1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name: Vigoro Weed and Feed

EPA No: 961-415

Recommended use
This product is a mixed fertilizer/pesticide for landscape use.

Supplier/Manufacturer
Lebanon Seaboard Corporation
1600 East Cumberland Street
Lebanon PA 17042
Tel: (800) 233-0628 (717-273-1685) Supplier Email: customerservice@lebsea.com

Emergency telephone number
800-233-0628 Chemtrec 1-800-424-9300 Prosar 888-208-1368

2. HAZARDS IDENTIFICATION

OSHA Signal Word: Warning
EPA Signal Word: Caution

Hazard Statements:

Harmful if swallowed.	Oral Toxicity Category 4
Harmful if inhaled.	Acute Toxicity- Inhalation Category 4
Causes serious eye irritation	Eye Irritation/damage Category 2A
May cause an allergic skin reaction	Skin sensitization Category 1
Suspected of causing cancer	IARC Category 2B

Keep out of reach of children.
Harmful to aquatic life with long lasting effects.

Pictogram:

Carcinogen status: Two of the three herbicides in this product are chlorophenoxy herbicides. The International Agency for Research on Cancer (IARC) lists chlorophenoxy herbicides in its Group 2B (limited evidence for Carcinogenicity in humans.) The US EPA has given the chlorophenoxy Herbicides 2,4-D, 2,4-DP, MCPP, and MCPA a Class D classification (not classifiable as to human carcinogenicity.) More current lifetime feeding studies in rats and mice using the herbicide 2,4-D did not show carcinogenic effects and a recent World Health Organization (WHO) review of 2,4-D toxicology has concluded that this particular chlorophenoxy herbicide is not a carcinogen.

Precautionary Statements for handling: See Section 7.

Precautionary Statements for disposal - Dispose in accordance with all federal, state and local regulations.

Hazards not otherwise classified (HNOC): None

Unknown acute toxicity <3% of the mixture consists of ingredients of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
2, 4-Dichlorophenoxyacetic acid 2-ethylhexyl ester (2,4-D ester)	1928-43-4	1.108
2-(2-Methyl-4- chlorophenoxy) propionic acid (Mecoprop; MCPP)	16484-77-8	0.167
3,6-Dichloro-o-anisic acid (Dicamba)	1918-00-9	0.071
Nonhazardous fertilizer ingredients and fillers	Various	Balance

4. FIRST AID MEASURES

Eye Contact	Rinse eyes with water. If discomfort or irritation persists contact a physician.
Skin Contact	Wash with soap and water. If injury occurs, or if discomfort or irritation persists contact a physician.
Inhalation	If inhaled and discomfort occurs, move to fresh air, and keep person at rest in a position comfortable for breathing. If difficulty in breathing occurs and/or persists, administer oxygen and get medical attention. If medical advice is needed, have product container or label on hand.
Ingestion	Rinse mouth. Drink Plenty of water. If discomfort occurs, seek medical attention. Do not induce vomiting of an unconscious person.

Self-protection of the first aider: Use any appropriate personal protective equipment as required to avoid breathing dust, and to avoid eye and skin contact.

Most important symptoms and effects, both acute and delayed:

Symptoms: Dust irritation with nasal discomfort, or skin irritation possible.

Indication of any immediate medical attention and special treatment needed: Treat Symptoms. Chlorophenoxy compounds are usually excreted in about 72 hours.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing media suitable to local circumstances and the surrounding environment. Options in this case include water, CO_2, ABC Dry Chemical extinguisher, or foam. Avoid stirring up dust with water stream.

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire, do not breathe fumes.

Explosion data
Sensitivity to mechanical impact: None
Sensitivity to static discharge: None
Note: Excessive amounts of any burnable dusts can produce explosive mixtures if allowed to disperse in the air in confined areas where ignition sources occur. Prevent excessive dust dispersal in areas of use, storage, or production.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and standard protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal Precautions	Use reasonable personal protective equipment as required to prevent contact with eyes or skin and to avoid breathing dust. Remove ignition sources prior to clean-up.
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.
Methods for containment	Prevent further leakage or spillage, if safe to do so.

Methods for clean-up	Use reasonable personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Soak up excess with inert absorbent material.

7. HANDLING AND STORAGE

Safe Handling	Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Wash hands thoroughly after handling.
Storage Conditions	Keep containers tightly closed in a cool, well- ventilated place. Store locked up. Keep away from food, drink and animal feed. Keep out of the reach of children.
Incompatible materials	Avoid strong acids or alkali, or other reactive substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH*
2, 4-Dichlorophenoxyacetic acid (2,4-D)	10 mg/m^3 (TWA inhalable)	10 mg/m^3 (TWA total)	100 mg/m^3
Nuisance Dusts	10 mg/m^3 (TWA)	10 mg/m^3 (TWA total) 50 mppcf (TWA total) 5 mppcf (TWA respirable)	Not Established

*IDLH refers to amounts that are "Immediately Dangerous to Life or Health"

Other Information:

Engineering controls: Use with adequate ventilation to prevent dust buildup in air.

Individual protection measures

Wear protective gloves, protective clothing, eye protection, and face protection.

Eye protection	Safety glasses, or goggles if eye contact is likely
Skin and Body Protection	Gloves and coveralls recommended.
Respiratory Protection	Dust mask recommended for dusty or misty conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
General Hygiene	When using product, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMCIAL PROPERTIES

Physical state	Solid
Appearance	Granules
Color	Mixed, various
Odor	Slight
Odor Threshold	No information available
pH	Not applicable
Melting point/freezing point	Not applicable
Boiling point / boiling range	Not applicable

Flash point	No information available
Evaporation rate	Not applicable
Flammability (solid, gas)	No information available
Flammability Limits in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	Not applicable
Vapor density	Not applicable
Specific Gravity	Not applicable
Water solubility	Mostly Insoluble in water, although some ingredients may dissolve.
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Oxidizing properties	No information available

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable.

Possibility of Hazardous Reactions
May release heat and fumes when mixed in solution with incompatible reactive materials.

Hazardous polymerization
Will not occur.

Conditions to avoid
High heat, sparks and open flames, as some ingredients may be burnable.

Incompatible materials
Strong acids or alkali, or other reactive substances.

Hazardous Decomposition Products
May emit toxic fumes under fire conditions, such as Nitrogen oxides (NOx), Ammonia, Oxides of sulfur, Hydrogen chloride and Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Routes of exposure: Ingestion, eyes (contact), skin (contact), dust inhalation

Ingestion:	May irritate the digestive tract if ingested in quantity, causing nausea, vomiting and diarrhea.
Eye contact:	Moderately irritating to eyes on contact.
Skin contact:	Harmful if absorbed through skin.
Sensitization	May cause an allergic skin reaction in sensitive individuals.
Germ cell mutagenicity	No information available.
Symptoms	May irritate the digestive tract if ingested in quantity, causing nausea, vomiting and diarrhea.
Carcinogenicity	IARC: 2B (Limited evidence for carcinogenicity in humans)

US EPA: Class D (Not classifiable as to human carcinogenicity)
World Health Organization (WHO) concluded that 2,4-D is not a carcinogen

Chronic toxicity:	Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. May cause adverse liver effects.
Target Organ Effects	Central nervous system, kidney, liver, skin.
Aspiration hazard	No information available

Toxicity of herbicide concentrated herbicide mixture:

Acute Oral Toxicity:	LD50 > 2240 mg/kg (male rates); and >1550 (female rats)
Acute Dermal Toxicity:	LD50 >2010 mg/kg (rabbit)
Acute inhalation toxicity (rat):	>2.04 mg/L
Reproductive toxicity	No information available
STOT - single exposure	No information available
STOT - repeated exposure	No information available
Chronic toxicity	No information available
Target Organ Effects	No information available
Aspiration hazard	No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity of 2, 4-Dichlorophenoxyacetic acid (2,4-D):

Fish:	96 hour LC50: 20 mg/L (*Cyprinus carpio*) semi-static
Microbes:	EC50 5.74 mg/l 15 min
Invertebrates:	72-hour EC50: 417.8 mg/L (*Daphnia magna*); 48-hour EC50: 17.6 - 32.6 mg/L (*Daphnia magna*) static
Plants:	120-hour EC50: 20 - 52 mg/L (*Pseudokirchneriella subcapitata*)

Fertilizers may be harmful to aquatic life with long term effects, causing algal bloom and increased BOD, depending on the amount released.
The herbicide ingredients are toxic to aquatic plants and invertebrates. Use with care when applying to turf areas adjacent to any bodies of water. 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 turf may adversely affect aquatic organisms in adjacent bodies of water. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwater.
Application around a cistern or well may result in contamination of groundwater or drinking water, particularly where soils are permeable and water table is shallow.

Persistence and degradability	No information available
Bioaccumulation	No information available
Other adverse effects	No information available

13. DISPOSAL CONSIDERATIONS

This material, as supplied is not a hazardous waste according to federal regulations (40 CFR 261).

Disposal of wastes: (Example)

This product is a hazardous waste material.
EPA Waste Numbers are applicable for this product's components.
Dispose of in accordance with Local, State, and Federal regulations.

Contaminated packaging

US Federal: special packaging considerations for pesticide containers. If the container is empty, do not reuse it. Place it in the trash, unless the label specifies a different procedure. Follow local regulations.

14. TRANSPORT INFORMATION

DOT Description: HERBICIDES, NOI - NMFC #50520

DOT:	Not Regulated
Proper Shipping Name:	Non Regulated
Hazard Class:	Not Applicable
IATA:	Not Regulated
Proper Shipping Name:	Non Regulated
Hazard Class:	Not Applicable
IMDG/IMO	Not Regulated
Hazard Class	Not Applicable
Marine Pollutant	Yes

ADR:	Not Regulated
ADN:	Not Regulated
RID:	Not Regulated
IATA:	Not Regulated
TDG:	Not Regulated
ICAO:	Not Regulated
MEX:	Not Regulated

15. REGULATORY INFORMATION

General Product Information: This product is hazardous under the criteria of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Clean Air Act: No data

Clean Water Act: This product contains the following substances regulated as pollutants pursuant to the Clean Water Act. Reportable quantities are shown:

2, 4-Dichlorophenoxyacetic acid (2,4-D)	100-Lb (= 9025 Lbs of this product formulation)
3,6-Dichloro-o-anisic acid (Dicamba)	100-Lb (= 70 tons of this product formulation)

TSCA STATUS: This product is exempt from TSCA Regulation under FIFRA Section 3(2)(G)(ii) when used as a pesticide.

CERCLA REPORTABLE QUANTITY: 100 Lbs of 2,4-D ester (= 9025 Lbs of this product formulation)
1000 Lbs of Dicamba (= 1.4 million Lbs of this product formulation)

SARA TITLE III:

Section 302, Extremely Hazardous Substances: None
Section 311/312 Hazard Categories: Delayed Health Hazard
Section 313 Toxic Chemicals: 2,4-D ethyl ester (1928-43-4) and Dicamba (1918-00-9)

RCRA Status: If discarded in its purchased form, this product is a listed RCRA hazardous waste and should be managed as a hazardous waste (40 CFR 261.20-24).

State Right-to-Know Components:

2, 4-Dichlorophenoxyacetic acid (2,4-D):	NJ, MA, PA
3,6-Dichloro-o-anisic acid (Dicamba):	NJ, MA, PA

California Proposition 65: This product contains detectable quantities of chemicals known to the State of California to cause cancer.

International

Mexico Exposure Limits for 2, 4-Dichlorophenoxyacetic acid (2,4-D): TWA 10 mg/m^3; STEL 20mg/m^3

16. OTHER INFORMATION

NFPA: Health hazards 2 Flammability 0 Instability 0 Physical and Chemical Properties -

HMIS: Health hazards 2 Flammability 0 Physical Hazards 0 Personal Protection X

Application around a cistern or well may result in contamination of groundwater or drinking water, particularly where soils are permeable and water table is shallow.

Disclaimer

The information provided in this material safety data sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.