



Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 16-May-2016

Revision date 07-Jun-2016

Revision Number: 1

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

Product identifier

Product Description: Satellite Flex Herbicide

Other means of identification

Item#: 12-SATFLEX

Synonyms Not Available

Registration number(s) 70506-324

Recommended use of the chemical and restrictions on use

Recommended use Herbicide.

Uses advised against Activities contrary to label recommendation labeled activities

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

Chemtec: (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 - Inhalation (Vapors)	Category 3
Skin sensitization	Category 1
Aspiration toxicity	Category 1

Label elements

EMERGENCY OVERVIEW

DANGER

hazard statements

Toxic if inhaled

May cause an allergic skin reaction

May be fatal if swallowed and enters airways



appearance clear**Physical state** Liquid**Odor** aromatic**Precautionary Statements - Prevention**

Do not get in eyes, on skin, or on clothing
 Use only outdoors or in a well-ventilated area
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves

IF ON SKIN: Wash with plenty of soap and water

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or doctor/physician

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

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 %	Trade secret
Pendimethalin [N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzeneamine]	40487-42-1	39.8	
Solvesso 200	64742-94-5	40	
Propylene carbonate	108-32-7	5	

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

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

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.

Ingestion

Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects No information available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Contains a petroleum distillate - vomiting may cause aspiration pneumonia. Vomiting may cause aspiration pneumonia due to the ingredients. Because of the increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent, vomiting should be induced only under direction of a physician.

5. Fire-fighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

No information available.

Hazardous combustion products Carbon monoxide. Carbon oxides. Hydrocarbons. Oxides of nitrogen.

Explosion data

Protective equipment and precautions for firefighters

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 Remove all sources of ignition. Use personal protective equipment. Avoid contact with skin and eyes. Provide adequate ventilation.

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 Wear personal protective equipment. Do not eat, drink or smoke when using this product. Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with skin and eyes. Remove and wash contaminated clothing before re-use. Pesticide applicators and workers must refer to product labeling and directions for use.

Conditions for safe storage, including any incompatibilities

Storage Keep out of the reach of children. Keep away from open flames, hot surfaces and sources of ignition. Store in original container. Store in cool/well-ventilated place.

incompatible materials Strong bases. 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	Safety glasses with side-shields. Where there is potential for eye contact have eye flushing equipment available.
Skin protection	Wear protective gloves/clothing.
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. Avoid contact with skin, eyes and clothing. Wash hands and face before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state	Liquid	Odor	aromatic
appearance	clear		
color	dark amber		
Property	<u>VALUES</u>	<u>Remarks/ • Method</u>	
pH	5.26		
Melting point/freezing point	No information available		
Boiling Point/Range	No information available		
Flash Point	100 °C / 212 °F	ASTM D93	
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	1.069 gm/cm3		
Water solubility	No information available		
Solubility in Other Solvents	No information available		
Partition coefficient: n-octanol/water	No information available		
Autoignition temperature	No information 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
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molecular weight	No information available
VOC Content	No information available
density	No information available
Bulk density	No information available

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

incompatible materials

Strong bases. Strong oxidizing agents.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapours. Carbon dioxide (CO₂). Carbon monoxide. Nitrogen oxides (NO_x). Hydrocarbons.

11. Toxicological Information

Information on Likely Routes of Exposure

Product information

Satellite Flex
 Acute oral LD50 (rat) = 3129 mg/kg
 Acute dermal LD50 (rat) = 5000 mg/kg
 Acute inhalation LC50 (rat) = > 2.09 mg/L

Inhalation	Harmful by inhalation.
Eye contact	Causes substantial but temporary eye injury.
Skin contact	Prolonged skin contact may cause skin irritation.
Ingestion	HARMFUL IF SWALLOWED.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Solvesso 200 64742-94-5	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 590 mg/m ³ (Rat) 4 h
Propylene carbonate 108-32-7	= 29000 mg/kg (Rat)	> 20 mL/kg (Rabbit)	-

Information on Toxicological Effects

Symptoms No information available.

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

sensitization No information available.
Mutagenic effects No information available.
Carcinogenicity Pendimethalin:
 Carcinogenicity: In long term studies with mice no carcinogenic effect observed.
 Reproductive toxicity: No indication of reproductive effects.
 Developmental/teratogenicity: No indication of developmental or teratogenic effects observed.
 Genetic toxicity: No mutagenic effect in tests with microorganisms or mammals.

Human experience: Discoloration of urine to a dark orange-yellow coloring following heavy exposure to dust of pendimethalin in workers.

Reproductive effects	Although other structurally related compounds (nitro and aromatic compounds) have noted methemoglobinemia, pendimethalin is NOT associated with methemoglobinemia.
STOT - Single Exposure	Not Available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Numerical Measures of Toxicity - Product information

LD50 Oral	3129 mg/kg (rat)
LD50 Dermal	5000 mg/kg (rat)
LC50 Inhalation:	Inhalation LC50 > 2.09 mg/l (rat)

12. Ecological Information**ecotoxicity**

Pendimethalin:
 Rainbow trout 86 hr LC50 = 0.89 mg/L
 Daphnia Magna 48 hr EC50 = 0.979 mg/L
 Green algae 72 hr EC50 = 0.0081 mg/L
 Mallard duck LD50 = 1421 mg/kg
 Honey Bee LD50 = 49.8 ug/bee

Persistence/Degradability

No information available.

Bioaccumulation/ Accumulation

Bioaccumulative potential.

Chemical name	Log Pow
Solnesso 200 64742-94-5	2.9 - 6.1
Propylene carbonate 108-32-7	0.48

Other Adverse Effects

No information 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**

When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated. When shipped in bulk, by vessel, or internationally use the IMDG shipping description:

TDG When shipped in Canada domestic highway non-bulk this product can be shipped as Not regulated as per TDG 1.45.1
In bulk - use IMDG description

IATA

UN-No UN3082
Proper shipping name Environmentally hazardous substances, liquid, n.o.s (Pendimethalin)
Hazard class 9
Packing group PG III
Description Marine Pollutant

IMDG/IMO

UN-No UN3082
Proper shipping name Environmentally hazardous substances, liquid, n.o.s (pendimethalin)
Hazard class 9
Packing group PG III
Marine Pollutant Yes

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 WARNING

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.

Keep out of Reach of Children.

Contains petroleum distillates. Causes substantial but temporary eye injury. Harmful if swallowed. Toxic to fish.

International Inventories

USINV Not determined
DSL/NDSL Not determined
EINECS/ELINCS Does not comply
ENCS Does not comply
China Does not comply
KECL Does not comply
PICCS Does not comply
AICS Does not comply
TSCA Does not comply

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**

Y

Chemical name	SARA 313 - Threshold Values
Pendimethalin [N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzeneamine] - 40487-42-1	1.0

SARA 311/312 Hazardous

Categorization

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

CERCLA

RCRA

Pesticide Information

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Propylene carbonate 108-32-7 (5)			X	

State Regulations

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Pendimethalin [N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzeneamine]		X			

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-324

16. Other Information

NFPA HEALTH 1 flammability 0 Instability 0 Physical hazard -

Preparation Date 16-May-2016
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Revision Summary

Add to system

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End of MSDS