

MATERIAL SAFETY DATA SHEET

OPTIMIZE MICRO

Section 1. Chemical Product and Company Identification

Product Name	Optimize Plus 3-7-0
Trade Name	Optimize Plus
Distributor	Cropoland Solutions Inc., 9068 51 st Ave NW, Edmonton, AB, T6E 5X4

Section 2. Composition, Information on Ingredients

Hydrolyzed proteins, peptides	24-39%
Organic Inorganic Buffering Matrix	20 %
Surfactants	5-10%
Micronutrients Zn, Mn, B	1% each
Sulphur	5%
Additive color Indicators	<2%
Water	to make 100%

Section 3. Hazards Identification

Most Important Hazards	Classified as hazardous according to the criteria of NOHSC
Human Health Hazards - Eyes	Irritating to eyes, in case of contact with eyes, rinse immediately with plenty of water and contact a doctor
Human Health Hazards - Skin	Material may cause irritation on prolonged or repeated contact.
Human Health Hazards - Ingestion	A large dose may have the following effects: diarrhea, nausea, vomiting.
Human Health Hazards - Inhalation	Exposure to dust at high concentrations may have the following effects: - irritation of nose, throat and respiratory tract.

Section 4. First Aid Measures

Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion:	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Skin Contact:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

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	<p>Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.</p>
Eye Contact:	<p>Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.</p>
Effects and symptoms	
Inhalation:	<p>Slightly hazardous in case of inhalation (lung irritant, lung sensitizer). Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Over-exposure by inhalation may cause respiratory irritation.</p>
Ingestion:	<p>May be fatal if swallowed. May cause burns to mouth, throat and stomach.</p>
Skin Contact	<p>Hazardous in case of skin contact (corrosive). Skin contact may produce burns.</p>
Eye Contact	<p>Very hazardous in case of eye contact (corrosive). Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation.</p>
	<p>Aggravating conditions Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.</p>

Section 5. Fire Fighting Measures

Extinguishing Media - Suitable	Use water spray, foam, dry chemical, alcohol resistant foam or CO ₂
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Section 6. Accidental Release Measures

Personal Precautions	Wear appropriate personal protective equipment such as splash goggles, gloves.
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Small Spills	Absorb with sand or other non-combustible absorbent material and put in a suitable container for reclamation or disposal.
Large Spills	Dyke far ahead of liquid spills for later disposal. Prevent entry of the substance into waterways, sewers, basements or confined areas. Neutralise the residue with dilute solution of alkali such as sodium carbonate

Section 7. Handling and Storage
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Handling	Keep in tightly closed container in a shaded, well-ventilated area, away from heat, sparks and other sources of ignition incompatible substances such as alkali, oxidising agents
Storage	Storage area should be cool, dry out of direct sunlight. Protect against physical damage. Observe all warnings and precautions listed for the product. If ingested seek medical advice immediately & show the container or label. Avoid contact with skin & eyes

Section 8. Exposure Controls, Personal Protection
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Protective Measures - Respiratory	In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered. Wear suitable personal protective equipment including approved respiratory protection.
Protective Measures - Hands	Wear appropriate hand gloves where necessary. Wash hands, forearms, thoroughly after handling the product & before eating, drinking, smoking, using lavatory & at the end of the day.
Protective Measures - Eyes	Use chemical safety goggles and/or full-face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Section 9. Physical and Chemical Properties
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Physical State	Liquid
Color	Red Colored Liquid
Density	1.14 – 1.35
pH (1% solution)	3.0 to 4.0
Flash Point	> 100 deg. Celsius
Boiling Point	> 100 deg. Celsius

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Solubility in water

Soluble in water

Section 10. Stability and Reactivity

Stability

Stable under recommended storage and handling conditions (see section 7). Hygroscopic.

Conditions to Avoid

Exposure to direct sunlight

Incompatible materials

Strong Oxidizing agents

Hazardous decomposition products:

Oxides of nitrogen and carbon & phosphates

Hazardous reactions:

No hazardous reactions with proper storage and handling.

Section 11. Toxicological Information

Acute toxicity

Low order of acute toxicity
 Oral LD50 (rat) >1000 mg/kg
 Dermal LD50 (rabbit) >1500 mg/kg
 Inhalation LC50 (rat) >20 mg/liter/4h

Eye irritation

Irritating to the eye.

Skin irritation

Moderately irritating to the skin. Repeated or prolonged exposure with skin may cause dermatitis or burning of the skin

Section 12. Ecological information

Eco toxicity

No relevant studies identified.

Section 13. Disposal considerations

Disposal considerations

Contaminated absorbents, surplus product (in diluted form), etc., should be buried in approved landfill. Comply with any local legislation applying to waste disposal. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Surfactants can cause foaming problems in biological wastewater treatment plants and other high shear operations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14. Transport Information

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UN : UN number

UN Number: None Allocated
UN Proper Shipping Name: None Allocated
Class: None Allocated
Packing Group: None Allocated
Hazchem Code: None Allocated
Road and Rail Transport: Not classified as Dangerous Goods by the criteria of the Dangerous Goods Code for transport by Road and Rail.
Marine Transport: Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.
Air Transport: Not classified as Dangerous Goods by the criteria of the International Air Transport (IATA) Dangerous Goods Regulations for transport by air

Section 15. Regulatory Information

EC Classification

Classification Toxic
Risk Phrases - R21- Harmful in contact with skin.
R25- Toxic if swallowed.
R34- Causes burns.
Safety Phrases:
S1/2- Keep locked up and out of the reach of children.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section 16. Other Information

MSDS first issued

22.01.2022