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

Product identifier
Product Description: Devrinol 50 DF Ornamental

Other means of identification
Item#: 12U-117A
Synonyms: Not Available
Registration number(s): 70506-36
OTHER INFORMATION: PMRA No 25231.

Recommended use of the chemical and restrictions on use
Recommended use: Herbicide.
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
Provider Address: 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 not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)

Label elements

EMERGENCY OVERVIEW

appearance: Tan
Physical state: Granular
Odor: No information available

Hazards Not Otherwise Classified (HNOC)
OTHER INFORMATION
• Causes mild skin irritation

3. Composition/information on Ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>
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. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin contact
Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice. Seek immediate medical attention/advice. Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use.

Inhalation
If breathing is irregular or stopped, administer artificial respiration. MAY CAUSE ALLERGIC RESPIRATORY REACTION. Toxic by inhalation. Call a poison control center or doctor for further treatment advice.

Ingestion
Call a physician or poison control center immediately. May produce an allergic reaction. Never give anything by mouth to an unconscious person. Clean mouth with water. Seek immediate medical attention/advice. Do not induce vomiting without medical advice.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects
Hives.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician
No information available.

5. Fire-fighting measures

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

Unsuitable extinguishing media
Decomposition by contact with water may generate vapours which can be ignited by heat or open flame.

Specific hazards arising from the chemical
No information available.

Hazardous combustion products
No information available.

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
Avoid contact with the skin and the eyes. Use personal protective equipment.

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
Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling
Keep in a well-ventilated place. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Keep out of reach of children. Remove and wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities

Storage
Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur. Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. Keep containers tightly closed in a cool, well-ventilated place.

incompatible materials
OXIDIZERS.

8. Exposure Controls/Personal Protection

Exposure guidelines

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaolin</td>
<td>TWA: 2 mg/m³ particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction</td>
<td>TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 10 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction</td>
</tr>
</tbody>
</table>

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. Eye contact should be avoided through the use of chemical safety glasses, goggles, or a faceshield selected in regard to exposure potential. Where there is potential for eye contact have eye flushing equipment available. Impervious clothing. Impervious gloves.

Skin 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. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

Information on basic physical and chemical properties
Physical state: granular
appearance: Tan
color: No information available

Odor: No information available

**Property** | **VALUES** | **Remarks/ Method**
--- | --- | ---
pH | 6.41 | 
Melting point/freezing point | 7.41 °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 | No information available | 
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 | 
molecular weight | No information available | 
VOC Content | No information available | 
density | No information available | 
Bulk density | 28-34 lb/cu. ft | 

### 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**

No information available.

**incompatible materials**

OXIDIZERS.

**Hazardous decomposition products**

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

### 11. Toxicological Information

**Information on Likely Routes of Exposure**

**Product information**

Devrinol 50 DF:

Acute oral LD50 (rat) = >5000 mg/kg
Acute dermal LD50 (rat) = >5000 mg/kg
Acute inhalation LC50 (rat) = >2.32 mg/L
Skin irritation = Slightly irritating
Eye irritation = Mildly irritating, clearing within 72 hours
Dermal sensitization = Not a sensitizer

Inhalation
May cause irritation of respiratory tract. Harmful by inhalation.

Eye contact
Mild irritation which is expected to be reversible within 72 hours.

Skin contact
May cause irritation.

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

Irritation
Kaolin dust: Inhalation of overwhelming amounts of kaolin dust after many years of exposure induced pneumoconiosis in workers.

Sensitization
No information available.

Mutagenic effects
Did not show mutagenic effects in animal experiments.

Carcinogenicity
There are no known carcinogenic chemicals in this product.

Reproductive effects
Not Available.

STOT - Single Exposure
No information available.

STOT - repeated exposure
No information available.

Target organ effects
Respiratory System.

Aspiration hazard
No information available.

Numerical Measures of Toxicity - Product information

> 5000 mg/kg (rat)
LD50 Dermal
> 5000 mg/kg (rat)
LC50 Inhalation:
> 2.32 mg/l

12. Ecological Information

Ecotoxicity
Toxic to fish

100% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence/Degradability
No information available.

Bioaccumulation/ Accumulation
No information available.

Other Adverse Effects
No information available

13. Disposal Considerations

Waste Treatment Methods

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

Empty containers may contain hazardous residues. Containers should be handled as instructed by following all container disposal directions.

14. Transport Information

DOT

NOT REGULATED

15. Regulatory Information

International Inventories

USINV  Not determined
DSL/NDSL  Not determined
EINECS/ELINCS  Does not comply
ENCS  Does not comply
China  Complies
KECL  Complies
PICCS  Does not comply
AICS  Complies
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
IECS - 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 and Title 40n of the Code of Federal Regulations, Part 372:

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
SARA Product RQ  0

RCRA
Pesticide Information
State Regulations

State Right-to-Know

<table>
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<tr>
<th>Chemical name</th>
<th>Massachusetts</th>
<th>New Jersey</th>
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<th>Illinois</th>
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International regulations
U.S. EPA Label information
EPA Pesticide registration number  Not applied

16. Other Information

<table>
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<tr>
<th>NFPA</th>
<th>HEALTH</th>
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<th>Instability</th>
<th>Physical hazard</th>
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Preparation Date  24-Apr-2015
Revision date  05-Nov-2015
Revision Summary  Correct spelling error(s)

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End of MSDS