



Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 04-May-2015

Revision date 20-Nov-2018

Revision Number: 4

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product Description: Dovetail

Other means of identification

Product code 12P-0018A

UN-No UN3082

Registration number(s) 70506-261

Recommended use of the chemical and restrictions on use

Recommended use Fungicides.

Uses advised against Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet

Supplier Address

United Phosphorus Inc.
630 Freedom Business Center
Suite 402
King of Prussia, PA 19406

Emergency telephone number

Company Phone Number 1-800-438-6071

Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Category 2
Acute toxicity - Inhalation (Vapors)	Category 2
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 2

Label elements

EMERGENCY OVERVIEW

DANGER

Hazard Statements

Harmful in contact with skin
Fatal if inhaled
May cause an allergic skin reaction
Suspected of causing genetic defects
Suspected of causing cancer



Appearance white **Physical state** Liquid emulsion **Odor** no data available

Precautionary Statements - Prevention

Do not handle until all safety precautions have been read and understood
 Wear cold insulating gloves/face shield/eye protection
 Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 In case of inadequate ventilation wear respiratory protection
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 Call a POISON CENTER or doctor if you feel unwell
 Wash contaminated clothing before reuse
 If skin irritation or rash occurs: Get medical advice/attention
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a POISON CENTER or doctor/physician

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)

OTHER INFORMATION

- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life
- May be harmful in contact with skin

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Thiophanate-methyl	23564-05-8	19.65
3-(3,5-Dichlorophenyl)-2,4-dioxo-N-isopropylimidazolidine-1-carboxamide	36734-19-7	19.65

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin contact Remove and wash contaminated clothing before re-use. Wash off immediately with soap

and plenty of water for at least 15 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 physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
Protection of First-aiders	Use personal protective equipment.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects MAY CAUSE ALLERGIC SKIN REACTION.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician No information available.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide (CO₂). Aquatic. Foam.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapours.

Hazardous combustion products Heat and fire may result in thermal decomposition and the release of hydrogen chloride and oxides of nitrogen, sulfur and carbon. .

Explosion data

Protective equipment and precautions for firefighters

Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with skin and eyes. Wear protective gloves/protective clothing and eye/face protection. Wash thoroughly after handling.

Environmental Precautions

Environmental precautions Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Methods and material for containment and cleaning up

Methods for Clean-Up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Keep out

of reach of children. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing and eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Keep in a dry place. Keep containers tightly closed in a cool, well-ventilated place. Keep out of the reach of children.

incompatible materials Strong oxidizing agents.

8. Exposure Controls/Personal Protection

Exposure guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering controls Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Personal protective equipment

Eye/Face Protection Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles.

Skin protection Chemical resistant gloves. Chemical resistant apron. Long sleeved clothing. Long pants. Socks and footwear.

Respiratory protection Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

General hygiene considerations
Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state	Liquid emulsion	Odor	no data available
Appearance color	white No information available		
Property	VALUES	Remarks/ • Method	
pH	6		
Melting point/freezing point	7 °C / 45 °F		
Boiling Point/Range	No information available		
Flash Point	No information available		
Evaporation Rate	No information available		
Flammability (solid, gas)	No information available		
Flammability limit in air			
Upper Flammability Limit	No information available		
Lower Flammability Limit	No information available		
vapor pressure	No information available		
Vapor Density	No information available		
Specific gravity	1.1974		
Water solubility	No information available		
Solubility in Other Solvents	No information available		

Partition coefficient: n-octanol/water	No information available
Autoignition temperature	no data available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

OTHER INFORMATION

Softening point	No information available
molecular weight	No information available
VOC Content	No information available
Liquid Density	No information available
Bulk density	9.974 lb/gal

10. Stability and Reactivity**Reactivity**

no data available

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerisation does not occur.

Conditions to avoid

No information available.

incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon oxides.

11. Toxicological Information**Information on Likely Routes of Exposure****Product information**

Single exposure studies indicate:

Oral: Practically non-toxic to rats (LD50 >5,000 mg/kg)

Dermal: No more than slightly toxic to rabbits (LD50 >2,000 mg/kg)

Inhalation: Slightly toxic to rats (4 hr LC50 1.8 mg/l)

Skin Irritation: Non-irritating to rabbits

Eye Irritation: Non-irritating to rabbits

Skin allergy was observed in guinea pigs following repeated exposure. Repeated or long-term oral administration produced effects on the thyroid, liver or kidneys in rats, mice and dogs. An increased incidence of liver tumors was observed in mice and thyroid tumors were observed in male rats following long-term oral exposure.

No effects were seen on the ability of male or female rats to reproduce when exposed orally for 2 successive generations. No birth defects were observed in the offspring of rats exposed orally during pregnancy. In rabbits, developmental effects were noted only at maternally toxic doses. No genetic changes were observed in tests using animal cells.

Polyglycol

Repeated exposure of rats to aerosol of some block polymers produced an inflammatory response and slight fibrosis in the lung. Long-term dietary administration of a block polymer to dogs produced no adverse effects. Some block polymers have produced genetic changes in tests using bacteria or animal cells.

Single exposure studies indicate that this material is practically non-toxic if swallowed (mouse LD50 >15,000 mg/kg) or absorbed through skin (rabbit LD50 2,000 mg/kg) moderately toxic if inhaled (rat 4 hr LC50 0.1-0.34 mg/l) and practically non irritating to rabbit eyes (10% aqueous solution).

Inhalation	May be harmful if inhaled.
Eye contact	May cause irritation.
Skin contact	Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	HARMFUL IF SWALLOWED.

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	Repeated or prolonged contact may cause allergic reactions in very susceptible persons.
Mutagenic effects	no data available.
Carcinogenicity	Iprodione (technical grade) = Produced benign testicular tumors in rats and benign liver and ovary tumors in mice when tested at a maximum tolerated dose. Iprodione is not considered to be a neurotoxicant and was not mutagenic or genotoxic based published information available. Iprodione did not cause reproductive toxicity in multigeneration studies in rats. Information indicates that iprodione is not a primary developmental toxicant. Thiophanate methyl: Repeated or long term administration produced effects on the thyroid, liver, or kidneys in rats, mice or dogs. An increased evidence of liver tumors was observed in mice and thyroid tumors were observed in male rats following long term oral exposure. No effects were seen on the ability of male or female rats to reproduce when exposed orally for 2 successive generations. No birth defects were observed in the offspring of rats exposed orally during pregnancy. In rabbits, developmental toxic effects were noted at maternally toxic doses. No genetic changes were observed in tests using animal cells. No effects were observed on reproduction when exposed orally to rats, for two successive generations.
Reproductive effects	No effects were observed on reproduction when exposed orally to rats, for two successive generations.
STOT - Single Exposure	no data available.
STOT - Repeated Exposure	no data available.
Aspiration hazard	No information available.

Numerical Measures of Toxicity - Product information

LD50 Oral	> 5000 mg/kg (rat)
LD50 Dermal	> 2000 mg/kg (rabbit)
LC50 Inhalation	Inhalation LC50 1.8 mg/l (4-hr)

12. Ecological Information

ecotoxicity

Thiophanate methyl
 Carp 96 hr LC50 = >100 mg/L
 Fiddler crab 96 hr LC50 = >560 mg/L
 Bluegill 96 hr LC50 = 15.8 mg/L
 Daphnid 48 hr EC50 = 15.6 mg/L
 Shrimp 96 hr LC50 = 25.1 mg/L
 Trout 96 hr LC50 - 2.2 mg/L

Oyster 96 hr LC50 = 4.6 ppm
Highly toxic to catfish

59.71% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

Does not bioaccumulate.

Chemical name	Log Pow
3-(3,5-Dichlorophenyl)-2,4-dioxo-N-isopropylimidazolidine-1-carboxamide e 36734-19-7	3

Other Adverse Effects

no data available

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or 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.

Contaminated packaging

Refer to product label.

14. Transport Information

DOT

UN-No

Proper shipping name

Hazard class

Packing group

Reportable Quantity (RQ):

When shipped in containers less than or equal to 5 gallons the product is Not regulated.
When shipped in packages greater than 5 gallons the following description will apply:

UN3082

Environmentally hazardous substance, liquid, n.o.s (Thiophanate methyl)

9

PG III

10 lbs (Thiophanate methyl)

ICAO

UN-No

Proper shipping name

Hazard class

Packing group

UN3082

Environmentally hazardous substance, liquid, n.o.s (Thiophanate methyl)

9

PG III

IATA

UN-No

Proper shipping name

Hazard class

Packing group

UN3082

Environmentally hazardous substances, liquid, n.o.s (Thiophanate methyl)

9

PG III

IMDG/IMO

UN-No

Proper shipping name

Hazard class

Packing group

UN3082

Environmentally hazardous substances, liquid, n.o.s (Thiophanate-methyl)

9

PG III

Marine Pollutant

This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

15. Regulatory Information

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

signal word CAUTION

Ventilation Control PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.

Harmful if swallowed. Causes moderate eye irritation. Keep out of Reach of Children.

International Inventories

USINV	Not present
DSL/NDSL	Not present
EINECS/ ELINCS	Not Present
ENCS	Not Present
China	Not Present
KECL	Not Present
PICCS	Not Present
AICS	Not Present
TSCA	Not Present

- **TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Acute health hazard	yes
Chronic health hazard	yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	yes

CERCLA

Not applicable

Chemical name	RQ	CERCLA EHS RQs	RQ
Thiophanate-methyl 23564-05-8	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ

CERCLA

Component	RQ

Thiophanate-methyl 23564-05-8 (19.65)	10 lb
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SARA Product RQ 0

RCRA

Component	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Thiophanate-methyl 23564-05-8 (19.65)			U409

Pesticide Information

State Regulations

Component	CAS No	CATEGORY
3-(3,5-Dichlorophenyl)-2,4-dioxo-N-isopropylimidazolidine-1-carboxamide 36734-19-7 (19.65)	36734-19-7	Carcinogen

Prop 65 Pictogram



**Prop 65 Warning Statement
California Proposition 65**

WARNING!***

This product can expose you to chemicals including those listed below, which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov***

Component	California Prop. 65	Non-additive, corrosive chemical type
Thiophanate-methyl 23564-05-8 (19.65)	Female Reproductive Male Reproductive	Female Reproductive Male Reproductive
3-(3,5-Dichlorophenyl)-2,4-dioxo-N-isopropylimidazolidine-1-carboxamide 36734-19-7 (19.65)	Carcinogen	

State Right-to-Know

Not applicable

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-261

16. Other Information

NFPA HEALTH 1 flammability 0 Instability 0 Physical hazard -

Preparation Date 04-May-2015

Revision date 20-Nov-2018

Revision Summary

Add Prop 65 statement***

Disclaimer

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End of SDS