

SKOFFEL® 200 SUPER

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: SKOFFEL® 200 SUPER
Other identifier: Paraquat dichloride
Recommended use: Herbicide
Restrictions on use: Agriculture

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

Emergency telephone numbers:
24 Hr Transport / Spill emergency no:
 (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

2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
Health		
Oral	Acute Toxicity 3	H301
Dermal	Acute Toxicity 4 Skin Irritation 2	H312 H315
Eye	Eye irritation 2	H319
Inhalation	Acute Toxicity 2	H330
Specific target organ toxicity following single exposure	STOT SE 3	H335
Specific target organ toxicity following repeated exposure	STOT RE 1	H372
Environment		
Aquatic acute	Aquatic acute 1	H400
Aquatic chronic	Aquatic chronic 1	H410

The most important adverse effects:
Physicochemical effects: None known
Human health effects:
 Toxic if swallowed.
 Harmful in contact with skin and cause skin irritation.
 Fatal if inhaled.
 Causes serious eye irritation.
 Causes damage to organs through prolonged or repeated exposure.

Label elements:



Signal word: Danger
Hazard statements:
 H301: Toxic if swallowed.
 H312: Harmful in contact with skin.
 H315: Causes skin irritation.
 H319: Causes serious eye irritation.
 H330: Fatal if inhaled.
 H335: May cause respiratory irritation.
 H372: Causes damage to organs through prolonged or repeated exposure.
 H400: Very toxic to aquatic life.
 H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:
 P260: Do not breathe dust, fume, gas, mist, vapours and spray
 P261: Avoid breathing mist, vapours and spray.
 P264: Wash hands and face thoroughly after handling.
 P264+P265: Wash hands thoroughly after handling. Do not touch eyes.
 P270: Do not eat, drink or smoke when using this product.
 P271: Use only outdoors or in a well-ventilated area.
 P273: Avoid release into the environment.
 P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
 P284: In case of inadequate ventilation wear respiratory protection.
 P301+P310: IF SWALLOWED: Immediately call a POISON CENTER.
 P301+P316: IF SWALLOWED: Get emergency medical help immediately.
 P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310: Immediately call a POISON CENTER.
 P316: Get emergency medical help immediately.
 P319: Get medical help if you feel unwell.

P330: Rinse mouth.
 P317: Get medical help.

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P332+P317: If skin irritation occurs: get medical help.
 P337+P317: If eye irritation persists: Get medical help.
 P362+364: Take off contaminated clothing and wash it before reuse.
 P391: Collect spillage.
 P403+P233: Store in a well-ventilated place. Keep container tightly closed.
 P405: Store locked up.
 P501: Dispose of content/container to suitable landfill in accordance with local regulations.

Other hazards: None known.

Toxicity:

Classification according to GHS: Category 2

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture
 Composition:

Chemical name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Paraquat tech 42% as dichloride salt	1910-42-5	27.6 %	Acute Tox.3 (H301) Acute Tox.3 (H311) Skin Irrit.2 (H315) Eye Irrit. 2 (H319) Acute Tox.2 (H330) STOT SE 3 (H335) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
(3R)-3-ethoxy-2-methylnonane	78330-20-8	<1%	Acute Tox. 4 (H302) Eye Dam. 1 (H318)

4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. **Immediately consult a doctor if patient feels unwell.**

Inhalation:

immediately Remove from exposure area to fresh air. Keep affected person warm and at rest. Get medical attention immediately. **Do NOT administer supplementary OXYGEN.**

Skin: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **Paraquat**

can be absorbed through the skin. Emergency personnel should wear gloves and avoid contamination. Obtain medical attention if patient feels unwell or if irritation persists.

Eyes: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. This product causes serious eye irritation. **Seek medical attention.**

Ingestion: Immediately call a POISON CENTER. Do not induce vomiting. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water and give water to drink.

Anticipated acute effects:

Toxic if swallowed.
 Harmful in contact with skin.
 Fatal if inhaled.
 Causes skin irritation.
 Causes serious eye irritation.
 May cause respiratory irritation.

Anticipated delayed effects:

Causes damage to organs through prolonged or repeated exposure.

Most important symptoms / effects:

Ingestion: Immediate effects depend on the dose of **Paraquat** absorbed into the blood. Early signs of **Paraquat** poisoning are vomiting, painful mucous membranes in mouth and throat. In severe cases of poisoning diarrhoea follows and kidney and liver damage may develop 1 to 3 days after exposure. Lung damage can be observed after about 3 days and may lead to death.

Advice to physician:

Rapid treatment is essential. Wash out stomach and test urine and gastric aspirate (if clear) for presence of **Paraquat**. Give up to 1 litre of 15 % aqueous suspension of Fuller's Earth, orally or via gastric tube, together with suitable purgative (200 ml of aqueous solution of mannitol). Repeat administration of absorbent plus purgative until absorbent is seen in stools. This should normally take between 4 to 6 hours after start of treatment.

Do NOT administer supplement OXYGEN it may worsen paraquat toxicity.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use carbon dioxide or dry chemical for small fires and water fog or foam for large fires.

Unsuitable Extinguishing Media: High volume water jet.
Specific hazards: Product is non-combustible. Does not burn. However, following evaporation of aqueous component, residual material may burn, forming toxic fumes.

Special fire-fighting procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from

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maximum distance and use unmanned hose holder or monitor nozzles. Remain upwind of fire. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.

Personal protective equipment: Wear NIOSH / MSHA approved self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin and eyes. **Do not breathe in spray mist or vapours.** Ventilate area of spill or leak, especially in contained areas.

Protective equipment: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

Emergency procedures: Alert firefighting personnel, evacuate unprotected personnel and animals.

Environmental Precautions: Prevent spilled product from entering sewers, waterways or ground water. This product is classified as very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses should be reported immediately to the police and the Department of Water / Environmental Affairs.

Methods and Materials for Containment: Contain spilled product by diking area with sand or earth.

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Toxic if swallowed and fatal if inhaled. Avoid contact with skin and eyes. Ensure adequate ventilation during handling and use. Do not inhale spray mist or vapours. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep

containers closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.

General occupational hygiene: Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used.

Storage:

Conditions for safe storage: Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original, labelled container, tightly closed in an isolated, dry, cool and well-ventilated area. Avoid excess heat. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Non-Fluorinated plastic drums or palls and/or Fluorinated containers/drums/palls.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration:

No occupational exposure limits have been determined for the significant ingredients in this product.

Engineering Controls:

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations.

Personal Protective Equipment:

Respiratory Protection: Use a NIOSH approved, air-purifying respirator with cartridges / canisters approved for organic vapours.

Hand Protection: The use of chemically protective impervious gloves is recommended to prevent against skin contact.

Eye Protection: The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: Employees must wear appropriate protective impervious clothing, rubber boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing.

Emergency eyewash: 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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, dark greenish brown liquid.
Odour: Strong pungent odour.
Odour threshold: Not available.
pH (1% aqueous dilution): Not available.
Melting point: Not available.
Freezing Point: Not available.
Boiling Point: 101 °C.
Flash Point: Charring at 300 °C.
Flammability: Not flammable.
Upper / lower explosion limits: Not explosive.
Vapour Pressure (mm Hg): Not available.
Relative Vapour Density: Not available.
Density / Relative density: 1.074 ± 0.005 g/cm³ at 20 °C
Solubility: Complete.
n-octanol / water partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: 300 °C.
Viscosity: Not available.

10. STABILITY AND REACTIVITY

Chemical stability: The product is stable for two years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50 °C, preferably below 30 °C, and not for prolonged periods in direct sunlight.
Reactivity: None known.
Possibility of hazardous reactions: Unlikely to occur.
Conditions to avoid: Extreme heat or exposure to flames.
Incompatible materials: Incompatible with strong bases, strong acids and oxidising agents.
Hazardous decomposition products: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen, oxides of nitrogen, hydrogen chloride gas, chlorides and water.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
Oral LD₅₀ (24h) >95 mg/kg (rat)
Dermal LD₅₀ >1000 mg/kg (rat)
Inhalation LC₅₀ (4h) >0.08 mg/l (rat)
Skin Irritation / Corrosion: Causes skin irritation.
Eye Damage / Irritation: Causes serious eye irritation.
Skin Sensitization: Not available.
Respiratory Sensitization: Not available.
Reproductive cell mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Specific target organ toxicity – single exposure: May cause respiratory irritation.
Specific target organ toxicity – repeated exposure: Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard: Not available.
Chronic Effects: Not available.
POTENTIAL ADVERSE EFFECTS:
Inhalation: Although nose bleeds and lung irritation may occur if paraquat is inhaled, the risk of serious damage due to occupational exposure to paraquat is low because of its low vapor pressure.
Ingestion: Early signs of Paraquat poisoning are vomiting, painful mucous membranes in mouth and throat.

12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic organisms.

ECOTOXICITY DATA:

Active ingredients (Paraquat dichloride)

Fish:		
LC ₅₀ (96 h)	Rainbow trout	18.6 mg paraquat ion/l
	Mirror carp	98.3 mg paraquat ion/l

Daphnia:		
EC ₅₀ (48 h)		4.4 mg paraquat ion/l

Algae:		
E _b LC ₅₀ (96 h)	Green algae	0.075 mg paraquat ion/l

Birds:		
Acute oral LD ₅₀	Mallard ducks	54 mg/kg
	Bobwhite quail	127 mg/kg
Dietary LD ₅₀ (8d)	Mallard ducks	2932 mg/kg diet
	Bobwhite quail	711 mg/kg diet
	Japanese quail	698 mg/kg diet
	Ring-necked pheasant	1063 mg/kg diet

Worms:		
LC ₅₀ (14 d)	earthworms	>1000 mg/kg soil.

Paraquat dication:

Bees:		
LD ₅₀ (120h)	(contact)	50.9 µg/bee
LD ₅₀ (120h)	(oral)	11.2 µg/bee

ENVIRONMENTAL EFFECTS

Based on information for the active ingredient:
 Paraquat

Plants: Photochemical degradation occurs. Degradation products which have been isolated include 1-methyl-4-carboxypyridinium chloride and methylamine hydrochloride.

Persistence and degradability: when adsorbed to soil, paraquat is slowly degraded with DT₅₀ values ranging from 7 to 20 y. When desorbed, it is quickly degraded by soil micro-organisms (DT₅₀ of unadsorbed paraquat < 1w). The potential risk to leach into groundwater is negligible.

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Bio-accumulative potential: Not determined.
Mobility in soil: Paraquat is rapidly and strongly adsorbed to soil and sediment (K_{oc} values between 8000 and 40 000 000 ml/g), resulting in complete deactivation.

Other adverse effects: Not determined.

13. DISPOSAL CONSIDERATIONS

Waste: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product 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. The product may be taken to a registered waste disposal site or incineration plant.

Container: Emptied containers retain product residues. Do not re-use the empty container for any other purpose. Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN Number:

Road Transport ADR / ORD: 3016

Class: 6.1
 Packaging group: I
 UN Proper Shipping Name: BIPYRIDYLIUM PESTICIDE, LIQUID, TOXIC (Paraquat dichloride 276 g/l of which Paraquat ion 200 g/l).

Maritime Transport IMDG / IMO: 3016

Class: 6.1
 Packaging group: I
 UN Proper Shipping Name: BIPYRIDYLIUM PESTICIDE, LIQUID, TOXIC (Paraquat dichloride 276 g/l of which Paraquat ion 200 g/l).

Marine pollutant (Y/N): Yes

Air Transport IATA / ICAO: 3016

Class: 6.1
 Packaging group: I
 UN Proper Shipping Name: BIPYRIDYLIUM PESTICIDE, LIQUID, TOXIC (Paraquat dichloride 276 g/l of which Paraquat ion 200 g/l).

Special / Environmental Precautions: Wedge drums tightly to avoid movement.

Transport in bulk: Refer to MARPOL 73/78, Annex II and the IBC code.

15. REGULATORY INFORMATION

Safety, health and environmental regulations / legislation for the mixture:

OHSA 1993 Regulations for Hazardous Chemical Substances.

Relevant information regarding restrictions: None.

EU regulation: Regulation EC1272/2008 (EU-GHS/CLP)

Other national regulations: None.

Chemical Safety Assessment carried out? No

16. OTHER INFORMATION

Packaging: Packed in 1, 5, 10, 20, 25, 50 and 200 litres non-fluorinated plastic containers, labelled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:

H302: Harmful if swallowed.

H311: Toxic in contact with skin.

H318: Causes serious eye damage.

IATA: International Air Transport Association.

IBC: International Bulk Chemical.

ICAO: International Civil Aviation Organization.

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization.

LD₅₀ value: The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.

OEL/RL: Occupational exposure limit-recommended limit.

TWA: Time-weighted average – The average exposure over a specified period, usually a nominal eight hours.

ST/STEL: Short-term exposure limits.

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.