

----- MATERIAL SAFETY DATA SHEET -----

Lebanon Turf

LEBANON TREFLAN 5G

Lebanon Treflan 5G Biodac is also known as Treflan 5G
Ornamentals Herbicide

PRODUCT: 24-40436 BG40LB PL 40 Lebanon Treflan 5G Biodac BG
MSDS NO.: 988

DOW
02/17/1994

FORMULA: Not Given

MANUFACTURER: LEBANON SEABOARD CORP
1600 E CUMBERLAND ST
LEBANON, PA 17042

PHONE: 800-532-0090

EMERGENCY: 800-424-9300 CHEMTREC

PHYSICAL/CHEMICAL CHARACTERISTICS:

BOILING POINT: NA Not Applicable

MELTING POINT: NG

FREEZING POINT: NG

POUR POINT: NG

SOFTENING POINT: NG

SPECIFIC GRAVITY: NA Not Applicable

VAPOR PRESSURE: NA Not Applicable

VAPOR DENSITY: NA Not Applicable

PERCENT VOLATILES: NG

EVAPORATION RATE: NG

pH: EQ 7.7 Aqueous 50/50.

MOLECULAR WEIGHT: NG

VISCOSITY: NG

SOLUBILITY IN WATER: Not soluble in water

ODOR/APPEARANCE/OTHER CHARACTERISTICS: Aromatic
odor/Bright yellow free-flowing granule

FIRE AND EXPLOSION DATA:

CLOSED CUP FLASH PT.: NA Not Applicable

OPEN CUP FLASH POINT: NA Not Applicable

FIRE POINT: NG

AUTO IGNITION: N* No Ign. up to 1382 deg F

LOWER EXPLOSION LIMIT: NA Not Applicable

UPPER EXPLOSION LIMIT: NA Not Applicable

SHIPPING REGULATIONS:

UN/NA NUMBER: NG

DOT HAZARD CLASS: NG

SHIPPING LABEL: Not Given

SHIPPING NAME: Not Given

PREPARED:

PREPARER'S NAME & TITLE: Not Given

PREPARATION DATE: 3/31/00

COMPONENT(S):

ALPHA, ALPHA, ALPHA-TRIFLUORO-2, 6-DINITRO-N, N-DIPROPYL-P-
TOLUIDINE:

OSHA PEL: NE ppm

ACGIH TLV: NE ppm

STEL: NG ppm

PERCENT OF PRODUCT: EQ 5%

CAS NO.: 1582098

NOTE: *(TRIFURALIN).

OTHER INGREDIENTS, INCLUDING THE FOLLOWING:

OSHA PEL: NG ppm

ACGIH TLV: NG ppm

STEL: NG ppm

PERCENT OF PRODUCT: EQ 95%

CAS NO.: Not Given

NAPHTHA SOLVENT:

OSHA PEL: NG ppm

ACGIH TLV: NG ppm

STEL: NG ppm

PERCENT OF PRODUCT: NG

CAS NO.: 64742069

CLAY:

OSHA PEL: NG ppm

ACGIH TLV: NG ppm

STEL: NG ppm

PERCENT OF PRODUCT: NG

CAS NO.: 8031183

KEROSENE:

OSHA PEL: NE ppm

ACGIH TLV: NE ppm

STEL: NG ppm

PERCENT OF PRODUCT: NG

CAS NO.: Not Given

FOR ALL COMPONENTS: NE = NOT ESTABLISHED.

OSHA PEL: NG ppm

ACGIH TLV: NG ppm

STEL: NG ppm

PERCENT OF PRODUCT: NG

CAS NO.: Not Given

Text Section(s)

IDENTIFICATION

SEE DATA SECTIONS FOR ADDITIONAL INFORMATION.

PRODUCT NAME: TREFLAN* 5G ORNAMENTALS HERBICIDE.

* Trademark of Dow AgroSciences

EPA REG. NUMBER: 961-405

PRODUCT CODE:

MSDS NUMBER:

EMERGENCY PHONE: 800-424-9300 CHEMTREC

GENERAL PHONE: 800-532-0090

MANUFACTURER NAME AND ADDRESS: LEBANON SEABOARD CORP.

1600 E CUMBERLAND ST

LEBANON, PA 17042

INGREDIENTS

(% W/W, UNLESS OTHERWISE NOTED).

SEE COMPONENT SECTION(S) FOR ADDITIONAL INFORMATION.

This document is prepared pursuant to the OSHA Hazard

Communication Standard (29 CFR 1910.1200). In addition,

other substances not 'Hazardous' per this OSHA Standard

may be listed. Where proprietary ingredients shows, the

identity may be made available as provided in this

standard.

PHYSICAL DATA

SEE DATA SECTIONS FOR ADDITIONAL INFORMATION.

FIRE AND EXPLOSION HAZARD DATA

SEE DATA SECTIONS FOR ADDITIONAL INFORMATION.

AUTO-IGNITION TEMPERATURE: No ignition up to 1382 deg F,
750 deg C.

EXTINGUISHER MEDIA: CO2 or dry chemical.

FIRE AND EXPLOSION HAZARDS: If product is involved in fire,
noxious, toxic fumes may be produced.

FIRE-FIGHTING EQUIPMENT: Wear positive-pressure, self-
contained breathing apparatus and use full protective
equipment.

REACTIVITY DATA

STABILITY (CONDITIONS TO AVOID): None known.

INCOMPATIBILITY (SPECIFIC MATERIALS TO AVOID): None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Will emit toxic vapors as
it burns.

HAZARDOUS POLYMERIZATION: Does not occur.

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Lebanon Turf

LEBANON TREFLAN 5G BIODAC

ENVIRONMENTAL AND DISPOSAL INFORMATION

ENVIRONMENTAL DATA: This pesticide is toxic to fish. Do not apply directly to water or wetlands (swamps, bogs or marshes). Drift or runoff from treatment areas may be hazardous to aquatic organisms in neighboring aquatic sites. Do not contaminate water when disposing of equipment washwaters.

ACTION TO TAKE FOR SPILLS: Contain and sweep up material of small spills and dispose as waste. Large spills report to CHEMTREC and DowElanco for assistance. Prevent runoff.

DISPOSAL METHOD: Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility in accordance with applicable regulations.

HEALTH HAZARD DATA

EYES: May cause slight irritation with transient corneal injury.

SKIN CONTACT: Prolonged exposure not likely to cause significant skin irritation. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals. With the dilute mix, no allergic skin reaction is expected.

SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD50 for skin absorption in rabbits is >2000 mg/kg.

INGESTION: Single dose oral toxicity is believed to be low. The oral LD50 for the components are >5000 mg/kg in rats. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

INHALATION: Dust may cause irritation to upper respiratory tract.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: In animals, active ingredient has been shown to cause kidney effects. Repeated excessive exposures to dust may cause upper respiratory tract irritation. May contain silica which may cause lung effects with repeated excessive exposure.

CANCER INFORMATION: A low incidence of urinary tract tumors was seen in only 1 of 5 chronic studies in rats with the active ingredient, and it is not anticipated to be a carcinogenic risk. The clay component may contain crystalline silica, which has caused cancer in laboratory animals and is listed as a potential carcinogen by IARC.

TERATOLOGY (BIRTH DEFECTS): The active ingredient did not cause birth defects; other fetal effects occurred only at doses toxic to the mother.

REPRODUCTIVE EFFECTS: The active ingredient did not interfere with reproduction in animal studies.

MUTAGENICITY (EFFECTS ON GENETIC MATERIAL): Mutagenicity testing with the active ingredient has been negative in most in vivo and in vitro systems. Positive results in a Drosophila study are contradicted by results in in-vivo mammalian tests.

FIRST AID

EYES: Flush eyes with plenty of water; call a physician.

SKIN: Wash off in flowing water or shower; use soap if available. Get medical attention if irritation develops. Wash all contaminated clothing before reuse.

INGESTION: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

INHALATION: Remove individual to fresh air. If breathing difficulty occurs, get medical attention. If not breathing, provide cardiopulmonary resuscitation assistance (mouth-to-mouth) and get medical attention immediately.

NOTE TO PHYSICIAN: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: No corroborative information is available that would establish the aggravation of a medical condition by exposure to TREFLAN 5G; however, it is a reasonable assumption that highly allergic individuals would be at a somewhat greater risk for demonstrating an allergic reaction when exposed.

HANDLING PRECAUTIONS

EXPOSURE GUIDELINE(S): Trifluralin, PEL and TLV not established; Kerosene, PEL not established, TLV not established (NIOSH recommended 10 hour TWA: 14 ppm).

VENTILATION: Provide general and/or local exhaust ventilation to control airborne levels below the recommended exposure guideline.

RESPIRATORY PROTECTION: In dusty atmospheres, use an approved dust respirator.

SKIN PROTECTION: Use protective clothing such as coveralls, a long sleeved shirt, and impermeable gloves when handling this product.

EYE PROTECTION: Use safety glasses.

ADDITIONAL INFORMATION

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep out of reach of children. Causes eye irritation. Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing particulate material and contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

MSDS STATUS: Revised regsheet 8/93.

REGULATORY INFORMATION: (Not meant to be all-inclusive--selected regulations represented).

NOTICE: The information herein is presented in good faith and believed to be accurate as the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See MSD Sheet for health and safety information.

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
TRIFLURALIN	001582-09-8	5%

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Section 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: An immediate health hazard.

Lebanon Turf

LEBANON TREFLAN 5G BIODAC

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

HEALTH: 2

FLAMMABILITY: 1

REACTIVITY: 0

SPECIAL NOTES

ADDITIONAL/IMPORTANT INFORMATION

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES: although preparer and owner have taken reasonable care in the preparation of this document, we extend no warranties and make no representation as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each user should make a determination as to the suitability of the information for their particular purpose(s). A request has been made to the manufacturer to approve the contents of this material safety data sheet. Upon receipt of any changes a new MSDS will be made available.

COMPAS Code: 43390020