 mg/l -72 h (OECD Test Guideline 201)
  - Sodium chloride: Toxicity to fish LC<sub>50</sub> -Lepomis macrochirus (Bluegill) \_ 5840 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates NOEC - Daphnia (water flea) - 440 mg/l \_ 48 h LC<sub>30</sub> - Daphnia magna (Water flea) – 548.4 mg/l - 48 h Potassium chloride: Toxicity to fish LC<sub>50</sub> ~ Pimephales promelas (fathead minnow) - 880 mg/l - 96 h mortality NOEC

- Pimephales promelas (fathead minnow) - 500 mg/1 - 7 d mortality L0EC
- Pimephales promelas (fathead minnow) - 1000 mg/1 - 7 d .Toxicity to daphnia and other aquatic invertebrates EC<sub>50</sub> - Daphnia magna (Water flea) - > 440 mg/1 - 48h (OECD Test Guideline 202).

■ Persistence and degradability:

- L-Serine: Biodegradability aerobic - Exposure time 28 d Result: 81 %  
-Readily biodegradable (OECD Test Guideline 301)
- L~Cysteine: Biodegradability aerobic - Exposure time 28 d Result: 98 % -  
Readily biodegradable (OECD Test Guideline 301A)
- L-Glutamic acid: Biodegradability aerobic - Exposure time 28 d Result: 97 %  
- Readily biodegradable

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### Section 13 Disposal Consideration

- Appropriate Method of Disposal Consideration: 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 chemical incinerator equipped with and afterburner and scrubber. Observe all federal, state, and local environmental regulations

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### Section 14 Transport Information

- RID/ADR: Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.
- IATA: Non-Hazardous for Air Transport: Non-hazardous for air transport.
- IMO: Non-Hazardous for Sea Transport: Non-hazardous for sea transport.

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### Section 15 Regulatory Information

Regulation (EC) No. 1272/2008 and the amendments: Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

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### Section 16 Other Information

- Date:2019-06-06
- Department: Quality Department, Shanghai OPM Biosciences Co., Ltd.
- Revision:0

