

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

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

- 1.1 **PRODUCT IDENTIFIER:** EPA REGISTRATION NO. 34704-746  
**TRADE NAME:** BALAN® DF
- 1.2 **RECOMMENDED USE:** HERBICIDE FOR PREEMERGENCE CONTROL OF ANNUAL GRASSES AND BROADLEAF WEEDS
- 1.3 **SUPPLIER DETAILS:**  
LOVELAND PRODUCTS, INC.  
P.O. Box 1286 • Greeley, CO 80632-1286
- 1.4 **24 Hour Emergency Phone:** 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565 – **Product Information:** 1-888-574-2878 (LPI-CUST)  
**U.S. Coast Guard National Response Center:** 1-800-424-8802

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification according to 29 CFR 1910.1200**

Acute Toxicity - Oral	Category 4	H302
Eye Damage/Irritation	Category 2A	H319
Acute Toxicity – Inhalation	Category 4	H332
Sensitization – Skin	Category 1	H317

**2.2 Label elements**



- Signal word: WARNING
- Hazard Statement: H302 – Harmful if swallowed.  
H319 – Causes serious eye irritation.  
H332 – Harmful if inhaled.  
H317 – May cause an allergic skin reaction.  
H401 – Toxic to aquatic life.
- Precautionary Statement: (Prevention): P264 – Wash face and hands thoroughly after handling.  
P270 – Do not eat, drink or smoke when using this product.  
P280 – Wear protective gloves/protective clothing/eye protection/face protection.  
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.  
P271 – Use only outdoors or in a well-ventilated area.  
P272 – Contaminated work clothing must not be allowed out of the workplace.
- Precautionary Statement: (Response): P301+P312: IF SWALLOWED: Call a poison center/doctor/physician if you feel unwell.  
P330 – Rinse mouth.  
P305+P351+P358: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 – If eye irritation persists: Get medical advice/attention.  
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 – Call a poison center/doctor/physician if you feel unwell.  
P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
P333+P313 – If skin irritation or rash occurs: Get medical advice/attention.  
P321 – Specific treatment (see First Aid on the product label).  
P363 – Wash contaminated clothing before reuse.
- Precautionary Statement: (Storage): Not required.
- Precautionary Statement: (Disposal): P501 – Dispose of contents/container in accordance with local, state, and federal requirements..

**2.3 Other hazards**



# SAFETY DATA SHEET

SDS NUMBER: 000746-17-LPI

SDS REVISIONS: SEC. 2

DATE OF ISSUE: 12/13/17

**BALAN® DF**  
SUPERSEDES: 01/12/15

---

### 3. COMPOSITION, INFORMATION ON INGREDIENTS

---

#### 3.1 Substances

#### 3.2 Mixtures

##### Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Concentration [%]
Benefin	1861-40-1	60.0
Other ingredients	n/a	40.0

Ingredients not precisely identified are proprietary or non-hazardous.

---

### 4. FIRST AID MEASURES

---

#### 4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

- Eye contact:** 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.
- Ingestion:** 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.
- Skin contact:** 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.
- Inhalation:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

#### 4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Harmful if swallowed. Harmful if inhaled. Causes serious eye irritation.

#### 4.3 Immediate Medical Attention and Special Treatment

Treatment: Treat symptomatically. Symptoms may be delayed.

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565**

Take container, label or product name with you when seeking medical attention.

---

### 5. FIRE FIGHTING MEASURES

---

#### 5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide (CO<sub>2</sub>), alcohol foam, foam, water spray or fog.

#### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: May emit noxious fumes.

#### 5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.



**SAFETY DATA SHEET**

SDS NUMBER: 000746-17-LPI

SDS REVISIONS: SEC. 2

DATE OF ISSUE: 12/13/17

**BALAN® DF**  
SUPERSEDES: 01/12/15

**6. ACCIDENTAL RELEASE MEASURES**

**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Personal Precautions: Avoid inhalation of dusts and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

**6.2 ENVIRONMENTAL PRECAUTIONS**

Environmental Precautions: This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to inter-tidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

**6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP**

Methods for Clean-Up: Sweep up dry spills and transfer to approved chemical containers. Avoid breathing dusts. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Flush the area with water to remove any residue. Check local, state and federal regulations for proper disposal. Never return spills to original containers for re-use.  
**CAUTION:** Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

**7. HANDLING AND STORAGE**

**7.1 PRECAUTIONS FOR SAFE HANDLING:**

Advice on Safe 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.

**7.2 CONDITIONS FOR SAFE STORAGE:**

Requirements for Storage Areas and Containers: Store in original container only. Do not store in direct sunlight. Do not store at temperatures above 120°F. If stored above 120°F, Balan DF could lose some of its dispersing properties, resulting in difficult application, poor weed control or crop injury. In case of leak or spill, contain material and dispose as waste. Do not contaminate water, food or feed by storage or disposal.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**8.1 CONTROL PARAMETERS:**

**OCCUPATIONAL EXPOSURE LIMITS**

**U.S. Workplace Exposure Level (ACGIH) TLVs**

Components	Type	Value
Not listed		

**U.S. Workplace Exposure Level (OSHA) PELs**

Components	Type	Value
PNOC; PNOR*	TWA	5 mg/m <sup>3</sup> (Respirable fraction) 15 mg/m <sup>3</sup> (Total dust)

**Biological limit values**

**ACGIH Biological Exposure Indices**

Components	Value	Specimen
Not listed		

**8.2 EXPOSURE CONTROLS:**

**Engineering Measures**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with 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.

**Individual Protection Measures:**

Eye / Face Protection: Goggles or shielded safety glasses are recommended.  
Skin Protection: Long-sleeved shirt and long pants. Chemical-resistant gloves made of any waterproof material. Shoes plus socks.  
Respiratory Protection: Not normally required, if vapors or dusts exceed acceptable levels, wear a MSHA/NIOSH approved pesticide respirator. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.



## SAFETY DATA SHEET

SDS NUMBER: 000746-17-LPI

SDS REVISIONS: SEC. 2

DATE OF ISSUE: 12/13/17

**BALAN® DF**  
SUPERSEDES: 01/12/15

### 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE:	Granules.
ODOR:	Solvent.
ODOR THRESHOLD:	No data available.
COLOR:	Yellow-orange.
pH:	7.2 (1% solution)
MELTING POINT / FREEZING POINT:	No data available
BOILING POINT:	No data available
FLASH POINT:	Does not flash.
FLAMMABILITY (solid, gas):	No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	No data available.
VAPOR PRESSURE:	No data available.
SOLUBILITY:	Disperses.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER:	No data available.
AUTO-IGNITION TEMPERATURE:	No data available.
DECOMPOSITION TEMPERATURE:	No data available.
VISCOSITY: (kinematic):	No data available
SPECIFIC GRAVITY (Water = 1):	1.00 g/ml
BULK DENSITY:	62 lbs/ft <sup>3</sup>   993 kg/m <sup>3</sup>

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

- 10.1 REACTIVITY  
Stable
- 10.2 CHEMICAL STABILITY  
Stable under normal temperature conditions
- 10.3 POSSIBILITY OF HAZARDOUS REACTIONS  
No data available. Will not polymerize.
- 10.4 CONDITIONS TO AVOID  
Excessive heat (above 120°F) and avoid freezing.
- 10.5 INCOMPATIBLE MATERIALS  
None known.
- 10.6 HAZARDOUS DECOMPOSITION PRODUCTS  
Oxides of carbon and toxic fumes may be formed from incomplete combustion.

### 11 TOXICOLOGICAL INFORMATION

- 11.3 LIKELY ROUTES OF EXPOSURE  
Harmful if swallowed. Harmful if inhaled.  
LC<sub>50</sub> (rat): No data available.  
LD<sub>50</sub> Oral (rat): 500 mg/kg (technical)  
LD<sub>50</sub> Dermal (rat): > 2,000 mg/kg  
Acute Toxicity Estimates: No data available.  
Skin Irritation (rabbit): Not an irritant.  
Eye Irritation (rabbit): Causes eye irritation.  
Specific Target Organ Toxicity: No data available.  
Aspiration: No data available.  
Skin Sensitization (guinea pig): May cause an allergic skin reaction.  
Carcinogenicity: No data available.  
Germ Cell Mutagenicity: No data available.  
Interactive Effects: None known.



# SAFETY DATA SHEET

SDS NUMBER: 000746-17-LPI

SDS REVISIONS: SEC. 2

DATE OF ISSUE: 12/13/17

**BALAN® DF**  
SUPERSEDES: 01/12/15

## 12 ECOLOGICAL INFORMATION

### 12.3 ECOTOXICITY

The product may be toxic to fish and aquatic invertebrates. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Information below is based on the technical ingredient Carbaryl.

#### Ecotoxicological Data

Species	Test Results
No data available.	

Drift or runoff may adversely affect non-target plants.  
Do not apply directly to water.  
Do not contaminate water when disposing of equipment wash water.  
Do not apply when weather conditions favor drift from target area.

### 12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available.

### 12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

### 12.4 MOBILITY IN SOIL

No data available.

### 12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

## 13 DISPOSAL CONSIDERATIONS

### 13.1 WASTE TREATMENT METHODS

Wastes may be disposed of on site or at an approved waste disposal facility. Triple rinse (or equivalent), adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at <http://www.acrecycle.org>. Do not contaminate water, food or feed by storage or disposal.

## 14 TRANSPORT INFORMATION

### 14.3 LAND TRANSPORT

DOT Shipping Description: NOT REGULATED.

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

## 15 REGULATORY INFORMATION

### 15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

#### NFPA & HMIS Hazard Ratings:

##### NFPA

2	Health	0	Least
0	Flammability	1	Slight
0	Instability	2	Moderate
		3	High
		4	Severe

##### HMIS

2	Health
0	Flammability
0	Reactivity
B	PPE

#### SARA Hazard Notification/Reporting

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



## SAFETY DATA SHEET

SDS NUMBER: 000746-17-LPI

SDS REVISIONS: SEC. 2

DATE OF ISSUE: 12/13/17

**BALAN® DF**  
SUPERSEDES: 01/12/15

**Reportable Quantity (RQ) under U.S. CERCLA:** Not listed.  
**SARA, Title III, Section 313:** Benfluralin (CAS: 1861-40-1)  
**RCRA Waste Code:** Not listed  
**CA Proposition 65:** Not listed

---

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

### WARNING

Causes substantial but temporary eye damage.  
Harmful if swallowed.  
Harmful if inhaled.  
Do not get in eyes or on clothing.  
Avoid breathing dust.  
Wear goggles or face shield.  
Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals.

---

## 16 OTHER INFORMATION

**SDS STATUS:** Section 2 revised.

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental Health and Safety

*®Balan is a registered trademark of Dow AgroSciences LLC.*

\*Particulates not otherwise classified/regulated

**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.