

DIOWEED 50

Preparation Date 19-Mar-2013

Revision Date 26-Apr-2013

Revision Number: 1

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Identification of the product**

Product Code HDG02

Product Description: DIOWEED 50

Synonyms Aqueous solution of dimethylammonium salts
500 g/l 2,4-D

Pure substance/preparation Preparation

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Herbicide

Uses advised against Non labeled activities.

1.3 Details of the supplier of the safety data sheet

Supplier United Phosphorus Ltd
The Centre
Birchwood Park
Warrington
WA3 6YN
Cheshire, UK
Tel. : +44 (0) 1925 819999
Fax : +44 (0)1925 856075

E-mail Address info.uk@uniphos.com

1.4 Emergency telephone number

Emergency Telephone Number **(CARECHEM 24): +44 (0) 1235 239670**

United Kingdom NHS Direct (UK): +44 0845 46 47

2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture

Symbol(s) Xn - Harmful
N - Dangerous for the environment

R-code(s) Xn;R22 - Xi;R41- N;R50/53

For the full text of the R phrases mentioned in this Section, see Section 16

2.2 Label Elements



Symbol(s)
Xn - Harmful
N - Dangerous for the environment

R -phrase(s)
R22 - Harmful if swallowed
R41 - Risk of serious damage to eyes
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S -phrase(s)
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S35 - This material and its container must be disposed of in a safe way
S39 - Wear eye/face protection
S57 - Use appropriate container to avoid environmental contamination

2.3 Other hazards

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Chemical Name	EC No.	CAS-No	Weight %	Classification (Dir.67/548)	EU - GHS Substance Classification	REACH No.
2,4-D	202-361-1	94-75-7	40 - 50	R43 R52-53 Xi;R37 Xi;41 Xn;R22	Acute Tox. 4 (H302) STOT SE 3 (H335) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Chronic 3 (H412)	No data available

For the full text of the R phrases mentioned in this Section, see Section 16

For the full text of the H-Statements mentioned in this Section, see Section 16

4. FIRST AID MEASURES

4.1 Description of first-aid measures

General Advice	Show this safety data sheet to the doctor in attendance
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes Consult a physician.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes If symptoms persist, call a physician
Ingestion	Rinse mouth Do NOT induce vomiting Immediate medical attention is required
Inhalation	Move to fresh air If symptoms persist, call a physician
Protection of First-aiders	Use personal protective equipment Avoid contact with skin, eyes and clothing

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media Carbon dioxide (CO₂)
Dry chemical
Water spray
alcohol-resistant foam

Unsuitable Extinguishing Media high volume water jet.

5.2 Special hazards arising from the substance or mixture

Special hazard Hydrogen chloride
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

5.3 Advice for firefighters

This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain
In the event of fire, wear self contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas
Use personal protective equipment

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so
Prevent product from entering drains
Do not flush into surface water or sanitary sewer system

6.3 Methods and materials for containment and cleaning up

Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
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

7.1 Precautions for safe handling

Handling

Wear personal protective equipment
Do not breathe vapours or spray mist
Keep out of reach of children

Hygiene Measures

Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place
Keep in properly labelled containers
Keep away from direct sunlight
Store away from frost
Keep away from heat and sources of ignition

7.3 Specific end uses

No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits Apply technical measures to comply with the occupational exposure limits

Chemical Name	EU	United Kingdom	France	Spain	Germany
2,4-D		STEL: 20 mg/m ³ TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	MAK: 1 mg/m ³ Ceiling / Peak: 8 mg/m ³ Skin TWA: 1 mg/m ³

Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
2,4-D		TWA: 10 mg/m ³		TWA: 10 mg/m ³ STEL: 20 mg/m ³	TWA: 1 mg/m ³ Skin

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
2,4-D	Skin STEL 4 mg/m ³ TWA: 1 mg/m ³	Skin STEL: 8 mg/m ³ TWA: 1 mg/m ³	TWA: 7 mg/m ³	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2 Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas

Personal protective equipment

- Eye Protection** Safety glasses with side-shields.
- Skin Protection** Wear protective clothing to prevent skin contact. .
- Hand Protection** Nitrile rubber. Polyvinylchloride. Protective gloves.
- Respiratory Protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

Other protective equipment Ensure that eyewash stations and safety showers are close to the workstation location.

Environmental exposure controls Do not allow material to contaminate ground water system. Do not contaminate surface water. Local authorities should be advised if significant spillages cannot be contained.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Yellow	
Physical State	Liquid , Soluble concentrate	
Odor	Slight amine	
<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>
pH	7.7	(1% aq)
Melting point/freezing point	No information available	
Boiling Point/Range		
Flash Point	> 200 °C	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Relative density	1.173 g/cm ³	
Water Solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition Temperature	> 600 °C	
Decomposition temperature	No information available.	
Viscosity	13.9 mPa.s	
Oxidizing Properties	No information available	
Explosive Properties	No information available	

9.2 Other information

VOC Content No information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No information available.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of Hazardous Reactions

Hazardous polymerisation does not occur. None under normal processing.

10.4 Conditions to Avoid

Heat, flames and sparks

10.5 Incompatible materials

Strong oxidizing agents
Strong acids
Strong bases

10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapours
Hydrogen chloride
Carbon oxides

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Local effects

Inhalation	There is no data available for this product.
Eye Contact	There is no data available for this product.
Skin Contact	There is no data available for this product.
Ingestion	There is no data available for this product.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2,4-D 94-75-7	= 1.297 mg/kg (Rat)	> 4000 mg/kg (Rat)	> 5.01 mg/l

Chronic Toxicity

Skin corrosion/irritation	No skin irritation.
Eye damage/irritation	Risk of serious damage to eyes.
Sensitization	Did not cause sensitization. (guinea pig).
Carcinogenic effects	No information available

Mutagenic Effects	No information available
Reproductive Effects	No information available
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target Organ Effects	Eyes. Respiratory system. Skin.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

EC50/72h/algae = 177 mg/l
 EC50/48h/daphnia = > 200 mg/l
 LC50/fish/96 h = > 200 mg/l

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2 Persistence and degradability

No information available

12.3 Bioaccumulative potential

No information available

Chemical Name	log Pow
2,4-D	2.58 - 2.83

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Other adverse effects

No information available.

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances
2,4-D	Group II Chemical	

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from Residues / Unused Products	Dispose of in accordance with local regulations.
Contaminated Packaging	Empty containers should be taken for local recycling, recovery or waste disposal.
EWC waste disposal No	020108 - agrochemical waste containing dangerous substances.
Other Information	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

14. TRANSPORT INFORMATION

ADR/RID

14.1. UN-No	Not regulated.
14.2. Proper Shipping Name	
14.3. Hazard Class	
14.4. Packing Group	
14.5. Environmental hazard	
14.6. Special Provisions	

IMDG/IMO

14.1. UN-No	Not regulated.
14.2. Proper Shipping Name	
14.3. Hazard Class	
14.4. Packing Group	
14.5. Environmental hazard	
14.6. Special Provisions	

IATA/ICAO

14.1. UN-No	Not regulated.
14.2. Proper Shipping Name	
14.3. Hazard Class	
14.4. Packing Group	
14.5. Environmental hazard	
14.6. Special Provisions	

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- To avoid risks to man and the environment, comply with the instructions for use

International Inventories

TSCA	Complies
EINECS/ ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies
ENCS	Complies
CHINA	Complies
AICS	Complies
KECL	Complies

Legend

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

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

15.2 Chemical Safety Assessment

A chemical safety assessment has not been carried out.

16. OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

R22 - Harmful if swallowed
R35 - Causes severe burns
R37 - Irritating to respiratory system
R38 - Irritating to skin
R41 - Risk of serious damage to eyes
R43 - May cause sensitization by skin contact

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H335 - May cause respiratory irritation
H412 - Harmful to aquatic life with long lasting effects

Revision Date 26-Apr-2013

Revision Note not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information contained is based on our knowledge of the product at the date of publishing.
It applies to the PRODUCT AS SUCH. In case of formulation or mixture, make sure that a new danger will not appear.
Users are advised of possible additional hazards when the product is used in applications for which it was not intended.
This sheet shall only be used and duplicated for prevention and Safety purposes.
For rates and use recommendations, refer to the information displayed on the packaging.
It is the responsibility of the handlers of the product to pass on this safety data sheet to any subsequent persons who will come into contact with the product.

End of Safety Data Sheet