

MATERIAL SAFETY DATA SHEET

BALAN* DF

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-800-301-7976
U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: BALAN* DF
CHEMICAL NAME: Benefin; Benfluralin: *N*-butyl-*N*-ethyl- α , α , α -trifluoro-2, 6-dinitro-*p*-toluidine
CHEMICAL FAMILY: Dinitroaniline Herbicide
EPA REG. NO.: 34704-746
MSDS Number: 000746-06-LPI **MSDS Revisions:** Section 16 **Date of Issue:** 12/14/06 **Supersedes:** 07/06/04

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION – Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing dust or spray mist. Avoid contact with eyes, skin or clothing.

This product is a yellow-orange granule with an aromatic solvent odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Benfluralin	60.00	1861-40-1	none established
Inert Ingredients	40.00		

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 the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If in 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.

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 advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: **1-800-301-7976**. Have the product label or container with you when calling a poison control center or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Does not flash
FLAMMABLE LIMITS (LFL & UFL): LFL: 0.10 oz/ft³; UFL: Not established
EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: May emit noxious fumes.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and full protective clothing. Fight fire from upwind and keep all non-essential personnel out of area of intense smoke.
UNUSUAL FIRE AND EXPLOSION HAZARDS: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Do not allow water runoff to enter nearby streams, ponds or lakes. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

In case of leak or spill, contain by absorbing with clay or other absorbent material; scoop or sweep up material and place in a container for possible land application according to label use or for proper disposal. Wash the spill area with water containing a strong detergent. Check local, state and federal regulations for proper disposal.

CAUTION: Keep spills and cleaning runoff from flowing onto adjacent land, or into municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: 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.

STORAGE: Store in original container only. Do not store in direct sunlight. Do not store at temperatures above 120°F/48.9°C. If stored above 120°F, Balan DF could lose some of its dispersing properties, resulting in difficult application, poor weed control or crop injury. Do not contaminate water, food or feed by storage or disposal.

Personal Protective Equipment: Applicators and other handlers must wear: long sleeved shirt and long pants, waterproof gloves and shoes plus socks. Follow manufacturer's instructions for cleaning and maintaining PPE. If no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: When handlers used closed systems, enclosed cabs, or aircraft in a manner that meets with the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

RESPIRATORY PROTECTION: Not normally required, if vapors exceed acceptable levels, wear a NIOSH approved pesticide respirator with cartridges for pesticide vapors.

EYE PROTECTION: Chemical goggles or shielded safety glasses.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes plus socks. Wear waterproof gloves.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
Nuisance Particulates	15 mg/m ³	Not listed

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Yellow-orange granule with an aromatic solvent odor.	SOLUBILITY: Disperses
SPECIFIC GRAVITY (Water = 1): 1.00 g/ml	BULK DENSITY: 62.43 lbs/ft ³
VAPOR PRESSURE: Not established	BOILING POINT: Not established
PERCENT VOLATILE (by volume): Not established	EVAPORATION RATE: Not established

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: Do not store in direct sunlight.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon can be formed in a fire situation. Will emit toxic fumes as it burns.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Excessive heat (above 120°F) and avoid freezing.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): 500 mg/kg (technical)	Acute Dermal LD₅₀ (rabbit): >2000 mg/kg
Eye Irritation (rabbit): Moderate eye irritant	Skin Irritation (rabbit): Causes slight irritation
Inhalation LC₅₀ (rat): Not established.	Skin Sensitization (guinea pig): Not established.
Carcinogenic Potential: Nothing listed in NTP, IARC, ACGIH or OSHA.	

12. ECOLOGICAL INFORMATION

This pesticide is toxic to fish. Do not apply directly to water, or 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 neighboring areas. Do not apply when conditions favor runoff or drift from the target area.

Do not contaminate water when disposing of equipment wash waters

13. DISPOSAL CONSIDERATIONS

Do not reuse product containers. Plastic Containers: Triple rinse (or equivalent), then offer for recycling at an ACRC site (go to <http://www.acrecycle.org/> for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT

U.S. Surface Freight Classification: COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2: CLASS 60)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:	NFPA	HMIS	
	2 Health	0 Least	2 Health
	0 Flammability	1 Slight	0 Flammability
	0 Instability	2 Moderate	0 Reactivity
		3 High	H PPE
		4 Severe	

MATERIAL SAFETY DATA SHEET

BALAN* DF

SARA Hazard Notification/Reporting

SARA Title III Hazard Category: Immediate Y Fire N Sudden Release of Pressure N
Delayed N Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed

SARA, Title III, Section 313: Benfluralin (CAS: 1861-40-1) 60.0%

RCRA Waste Code: Not listed

CA Proposition 65: Not listed

16. OTHER INFORMATION

MSDS STATUS: Disclaimer revised

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

**Balan is a trademark of Dow AgroSciences LLC*

Disclaimer and Limitation of Liability: This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and LOVELAND PRODUCTS, Inc. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.