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SAFETY DATA SHEET

Product Name: OPM-CHO CDP9 DPM

Effective Date: 2020-03-17

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Shanghai Research Institute of Chemical Industry Testing Co., Ltd.



Shanghai OPM Biosciences Co.,Ltd

SAFETY DATA SHEET

OPM-CHO CDP9 DPM**SECTION1 PRODUCT AND COMPANY IDENTIFICATION**

Product name: OPM-CHO CDP9 DPM
Company: Shanghai OPM Biosciences Co.,Ltd
Address: Building#28, 908, ZiPing Road, Pudong, Shanghai, 201321, P.R.China
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SDS Number: 2619120031
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SECTION2 HAZARDS IDENTIFICATION

GHS Classification:

Physical Hazards:

Not classified

Health Hazards:

Skin sensitization Category 1B

Environmental Hazards:

Classification not possible

Label Elements:

Pictogram:



Signal Word:

Warning

Hazard Statements:

H317 May cause an allergic skin reaction.

Prevention Precautionary Statements:

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P280 Wear protective gloves.

Response Precautionary Statements:

- P302+P352 IF ON SKIN: Wash with plenty of water
 P333+P317 If skin irritation or rash occurs: Get medical help.
 P362+P364 Take off contaminated clothing and wash it before reuse.

Storage Precautionary Statements:

None.

Disposal Precautionary Statement:

- P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

Other Hazards:

This product contains 6.41% of ingredients with no data or information for classification, and may have potentially unknown hazards to human health and the environment.

SECTION3 INFORMATION ON INGREDIENTS

Product name: OPM-CHO CDP9 DPM

Ingredient	Concentration	CAS No.	EC No.
Amino acid salts	<35.4%	/	/
Sodium Chloride	7.36%	7647-14-5	231-598-3
Potassium chloride	2.39%	7447-40-7	231-211-8
Magnesium chloride	1.70%	7786-30-3	232-094-6
Sodium pyruvate	1.40%	113-24-6	204-024-4
Calcium chloride	<0.2%	10043-52-4	233-140-8
Thiamine	<0.2%	59-43-8	200-425-3
Pyridoxine	<0.1%	148-51-6	205-714-8
4-aminobenzoic acid	<0.1%	150-13-0	205-753-0
Choline chloride	<0.1%	67-48-1	200-655-4
Barium-containing inorganic compound	<0.01%	/	/
Silver-containing inorganic compound	<0.01%	/	/
Copper-containing inorganic compound	<0.01%	/	/
Iron-containing inorganic compound	<0.01%	/	/

The remaining ingredients are confidential.

SECTION4 FIRST-AID MEASURES**Skin Exposure:**

In case of contact, wash skin with soap and copious amounts of water. If skin irritation or rash occurs, call a physician.

Eye Exposure:

In case of contact with eyes, flush with copious amounts of water for 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 not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Oral Exposure:

If victim is conscious, wash mouth out with water. Get medical aid immediately.

Most important symptoms and effects, both acute and delayed:

No data available.

Indication of any immediate medical attention and special treatment needed:

No data available.

SECTION5 FIRE FIGHTING MEASURES**Extinguishing Media:**

Suitable: Water spray, Dry chemical, Carbon dioxide or appropriate foam.

Special hazards arising from the substance or mixture:

May decompose upon combustion or in high temperatures to generate Carbon oxides, Nitrogen oxides, Hydrogen chloride gas, Sodium oxides, Potassium oxides, Magnesium oxides, Calcium oxides, Sulfur oxides.

Advice for firefighters:

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.

SECTION6 ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment and Emergency Procedures:**

Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Avoid breathing dust. Entry to noninvolved personnel should be controlled around the leakage area by roping off, etc.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Avoid entering drains.

Methods and materials for containment and cleaning up:

Sweep up with spade and transfer to a dry, clean, lidded container for disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

SECTION7 HANDLING AND STORAGE**Precautions for safe handling:**

Wear appropriate protective clothing and gloves. Avoid inhalation of dust. Avoid contact with eyes, skin and clothing. Handling is performed in a well ventilated place. Keep away from ignition sources, heat and flame. Incompatibilities: Strong oxidizing agents. Wash hands and face thoroughly after handling. No smoking at working site.

Conditions for safe storage, including any incompatibilities:

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. Storage place should be equipped with appropriate varieties and quantities of fire fighting equipment and leakage emergency treatment equipment.

SECTION8 EXPOSURE CONTROL/PPE**Control parameters:**

Not set up.

Appropriate engineering controls:

Mechanical exhaust required. Safety shower and eye bath.

Personal Protective Equipment:

Respiratory: Government approved respirator if needed.

Eye: Chemical safety goggles.

Clothing: Wear appropriate protective clothing.

Hand: Safety gloves.

Other Protect:

No smoking, drinking and eating at working site. Wash thoroughly after handling.

SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Off-white powder
Odor:	Weak odor
Odor Threshold:	No data available.
pH Value:	5.6-5.7
Solubility(ies):	Soluble in water
Melting Point/	>300°C Decomposition
Freezing point:	
Boiling Point,	Not applicable.
Initial Boiling	
Point and Boiling	
Range:	
Flash Point	Not applicable.
(Closed Cup):	
Density/Relative	No data available.
Density:	
Viscosity:	Not applicable.
Upper/Lower	No data available.
Flammability or	
Explosive Limits:	
Vapor Pressure:	No data available.
Vapor Density:	No data available.
n-Octanol/Water	No data available.
Partition	
Coefficient:	
Autoignition	No data available.
Temperature:	
Decomposition	No data available.
Temperature:	
Evaporation Rate:	Not applicable.
Flammability	Not classified in Division 4.1 Flammable Solids.
(Solid, Gas):	

SECTION10 STABILITY AND REACTIVITY**Reactivity:**

No data available.

Chemical stability:

Stable under normal temperatures and pressures.

Possibility of hazardous reactions:

No data available.

Conditions to Avoid:

No data available.

Incompatible Materials:

Strong oxidizing agents.

Hazardous Decomposition Products:

Carbon oxides, Nitrogen oxides, Hydrogen chloride gas, Sodium oxides, Potassium oxides, Magnesium oxides, Calcium oxides, Sulfur oxides.

SECTION11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

L-Cysteine: Rat Oral LD₅₀ 1890mg/kg

Sodium chloride: Rat Oral LD₅₀ 3000 mg/kg Rat Inhalation LC₅₀ >42000 mg/m³/h Rabbit Dermal LD₅₀ > 10000 mg/kg

Potassium chloride: Rat Oral LD₅₀ 2600 mg/kg

Magnesium chloride: Rat Oral LD₅₀ 2800mg/kg

Calcium chloride: Rat Oral LD₅₀ 1000mg/kg

Skin Corrosion/Irritation:

No data available.

Serious eye damage/irritation:

No data available.

Respiratory Sensitization:

No data available.

Skin Sensitization:

May cause an allergic skin reaction.

Germ Cell Mutagenicity:

No data available.

Carcinogenicity:

No data available.

Reproductive Toxicity:

No data available.

Specific Target Organ Toxicity -Single Exposure:

No data available.

Specific Target Organ Toxicity -Repeated Exposure:

No data available.

Aspiration Hazard:

No data available.

SECTION12 ECOLOGICAL INFORMATION

Ecotoxicity:

L-Serine: Toxicity to daphnia and other aquatic invertebrates static test EC_{50} - *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 - 72 h (OECD Test Guideline 201)

L-Alanine: Toxicity to daphnia and other aquatic invertebrates static test EC_{50} - *Daphnia magna* (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)

L-Cysteine: Toxicity to fish semi-static test LC_{50} - *Danio rerio* (zebra fish) - > 100 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates semi-static test EC_{50} - *Daphnia magna* (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)

L-Glutamic acid: Toxicity to fish static test LC_{50} - *Cyprinus carpio* (Carp) - > 100 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates static test EC_{50} - *Daphnia magna* (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae static test EC_{50} - *Pseudokirchneriella subcapitata* (green algae) - > 31 mg/l - 72 h (OECD Test Guideline 201)

L-Proline: Toxicity to daphnia and other aquatic invertebrates EC_{50} - *Daphnia magna* (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)

Potassium chloride: Toxicity to fish LC_{50} - *Pimephales promelas* (fathead minnow) - 880 mg/l - 96 h mortality

NOEC - *Pimephales promelas* (fathead minnow) - 500 mg/l - 7d mortality

LOEC - *Pimephales promelas* (fathead minnow) - 1,000 mg/l - 7d

Toxicity to daphnia and other aquatic invertebrates EC_{50} - *Daphnia magna* (Water flea) - > 440 mg/l - 48 h (OECD Test Guideline 202)

Magnesium chloride: Toxicity to fish static test LC_{50} - *Pimephales promelas* (fathead minnow) - 2119.3 mg/l - 96h

Toxicity to daphnia and other aquatic invertebrates static test LC_{50} - *Daphnia magna* (Water flea) - 548.4 mg/l - 48 h

Toxicity to algae Growth inhibition EC_{50} - *Desmodesmus subspicatus* (*Scenedesmus subspicatus*) - > 100 mg/l - 72 h (OECD Test Guideline 201)

Toxicity to bacteria Respiration inhibition EC_{50} - Sludge Treatment - > 900 mg/l - 3 h (OECD Test Guideline 209)

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

L-Proline: Biodegradability aerobic Result: - Readily biodegradable (OECD Test Guideline 301)

Bioaccumulative potential:

No data available.

Mobility in soil:

No data available.

Other adverse effects:

No data available.

SECTION13 DISPOSAL CONSIDERATION

Appropriate Method of Disposal of Substance:

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.

SECTION14 TRANSPORT INFORMATION

RID/ADR: The substance is not subject to RID/ADR.
IATA DGR: The substance is not subject to IATA DGR.
IMO IMDG Code: The substance is not subject to IMO IMDG Code.

SECTION15 REGULATORY INFORMATION

Regulation(EC) No 1272/2008 and its amendments:
Skin sensitization Category 1B

SECTION16 OTHER INFORMATION

Date:

2020-03-17

Department:

Shanghai Research Institute of Chemical Industry Testing Co., Ltd.
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Revision:

0

Reference Standard:

GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS), 8th revised edition

Other Information:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising from using the above information.

