

1 / 4 EN
Revision: 26.09.2003 Replaces the version of: 03.12.2002
Printing date: 14.10.2003
FORTROL

Safety Data Sheet according to EEC-Regulation 91/155/EEC

1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

FORTROL
500 g/l Cyanazine

Use of the substance/preparation

Herbicide

Company/undertaking identification

Feinchemie Schwebda GmbH, Strassburger Str. 5, D-37269,
Eschwege
Telephone ++49 (0)5651/9237-0, Fax ++49 (0)5651/22442

Emergency telephone / Office for advice

Advisory office in case of poisoning:

Tel.: (UK-London) 0207 635 9191

Telephone number of the company in case of emergencies:

Tel. ++49 (0)5651/9237-0

2. Composition/information on ingredients

Formulation:

Suspension concentrate

2.1 Chemical name	conte nt %	sy mb ol	R- phras es	CAS	EINE CS, ELINC S
Cyanazine (ISO)	44,25	Xn/ N	22-50- 53		244- 544-9
Ethanediol	1 - 10	Xn	22		203- 473-3
Formaldehyd e	0,1 -< 0,2	T/C	23/24/2 5-34-40- 43		200- 001-8

For complete wording of the R-phrases, refer to point 16.

3. Hazards identification

3.1 To people

See point 11 and 15.

Preparation is classified as hazardous in the sense of directive 1999/45/EG.

Ingestion:

Product is dangerous to health.

The following may occur:

Hypotonia

3.2 To the environment

See point 12.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. First aid measures

4.1 Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

4.2 Eye contact

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Keep Data Sheet available.

4.3 Skin contact

Wash thoroughly with soap and copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

4.4 Ingestion

Consult doctor immediately - keep Data Sheet available.

Do not induce vomiting.

4.5 Special resources necessary for first aid

Indications for the physician:

Symptomatic treatment

4.4:

Gastric lavage

5. Fire-fighting measures

5.1 Suitable extinguishing media

Product is not combustible.

Water jet spray / foam / CO2 / dry extinguisher

5.2 Extinguishing media which must not be used for safety reasons

k.D.v.

5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

In case of fire the following can develop:

Toxic gases

Oxides of carbon

Oxides of nitrogen

Hydrogen chloride

5.4 Special protective equipment for fire- fighters

Protective respirator with independent air supply

According to size of fire

Full protection, if necessary

5.5 Further information

Dispose of contaminated extinction water according to official regulations.

6. Accidental release measures

Refer to point 13. and for personal protection refer to point 8.

6.1 Personal precautions

Ensure sufficient supply of air.

Avoid inhalation, and contact with eyes or skin.

6.2 Environmental measures

If leakage occurs, dam up.

Prevent from entering drainage system.

2 / 4 EN
 Revision: 26.09.2003 Replaces the version of: 03.12.2002
 Printing date: 14.10.2003
 FORTROL

Prevent surface and ground-water infiltration, as well as ground penetration.

If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods for cleaning up

Collect using absorbant material (e.g. Universal binding medium), and dispose of according to point 13.

7. Handling and storage

7.1 Handling

Tips for safe handling:

See point 6.1

Ensure good ventilation.

Avoid aerosol formation.

Observe directions on label and instructions for use.

General hygiene measures for the handling of chemicals are applicable.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Wash hands before breaks and at end of work.

Use working methods according to operating instructions.

7.2. Storage

Requirements for storage rooms and containers:

Observe regulations for keeping separated.

Store products only unopened, in original packing.

Not to be stored in gangways or stair wells.

Special storage

conditions:

See point 10.2

Protect from frost.

Store in a well ventilated place.

8. Exposure controls/personal protection

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the OES, MEL or MAK values, suitable breathing protection should be worn.

Chemical name	cont ent %	OES, MEL, MAK, TRK	BM GV, BAT
Ethanediol	1 - 10	10 mg/m3, particulate (52 mg/m3, vapour), 20 ppm	
Formaldehyde	0,1 - 0,2	2 ppm (2,5 mg/m3)	

8.1 Respiratory protection: If fumes build up, use suitable breathing mask.

Filter A (EN 141)

8.2 Hand protection: Protective Neopren gloves (EN 374).

Protective nitrile gloves (EN 374)

Protective hand cream recommended.

8.3 Eye protection: Tight fitting protective goggles with side protection (EN 166).

8.4 Skin protection: Protective working garments (e.g. safety shoes EN 344, long-sleeved protective working garments)

According to operation.

Boots (EN 347)

Additional information on hand protection - No tests have been performed.

Selection made for preparations according to the best available knowledge and information on the ingredients.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of preparations the resistance of glove materials cannot be calculated in advance so it has to be tested before use. The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

9. Physical and chemical properties

Physical state:	Liquid
Colour:	Light brown
Odour:	Mild
pH-value undiluted:	5,9 (MT 75.1)
1 % pH-value:	6,8 (MT 75.2)
Boiling point / range (°C):	k.D.v.
Melting point / range (°C):	168 - 169 *
Flash point (°C):	k.D.v.
Flammability (solid/gas):	n.a. (OECD 113)
Autoflammability:	No
Oxidising properties:	No
Minimum limit of explosion:	20°C , No
Maximum limit of explosion:	20°C , No
Vapour pressure:	2*10-4 Pa (20°C) *
Relative density (g/ml):	1,12
Solubility in water:	Suspension
Partition coefficient (n-octanol/water):	log Pow 2,1 *
Viscosity:	n.g.
* Cyanazine (ISO)	

10. Stability and reactivity

10.1 Conditions to avoid

See point 7

Stable when handled and stored correctly.

Protect from frost.

Strong heat

10.2 Materials to avoid

3 / 4 EN
Revision: 26.09.2003 Replaces the version of: 03.12.2002
Printing date: 14.10.2003
FORTROL

See point 7
Avoid contact with other chemicals.
Avoid contact with strong oxidizing agents.

10.3 Hazardous decomposition products

See point 5.3

11. Toxicological information

11.1 Acute toxicity and immediate effects

11.1.1 Ingestion, LD50 rat 1015 (male), 442 (female)
oral (mg/kg): (OECD 401)
11.1.2 Inhalation, LC50 rat > 2,6 (max. att. conc.)
inhal.(mg/l/4h): (OECD 403)
11.1.3 Skin contact, LD50
rat dermal (mg/kg): > 4000 (OECD 402)
Rabbit
(OECD 404)
Not irritant
Rabbit
11.1.4 Eye contact: Not irritant , Rabbit
(OECD 405)

11.2 Delayed and chronic effects

11.2.1 Sensitization: No (skin contact) , Guinea
pig
(OECD 406)
11.2.2 Carcinogenicity: NOEL (2y, rats) 5 ppm *
11.2.3 Mutagenicity: Negative
11.2.4 Reproductive toxicity: NOAEL
(fertility/reproduction) rat, 2
gen. 18,9 mg/kg bw/day *
NOAEL (growth and development of offspring) rat, 2 gen. 1,8
mg/kg bw/day *
11.2.5 Narcosis: k.D.v.

11.3. Further information

Classification based on toxicological analyses.
* Cyanazine (ISO)

12. Ecological information

Water hazard class: 3
Self classification: Yes (VwVwS)
Persistence and
degradability:
Behaviour in sewage plants: k.D.v.
Aquatic toxicity:
Toxicity to fish:
Onchorhynchus mykiss LC50 13,9 mg/l/96h, NOEC 2,73
mg/l/96h
Toxicity to daphnia:
EC50 81,8 mg/l/48h, NOEC 48,2 mg/l/96h
Toxicity to algae:
Chlorella vulgaris EC50 0,146 ppm/96h (biomass), NOEC 0,056
ppm/96h (biomass)
Selenastrum capricornutum EC50 12,7 µg/l/72h (growth rate),
NOEC 5,69 µg/l/72h (growth rate)
Ecological toxicity: n.v.

13. Disposal considerations

13.1. for the material / preparation / residue

EC disposal code no.:

The waste codes are recommendations based on the
scheduled use of this product.

Owing to the user's specific conditions for use and disposal,
other waste codes may be
allocated under certain circumstances.

02 01 08 - agrochemical waste containing dangerous
substances
07 04 01 - aqueous washing liquids and mother liquors
20 01 19 - pesticides

Recommendation:

Pay attention to local and national official regulations
E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

13.2 for contaminated packing material

See point 13.1

Pay attention to local and national official regulations
Re-use of packing materials is prohibited.

14. Transport information

General statements

UN-Number: 2998

Road/Rail-transport (ADR/RID)

Class/packing-group: 6.1/III
UN 2998 TRIAZINE PESTICIDE, LIQUID, TOXIC
(CYANAZINE)

Classification code: T6

LQ: 19

Transport by sea

IMDG-code: 6.1/III (class/packing-
group)

Marine Pollutant: n.a.
TRIAZINE PESTICIDE, LIQUID, TOXIC (CYANAZINE)

Transport by air

IATA: 6.1/-/III
(class/secondary
danger/packing-group)

Triazine pesticide, liquid, toxic (CYANAZINE)

Additional

information:

Danger code and packing code on request.

15. Regulatory information

Classification according to Dangerous Product Regulations incl. EC Guidelines (67/548/EEC and 1999/45/EC)

Indications of danger: Xn/N

Harmful

Dangerous for the environment

R-phrases:

22 Harmful if swallowed.

50/53 Very toxic to aquatic organisms, may cause long-term
adverse effects in the aquatic environment.

S-phrases:

(2) Keep out of the reach of children.

13 Keep away from food, drink and animal feedingstuffs.

20/21 When using do not eat, drink or smoke.

29/35 Do not empty into drains

dispose of this material and its container in a safe way.

36/37 Wear suitable protective clothing and gloves.

4 / 4 EN
Revision: 26.09.2003 Replaces the version of: 03.12.2002
Printing date: 14.10.2003
FORTROL

(46) If swallowed, seek medical advice immediately and show this container or label.

61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Additions:

Cyanazine (ISO)

Contains

Formaldehyde

May produce an allergic reaction.

To avoid risks to man and the environment, comply with the instructions for use.

Observe restrictions: Yes

Observe youth employment law (German regulation).

Observe law on protection of expectant mothers (German regulation).

VOC 1999/13/EC ---

© by Chemical Check GmbH Gefahrstoffberatung. The copying or changing of this document is forbidden except with consent of the Chemical Check GmbH Gefahrstoffberatung.

16. Other information

These details refer to the product as it is delivered.

Storage class VCI

(Germany): 12

Revised points: 2, 3, 9, 11, 12, 15

Observe plant protection medium law.

22 Harmful if swallowed.

50 Very toxic to aquatic organisms.

53 May cause long-term adverse effects in the aquatic environment.

23/24/25 Also toxic by inhalation, in contact with skin and if swallowed.

34 Causes burns.

40 Limited evidence of a carcinogenic effect.

43 May cause sensitisation by skin contact.

Legend:

n.a. = not applicable / n.v., k.D.v. = not available / n.g. = not checked / OES = Occupational exposure standard
MEL = Maximum exposure limit / BMGV = Biological monitoring guidance value / MAK = Maximum concentration for work place (Germany) / TRK = Technical guidance concentration (Germany) / BAT = Biological tolerance for work place (Germany)

VbF = Regulations for flammable liquids (Germany) / TRbF = Technical regulations for flammable liquids (Germany)

WGK = water hazard class (Germany) - WGK 3 = very hazardous, WGK 2 = hazardous, WGK 1 = slightly hazardous to water

VOC-CH=Volatile organic compounds(VOCV - Switzerland)/AOX=Adsorbable organic halogen compounds
VwVwS = Administrative Order relating to substances hazardous to water (Germany)

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

Chemical Check GmbH, Beim Staumberge 3, D-32839 Steinheim, Tel.: 01805-CHEMICAL / 01805-243 642, Fax: 05233-941790