

Safety Data Sheet**940651/01**

Date of issue: January 6, 2000

Page 01 of 05

1. Identification of the substance/preparation and the company**Antracol-Kupfer WP 54,5 blau****05157498**

Bayer AG, PF-P+T Umweltschutz und Sicherheit

D-41538 Dormagen, Telephone: (02133) 515012

In case of emergency: (0214) 303030 (Werkfeuerwehr Bayer Leverkusen)

2. Composition/information on ingredients

preparation contains

copper oxychloride

weight %: 66,2

CAS No.: 1332-65-6

hazard symbol: Xn

Index No.: --

R-phrases: 22

propineb

weight %: 17,5

CAS No.: 9016-72-2

hazard symbol: --

Index No.: --

R-phrases: --

3. Hazards identification

Harmful if swallowed.

4. First-aid measures

GENERAL INFORMATION:

Remove patients from the danger zone. If there is a risk of unconsciousness, position and transport in stable lateral position. Remove soiled or soaked clothing immediately.

UPON INHALATION:

Call doctor immediately.

FOLLOWING SKIN CONTACT:

Wash skin immediately with copious amounts of water and soap.

FOLLOWING EYE CONTACT:

Rinse eyes thoroughly with water. Consult an eye specialist.

UPON SWALLOWING:

Call emergency doctor immediately.

(to be continued)

Safety Data Sheet

940651/01

Date of issue: January 6, 2000

Page 02 of 05

Antracol-Kupfer WP 54,5 blau

05157498

4. First-aid measures (Continuation)

INFORMATION FOR THE PHYSICIAN:

See Chapter 11 for information on toxicology.

The active ingredients listed in Chapter 2 belong to the following chemical group: Dithiocarbamate (propineb), inorganic copper salt (copper oxy-chloride).

Symptoms of poisoning:

propineb:

Alcohol-intolerance as on all carbamates to be expected ("Antabus-Effect").

Strictly no alcohol!

copper oxychloride:

Low oral doses (3-5 g): gastroenteritic symptoms, no absorption-related effects; moderate oral doses (5-8 g): damage to the gastrointestinal mucosa, capillary damage, loss of water and electrolytes. High oral doses (8-12 g) may be lethal. Inhalation of dust causes the formation of pyrogenic copper-protein compounds and thus leads to "copper fever" (similar to zinc fever).

Therapeutic measures: First aid, decontamination, symptomatic treatment and administration of dessert-spoonfuls of a 1 % solution of potassium or sodium ferrocyanide.

Antidote: Edetamin 15-25 mg/kg bodyweight and day diluted in an i.v. infusion over 3 to 6 days or dimercaprol (Sulfactin) 3-5 mg/kg bodyweight and day by deep i.m. injection. Treatment with prednisolone (Prednisolut) must also be given.

For further recommendations see "Wirkstoffe in Pflanzenschutz- und Schädlingsbekämpfungsmitteln, Physikalisch-chemische und toxikologische Daten" (Active Ingredients in Crop Protection Products and Pesticides, Physico-Chemical and Toxicological Data). Published by Industrieverband Agrar e.V., D-60329 Frankfurt am Main, Germany 1990.

5. Fire-fighting measures

Extinguishing media: sprayed water jet, foam, extinguishing powder, CO₂, sand

Fight fire in early stages if safe to do so.

Wear respiratory protection.

Well ventilated areas: full face mask with combination filter, e.g. ABEK-P2 (offers no protection from carbon monoxide!)

Enclosed premises: respirator with independent air supply.

Contain firefighting water.

In the event of fire, the formation of hydrogen cyanide, carbon monoxide, sulphur dioxide and nitrogen oxides must be anticipated.

6. Accidental release measures

Use the personal protective equipment listed in Chapter 8. Do not empty into drains or waters. Take up spilled product with dust-binding material or suitable vacuum cleaner. Avoid formation of dust. Fill materials taken up into closable container. To clean the floor and all objects contaminated by this material, use damp cloth. Also place used cleaning materials into closable receptacles.

Safety Data Sheet**940651/01**

Date of issue: January 6, 2000

Page 03 of 05

Antracol-Kupfer WP 54,5 blau

05157498

7. Handling and storage

INFORMATION ON SAFE HANDLING:

Keep away from acids.

Suitable container materials: LDPE (low density polyethylene).

When using open containers, use local exhaust ventilation to prevent dusts from spreading. Make provision for product and fire-fighting water to be retained.

INFORMATION ON STORAGE:

See Chapter 15 for storage regulations.

Observe the rules contained in the VCI concept for separate/common storage. To preserve quality, store in a dry place. Store so that unauthorised persons do not have access. Keep away from food, drink and animal feeding stuffs.

8. Exposure controls/Personal protection

For technical protective measures to limit exposure see also Chapter 7 "Handling and storage".

If product is handled while not enclosed, and if skin contact may occur:

Respiratory protection: Fine dust mask

Hand protection: protective gloves for chemicals

Eye protection: goggles

Occupational health:

Keep the place of work clean. Avoid contact with product. Keep working clothes separate. Change badly soiled or soaked clothing. Wash hands before breaks and at end of work.

9. Physical and chemical properties

tested in accordance with

Form: solid, powder

Colour: light-blue

Odour: slight characteristic smell

pH value: 6,0-7,0 at 1 % in water

Bulk volume fluffed: approx. 290 ml/100 g

Bulk volume jolted: approx. 210 ml/100 g

Solubility in water: dispersible

Partition coefficient: log P octanol/water =

N,N'-(1,2-propylene)thiourea (PTU): -0,26

(decomposition product of Propineb)

Solid products combustibility: BZ 3 = local burning or glowing with, at the most, only slight spreading (VDI 2263).

Impact sensitivity: not impact sensitive

Risk of dust explosion: not ignitable (modified Hartmann tube, ignition with glow spiral)

10. Stability and reactivity

Chemical reaction capability:

Formation of carbon disulfide and hydrogen sulphide possible with acids.

11. Toxicological information

Acute toxicity:

LD₅₀ oral, rat: > 500 - < 1000 mg/kg (Bayer) *LD₅₀ dermal, rat: > 2000 mg/kg (Bayer) *

Safety Data Sheet

940651/01

Date of issue: January 6, 2000

Page 04 of 05

Antracol-Kupfer WP 54,5 blau

05157498

11. Toxicological information (Continuation)

Irritation of the skin/rabbit: non-irritant (Bayer) *

Irritant to the mucous membranes/rabbit: non-irritant (Bayer) *

* Test results of a similar product

propineb:

The Magnusson and Kligmann maximisation test indicated that propineb has a skin-sensitising action in the guinea pig. This effect was not observed in guinea pigs in the Buehler patch test which reproduces practical conditions more closely. No allergic skin disorders have been reported in workers exposed industrially to the product for many years under the given occupational hygiene conditions and in conjunction with plant and personal safety precautions.

The formulation described in this data sheet was classified by the conventional method.

12. Ecological information

Fish toxicity:

propineb:

LC₅₀: 133 mg/l (96 h); Golden orfe (*Leuciscus idus*) (Bayer)LC₅₀: 1,9 mg/l (96 h); rainbow trout (*Salmo gairdneri*) (Bayer)

Toxicity for Daphnia:

propineb:

EC₅₀: 4,7 mg/l (48 h); Water flea (*Daphnia magna*) (Bayer)

Toxicity for algae:

propineb:

Growth rate:

IC₅₀: 2,68 mg/l (96 h); Green algae (*Scenedesmus subspicatus*) (Bayer)**13. Disposal considerations**

In cases where larger amounts of the product have become unusable, it should be established whether material utilisation is possible (if necessary, consult the manufacturer/suppliers). Small amounts of the product and uncleaned empty packaging should be packaged and sealed, labelled and transferred to a suitable incinerator in accordance with the local regulations.

European Waste Catalogue (EWC) code: 070499, 020105

14. Transport information

GGVSee/IMDG Code: -- UN No.: ---- MFAG: --- --- EmS: -----

PG: --- MPO: --

GGVE/GGVS: Class ---- No. ---- RID/ADR: Class ---- No. ----

ADNR: Class ---- No. ---- Cat -- ICAO/IATA-DGR: -----

Declaration for land shipment: --

Declaration for sea shipment: -- --

Declaration for shipment by air: -- --

Other information:

Current data on dangerous goods available only on request.

Safety Data Sheet

940651/01

Date of issue: January 6, 2000

Page 05 of 05

Antracol-Kupfer WP 54,5 blau

05157498

15. Regulatory information

Labelling in accordance with directive 88/379/EEC (preparations) and its amendments and adaptations:

Symbol: Xn, hazard description: harmful

Contains: 66,2 % copper oxychloride

17,5 % propineb

R 22: Harmful if swallowed.

S 22: Do not breathe dust.

This labelling is not required for products in packages intended for end users.

VCI storage class: 11

16. Other information

Wettable powder

Application: fungicide

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.