



MATERIAL SAFETY DATA SHEET

KARBASPRAY 850 WP

Date Issued: May 2014 and is valid for 3 years from this date.

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Revision No.: 3ian

Print Date: 3/10/14

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: KARBASPRAY 850 WP

SUPPLIER: EFEKTO

PO BOX 652147

BENMORE

2010

TEL No. 011 287 5700

EMERGENCY TELEPHONE NUMBERS:

SPILLAGES: 083 1233 911

Fax: 086 685 3129

POISONINGS:

National Poison Centre 021-9386084 (office hours).

021-9316129 (after hours).

082 446 8946

Use: A contact and stomach poison, wettable powder insecticide, for home, garden and public health use as listed on the label.

2. HAZARDS IDENTIFICATION

- Harmful.
- Dangerous for the environment

Note:

Poisoning is unlikely to occur due to the low concentration of the insecticide. However, Carbaryl is a carbamate compound which inhibits cholinesterase.. Contact with skin, inhalation of dust, or swallowing may be harmful.. Persons with hemolytic anemias or preexisting cholinesterase depression should not handle this product . Persons with respiratory disorders should use extra care in handling this product.

Likely routes of exposure:

May be absorbed from the gastrointestinal tract, through the intact skin, and through inhalation of fine dust. Human poisoning is unlikely to occur due to the low concentration of the insecticide. Persons with hemolytic anemias or preexisting cholinesterase depression should not handle this product. Persons with respiratory disorders should use extra care in handling this product.

Eye contact:

Tests indicate the product is harmful, however caution should be practiced when handling the product. The product was found to be non-irritating.



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Skin contact:

Tests indicate the product is harmful, however caution should be practiced when handling the product. The product was found to be non-irritating.

Ingestion: Harmful by inhalation.

Carcinogenicity:

Inadequate evidence of carcinogenicity in animals. Carbaryl is not classifiable as to its carcinogenicity to humans.

Teratogenicity:

Studies did not detect any teratogenic effects.

Mutagenicity:

Studies did not detect any mutagenic effects.

Symbols: Xn ;N

Risk-Phrases: R20/ 22, R40, R50,
Carc, Cat. 3.

UN No.: 2757

Class: 6.1

3. COMPOSITION/INFORMATION ON INGREDIENTS**Active ingredients:**

| Active ingredients. | CAS No.: | EC No.: |
|---------------------|----------|-----------|
| Carbaryl 850g/kg | 63-25-2 | 200-555-0 |

Chemical Name: 1-naphthyl methylcarbamate (IUPAC).

Chemical Family: Carbamate

Chemical Formula: C₁₂H₁₁NO₂

NIOSH/RTECS No.: FC5950000

4. FIRST-AID MEASURES

Proper care should be taken during occupational use to avoid any inhalation of dust and spray particles, and to prevent accidental contamination of food products and water.

Symptoms of carbaryl poisoning: in exposed people include stinging eyes, wheezing, sweating, and nausea. Proper care should be taken during occupational use to avoid any inhalation of dust particles, and to prevent accidental contamination of food products and water.

Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.



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Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Inhalation: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

Advice to physician:

Atropine is the antidote. Do not use 2-PAM, opiates or cholinesterase inhibiting drugs.

5. FIRE-FIGHTING MEASURES

Fire and explosion hazard:

Slight fire hazard when exposed to heat or flame. Dust-air mixtures may ignite or explode.

Extinguishing agents:

Extinguish small fires with carbon dioxide, dry powder, Halon, water spray, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Contain water used for firefighting for later disposal

Firefighting:

Move containers from fire area if possible. Fight fire from maximum distance. Stay away from storage tank ends. Contain fire control water for later disposal. Do not scatter material, extinguish only if flow can be stopped. Use flooding amounts of water as a fog, solid streams may be ineffective. Cool containers with flooding amounts of water as far a distance as possible. Use water spray to absorb toxic vapours. Avoid breathing toxic vapours. Keep upwind. Consider evacuation of downwind area if material is leaking.

Special Hazards:

Fire and explosion hazard:

Dust-air mixtures may ignite or explode.

Fire may produce irritating or poisonous vapours (oxides of nitrogen, methylamine, and carbon monoxide).

Personal protective equipment:

Carbaryl dust may be transported in the smoke from a fire. Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid contact with skin and eyes. Do not breathe in dust or spray mist. For personal protection see Section 8.

Environmental precautions:

Do not allow entering drains or watercourses. When the product contaminates public waters, inform appropriate authorities immediately in accordance with local regulations.

Occupational spill:

Do not touch spilled material. Stop leak if you can do so without risk. Use water spray to reduce dust (contain any water used). For **small spills**, sweep up and place into containers for later disposal. Move containers from spill area. For **larger spills**, contain material far ahead of spill for later disposal. Isolate hazard area and deny entry.



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7. HANDLING AND STORAGE

Handling:

Harmful by inhalation and if swallowed. Avoid contact with eyes, prolonged contact with skin, and inhalation of dust. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. 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:

The product must be kept under lock and key. Keep out of reach of unauthorized persons, children and animals. Store in its original labelled container in shaded, well-ventilated area. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits:

Carbaryl:

Recommended Exposure Limit: 10 Hr Time-Weighted Average: 5 mg/cu m.

Engineering control measures:

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. 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 dusts of pesticides is adequate. 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 repeated or prolonged skin contact with the substance.

Gloves:

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

Eye protection:

The use of full-face protection 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: Powder.

Colour: White to off-white.

Odour: Odourless.



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Flammability: Not flammable.

Explosive properties:

Like most organic powders, this product could form explosive mixture in air, under severe dust conditions.

Flash point: Not applicable.

Oxidising properties: Not oxidative.

pH: Not applicable..

Solubility in water: The product will mix with water.

10. STABILITY AND REACTIVITY

Stability:

The product is stable up to 2 years under normal storage conditions.

Incompatibility:

None known.

Hazardous decomposition:

Toxic oxides of nitrogen are released when the product decomposes on heating.

11. TOXICOLOGICAL INFORMATION

All data is for technical material.

Acute oral LD₅₀ :

850 mg/kg in male rats.

500 mg/kg in female rats.

Acute dermal LD₅₀ : > 2000 mg/kg in rabbits.

Although tests indicate high LD₅₀ values, caution should be practiced when handling the product.

Acute inhalation LC₅₀ : >06.1 mg/l of air over 4 hours (rats).

Skin irritation:

The product was found to be non-irritating to skin (rabbit).

Eye irritation:

The product was found to be non-irritating to eyes (rabbit).

Dermal sensitisation: Not sensitizing.

Carcinogenicity: Inadequate evidence of carcinogenicity in animals. Carbaryl is not classifiable as to its carcinogenicity to humans.

Teratogenicity: Studies did not detect any teratogenic effects.

Mutagenicity: Studies did not detect any mutagenic effects.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGY:

All data is for technical material.

Birds:

Minimally toxic to birds.

Acute oral LD₅₀: > 2179 mg/kg (young mallard ducks).



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> 2230 mg/kg (Japanese quail).
> 2000 mg/kg (young pheasants).
1000-3000 mg/kg (pigeons).

Fish:

Toxic to fish.

LC₅₀ (96 hr): 1.3 mg/l (rainbow trout).
10.0 mg/l (bluegill sunfish).
2.2 mg/l (blue gill sunfish)

Bees. LD₅₀ (contact): 1.0 µg/bee.

Daphnia: Very toxic to Daphnia.

Daphnia: The 48-hour EC₅₀ was 0.006 mg /l.

Earthworms: Toxic to earthworms.

Beneficial insects: Toxic for beneficial insects.

Soil micro-organisms: No data available.

Degradability:

In soil, the active ingredient is metabolized to form 1-naphthol. The half life of the product is 7-14 days in sandy loam soils and 14-28 days in clay loam. Soils with high organic matter content retain residues for longer periods than do mineral soils.

Mobility:

Not mobile. Carbaryl is adsorbed on soil and is unlikely to leach into water sources.

Accumulation:

Carbaryl adsorbs to soil but shows little or no tendency to bio-accumulate. Carbaryl has very limited persistence in the environment.

German wvk: 3

13. DISPOSAL CONSIDERATIONS

Pesticide disposal:

Use surplus product as per label recommendation. Before disposal of the resultant waste, the material must be analysed to ensure that the active ingredient has been degraded to a safe level. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Comply with local legislation applying to waste disposal.

Package product wastes:

If container is broken, handle with rubber gloves. Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed. Combustible containers should be disposed of in pesticide incinerators. Non-combustible containers must be punctured and transported to a scrap metal facility for recycling or disposal.

14. TRANSPORT INFORMATION

UN NUMBER 2757

ADR/IRD

Substance name: Carbamate pesticide, solid, toxic (Carbaryl).



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Class: 6.1
Classification code: T7
Hazard ID no 60
Label: 6.1

IMDG/IMO

Packaging group: III
Label of class: 6.1 Marine pollutant
Shipping name: Carbamate pesticide, solid, toxic (Carbaryl)

AIR/IATA

Shipping name: Carbamate pesticide, solid, toxic (Carbaryl)
Class: 6.1
Hazard Label: Toxic
Packaging Group: III
Passenger Aircraft: 619 (max 100 kg)
Cargo Aircraft: 619 (max 200 kg)
UK: Not available

Tremcard No: 61GT7-III

15. REGULATORY INFORMATION

Symbol: Xn; N

Indication of danger: Harmful; Dangerous to the environment.

Carc. Cat. 3 Substance which may cause concern for man owing to possible carcinogenic effects but in respect of which the available information is not adequate for making a satisfactory assessment.

Risk phrases:

R20/ 22 Harmful by inhalation or if swallowed.
R40 Possible risk of irreversible effects.
R50 Very toxic to aquatic organisms.

Safety phrases:

S 2 Keep out of reach of children
S22 Avoid breathe dust
S24 Avoid skin contact.
S36/37 Wear suitable protective clothing and gloves.
S46 If swallowed, seek medical advice immediately and show this MSDS or product label
S61 Avoid release to the environment. Refer to the label or MSDS.

National legislation: In accordance with the South African National Road Traffic Act, 1996 (Act 93 of 1996), the Fire Brigade Act, 1987 (Act 99 of 1987) and the Occupational Health and Safety Act, 1993 (Act. No. 85 of 1993)



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16. OTHER INFORMATION

Compiled by: Danie Fourie

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

REFERENCES

- *The Pesticide Manual*; Eleventh Edition; Editor Clive Tomlin; Crop Protection Publications, 1997.
- EINECS.
- ADR 2011, Part 3.
- IMDG Code, 2005 Edition, Vol. 2.
- IATA Dangerous goods regulations, Effective 1 January 2011

END OF MSDS.