

# UNIVERSAL DIFLURON 480 SC

# MATERIAL SAFETY DATA SHEET

## 1. PRODUCT & COMPANY IDENTIFICATION

**Product Name:** DIFLURON 480 SC  
 Insecticide  
**UN No:** 3082  
**Supplier:** Universal Crop Protection (Pty) Ltd.  
**Co. Reg. No.:** 1983/008184/07  
 PO Box 801,  
 Kempton Park, 1620, South Africa  
**Telephone:** (011) 396 2233  
**Fax:** (011) 396 4666  
**Website:** [www.villacrop.co.za](http://www.villacrop.co.za)

**Emergency telephone numbers:**  
**24 Hr Transport / Spill emergency no:**  
 Envirosure. +27 31 205 4918  
 (Hazcall24) +27 86 044 4411  
 (Client: Villa Crop Protection)  
 Griffon Poison Information Centre +27 82 446 8946  
 (Client: Villa Crop Protection)  
**Poisoning Emergency telephone numbers:**  
 Griffon Poison Information Centre +27 82 446 8946  
 Poisons Information Centre +27 861 555 777  
**Villa Crop Protection Emergency number:**  
**National Safety, Health and Environmental Manager:**  
 +27 63 698 0668

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Common name:** 1) Diflubenzuron  
**Chemical Name:** 1) 1-(4-chlorophenyl)-3-(2,6-difluorobenzoyl)urea (IUPAC);  
**CAS No.:** 1) [35367-38-5]  
**Chemical Family:** 1) benzoylurea  
**Chemical Formula:** 1) C<sub>14</sub>H<sub>9</sub>ClF<sub>2</sub>N<sub>2</sub>O<sub>2</sub>  
**Molecular weight:** 1) 310.7  
**Use:** Non-systemic insect growth regulator with contact and stomach action.  
**Formulation:** Diflubenzuron 480 g/kg  
 Suspension concentrate  
**Hazardous ingredients of toxicological concern:**  
**Symbol:** N, Xi  
**Indication of danger:** Harmful to aquatic organisms (invertebrates).  
**Risk phrases:** R 36/37, R 52

## 3. HAZARD IDENTIFICATION

**Health and Environmental** Can cause eye irritation.

## 4. FIRST AID MEASURES AND PRECAUTIONS

**Ingestion:** Rinse mouth with water. Give plenty of water to drink. Seek immediate medical assistance. Do not give anything by mouth to an unconscious person. Do not induce vomiting.  
**Eye contact:** Irrigate with copious quantities of water for 15 minutes. In all cases of eye contamination, it is a sensible precaution to seek medical advice.  
**Skin contact:** Remove contaminated clothing. Wash contaminated skin with plenty of soap and water. Seek medical attention if irritation persists. Contaminated clothing should be washed before re-use.  
**Inhalation:** Move person to fresh air. Call a doctor immediately if necessary.  
**NOTE TO PHYSICIAN.** There is no specific antidote if this product is ingested. Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Flammability:** Not flammable.  
**Specific hazards:** High volume water jet, (contamination risk), should not be used for safety reason.  
**Firefighting further advice:** Use appropriate extinguishing media for combustibles in the area. Residual organic material will emit toxic fumes when burning. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of combustion.  
**Suitable extinguishing media:** Foam, dry agent (carbon dioxide, dry chemical powder). Use as little water as possible.

## 6. ACCIDENTAL RELEASE MEASURES (Spillage)

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in Protective Equipment Section. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent. Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal the container and arrange for disposition.

## 7. HANDLING AND STORAGE REQUIREMENTS

**Handling:** Eliminate the presence of mechanical sparks and other ignition sources. Eye protection should be worn. Avoid contact with skin, eyes, and clothing. Avoid ingestion and breathing of fumes. Handle the product in a well-ventilated area. Wash hands thoroughly after handling.  
**Storage:** Store in the closed original container in dry, cool, well-ventilated area out of direct sunlight. Store in a locked room or place away from children, animals, food,

## UNIVERSAL DIFLURON 480 SC

## MATERIAL SAFETY DATA SHEET

feedstuffs, seed and fertilisers. Keep container closed at all times – check regularly for leaks.

**Dermal Sensitization:** Not a skin sensitizer.  
**Carcinogenicity:** Not carcinogenic.  
**Mutagenicity:** Not mutagenic.  
**Teratogenic:** Not teratogenic.

### 8. EXPOSURE CONTROL/PERSONAL PROTECTION

**Engineering measures:** Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**PERSONAL PROTECTIVE EQUIPMENT:**  
**OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES (S).**

Avoid skin and eye contact and inhalation. Wear overalls, face shield and impervious gloves. Available information suggests that gloves made from PVC should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, a final assessment should be made by the user. Use with adequate ventilation. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Colour:** Off-white liquid.  
**Physical State:** Suspension concentrate.  
**Odour:** Slight aromatic odour.  
**Density:** 1.207 kg/l.  
**pH:** 7.2 (of a 1 % aqueous solution).  
**Flash point:** Not applicable.

### 10. STABILITY AND REACTIVITY

**Emulsion Stability:** Stable for at least 2 years under normal conditions of warehouse storage. Avoid contamination of fertilisers, spray materials, seed, feed, foodstuffs.

**Stability:** ml separation at lowest recommended dilution (5 ml / 100 ml) after standing for 30 minutes in:

Distilled water: 0 ml.

Standard hard water: 0 ml.

after standing for 2 hours in:

Distilled water: 1 ml.

Standard hard water: 0 ml.

Sensitive to freezing and warm storage conditions.

### 11. TOXICOLOGICAL INFORMATION

**Acute Oral TOXICITY (RAT):** LD<sub>50</sub> = >2000 mg/kg.

**Acute Dermal Toxicity (rat):** LD<sub>50</sub> = >2000 mg/kg.

**Acute Inhalation Toxicity (rat):** LC<sub>50</sub> rats >2.88 mg/l (Technical).

**Primary Eye Irritation:** Slight irritation.

**Primary Skin Irritation:** Not a skin irritant.

### 12. ECOLOGICAL INFORMATION

**Mobility, Degradability & Accumulation:**

Plants: Non-systemic. Not metabolised on plants.

**Avian Acute Toxicity:**

Dietary LC<sub>50</sub> (8 d) for bobwhite quail and mallard ducks >4640 mg/kg.

**Freshwater Fish Acute Toxicity:**

LC<sub>50</sub> (96 h) for rainbow trout >0.2 mg/l, zebra fish (*Brachydanio rerio*) >0.2 mg/l.

**Bees:** Not toxic to bees.

**Worms:** NOEC for *Eisenia foetida* 780 mg/kg substrate.

**Algae:** LC<sub>50</sub> for *Selenastrum capricornutum* > 0.3 mg/l.

**Daphnia:** LC<sub>50</sub> (48h) 7.1 µg/l

**Other beneficial species:** Animals: In rats, following oral administration, elimination is partly as the unchanged parent compound in the faeces, partly as hydroxylated metabolites, and as 4-chlorophenylurea plus 2,6-difluorobenzoic acid.

### 13. DISPOSAL CONSIDERATION

**Pesticide disposal:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or reprocessed. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers.

Comply with local legislation applying to waste disposal.

**Container disposal:** Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

**TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a minimum of a third of the volume of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.

Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dumpsite. Prevent contamination of food, feedstuffs, drinking water and eating utensils.

Comply with local legislation applying to waste disposal.

# UNIVERSAL DIFLURON 480 SC

# MATERIAL SAFETY DATA SHEET

## 14. TRANSPORT INFORMATION

**UN NUMBER:** 3082  
**Road Transport ADR/RID:**  
 Class: 9  
 Packaging group: III  
 Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Diflubenzuron 480 g/kg)

**Maritime Transport IMDG/IMO:**  
 Class: 9  
 Packaging group: III  
 Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Diflubenzuron 480 g/kg)

**Air Transport ICAO/IATA:**  
 Class: 9  
 Packaging group: III  
 Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Diflubenzuron 480 g/kg)

**MARINE POLLUTANT (Harmful to aquatic organisms (invertebrates)).**

## 15. REGULATORY INFORMATION

**Symbol:** N, Xi  
**Indication of danger:** Environmentally dangerous substance & Irritating substance. (Toxic to vertebrates).

**Risk phrase(s):**  
**R 36/37** Irritating to eyes and respiratory system.  
**R 52** Harmful to aquatic organisms.

**Safety phrases:**  
**S 2** Keep out of the reach of children.  
**S 13** Keep away from food, drink and animal feeding stuffs.  
**S 20/21** When using do not eat, drink or smoke.  
**S 30** Do not empty into drains.  
**S 25** Avoid contact with eyes.  
**S 36/37/39** Wear suitable protective clothing, gloves and eye/face protection.  
**S 61** Avoid release to the environment. Refer to special instructions/safety data sheets.

### NOTICE

The information herein is presented in good faith and believed to be accurate as of the issue or revision date shown below. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the user's responsibility to ensure that its activities comply with government laws and regulations.

## 16. OTHER INFORMATION

**Packaging:** Packed in 1, 5, 10 and 20 litres fluorinated plastic containers, labelled according to South African regulations and guidelines.

**Disclaimer:** The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage use of the product. It is not applicable to unusual or non-standard uses of neither the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

### END OF DOCUMENT

**Compiled:** February 2010  
**Reviewed:** March 2019  
**Revision no.:** (2)  
**Next revision date:** March 2024

For detailed information on revisions, contact the Registration holder.