

SAFETY DATA SHEET

OPTIFY



SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: OPTIFY
EPA Registration No.: 33270-37
Product Type: Plant Growth Regulator
Active Ingredient: Complex Polymeric polyhydroxy acids (CPPA)
Manufacturer/Registrant: United Suppliers, Inc.
30473 260th St.
Eldora, IA 50627

For Product Information: Contact the National Pesticide Information Center 1-800-858-7378
For Medical Emergencies: Contact National Poison Control Center 1-800-222-1222
For Chemical Emergency (Spill, leak, fire, exposure, or accident): Call CHEMTREC 1-800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

THE FOLLOWING HAZARDS ARE IDENTIFIED ACCORDING TO OSHA HCS CLASSIFICATION (29 CFR 1910.1200).

Hazard Classifications: None

Signal Word: None

Pictogram: None

Hazard Statements: None

Precautionary Statements: None

Storage and Disposal: See Section 7 and 13.

Other Hazards: See Section 11 and 12.

SECTION 3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>CAS No.</u>	<u>Percentage (%) by Weight:</u>
Complex Polymeric polyhydroxy acids	1175006-56-0	0.18

SECTION 4. FIRST AID MEASURES

If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment.

HOTLINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Product Safety Hotline 1-866-359-5667 day or night, for emergency medical treatment information.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point: Not applicable

Flammable Limits (LFL & UFL): Not applicable

Extinguishing Media: Use dry chemical, foam carbon dioxide, water spray or fog.

Unusual Fire and Explosion Hazards: No specific explosion hazards are identified or expected. Always fight fire with the implication that other volatile substances may be present.

Hazardous Decomposition Products: Normal combustion forms carbon dioxide, water vapor and may produce oxides of carbon, nitrogen and phosphorous.

Special Fire Fighting procedures: Evacuate the area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

Fire Fighting Equipment: Self-contained breathing apparatus with full face-piece. Equipment should be thoroughly decontaminated after use.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Steps to be Taken if Material is Released or Spilled: In case of leak or spill, contain material and dispose as waste. Do not contaminate any body of water. Pick up spilled liquid with absorbent material and sweep up for disposal. Place it and damaged unusable containers in appropriate containers for proper waste treatment. Check local, state and federal regulations for proper disposal. **NOTE:** Prevent spilled material from flowing onto adjacent land, or into municipal sewers and open bodies of water. Always wear proper protective equipment when working with the product.

SECTION 7. HANDLING AND STORAGE

Handling: Wash hands after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Storage: Keep pesticide in original container. Keep container tightly closed when not in use. Store product above 40°F. Do not store in aluminum, fiberglass, copper, brass, zinc, or galvanized containers. Protect from excessive heat. Store in a cool, dry place.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.

Hand Protection: Use gloves chemically resistant to this material.

Eye Protection: Use chemical goggles.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process.

Personal Protective Equipment (PPE): Follow manufacturer's instructions for cleaning/maintaining PPE. If not such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Users should:

- Wash hands thoroughly after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Controls: Refer to product label. Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Exposure Limits: Not Established.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Dark brown liquid

Odor: Slightly sweet to Peanut oil

Odor Threshold: Not available
pH: 7
Flash Point: Not applicable
Flammability: Not flammable
Density: 1.05 g/cm³
Water Solubility: Soluble
Viscosity: 1.29 centipoise @ 25°C; 0.957 centipoise @ 40°C
Flammability (Solid, Gas): Not applicable
Upper/Lower Flammability/Explosive Limits: Not available
Auto-ignition Temperature: Not available
Explodability: Not available
Solubility in alcohols: Miscible in alcohols.
Partition Coefficient (n-Octanol/Water): Not available
Vapor Pressure: >1.0 mm/Hg @ 100°C
Vapor Density: Not available
Freezing point: 0°C
Boiling Point: 100°C
Evaporation Rate: Not available
Decomposition Temperature: Not available

SECTION 10. STABILITY AND REACTIVITY STABILITY:

Stability: Stable under normal use and storage conditions.
Conditions and Materials to Avoid: Avoid excessive heat.
Incompatibility: None known.
Hazardous Polymerization: Will not occur.
Hazardous Decomposition Products: Normal combustion forms carbon dioxide, water vapor and may produce oxides of carbon, nitrogen and phosphorous..

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (based on tests conducted with 0.9% TGAI, finished product (0.18%) is a further water diluted product):

Acute oral toxicity:	LD ₅₀ (rat)	> 5,000 mg/kg
Acute Dermal toxicity:	LD ₅₀ (rabbit):	> 5,050 mg/kg
Acute inhalation toxicity:	LC ₅₀ (rat):	2.16 mg/L
Eye irritation:	Non-irritating	
Skin irritation:	Non-irritating	
Skin Sensitization:	Not a skin contact sensitizer	

Toxicological Information :

Chronic/Subchronic Toxicity: Not considered toxic via subchronic or chronic oral exposure based on available published literature studies on major components of CPPA.

Reproductive/Developmental Effects: Available published literature studies on major components of CPPA support a lack of developmental and/or reproductive effects.

Mutagenicity: None observed.

Carcinogenicity: EPA's Cancer Peer Review Committee has classified 2,4-D as a Group D chemical : not classifiable as to human carcinogenicity, based on the results of carcinogenicity studies in rats and mice.

Target Organs: No specific target organs found in acute, subchronic or chronic studies.

Carcinogenicity Assessment:

ACGIH: None

NTP : None

IARC : None
OSHA : None

SECTION 12. ECOLOGICAL INFORMATION

Environmental Hazards: For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

Ecotoxicity Information: (Based on tests conduct with 0.9% TGA)

Rainbow Trout acute LC₅₀ : >1,000 mg/L

Daphnia magna acute EC₅₀ : >1,000 mg/L

Bobwhite quail acute LD₅₀ > 72 mg/kg; NOEL (mortality and adverse effects): > 72 mg/kg

Bobwhite quail dietary LC50: > 1,080 mg/kg; NOEC: > 1,080 mg/kg

Environmental Fate: CPPA, the active ingredient in Carbon Power, is derived from natural organic matter. Accordingly, based on studies conducted on its major components, CPPA is biodegradable with a soil DT50 likely in the range of +/- 25-30 days and is unlikely to persist under either aerobic or anaerobic aquatic conditions.

SECTION 13. DISPOSAL CONSIDERATIONS

Pesticide Disposal: If wastes cannot be disposed of by using according to the label directions, they should be disposed of as a hazardous waste at a regulated disposal facility. Open dumping is prohibited.

Container Disposal: Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Contact the nearest State Pesticide or Environmental control Agency, or the Hazardous Waste representative at the nearest EPA regional office for guidance

SECTION 14. TRANSPORT INFORMATION

DOT:

Not regulated.

IMDG/IMO

Not regulated.

ICAO/IATA

Not regulated.

SECTION 15. REGULATORY INFORMATION

FIFRA INFORMATION:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION May cause slight eye irritation. Avoid contact with skin, eyes or clothing. Wear goggles or face shield when handling concentrate. After product is diluted in accordance with the directions for use, goggles or face shield are not required. Wear appropriate personal protective equipment (PPE). Wash thoroughly with soap and water after handling using the toilet. Remove contaminated clothing and wash before reuse.

SARA 311/212 Hazard Categories:

Section 311/312 Not applicable

Section 313 Chemical(s) Not applicable

CERCLA/SARA 302 Reportable Quantity (RQ): Not applicable

RCRA Hazardous Waste Classification (40 CFR 261): Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA List: The ingredients of this product are listed on the TSCA inventory or are exempt.

CA Proposition 65:

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

SECTION 16. OTHER INFORMATION

SDS DATE: 12-1-2015. Supersedes version dated 2-5-2015. Revised for OSHA 2012 HCS compliance.

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions