



1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Jonathan Green Green-Up Weed and Feed 21-0-3

EPA Reg. No.: 228-280

Product Type: Herbicide/Fertilizer Mixture

Company Name: Jonathan Green

P.O. Box 326

Farmingdale, NJ 07727

1-800-526-2303

Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night: 1-800-424-9300
For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as on the FIFRA label. Certain sections are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

2. HAZARDS IDENTIFICATION

PHYSICAL HAZARDS:

None known.

HEALTH HAZARDS:

Eye damage/Irritation

Category 2B

ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute

Category 2

Hazardous to aquatic environment, chronic

Category 2

SIGNAL WORD:

WARNING

HAZARD STATEMENTS:

Causes eye irritation. Toxic to aquatic life with long lasting effects.



PRECAUTIONARY STATEMENTS

Wash hands thoroughly after handling. Avoid unintended release to the environment.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Collect spillage.

Dispose of contents in accordance with local, state, and federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	% BY WEIGHT
Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid	2008-39-1	0.6 – 0.8
Dimethylamine Salt of (+)-R-2-(2-Methyl-4-Chlorophenoxy) propionic Acid	66423-09-4	0.16 – 0.20
Dimethylamine Salt of (+)-R-2-(2,4-Dichlorophenoxy) propionic Acid	104786-87-0	0.16 – 0.20
Proprietary Granular Carrier	Trade Secret	Trade Secret

SAFETY DATA SHEET

Sweet 16 Weed and Feed with Dissolve®

Synonyms: Mixture of Dimethylamine Salts of 2,4-D, Mecoprop-p (MCP-p), and Dichlorprop-p (2,4-DP-p)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

If on Skin or Clothing: Take off contaminated clothing. Wash with soap and water. If irritation develops, get medical attention.

If Inhaled: Move person to fresh air. Get medical attention if symptoms develop.

If in Eyes: Hold eye open and rinse slowly and gently with water for several minutes. Remove contact lenses, if present, then continue rinsing eye. Get medical attention if irritation occurs.

If Swallowed: Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms/effects: Eye exposure may cause mild irritation. Skin exposure may cause slight irritation.

Indication of Immediate medical attention and special treatment if needed: None expected

5. FIRE FIGHTING MEASURES

Extinguishing Media: Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Firefighters should wear NIOSH approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as hydrogen chloride, hydrochloric acid, and oxides of carbon and nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Cleanup and Disposal: Pump any free liquid into an appropriate closed container. Collect washings for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Other Information: Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

HANDLING:

Avoid contact with eyes, skin or clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water. 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:

Always use original container to store pesticides in a secured warehouse or storage building. Do not store near open containers of fertilizer, seed or other pesticides. Do not stack more than two pallets high. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

SAFETY DATA SHEET

Sweet 16 Weed and Feed with Dissolve®

Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Personal Protective Equipment:

Eye/Face Protection: To avoid contact with eyes, wear goggles. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes and rubber gloves when mixing, loading or applying this product. Commercial mixer/loaders must also wear chemical-resistant, in place of rubber gloves except when the product is to be applied to a golf course. When open pouring the product, also wear coveralls or a chemical-resistant apron. Washing facilities should be readily accessible to the work area.

Respiratory Protection: Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Dimethylamine Salt of 2,4-D	10*	NE	10* (inhalable, skin)	NE	mg/m ³
Dimethylamine Salt of Mecoprop-p	NE	NE	NE	NE	
Dimethylamine Salt of Dichlorprop-p	NE	NE	NE	NE	
Proprietary Granular Carrier	N/A	N/A	N/A	N/A	

*Based on adopted limit for 2,4-D

NE = Not Established

N/A= Not Applicable

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light gray solid granules
Odor:	Mild
Odor threshold:	No data available
pH:	5.90 (1% w/w dispersion in DIW)
Melting point/freezing point:	No data available
Initial boiling point and boiling range	No data available
Flash point:	Non-flammable granular solid
Evaporation rate:	No data available
Flammability (solid, gas):	Non-flammable granular solid
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	0.811 g/cc (tap)
Solubility(ies):	No data available
Partition coefficient: n-octanol/water:	No data available
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	Not applicable due to product form (granular solid)

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Will not occur.

Conditions to Avoid: Excessive heat. Do not store near heat or flame.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: Under fire conditions may produce gases such as hydrogen chloride, hydrochloric acid, and oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye contact, Skin contact

Symptoms of Exposure:

Eye Contact: Causes mild eye irritation.

Skin Contact: Slightly irritating based on toxicity studies

Ingestion: Low toxicity if ingested.

Inhalation: Low inhalation toxicity. Overexposure to dusts may irritate the respiratory tract.

Toxicological Data:

Data from laboratory studies conducted on this product.

Oral, Rat LD₅₀: >5,000 mg/kg

Dermal, Rat or Rabbit LD₅₀: >2,000 mg/kg

Inhalation, Rat 4-hr LC₅₀: >0.69 mg/l (maximum attainable concentration, no mortalities). Substantially similar products show LC₅₀: > 2.05 mg/l (maximum attainable concentration, no mortalities)

Eye Irritation, Rabbit: Slightly irritating

Skin Irritation, Rabbit: Moderately irritating (PDII=1.125)

Skin Sensitization, Guinea Pig: Not a sensitizer

Subchronic (Target Organ) Effects: Repeated overexposure may cause effects to liver, kidneys, blood chemistry, testes and gross motor function. Rare cases of peripheral nerve damage have been reported, but extensive animal studies have failed to substantiate these observations, even at high doses for prolonged periods. **Carcinogenicity / Chronic Health Effects:** The International Agency for Research on Cancer (IARC) lists exposure to chlorophenoxy herbicides as a class 2B carcinogen, the category for limited evidence for carcinogenicity in humans. However, newer rat and mouse lifetime feeding studies as well as an MCPP lifetime feeding study in rats, did not show carcinogenic potential for 2,4-D, MCPP or dichlorprop/dichlorprop-p. The U.S. EPA has given 2,4-D a Class D classification (not classifiable as to human carcinogenicity).

Reproductive Toxicity: No impairment of reproductive function attributable to 2,4-D have been noted in laboratory animal studies. No impairment of reproductive function attributable to dichlorprop has been noted in laboratory animal studies.

Developmental Toxicity: Studies in laboratory animals with 2,4-D and MCPP have shown decreased fetal body weights and delayed development in the offspring at doses toxic to mother animals. Rat and rabbit studies on dichlorprop-p resulted in fetal mortality, decreased fetal body weight, decreased body weight gain and developmental delays at doses that were also toxic to mother animals. There was no evidence of birth defects in either species.

Genotoxicity: There have been some positive and some negative studies, but the weight of evidence is that neither 2,4-D nor MCPP is mutagenic. Genotoxicity studies on dichlorprop-p have been inconclusive with some positive and some negative results, but the weight of evidence suggests it is not mutagenic.

Assessment Carcinogenicity:

This product contains substances that are considered to be probable or suspected human carcinogens as follows:

Component	Regulatory Agency Listing As Carcinogen			
	ACGIH	IARC	NTP	OSHA
Chlorophenoxy Herbicides	NE	2B	NE	NE
Proprietary Granular Carrier	NE	NE	NE	NE

NE – Not Established

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Data on 2,4-D DMA:

96-hour LC ₅₀ Bluegill:	524 mg/l	Bobwhite Quail Oral LD ₅₀ :	500 mg/kg
96-hour LC ₅₀ Rainbow Trout:	250 mg/l	Mallard Duck 8 day Dietary LC ₅₀ :	>5,620 ppm
48 hour EC ₅₀ Daphnia:	184 mg/l		

Data on Mecoprop-p DMA:

96-hour LC ₅₀ Bluegill:	>93 mg/l	Bobwhite Quail Oral LD ₅₀ :	>498 mg/kg
------------------------------------	----------	--	------------

SAFETY DATA SHEET

Sweet 16 Weed and Feed with Dissolve®

96-hour LC ₅₀ Rainbow Trout:	>150 mg/l	Bobwhite Quail 8-day Dietary LC ₅₀ :	>4,633 mg/kg
48-hour LC ₅₀ Daphnia:	>91 mg/l	Mallard Duck 8-day Dietary LC ₅₀ :	>4,137 mg/kg

Data on Dichlorprop-p DMA:

96-hour LC ₅₀ Bluegill:	>151 mg/l	Bobwhite Quail Oral LD ₅₀ :	>225 and < 560 mg/kg
96-hour LC ₅₀ Rainbow Trout:	>109 mg/l	Bobwhite Quail 8-day Dietary LC ₅₀ :	>5,600 ppm
Mallard Duck 8-day Dietary LC ₅₀ :	>700 ppm		

Environmental Fate:

In laboratory and field studies, 2,4-D DMA salt rapidly dissociated to parent acid in the environment. The typical half-life of the resultant 2,4-D acid ranged from a few days to a few weeks. Mecoprop-p DMA rapidly dissociates to parent mecoprop-p in the environment. In soil, mecoprop-p is microbially degraded with a typical half-life of approximately 11 to 15 days. Dichlorprop-p DMA salt rapidly dissociates to parent dichlorprop-p in the environment. In soil, dichlorprop-p has a typical half-life of approximately 7 days.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Pesticide wastes are toxic. If container is damaged or if pesticide has leaked, contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed, labeled container for proper disposal. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling and Disposal:

COMMERCIAL:

For nonrefillable bags of granular or dry formulation

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For Solid dilutable formulations in nonrefillable plastic containers

Containers 5 Gallons or Less:

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

Containers larger than 5 Gallons:

Nonrefillable container. Do not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

RESIDENTIAL:

Nonrefillable container. Do not reuse or refill this container. **If empty:** Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor (including toilet) or outdoor (including sewer) drain.

14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

DOT

Not Regulated

IMDG

Not Regulated

IATA

Not Regulated

15. REGULATORY INFORMATION**EPA FIFRA INFORMATION**

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. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

COMMERCIAL:

CAUTION. Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing dust.

RESIDENTIAL:

CAUTION. Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing dust. Wear long-sleeved shirt, long pants, shoes, socks, and chemical-resistant gloves made of any waterproof material. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:**Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):**

Acute Health

Section 313 Toxic Chemical(s):

None

Reportable Quantity (RQ) under U.S. CERCLA:

None

RCRA Waste Code:

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.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed

16. OTHER INFORMATION**National Fire Protection Association (NFPA) Hazard Rating:**

Rating for this product: Health: 1 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides

SAFETY DATA SHEET

Sweet 16 Weed and Feed with Dissolve®

important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

Date of Issue: May 13, 2015

Supersedes: July 10, 2013

Dissolve is a registered trademark of Nufarm Americas Inc