

SAFETY DATA SHEET LPI SDS REVISIONS: NEW

DATE OF ISSUE: 09/12/16

EQUITY® VIP SUPERSEDES: NEW

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: TRADE NAME:

EQUITY® VIP INSECTICIDE WITH FUNGICIDES

GROUP 4A INSECTICIDE | GROUP 1|4|7|12 FUNGICIDES - A SEED TREATMENT PRODUCT

1.2 RECOMMENDED USE: 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

2.2 Label elements



Signal word: Hazard Statement:	WARNING H302 – Harmful if swallowed.
Precautionary Statement: (Prevention): Precautionary	P264 – Wash thoroughly with soap after handling. P270 – Do not eat, drink or smoke when using this product.
Statement: (Response):	P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 – Rinse mouth.
Precautionary Statement: (Storage):	Not applicable or required.
Precautionary	Not applicable of required.
Statement: (Disposal):	P501 – Dispose of contents/container in accordance with local, state, and federal regulations.

2.3 Other hazards None known



DATE OF ISSUE: 09/12/16

COMPOSITION, INFORMATION ON INGREDIENTS 3.

SDS REVISIONS: NEW

3.1 Substances

3.2 Mixtures

Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Concentration [%]
Thiamethoxam	153719-23-4	22.40
Mefenoxam	70630-17-0 and 69516-34-3	3.35
Thiabendazole	148-79-8	2.24
Fludioxonil	131341-86-1	1.12
Sedaxane	874967-67-6	1.12
Glycerin	56-81-5	< 10
Propylene Glycol	57-55-6	< 5
*Other ingredients	Trade Secret	> 54.77

*Ingredients not specifically listed are non-hazardous or are to be considered proprietary or confidential business information per 29 CFR 1910.1200(i)

FIRST AID MEASURES 4

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

Ingestion:	Call a poison control center or doctor immediately for treatment advice. Have a 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. Call a poison control center or doctor for treatment advice.
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.
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, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Ingestion: Harmful if swallowed.

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.

Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. NOTES TO PHYSICIAN:

FIRE FIGHTING MEASURES 5.

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Dry chemical, carbon dioxide (CO₂), alcohol foam, foam, water spray or fog. Do not use water jet as this will spread the fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE: Specific Hazards During Firefighting: During a fire, hazardous by-products can be released. 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.



SDS REVISIONS: NEW

DATE OF ISSUE: 09/12/16

6. ACCIDENTAL RE	LEASE MEASURES	
		AND EMERGENCY PROCEDURES
Personal Precautions		ation of vapors and spray mist and contact with skin and eyes. Ensure adequate ventilation le protective clothing.
.2 ENVIRONMENTAL P	RECAUTIONS	
Environmental Preca		y directly to water, or to areas where surface water is present or to intertidal areas below igh water mark. Do not contaminate water when disposing of equipment washwaters or
.3 METHODS AND MAT	TERIALS FOR CONTAINMENT AND	
Methods for Clean-U	possible. Al contaminate Small Spills Remove res	 Stop the flow of material, if this is without risk. Dike the spilled material, where this is poorb in vermiculite, dry sand or earth and place into containers. After removal flush ed area thoroughly with water. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to sidual contamination. n spills to original containers for re-use.
. HANDLING AND	STORAGE	
7.1 PRECAUTIONS FO		
Advice on Safe Han	idling: Avoid inhal mists or va ventilation.	ation of mists, vapors / spray and contact with eyes, skin and clothing. Do not breathe bor. Wear personal protective equipment. Do not use in areas without adequate Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. open container with care. Use care in handling/storage. Wash before eating, drinking king
7.2 CONDITIONS FOR		king.
	torage Areas and Containers: S	tore in a cool, dry place. Storage for extended periods above 90°F is not recommended. To not contaminate water, food, or feed by storage or disposal, or cleaning of equipment.
EXPOSURE CON		
8.1 CONTROL PARAM	TROLS / PERSONAL PROTECTI	
8.1 CONTROL PARAM	TROLS / PERSONAL PROTECTI //ETERS: SURE LIMITS	
8.1 CONTROL PARAM	TROLS / PERSONAL PROTECTI //ETERS: SURE LIMITS posure Level (ACGIH) TLVs	
8.1 CONTROL PARAN CCUPATIONAL EXPOS U.S. Workplace Ex	TROLS / PERSONAL PROTECTI METERS: SURE LIMITS posure Level (ACGIH) TLVs ents Type	ON
8.1 CONTROL PARAM CCUPATIONAL EXPOS U.S. Workplace Ex <u>Compone</u> No data a U.S. Workplace Ex	TROLS / PERSONAL PROTECTI METERS: SURE LIMITS posure Level (ACGIH) TLVs ents Type vailable. posure Level (OSHA) PELs	ONValue
8.1 CONTROL PARAN OCCUPATIONAL EXPOS U.S. Workplace Ex <u>Compone</u> No data a U.S. Workplace Ex <u>Compone</u>	TROLS / PERSONAL PROTECTI METERS: SURE LIMITS posure Level (ACGIH) TLVs ents Type vailable. posure Level (OSHA) PELs ents Type	ON Value Value
8.1 CONTROL PARAM CCUPATIONAL EXPOS U.S. Workplace Ex <u>Compone</u> No data a U.S. Workplace Ex	TROLS / PERSONAL PROTECTI METERS: SURE LIMITS posure Level (ACGIH) TLVs ents Type vailable. posure Level (OSHA) PELs	ONValue
8.1 CONTROL PARAN OCCUPATIONAL EXPOS U.S. Workplace Ex <u>Compone</u> No data a U.S. Workplace Ex <u>Compone</u>	TROLS / PERSONAL PROTECTI METERS: SURE LIMITS posure Level (ACGIH) TLVs ents Type vailable. posure Level (OSHA) PELs ents Type	ON Value 15 mg/m ³ (Total Dust) - Mist
8.1 CONTROL PARAN OCCUPATIONAL EXPOS U.S. Workplace Ex <u>Compone</u> No data a U.S. Workplace Ex <u>Compone</u> Glycerin Siological limit values ACGIH Bi	TROLS / PERSONAL PROTECTI METERS: SURE LIMITS posure Level (ACGIH) TLVs ents Type vailable. posure Level (OSHA) PELs ents Type TWA	ON Value Value 15 mg/m ³ (Total Dust) - Mist 5 mg/m ³ (Respirable fraction) - Mist
8.1 CONTROL PARAN OCCUPATIONAL EXPOS U.S. Workplace Ex <u>Compone</u> No data a U.S. Workplace Ex <u>Compone</u> Glycerin Siological limit values ACGIH Bi <u>Compone</u>	TROLS / PERSONAL PROTECTI METERS: SURE LIMITS posure Level (ACGIH) TLVs ents Type vailable. posure Level (OSHA) PELs ents Type TWA	ON Value Value 15 mg/m ³ (Total Dust) - Mist
8.1 CONTROL PARAN OCCUPATIONAL EXPOS U.S. Workplace Ex <u>Compone</u> No data a U.S. Workplace Ex <u>Compone</u> Glycerin Siological limit values ACGIH Bi	TROLS / PERSONAL PROTECTI METERS: SURE LIMITS posure Level (ACGIH) TLVs ents Type vailable. posure Level (OSHA) PELs ents Type TWA	ON Value Value 15 mg/m ³ (Total Dust) - Mist 5 mg/m ³ (Respirable fraction) - Mist
 8.1 CONTROL PARAN CCUPATIONAL EXPOSIUS. Workplace Ex Component No data a U.S. Workplace Ex Component Component Glycerin Biological limit values ACGIH Bionopical Component No listings 8.2 EXPOSURE CONT Engineering Meas When handlers use 	TROLS / PERSONAL PROTECTI METERS: SURE LIMITS SURE LIMITS Type posure Level (ACGIH) TLVs Type vailable. Type posure Level (OSHA) PELs TWA iological Exposure Indices Type S Table cological Exposure Indices Value S Table colosed systems in a manner that mee (4-6)], the handler PPE requirements ion Measures: On: Goggles or shielded safety	ON Value Value 15 mg/m ³ (Total Dust) - Mist 5 mg/m ³ (Respirable fraction) - Mist



SDS REVISIONS: NEW

DATE OF ISSUE: 09/12/16

PHYSICAL AND CHEMICAL PROPERTIES 9.

9.1	APPEARANCE : ODOR: ODOR THRESHOLD: COLOR:	Liquid Not determined. No data available. No data available.
	pH:	No data available.
	MELTING POINT / FREEZIN	G POINT: No data available
	BOILING POINT:	No data available
	FLASH POINT:	No data available.
	FLAMMABILILITY (solid, gas)	No data available.
		LITY OR EXPLOSIVE LIMITS: No data available.
	VAPOR PRESSURE:	Thiamethoxam: 2 x 10 ¹¹ mmHg @ 68°F / 20°C.
		Mefenoxam: 2.5 x 10 ⁻⁵ mmHg @ 77°F / 25°C.
		Thiabendazole: 4.0 x 10 ⁻⁹ mmHg @ 77°F / 25°C.
		Fluidoxonil: 2.9 x 10 ⁻⁹ mmHg @ 77°F / 25°C.
		Sedaxane: 4.9 x 10 ⁻¹⁰ mmHg @ 68°F / 20°C.
	SOLUBILITIES:	Thiamethoxam: 4.1 mg/l @ 77°F / 25°C
		Mefenoxam: 26 g/l @ 77°F / 25°C
		Thiabendazole: 30 mg/l (pH 7, pH 10) @ 68°F / 20°C
		Fluidoxonil: 1.8 mg/l @ 77°F / 25°C
	Sedaxane: 14 mg/l @ 77°F / 25°C PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.	
	AUTO-IGNITION TEMPERAT	
	DECOMPOSITION TEMPERA	
	VISCOSITY: (kinematic):	No data available
	SPECIFIC GRAVITY (Water =	
	DENSITY:	9.63 lbs./gal / 1.15 kg/L
Note:		pical values based on material tested but may vary from sample to sample.
		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 and use conditions **10.3 POSSIBILITY OF HAZARDOUS REACTIONS** No data available. Will not polymerize. **10.4 CONDITIONS TO AVOID** None known. **10.5 INCOMPATIBILE MATERIALS** None known. **10.6 HAZARDOUS DECOMPOSITION PRODUCTS** No data available.

11 **TOXICOLOGICAL INFORMATION**

11.3 LIKELY ROUTES OF EXPOSURE Ingestion. LC₅₀ (rat): >2.60 mg/L (4 HR) LD₅₀ Oral (rat): 3758 mg/kg LD₅₀ Dermal (rat): > 5000 mg/kg Acute Toxicity Estimates: No data available Skin Irritation (rabbit): Not an irritant. Eye Irritation (rabbit): Not an irritant Specific Target Organ Toxicity: STOT-Single Exposure: No data available for end-use product. STOT-Repeated Exposure: No data available for end-use product. Aspiration: No data available Skin Sensitization (guinea pig): Not a sensitizer Carcinogenicity: No data available Reproductive Toxicity: No data available for end-use product Germ Cell Mutagenicity: No data available Interactive Effects: None known



12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

The product is toxic to wildlife, freshwater and estuarine/marine fish and highly toxic to aquatic invertebrates. Ecotoxicological Data

botoxioological Data			
-	Species	Test Results	
Mefenoxam	Rainbow Trout	> 121 ppm – 96-hour LC50	
	Daphnia Magna	> 113 ppm – 46-hour EC₅₀	
	Bobwhite Quail	981 mg/kg – 14-day LD ₅₀	
Fludioxonil	Rainbow Trout	0.47 ppm - 96-hour LC ₅₀	
	Daphnia Magna	0.9 ppm - 48-hour EC ₅₀	
	Bobwhite Quail	> 2000 mg/kg – 14-day LD ₅₀	
	Green Algae	0.087 ppm 5-day EC ₅₀	
Thiabendazole	Trout	0.56 ppm – 96-hour LC ₅₀	
	Daphnia Magna	0.81 mg/l – 48-hour EC ₅₀	
	Bobwhite Quail	> 2250 mg/kg – Oral LD ₅₀	
Thiamethoxam	Rainbow Trout	> 100 ppm – 96-hout LC ₅₀	
	Daphnia Magna	> 106 ppm – 48-hour EC ₅₀	
	Mallard Duck	576 mg/kg – Oral LD ₅₀	
	Green Algae	> 97 ppm – 4- day EC ₅₀	
Sedaxane	Carp	0.62 mg/l – 96-hour LC ₅₀	
	Daphnia Magna	6.10 mg/l – 48-hour EC ₅₀	
	Green Algae	1.9 mg/l – 96-hour EbC₅₀	

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: Sedaxane is not readily biodegradable.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Fludioxonil and Mefenoxam do not bioaccumulate. Thiabendazole has low bioaccumulation potential.

12.4 MOBILITY IN SOIL

Fludioxonil has low mobility in soil. Mefenoxam and Thiamethoxam have moderate mobility in soil.

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 BY USDOT U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS, NOI, OTHER THAN POISON (NMFC 102120; CLASS: 60)



SAFETY DATA SHEET SDS REVISIONS: NEW

DATE OF ISSUE: 09/12/16

15 **REGULATORY INFORMATION** 15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS **NFPA & HMIS Hazard Ratings:** NFPA HMIS 2 Health 0 Least 2 Health Flammability Slight Flammability 1 1 1 0 Instability 2 Moderate 0 Reactivity 3 С PPE High 4 Severe SARA Hazard Notification/Reporting Sudden Release of Pressure SARA Title III Hazard Category: Immediate Fire N Delayed Reactive Reportable Quantity (RQ) under U.S. CERCLA: Not listed. SARA, Title III, Section 313: Thiabendazole (CAS: 148-79-8) 2.24%. RCRA Waste Code: Not listed.

CA Proposition 65: Not applicable

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:

CAUTION

Harmful if swallowed.

Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet.

16 OTHER INFORMATION

SDS STATUS: New.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

®Equity is a registered trademark of Loveland Products, Inc. EPA REG. NO.: 34704-1101

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.