



OCTIVIO™

PULSE

SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)

1. IDENTIFICATION

PRODUCT NAME: Octivio PULSE
DESCRIPTION: Liquid Herbicide
EPA REG. NO.: 91234-127
COMPANY IDENTIFICATION: Atticus, LLC
 940 NW Cary Parkway, Suite 200
 Cary, NC 27513

2. HAZARD IDENTIFICATION

WARNING

Harmful if swallowed (H302)
 Very toxic to aquatic life with long lasting effects
 (H4100+H410)



HAZARD CLASSIFICATION

Health Hazards	Category	Environmental Hazards	Category
Acute Toxicity, Oral	4	Hazardous to the Aquatic Environment – Chronic (long-term)	1
Physical Hazards	-	Hazardous to the Aquatic Environment – Acute (short-term)	1

HAZARDS NOT REQUIRING CLASSIFICATION

None

PRECAUTIONARY STATEMENTS

Wash hands thoroughly after handling. (P264)

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. (P301+P312)

Avoid release to the environment not in accordance with the product label. (P273)

Collect spillage. (P391)

Dispose of contents / container in accordance with local regulations. Refer to the product label for specific disposal instructions. (P501)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name	Chemical Name	CAS #	Composition
Bentazon sodium	3-(1-methylethyl)-1H-2,1,3-benzothiadiazin-4(3H)-one 2,2-dioxide, sodium salt	50723-80-3	43.66%
Imazamox	3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-(methoxymethyl)-	114311-32-9	2.00%

NOTE: Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance. For chemical emergency: spill, leak, fire, exposure or accident, call CHEMTREC: 1-800-424-9300.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

5. FIREFIGHTING MEASURES

Flash Point: Not flammable.

Flammability Limits: Not determined.

Fire and Explosion Hazards: Toxic gases may be released under fire conditions.

Extinguishing Medium: Water fog, foam, dry powder, or carbon dioxide (CO₂).

Fire Fighting Equipment: Firefighters should wear appropriate protective equipment and be equipped with self-contained positive pressure breathing apparatus and full bunker gear.

Fire Fighting Instructions: Evacuate area of all unnecessary personnel and fight fire from a safe distance upwind. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, nitrogen oxides

NFPA Ratings: Health – 1 / Flammability – 1 / Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Isolate area and keep unnecessary and unprotected personnel from entering. Wear suitable personal protective clothing and equipment as described in Section 8 of this document.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

6. ACCIDENTAL RELEASE MEASURES (cont.)

Spill Cleanup:

For small spills: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder). Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. *For large spill:* Dike spillage. Pump off product. Follow disposal and cleanup instructions above.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes, or clothing. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Storage: Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area. Keep from freezing. Do not store below 32°F.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: No occupational exposure limits known. Whenever possible, engineering controls should be used to minimize the need for personal protective equipment. Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

Protective Clothing: Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks.

General: Remove clothing/PPE immediately 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. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	transparent amber liquid
Odor:	bitter
Melting/freezing point:	not available
Boiling point/Boiling range:	not available
Flammability:	not flammable
Flammability limits (upper/lower):	not available
Flash point:	not available
Auto-ignition temperature:	not available
Decomposition temperature:	not available
pH:	5-6 (1% sol.)
Kinematic viscosity:	14.8 cP (25°C) 8.33 cP (39°C)
Solubility:	soluble in water
Partition coefficient:	not available
Vapor pressure:	not available
Relative Density:	1.2 g/cm ³ @ 25°C
Relative vapor density:	not available
Particle characteristics:	not available

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: No hazardous reactions if stored and handled as prescribed/indicated. Avoid sources of ignition (heat, sparks, open flame), extreme temperatures, prolonged exposure to heat, electrostatic discharge, prolonged storage.

CHEMICAL STABILITY: Stable under normal use and storage conditions.

INCOMPATIBILITY WITH OTHER MATERIALS: Strong acids, strong bases, strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: No hazardous decomposition products if stored and handled as prescribed/indicated.

HAZARDOUS POLYMERIZATION: None known.

11. TOXICOLOGICAL INFORMATION

Information presented below is from testing done on a substantially similar product:

ORAL TOXICITY (Glycerol rat LD₅₀): >300 and <2,000 mg/kg

DERMAL TOXICITY (Tebuconazole rat LD₅₀): > 2,000 mg/kg

INHALATION TOXICITY (rat LC₅₀): >5 mg/l

EYE IRRITATION: Non-irritant (rabbit)

SKIN IRRITATION: Non-irritant (rabbit)

SKIN SENSITIZATION: Non-sensitizer

CARCINOGENICITY:

NTP: Not listed

IARC: Not listed

EPA: Group E (evidence of non-carcinogenicity for humans; sodium betazon); Not likely to be carcinogenic to humans (imazamox)

MUTAGENIC TOXICITY: No evidence of mutagenicity in tests conducted using the active ingredients.

REPRODUCTIVE TOXICITY: The results of animal studies gave no indication of a fertility impairing effect.

CHRONIC TOXICITY: No substance-specific organ toxicity was observed after repeated administration to animals.

12. ECOLOGICAL INFORMATION

This pesticide is very toxic to aquatic plants.

AQUATIC TOXICITY

Fish – *Oncorhynchus mykiss* (96-hour LC₅₀): > 100 mg/L

Daphnia magna (48-hour LC₅₀): >100 mg/L

Algae -- *Pseudokirchneriella subcapitata* (72-hr EC₅₀): > 100 mg/L

Duckweed -- *Lemna gibba* (7 days EC₅₀): 0.79 mg/l

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used must be disposed of in a landfill approved for pesticides. Improper disposal of excess spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Refer to the product label for specific container disposal instructions.

14. TRANSPORT INFORMATION

US-DOT:

Not regulated

IMDG:

Containers ≤ 1.3 gal. (5 L) in strong outer packaging:

Not regulated

Containers > 1.3 gal. (5 L) or containers not in strong outer packaging:

Shipped internationally by vessel: UN3082, Environmentally hazardous substance, liquid, N.O.S. (contains bentazon sodium and imazamox), 9, PG III, Marine Pollutant

IATA:

Containers ≤ 1.3 gal. (5 L) in strong outer packaging:

Not regulated

Containers > 1.3 gal. (5 L) or containers not in strong outer packaging:

Shipments by air: UN3082, Environmentally hazardous substance, liquid, N.O.S. (contains bentazon sodium and imazamox), 9, PG III, Marine Pollutant

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

FIFRA –

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 required for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This pesticide may be hazardous to plants outside the treated area.

Bentazon is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

SARA Title III – Section 302 Extremely Hazardous Substances

Not listed

SARA Title III – Section 311/312 Hazard Categories

Immediate

SARA Title III – Section 312 Threshold Planning Quantity

The threshold planning quantity (TPQ) for this product treated as a mixture is 10,000 lbs. This product contains no ingredients with a TPQ of less than 10,000 lbs.

SARA Title III – Section 313 Reportable Ingredients

Not listed

CERCLA Reportable Quantity (RQ) –

Not listed

CALIFORNIA PROP 65 STATUS –

This product does not contain any chemical known to the state of California to cause cancer or reproductive harm.

CANADA –

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

To the extent consistent with applicable law, neither Atticus, LLC nor Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ATTICUS, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ATTICUS, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SDS Version: 1.2

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