



SAFETY DATA SHEET

according to EC directive 2001/58/EC

Moltovin

Version 7

PRINT DATE 08.10.03

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product information

Trade name : **Moltovin**

Usage : Pesticide

Company : Nufarm GmbH & Co KG
St.-Peter-Str. 25
A-4021 Linz
AUSTRIA

Emergency telephone number : +43/70/6914-2466

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Aqueous suspension

Components	CAS-No.	EINECS-No. ELINCS-No.	Symbol(s):	R-phrases(s)	Concentration
tribasic copper sulfate	12527-76-3		Xn	R22	27.0 %
Ethandiol	107-21-1	203-473-3	Xn	R22	3.9 %
cymoxanil	57966-95-7	261-043-0	N, Xn	R50/53, R22, R43	2.6 %

3. HAZARDS IDENTIFICATION

May cause sensitization by skin contact.
Toxic to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin contact : Wash off with soap and plenty of water.

Inhalation : Move to fresh air.

Ingestion : Do not induce vomiting. Rinse mouth. Obtain medical attention. If ingested, gastric lavage.

Notes to physician

Symptoms : hemolytic crisis accompanied by damage in the liver and brain, symptoms attributed to the CNS and kidneys, coma, stomach pains, vomiting

Treatment : No specific antidote, symptomatic treatment. Decontamination: 1



spoon of a 1 % solution of K-Hexacyanoferrat.

5. FIRE-FIGHTING MEASURES

- Specific hazards during fire fighting : In the event of fire (NO_x,CO_x,HCN) may be formed.
- Special protective equipment for fire-fighters : Wear self contained breathing apparatus for fire fighting if necessary. Use personal protective equipment.
- Suitable extinguishing media : carbon dioxide (CO₂), foam, sand, dry powder, water spray
- Extinguishing media which must not be used for safety reasons : high volume water jet
- Further information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use personal protective equipment.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up : Use mechanical handling equipment. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- Additional advice : Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

Handling

- Safe handling advice : Keep out of reach of children. Wear personal protective equipment.

Storage

- Requirements for storage areas and containers : Store at room temperature in the original container.
- Advice on common storage : Keep away from food, drink and animal feeding stuffs.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION



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Personal protective equipment

- Respiratory protection : No special protective equipment required.
- Hand protection : protective gloves
- Eye protection : safety glasses
- Skin and body protection : long sleeved clothing
- Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.
- Protective measures : Keep working clothes separately. Avoid contact with the skin and the eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Physical state : liquid at 20 °C ,
- Form : suspension
- Colour : greenish-blue
- Odour : odourless

Other data

- Start of crystallisation : < -3 °C
- Boiling point/range : ca.100 °C
at 1,013 hPa
Aqueous suspension

Flash point : 62 °C

Ignition temperature : 450 °C

Upper explosion limit : no data available

Lower explosion limit : no data available



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Vapour pressure : Cuproxat is an inorganic salt. Vapour pressure is negligibly low.

1.5000000E-04 Pa
at 20 °C
(Cymoxanil)

Density : ca.1.27 g/cm³
at 20 °C

Water solubility : dispersible

pH : ca.5.4
at 10 g/l

Partition coefficient (n-octanol/water) : no data available

Viscosity, dynamic : 41.6 mPa.s
at 20 °C

10. STABILITY AND REACTIVITY

Thermal decomposition : Decomposes on heating.

Conditions to avoid : no data available

Materials to avoid : Iron, strong acids, Aluminium and its alloys

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 rat
Dose: > 2,000 mg/kg

Acute dermal toxicity : LD50 rat
Dose: > 2,000 mg/kg

Skin irritation : rabbit
Result: No skin irritation

Eye irritation : rabbit



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Sensitization : Guinea-pig
Result: No eye irritation
Result: Causes sensitization.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability : no data available

Stability in soil : DT50 : < 9 d
(Cymoxanil)

Ecotoxicity effects

Toxicity to birds : Non toxic for birds.

Toxicity to bees : Not toxic to bees.

Toxicity to fish : **LC50 Toxicity to fish**
Dose: > 100 mg/l
Testing period: 96 h
Method: (calculated)

Toxicity to daphnia : **EC50 Daphnia magna (Water flea)**
Dose: ca. 1.8 mg/l
Testing period: 48 h
Method: (calculated)

Toxicity to algae : **EC50 Toxicity to algae**
Dose: ca. 30 mg/l
Exposure time: 72 h
Method: (calculated)

Further information : According to our experience, doesn't cause any disturbance in waste water clarifying plant if used appropriately.

Ecological injuries are not known or expected under normal use.



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13. DISPOSAL CONSIDERATIONS

Product : In accordance with local and national regulations.

Contaminated packaging : Dispose of as unused product. Do not re-use empty containers.

According to European Directive 2000/532/EC as amended :

Waste Key Number : 02 01 08 (agrochemical waste containing dangerous substances)

14. TRANSPORT INFORMATION

UN-No :

Description of the goods : UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S.*

ADR/RID

Class : 9
Packaging group : III

IMDG

Class : 9
Packaging group : III
Marine pollutant : MP

IATA-DGR

Class : 9
Packaging group : III

15. REGULATORY INFORMATION

Symbol(s) : N Dangerous for the environment
Xi Irritant



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R-phrase(s)	: R51/53 R43	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. May cause sensitization by skin contact.
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S-phrase(s)	: S60 S36/37 S20/21 S57 S24 S13 S 2	This material and/or its container must be disposed of as hazardous waste. Wear suitable protective clothing and gloves. When using, do not eat, drink or smoke. Use appropriate containment to avoid environmental contamination. Avoid contact with the skin. Keep away from food, drink and animal feeding stuffs. Keep out of reach of children.
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Further information : Handle in accordance with good industrial hygiene and safety practice.

16. OTHER INFORMATION

Revision date: : 08.10.2003

(Alterations are indicated in the left hand margin by: ||)

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Contact person

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