

UNIVERSAL PROCARB 800 EC

MATERIAL SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: PROCARB 800 EC
 Herbicide
UN No.: 3082
Company: 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

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: Prosulfocarb
Chemical Name: S-benzyl dipropylthiocarbamate
 (IUPAC)
CAS No.: [52888-80-9]
Chemical Family: thiocarbamate
Chemical Formula: C₁₄H₂₁NOS (Mol. wt.: 251.4)
Formulation: Prosulfocarb: 800 g/l
 Emusifiable concentrate
Use / Mode of Action: Selective herbicide, absorbed by
 the leaves and roots, which acts
 by inhibiting growth in the
 meristematic region.
Hazardous Ingredient: Prosulfocarb
 Solvent
SYMBOLS: Xn, Xi, N
Indication of danger: Harmful and irritating substance;
 Environmentally dangerous.
RISK-PHASE(S): R22, R36/37/38, R43, R51/53

3. HAZARD IDENTIFICATION

Toxicity class:

WHO II (a.i.), II (calculated formulation)

Likely routes of exposure:

Skin contact, ingestion, and inhalation.

Ingestion: Moderately toxic by ingestion.
 Do not induce vomiting. Small amounts of product
 aspirated into the respiratory system during ingestion or
 vomiting, due to the solvent in product, may cause mild to
 severe pulmonary injury.
Inhalation: May cause irritation to respiratory tract.
Eye contact: Slight eye irritant.
Skin contact: Moderate irritant.

4. FIRST AID MEASURES AND PRECAUTIONS

The product may be a mild cholinesterase inhibitor.
 Symptoms may include dry skin, skin cracking, irritation to
 eyes and skin, drowsiness and dizziness.

FIRST AID:

Skin contact: Remove contaminated clothing, shoes and
 leather goods immediately. Wash contaminated areas with
 plenty of water. Wash contaminated clothing before re-use.
 If irritation persists, get medical attention.

Eye contact: Flush eyes with gently flowing water for at
 least 15 minutes, while holding the eyelid(s) open. Remove
 contact lenses. Take care not to rinse contaminated water
 into the unaffected eye or onto the face. Get immediate
 medical attention.

Inhalation: Remove from exposure area to fresh air
 immediately. If breathing has stopped, give artificial
 respiration. Keep affected person warm and at rest. Get
 immediate medical attention.

**Ingestion: Do not induce vomiting due to petroleum
 distillates/aromatic solvent in product.** Do not give
 anything by mouth. **Immediately take the person to a
 physician.**

Advice to physician: No specific antidote is available if.
 Treat symptomatically and supportively. **Do not induce
 vomiting.** This product contains material that may cause
 severe pneumonitis if aspirated.

5. FIRE FIGHTING MEASURES

Fire hazard:

Flammability: Non-flammable

Hazardous decomposition products: Decomposes in
 fire, and generates dense black smoke containing
 hazardous products of combustion. Exposure to these
 decomposition products may be a health hazard.

Extinguishing agents: For small fires extinguish with
 water spray, carbon dioxide, dry powder, or alcohol-resistant
 foam. For large fires extinguish with alcohol-resistant foam
 or water spray. Do not use a solid water stream as it may
 scatter the material. Contain water used for fire fighting for
 later disposal. Do not get water inside the containers.
 Runoff to sewers could create fire or explosion hazard.

Firefighting: Keep upwind. Remove container from fire
 area if possible. Fight fire from maximum distance or use

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unmanned hose holders or monitor nozzles. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Avoid inhaling hazardous vapours. Keep upwind. Consider evacuation of downwind area if material is leaking.

Personal protective equipment: Fire may produce irritating or poisonous vapours, mists or other products of combustion. Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions: Avoid contact with skin and eyes. Do not breathe in mist or fumes. For personal protection see Section 8.

Environmental precautions: Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

Occupational spill: Do not flush with water. Eliminate all ignition sources (smoking, flares, sparks or flames) in the immediate area. Earth all equipment used when handling the product. Do not touch or walk through spilled material. Stop leak if you can do so without risk.

Absorb or cover with dry earth or sand or other suitable non-combustible absorbent, and transfer to labelled containers. Use clean non-sparking tools to collect absorbed material. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Keep spectators away.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Avoid contact with eyes and skin, and inhalation of mist and vapour. Harmful if swallowed. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and plenty of water, and put on clean clothing. Wash eyes out immediately if product comes in contact with eyes. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage: Stable for up to 2 years when stored under dry normal warehouse conditions.

The product must be kept under lock and key. Keep out of reach of unauthorised persons, children and animals. Store in its original labelled container in isolated, dry, cool and well-ventilated area. Not to be stored in direct sunlight for

prolonged periods. Do not store next to foodstuffs and water supplies. Local regulations should be complied with.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

Personal protective equipment: If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

Respirator: An approved respirator suitable for protection from vapours and mists of pesticides is required. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

Clothing: Employee must wear appropriate protective (impervious) clothing and equipment to prevent skin contact with the substance.

Gloves: Employee must wear appropriate synthetic protective gloves to prevent contact with this substance.

Eye protection: The use of face shield or goggles is recommended.

Emergency eye wash: Where there is any possibility that an employee's eyes may be exposed to this substance; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Dark brown transparent liquid with musty odour.

Flammability: Non-flammable

Vapour pressure: Not available

pH: 5.0 to 9.0

Corrosiveness: Non-corrosive

Miscibility: Miscible

Explosiveness: Non-explosive

10. STABILITY AND REACTIVITY

Stability: Stable for up to 2 years under normal warehouse and field conditions.

Conditions to avoid: None known

Incompatible materials: None known

Incompatibility: Incompatible with strong acid, alkaline and oxidising agents.

Hazardous decomposition products:

Decomposes in fire and will generate toxic/irritant vapours.

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11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀: > 2000 mg/kg in rats
Acute dermal LD₅₀: > 2000 mg/kg in rats
Acute inhalation LC₅₀: > 4 mg/l (4 hours) for rats
Skin irritation: Moderately irritating (rabbit)
Eye irritation: Slight eye irritant (rabbit)
Skin sensitisation: Weak skin sensitizer (guinea pig)
Reproductive: No toxic effects on reproductive parameters.
Carcinogenicity: No evidence of carcinogenicity.
Teratogenicity: Non-teratogenic in rats and rabbits.
Mutagenicity: Non-mutagenic in Ames test.

12. ECOLOGICAL INFORMATION

Degradability: In **plants**, hydrolytic decomposition occurs and the thiol group is split off, giving mercaptan, dipropylamine and CO₂. In **soil**, **Prosulfocarb** undergoes microbial decomposition, and has a DT₅₀ 12-49 days (21.5 °C, aerobic). In soil aerobic conditions **Prosulfocarb** shows low to moderate persistence, forming the soil metabolite **Prosulfocarb** sulfoxide. **Prosulfocarb** exhibits slow to slight mobility in soil.

ECOTOXICOLOGY: (For technical)

Birds:

LD₅₀ for bobwhite quail: > 2250 mg/kg
 LC₅₀ for mallard ducks > 5620 mg/kg

Fish: Moderately to highly toxic to aquatic organisms

LC₅₀ (96 hr): Rainbow trout: 1.7 mg/l
 Bluegill sunfish: 4.2 mg/l

Daphnia: Moderately to highly toxic to aquatic organisms

LC₅₀ (48 hours): 1.3 mg/l

Algae:

EC₅₀ (96 h) *Scenedesmus subspicatus* 0.11 mg/l

Worms:

LC₅₀: 144 mg/kg

Bees:

LD₅₀ (48 h) contact 79 µg/bee
 LD₅₀ (48 h) oral 103 µg/bee

13. DISPOSAL CONSIDERATION

Pesticide disposal: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product that cannot be reused or reprocessed should be disposed of in a landfill approved for pesticide disposal. Do not contaminate rivers, dams or any other water sources with the product or used containers.

Package product wastes: Emptied containers retain vapour and product residues. Observe all labelled safeguards. **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 one third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container.
 Destroy the emptied containers by perforation and flattening. Bury in an approved dumpsite. **Do not** re-use the empty container for any other purpose.

14. TRANSPORT INFORMATION

UN NUMBER: 3082
Road Transport ADR/IRD:
 Class: 9
 Packaging group: III
 Shipping name: Environmentally hazardous substance, Liquid, NOS.
(Prosulfocarb 800 g/l)

Air Transport ICAO/IATA:

Class: 9
 Packaging group: III
 Shipping name: Environmentally hazardous substance, Liquid, NOS.
(Prosulfocarb 800 g/l)

Maritime Transport IMDG/IMO:

Class: 9
 Packaging group: III
 Shipping name: Environmentally hazardous substance, Liquid, NOS.
(Prosulfocarb 800 g/l)

15. REGULATORY INFORMATION

Symbol: Xn, Xi, N
Indication of danger: Harmful and irritating substance; Environmentally dangerous.

Risk phrase(s):

R 22 Harmful if swallowed.
R 36/37/38 Irritating to eyes, respiratory system and skin.
R 43 May cause sensitization by skin contact.
R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S 1/2 Keep locked up and out of reach children.
S 20/21 When using do not eat, drink or smoke.
S 23 Do not breathe vapour/spray.
S 24/25 Avoid contact with skin and eyes.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

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S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16. OTHER INFORMATION

Packing and Labelling

Packed in 1, 5, 10, 15, 20, 25 & 50 litres fluorinated plastic containers and labelled according to the 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 and use of the product. It is not applicable to unusual or non-standard uses of 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

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For detailed information on revisions, contact the Registration holder.