



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

1.1. Product identifier

Trade name : **STABILAN 750 SL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use : Plant Protection Product

1.3. Details of the supplier of the safety data sheet

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

Telephone: +43/732/6918-4010
Telefax: +43/732/6918-64010
E-mail address: Johann.Mayr@at.nufarm.com

1.4. Emergency telephone number

+43/732/6914-2466 (Linz/Austria production site)

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

EEC/99/45 : Xn R22 - Harmful if swallowed.

2.2. Label elements

according directive 1999/45/EG

Pictogram:



Xn



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- R22 - Harmful if swallowed.
- S 2 - Keep out of the reach of children.
S13 - Keep away from food, drink and animal feedingstuffs.
S20/21 - When using do not eat, drink or smoke.
S36/37 - Wear suitable protective clothing and gloves.
S46 - If swallowed, seek medical advice immediately and show this container or label.

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Aqueous solution
CCC 750 g/l

3.2. Mixtures

Components:

chlormequat chloride

CAS-No.: 999-81-5
EINECS-No. / ELINCS No.: 213-666-4
REACH No.:
Concentration: 65,9 % (w/w)

Classification:

EG_1272/08 : AcuteTox.4 H302 + H312 - Harmful if swallowed or in contact with skin.
EEC/67/548 : Xn R21/22 - Harmful in contact with skin and if swallowed.

4. FIRST AID MEASURES

4.1. Description of first aid measures

- Eye contact : Rinse immediately with plenty of water for at least 15 minutes.
- Skin contact : Wash off immediately with soap and plenty of water.
- Inhalation : Move to fresh air.
- Ingestion : Rinse mouth. If ingested, irrigate the stomach. Obtain medical attention. If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.



4.2. Most important symptoms and effects, both acute and delayed

Symptoms : Breathing difficulties, clonic-tonic spasms

4.3. Indication of any immediate medical attention and special treatment needed

Treatment : No specific antidote, symptomatic treatment.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media : Water spray, Dry powder, Foam, Carbon dioxide (CO₂)

Extinguishing media which shall not be used for safety reasons : High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during fire fighting : In the event of fire (HCl, Cl₂, NO_x, CO) may be formed.

5.3. Advice for firefighters

Special protective equipment for fire-fighters : Wear self contained breathing apparatus for fire fighting if necessary. Use personal protective equipment.

Further Information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. (see Chapter 8)

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid



binder, universal binder). Use mechanical handling equipment.

6.4. Reference to other sections

see Chapter 13

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

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

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

7.2. Conditions for safe storage, including any incompatibilities

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.

7.3. Specific end uses

none

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters
In accordance with local and national regulations.

8.2. Exposure controls

Personal protective equipment

Respiratory protection : Suitable respiratory equipment: Breathing apparatus needed only when aerosol or mist is formed.

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 immediately after handling the product. When using, do not eat, drink or smoke. Avoid contact with skin.

Protective measures : Keep working clothes separately.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

Physical state : liquid at 20 °C ,
Form : Soluble concentrate
Colour : light yellow
Odour : amine-like

Start of crystallisation : < -5 °C

Boiling point/boiling range : ca.100 °C
at 1.013 hPa
Aqueous solution

Flash point : > 100 °C
does not flash

Ignition temperature : not applicable

Explosivity : Not explosive

Upper explosion limit : not applicable

Lower explosion limit : not applicable

Vapour pressure : <1,0E-06 Pa
at 20 °C
(Chlormequat chloride)

Density : 1,138 g/cm³
at 20 °C

Water solubility : completely miscible

Water solubility : completely miscible



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pH : 5,3
at 11,38 g/l

Partition coefficient: n-
octanol/water : log POW = -3,08
at 20 °C

(pH 4), (Chlormequat chloride)

log POW = -3,47
at 20 °C

(pH 7), (Chlormequat chloride)

log POW = -3,07
at 20 °C

(pH 10), (Chlormequat chloride)

log POW = -1,6

(pH 7)

Dissociation constant : not applicable

Viscosity, dynamic : 22 mPa.s
at 20 °C
Method: DIN 53019

15 mPa.s
at 40 °C
Method: DIN 53019

9.2. Other information

none

10. STABILITY AND REACTIVITY

10.1. Reactivity

no data available

10.2. Chemical stability



Stable under recommended storage conditions., No spontaneous or exothermic decomposition up to 150 °C.

10.3. Possibility of hazardous reactions

no data available

10.4. Conditions to avoid

no data available

10.5. Incompatible materials to avoid

Aluminium and its alloys

10.6. Hazardous decomposition products

none

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute oral toxicity : LD50 rat
Dose: 520 mg/kg
Test substance: (Chlormequat chloride)

Acute dermal toxicity : LD50 rabbit
Dose: 964 mg/kg
Test substance: (Chlormequat chloride)

LD50 rat
Dose: > 4.000 mg/kg
Test substance: (Chlormequat chloride)

Acute inhalation toxicity : LC50 rat
Exposure time: 4 h
Dose: > 5,2 mg/l
Remarks: highest attainable concentration
Test substance: (Chlormequat chloride)

Skin irritation : rabbit
Remarks: No skin irritation

Eye irritation : rabbit
Remarks: No eye irritation



Sensitisation : Buehler Test Guinea-pig
Result: Did not cause sensitization.

Carcinogenicity : Did not show carcinogenic effects in animal experiments.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to birds : Coturnix coturnix japonica (Japanese quail)
Dose: 441 mg/kg
Test substance: (Chlormequat chloride)
acute toxicity

: Coturnix coturnix japonica (Japanese quail)
Dose: > 310 mg/kg
Test substance: (Chlormequat chloride)
short-term toxicity

: Coturnix coturnix japonica (Japanese quail)
Dose: 54,8 mg/kg
Test substance: (Chlormequat chloride)
long-term toxicity

Toxicity to bees : LD50 (oral)
Test substance: (Chlormequat chloride)
Value ($\mu\text{g}/\text{Species}$): > 80,2

: LD50 (contact)
Test substance: (Chlormequat chloride)
Value ($\mu\text{g}/\text{Species}$): > 65,2

Toxicity to earthworms : LC50 Eisenia fetida (earthworms)
Dose: 320 ppm
Testing period: 14 d
Test substance: (Chlormequat chloride)

Toxicity to fish : flow-through test LC50 Oncorhynchus mykiss (rainbow trout)
Dose: > 100 mg/l
Testing period: 96 h
Test substance: (Chlormequat chloride)



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- semi-static test NOEC Oncorhynchus mykiss (Rainbow trout)
Dose: 43,1 mg/l
Testing period: 21 d
Test substance: (Chlormequat chloride)
- Toxicity to daphnia : static test EC50 Daphnia magna (Water flea)
Dose: 31,7 mg/l
Testing period: 48 h
Test substance: (Chlormequat chloride)
- semi-static test NOEC Daphnia magna (Water flea)
Dose: 2,4 mg/l
Testing period: 21 d
Test substance: (Chlormequat chloride)
- Toxicity to algae : static test EbC50 Pseudokirchneriella subcapitata
Dose: > 100 mg/l
Exposure time: 72 h
Test substance: (Chlormequat chloride)
- static test ErC50 Pseudokirchneriella subcapitata
Dose: > 100 mg/l
Exposure time: 72 h
Test substance: (Chlormequat chloride)
- static test EbC50 Lemna gibba (Duckweed)
Dose: 5,3 mg/l
Exposure time: 7 d
Test substance: (Chlormequat chloride)
- NOEC Scenedesmus subspicatus
Dose: > 100 mg/l

12.2. Persistence and degradability

- Biodegradability : Readily biodegradable.

12.3. Potential bioaccumulation

- Bioaccumulation : Accumulation in aquatic organisms is unlikely.

12.4. Mobility in soil

no data available



12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6. Other adverse effects

none

13. DISPOSAL CONSIDERATIONS

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

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

13.1. Waste treatment methods

Product : In accordance with local and national regulations.

Contaminated packaging : Do not re-use empty containers. Dispose empty and triple rinsed container within a local disposing system according to EC directive 94/62/EC

14. TRANSPORT INFORMATION

14.1. UN number

UN1760

14.2. Proper shipping name

UN1760 CORROSIVE LIQUID, N.O.S.(chlormequat)

14.3. Transport hazard class(es)

ADR/RID :
Class : 8

IMDG :
Class : 8

IATA-DGR :
Class : 8



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14.4. Packaging group

ADR/RID : III

IMDG : III

IATA-DGR : III

14.5. Environmental hazards

14.6. Special precautions for user

none

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.

15.2. Chemical Safety Assessment

none

16. OTHER INFORMATION

Print Date : 2014/02/13

The date format YYYY/MM/DD is used according to ISO 8601.
(Alterations are indicated in the left hand margin by: ||)

Data from "Conclusion on the peer review of chlormequat" EFSA Scientific Report (2008) 179, 1-77, 29.09.2008, 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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The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.