



# SAFETY DATA SHEET

## Section 1: Product and Company Identification

### **PRODUCT IDENTIFIER**

**Product Name** HelixCHO™ Feed, Liquid  
**Product Code** P253322-01

For Research Use or Further Manufacturing. Not for diagnostic or therapeutic use in humans or animals.

### **SUPPLIER**

OPM Biosciences, Inc.  
5653 Stoneridge Dr., Ste. 117&118  
Pleasanton, CA 94588, USA  
(925) 523-2199  
[opmus\\_sales@opmbiosciences.com](mailto:opmus_sales@opmbiosciences.com) / [Tech-support@opmbiosciences.com](mailto:Tech-support@opmbiosciences.com)

### **IN CASE OF EMERGENCY**

In the United States: For 24/7 multilingual advice for a spill, leak, fire, exposure, or accident, please call CHEMTREC at +1 703-527-3887 (Washington DC) or 1-800-424-9300 (toll-free) and provide CCN 1023867.

For locations outside of United States: Please contact VelocityEHS at +1 813-248-0585. Collect calls are accepted. Shipments originating in USA and going to other locations outside of USA should also contact 1-800-255-3924. Please provide contract number MIS6517807 in the call. If the caller does not speak English, after accepting the call, VelocityEHS will conference call to their on-line translation service for live interpretation.

## SECTION 2: Hazard Identification

### **GHS CLASSIFICATION**

According to GHS system (11th revised edition), not classified as a hazardous chemical.



## **GHS LABEL ELEMENTS**

Hazard pictograms	Not applicable
Signal word	Not applicable

## **HAZARD STATEMENTS**

Hazard statements	Not applicable
-------------------	----------------

## **PRECAUTIONARY STATEMENTS**

### **Prevention**

Prevention	Not applicable
------------	----------------

### **Response**

Response	Not applicable
----------	----------------

### **Storage**

Storage	Not applicable
---------	----------------

### **Disposal**

Disposal	Not applicable
----------	----------------

## **HAZARD DESCRIPTION**

### **Physical and chemical hazards**

No information available

### **Health hazards**

Inhaled	Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.
Ingestion	Accidental ingestion of the product may be harmful to the health of the individual
Skin Contact	Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Eye	This product may cause temporary discomfort following direct contact with the eye.

### **Environmental hazards**

Please refer to 12th chapter of SDS.



### SECTION 3: Composition/Information on Ingredients

#### SUBSTANCE/MIXTURE

Component	CAS No.	EC No.	Concentration (Volume or weight percent, %)
Amino acid salts	N/A	N/A	Commercial secrets

### SECTION 4: First-Aid Measures

#### DESCRIPTION OF FIRST AID MEASURES

<b>General advice</b>	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
<b>Skin contact</b>	No harm in general situations. First aid is not needed.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Call a physician immediately.
<b>Inhalation</b>	Move victim into fresh air. If breathing is difficult, give oxygen and consult a physician immediately.
<b>Protecting of first-aiders</b>	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

#### MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED

Please see section 11.

#### INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

1. Treat symptomatically.
2. Symptoms may be delayed.



## SECTION 5: Fire-Fighting Measures

### **EXTINGUISHING MEDIA**

- |                                       |                                                                        |
|---------------------------------------|------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | Use extinguishing media suitable for surrounding area.                 |
| <b>Unsuitable extinguishing media</b> | There is no restriction on the type of extinguisher which may be used. |

### **SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE**

1. Not considered a significant fire risk, however containers may burn.

### **SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS**

1. As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2. Fight fire from a safe distance, with adequate cover.
3. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## SECTION 6: Accidental Release Measures

### **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

1. Ensure adequate ventilation. Remove all sources of ignition.
2. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3. Use personal protective equipment. do not breathe dust/fume.

### **ENVIRONMENTAL PRECAUTIONS**

1. Prevent further leakage or spillage if safe to do so.
2. Discharge into the environment must be avoided.

### **METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP**

1. Cut off the source of the leak as much as possible.
2. Keep leaks in a ventilated place.
3. Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
4. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
5. Contain spillage and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.



## SECTION 7: Handling and Storage

### **PRECAUTIONS FOR SAFE HANDLING**

1. Handling should be performed in a well-ventilated place.
2. Wear suitable protective equipment.
3. Avoid contact with skin and eyes.
4. Keep away from heat/sparks/open flames/hot surfaces.

### **CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES**

1. Keep containers tightly closed.
2. Protect from light and keep dry. Storage temperature: 2-8°C.
3. Keep away from heat/sparks/open flames/ hot surfaces.
4. Store away from incompatible materials and foodstuff containers.

## SECTION 8: Exposure Controls/Personal Protection

### **CONTROL PARAMETERS**

<b>Occupational exposure limit</b>	No relevant regulations
<b>Biological limit values</b>	No information available
<b>Monitoring Methods</b>	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. GBZ/T 300 and GBZ/T 160 series standard Determination of toxic substances in workplace air.

### **ENGINEERING CONTROLS**

1. Ensure adequate ventilation, especially in confined areas.
2. Ensure that eyewash stations and safety showers are close to the workstation location.
3. Set up emergency exit and necessary risk-elimination area.
4. Handle in accordance with good industrial hygiene and safety practice.

### **PERSONAL PROTECTIVE EQUIPMENT**

<b>General requirement</b>	No special requirements, please see the description below.
<b>Eye protection</b>	In general situations, eye protection is not needed. In the production process, when contacting with vapour or dust, tightly fitting safety goggles.



<b>Hand protection</b>	In general situations, hand protection is not needed.
<b>Respiratory protection</b>	In general situations, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, wear dust proof mask or gas defence mask.
<b>Skin and body protection</b>	In general situations, skin and body protection are not needed.

## SECTION 9: Physical and Chemical Properties

### PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Orange transparent liquid
<b>Odor</b>	No information available
<b>Odor Threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting Point/Freezing Point (°C)</b>	No information available
<b>Flash Point (°C) (Closed Cup)</b>	The flash point above 93°C (ASTM D 7094)
<b>Flammability</b>	No flammable
<b>Vapor Pressure (KPa)</b>	Not applicable
<b>Relative Density (Water=1)</b>	No information available
<b>n-Octanol/Water Partition Coefficient</b>	No information available
<b>Decomposition Temperature (°C)</b>	No information available
<b>Particle characteristics</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>Upper/lower explosive limits [% (v/v)]</b>	Upper limit: No information available; Lower limit: No information available
<b>Relative Vapour Density (Air = 1)</b>	Not applicable
<b>Solubility</b>	No information available
<b>Auto-Ignition Temperature (°C)</b>	No information available
<b>Kinematic Viscosity (mm<sup>2</sup>/s)</b>	Not applicable



## SECTION 10: Stability and Reactivity

### PHYSICAL AND CHEMICAL PROPERTIES

<b>Reactivity</b>	Contact with incompatible substances can cause decomposition or other chemical reactions.
<b>Chemical stability</b>	Stable under normal use and proper
<b>Possibility of hazardous reactions</b>	No information available.
<b>Conditions to avoid</b>	Incompatible materials, heat, flame, and spark.
<b>Incompatible materials</b>	No information available.
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological Information

### ACUTE TOXICITY

<b>Acute toxicity</b>	No information available.
-----------------------	---------------------------

### CARCINOGENICITY

<b>Component</b>	<b>List of carcinogens by the IARC Monographs</b>	<b>Report on Carcinogens by NTP</b>
Amino acid salts	Not listed	Not listed

### OTHERS

<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met
<b>Serious eye damage/irritation</b>	Based on available data, the classification criteria are not met
<b>Skin sensitization</b>	Based on available data, the classification criteria are not met
<b>Respiratory sensitization</b>	Based on available data, the classification criteria are not met



<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met
<b>STOT-single exposure</b>	Based on available data, the classification criteria are not met
<b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met

## **SECTION 12: Ecological Information**

### **ACUTE AQUATIC TOXICITY**

<b>Acute aquatic toxicity</b>	No information available
-------------------------------	--------------------------

### **CHRONIC AQUATIC TOXICITY**

<b>Chronic aquatic toxicity</b>	No information available
---------------------------------	--------------------------

### **PERSISTENCE AND DEGRADABILITY**

<b>Persistence and degradability</b>	No information available
--------------------------------------	--------------------------

### **BIOACCUMULATIVE POTENTIAL**

<b>Bioaccumulative potential</b>	No information available
----------------------------------	--------------------------

### **MOBILITY IN SOIL**

<b>Mobility in soil</b>	No information available
-------------------------	--------------------------

### **RESULTS OF PBT AND vPvB ASSESSMENT**

<b>Result of PBT and vPvB assessment</b>	Insufficient information, temporarily unable to evaluate
------------------------------------------	----------------------------------------------------------



## SECTION 13: Disposal Considerations

<b>Waste treatment methods and disposal</b>	Before disposal, please refer to the relevant national and local laws and regulations. Recommend the use of incineration disposal.
<b>Contaminated packaging</b>	Containers may still present chemical hazards when empty. Keep away from heat and ignition sources. Return to supplier for recycling if possible.
<b>Disposal recommendations</b>	Refer to section waste chemicals and contaminated packaging.

## SECTION 14: Transport Information

### LABEL

<b>Transporting Label</b>	Not applicable
---------------------------	----------------

### IMDG-CODE

<b>IMDG-CODE</b>	Not regulated for transport of dangerous goods
------------------	------------------------------------------------

### ICAO/IATA-DGR

<b>IATA-DGR</b>	Not regulated for transport of dangerous goods
-----------------	------------------------------------------------

### UN-ADR

<b>UN-ADR</b>	Not regulated for transport of dangerous goods
---------------	------------------------------------------------

### SPECIAL PRECAUTIONS FOR USER

<b>Special precautions for user</b>	Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.
-------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### TRANSPORT IN BULK ACCORDING TO IMO INSTRUMENTS

<b>Transport in bulk according to Annex II of MARPOL and the IBC code</b>	No information available
---------------------------------------------------------------------------	--------------------------



**Transport in bulk according with MARPOL Annex V and the IMSBC code** No information available

**Transport in bulk according with IGC code** No information available

**SECTION 15: Regulatory Information**

**INTERNATIONAL CHEMICAL INVENTORY**

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIICS	ENCS	INSQ	DRAFT	TCSI
Amino acid salts	×	×	×	×	×	×	×	×	×	×	×	×

[EINECS] European Inventory of Existing Commercial Chemical Substances

[TSCA] United States Toxic Substances Control Act Inventory

[DSL] Canadian Domestic Substances List

[IECSC] China Inventory of Existing Chemical Substances

[NZIoC] New Zealand Inventory of Chemicals

[PICCS] Philippines Inventory of Chemicals and Chemical Substances

[KECI] Korea Existing Chemicals Inventory

[AIICS] Australian. Inventory of Industrial Chemical

[ENCS] Japan Inventory of Existing & New Chemical Substances

[INSQ] Mexico National Inventory of Chemical Substances

[DRAFT] Russia Inventory of Existing Substances

[TCSI] Inventory of Existing Chemical Substances in Taiwan, China



## LIST OF CHEMICAL SUBSTANCES UNDER INTERNATIONAL CONVENTIONS

Component	A	B	C
Amino acid salts	×	×	×

[A] The Montreal Protocol on Substances that Deplete the Ozone Layer

[B] Stockholm Convention on Persistent Organic Pollutants (POPs)

[C] Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade

Note: “√” Indicates that the substance included in the regulations.

“×” No data or not included in the regulations.

## US STATE REGULATIONS

Chemical Name	Massachusetts - RTK (Right-to-Know)	New Jersey - RTK (Right-to-Know)	Pennsylvania - RTK (Right-to-Know)
Nickel (II) sulfate hexahydrate (1:1:6)	Listed	Listed	Listed
Cadmium Chloride 2.5H <sub>2</sub> O	Listed	Listed	Listed

### **California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS No.	Weight-%	Category
Nickel (II) sulfate hexahydrate (1:1:6)	10101-97-0	None	Carcinogen Developmental Male Reproductive
Cadmium Chloride 2.5H <sub>2</sub> O	35658-65-2	None	Carcinogen Listed

### **WHMIS Hazard Class**

This product has been classified in accordance with the Hazardous Products Regulations (HPR). It is not considered a hazardous product under WHMIS 2015.



## SECTION 16: Other information

### **INFORMATION ON REVISION**

Creation date	2025/11/10
Revision date	N/A
Version Number	NASDS145A

### **REFERENCE**

- [1] ICSC: <https://www.ilo.org/dyn/icsc/showcard.home>
- [2] IARC: <http://www.iarc.fr/>
- [3] OECD: <https://www.echemportal.org/echemportal/>
- [4] CAMEO: <http://cameochemicals.noaa.gov/search/simple>
- [5] NLM: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- [6] EPA: <http://cfpub.epa.gov/iris/>
- [7] ERG: <http://www.phmsa.dot.gov/hazmaUlibrary/erg>
- [8] Germany GESTIS-database on hazard substance: <http://gestis-en.itrust.de/>

### **ABBREVIATIONS AND ACRONYMS**

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organized for Economic Cooperation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC <sub>50</sub>	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD <sub>50</sub>	Lethal Dose 50%	NTP	National Toxicology Program
EC <sub>50</sub>	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC <sub>X</sub>	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulate
P <sub>ow</sub>	Partition Coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction



BCF	Bioconcentration Factor	RPE	Respiratory Protective Equipment
ED	Endocrine Disruptor	G1	Carcinogenic to humans
G2A	Probably carcinogenic to humans	G2B	Possibly carcinogenic to humans
G3	Not yet classified as carcinogenic to humans	G4	Probably no carcinogenic to humans

### **DISCLAIMER**

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 11th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage, or expense arising out of or in any way connected with the handling, storage, use, or disposal of the product.

**End of Safety Data Sheet**