



SAFETY DATA SHEET PRODIAMINE 0.37 PLUS

1. IDENTIFICATION

Product name: **Prodiamine 0.37 Plus**
Product type: Herbicide
EPA Registration No.: 53883-172
Chemical name of active ingredient(s): **Prodiamine:** 2,4-dinitro-*N*³, *N*³-dipropyl-6-(trifluoromethyl)-1,3-benzenediamine
Manufacturer/Registrant: Bonus Crop Fertilizer, Inc.
Post Office Box 1062
Greenville, Texas 75403
(903) 455-9439

For fire, spill, and/or leak emergencies, contact Chemtrec: Phone: 1-800-424-9300
For medical emergencies and health and safety inquiries, contact Safety Call: Phone: 1-866-897-8050
Poison Control Center Phone: 1-800-222-1222

2. HAZARDS IDENTIFICATIONS

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Toxicity:

	Acute oral	Acute dermal	Acute inhalation	Eye irritation	Skin irritation	Skin Sensitization
Category	NC	NC	4	NC	NC	1B

NC: Not classified

SIGNAL WORD: WARNING

HAZARD STATEMENTS:

- Harmful if inhaled
- May cause allergic skin reaction
- Suspected of causing cancer (Category 2)

PICTOGRAM:



PRECAUTIONARY STATEMENTS:

- Avoid breathing mist, vapors or spray. Use only outdoors or in a well-ventilated area. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center if you feel unwell.



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- Avoid breathing dust. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice. Wash contaminated clothing before reuse.
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and clothing, eye and face protection.

Contact Safety Call® International for emergency medical treatment at (866) 897-8050.

STORAGE AND DISPOSAL: See Section 7 and 13.

OTHER HAZARDS: See Section 11 and 12.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Prodiamine	29091-21-2	0.37	NE	NE	NA	NA
Inert Ingredients including:						
Crystalline silica, Quartz *	14808-60-7		0.1 mg/m ³	0.1 mg/m ³	NA	IARC: 1** NTP: 1***

NE=Not established; NA=Not applicable.

*May be present as a naturally occurring mineral in the fertilizer ingredients used in this formulation. The respirable portion of crystalline silica in this product is very small, and excessive inhalation is unlikely under normal conditions of use.

**IARC Group 1: The agent (mixture) is carcinogenic to humans.

***NTP Group 1: Substances or groups of substances, and medical treatments that are known to be carcinogenic.

4. FIRST AID MEASURES

FIRST AID	
IF IN EYES:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing eye.• Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give any liquid to the person.• Do not give anything by mouth to an unconscious person.
IF INHALED:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.• Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall® International at (866) 897-8050 for emergency medical treatment information.

5. FIRE FIGHTING MEASURES



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FLASH POINT: Not applicable

FLAMMABLE LIMITS: Not applicable

EXTINGUISHING MEDIA: Water, CO₂, foam, or dry chemical.

FIRE & EXPLOSION HAZARDS: Pesticide fires have potential to emit hazardous gases such as carbon monoxide, carbon dioxide, hydrogen fluoride, hydrogen chloride, nitrogen oxides, sulfur oxides, acid halides. If product is heated above decomposition temperature, toxic vapours will be released.

FIRE-FIGHTING PROCEDURES: Fire fighters should wear full protective gear and self-contained breathing apparatus. Approach the fire from upwind side. Contain runoff to prevent pollution. Fumes and smoke from fire may be hazardous.

HAZARDOUS DECOMPOSITION PRODUCTS: May release irritating and toxic gases due to thermal decomposition.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Isolate and contain spill. Remove unauthorized persons from spill area. Do not walk through spilled materials. Wear suitable protective gear. Carefully sweep or scoop spilled material and place in a closed, labeled container for use or disposal. Scrub contaminated surfaces with detergent and water, and collect wash water solution for proper disposal according to label directions. Do not allow spilled material to enter streams, sewers or other waters. **Small spill or leak:** Wear protective clothing as recommended on label. Sweep up spilled material for use according to label directions. **Waste Disposal Methods:** Consult state or local environmental agency for disposal of waste generated by a spill. Wastes from the use of this product according to label directions may be disposed as specified on product label.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment. Carefully Wear appropriate protective gear when handling open containers. Do not take internally. Avoid contact with eyes, skin or clothing. Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in a locked, dry area, away from feed or food, and out of reach of children, pets and domestic animals. Keep containers tightly closed when not in use. Store in original container only. Do not remove or destroy product label. Dispose of empty containers as specified on product label.

STORAGE TEMPERATURE (MIN/MAX): Normal ambient temperatures.

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.

HAND PROTECTION: Chemical-resistant gloves.

SKIN PROTECTION: Long-sleeve shirt, long pants, shoes plus socks.

EYE PROTECTION: Protective eyewear or chemical safety glasses with side shields or chemical goggles when working in non-ventilated spaces.



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RESPIRATOR REQUIREMENTS: For normal handling and use, a respirator is not required. For excessively dusty conditions, use a dust mask approved by MSHA/NIOSH. See OSHA regulations in 29 CFR § 1910.134 before using any respirator or dust mask.

VENTILATION: Whenever possible, adequate ventilation should be used to minimize the need for personal protective equipment.

ADDITIONAL PROTECTIVE MEASURES:

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, 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. Do not reuse them.

USER SAFETY RECOMMENDATIONS:

Users Should:

- Wash hands 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.

EXPOSURE GUIDELINES: Refer to Section 3.

ENGINEERING CONTROLS: This product is designed for outdoor use only, and ventilation is not normally required. Local exhaust may be necessary when handling this product in an enclosed area.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Solid granular fertilizer ranging from off-white, yellow, brown and rust

ODOR: Characteristic fertilizer odor

pH: 5.00 – 6.5 (1% solution)

FLASH POINT: Non-flammable

DENSITY: 45 – 80 lbs./cu. ft

VISCOSITY: Not applicable

SOLUBILITY: Not available

VAPOR PRESSURE: Not available

MELTING POINT: Not available

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: May release irritating and toxic gases due to thermal decomposition.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

Acute Oral LD₅₀ (Rat): Not available



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Acute Dermal LD₅₀ (Rabbit): Not available
Acute Inhalation LC₅₀ (Rat): Not available
Eye Irritation: Slightly but reversible eye irritation
Skin Irritation: May cause slight mechanical irritation
Dermal Sensitization: Possible skin sensitization or allergic reaction in susceptible persons.

PRIMARY ROUTES OF ENTRY: Inhalation, ingestion, skin or eye contact.

SIGNS AND SYMPTOMS OF OVER-EXPOSURE:

Eye Contact: Causes substantial but reversible eye injury

Skin Contact: Harmful absorbed through the skin. Causes skin irritation

Inhalation: Excessive inhalation of fertilizer dust may irritate nose, throat and upper respiratory tract.

Ingestion: Harmful if swallowed. No specific symptoms of acute over-exposure to the herbicide active ingredient are known to occur. Ingestion may cause irritation to mouth, esophagus, nausea, vomiting, abdominal pain, chest pain, and diarrhea.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Existing skin irritation or lesions, asthma or pulmonary disease.

REPRODUCTIVE/DEVELOPMENT EFFECTS:

Prodiamine: Fetal toxicity at high dose levels (rats); development and maternal toxicity observed at 1 g/kg/day.

CHRONIC/SUBCHRONIC TOXICITY STUDIES:

Prodiamine: Liver (alteration and enlargement) and thyroid effects (hormone imbalances) at high dose levels (rats); decreased body weight gains.

CARCINOGENICITY:

Prodiamine: Benign thyroid tumors (rat). None observed (mouse).

Crystalline silica (quartz) component is classified as a carcinogen by NTP and IARC.

TARGET ORGANS: Prodiamine: Prolonged or repeated overexposure may cause liver and thyroid effects.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This product has low solubility in water. At the limits of solubility, this product is not toxic to fish. However, at concentrations above the level of water solubility, it may be toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not contaminate water when disposing of equipment washwaters.

ECOTOXICOLOGICAL AND ENVIRONMENTAL FATE INFORMATION: (Based on Prodiamine technical)

SUMMARY OF EFFECTS: Highly toxic to fish and invertebrates. Practically non-toxic to birds and bees.

ECO-ACUTE TOXICITY:

Rainbow Trout 96-hour LC ₅₀ :	0.83 mg/L
Bluegill Sunfish 96-hour LC ₅₀ :	0.55 mg/L
<i>Daphnia magna</i> 48-hour LC ₅₀ :	0.66 mg/L
Bobwhite 8-day Dietary LC ₅₀ :	>10,000 mg/L
Mallard 8-day Dietary LC ₅₀ :	>10,000 mg/L



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Bees LC₅₀/EC₅₀: >100 µg/bee

ENVIRONMENTAL FATE:

Does not bioaccumulate. Persistent in soil. Stable in water. Immobile in soil. Sink in water (after 24 hours).

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spilled bait, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Not regulated

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 Causes moderate eye injury (irritation). Harmful if inhaled or absorbed through the skin. Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling. Prolonged or repeated skin contact with product may cause allergic reactions in some individuals.

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable
Section 311/312: Acute health hazard (immediate)
Chronic health hazard (delayed)
Section 313: Not applicable

CA PROPOSITION 65: This product contains a chemical (Silica, crystalline, CAS#14808-60-7) known to the state of California to cause cancer.

CERCLA RQ: Not applicable

RCRA CLASSIFICATION: 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 STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

HAZARD RATINGS	NFPA	HMIS	
HEALTH:	1	1	0 MINIMAL
FLAMMABILITY:	1	1	1 SLIGHT
REACTIVITY:	0	0	2 MODERATE



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3 HIGH
4 SEVERE

MSDS DATE: 2-28-2014.

The information and recommendations contained herein are based upon data believed to be correct. However, no warranty of any kind, expressed or implied, is made with respect to the information contained herein.