SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Stabilan 750

Version 2 (UK) Issuing date: 2015/01/12

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

1.1. Product identifier

Trade name : Stabilan 750

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

Use : Plant growth regulator

1.3. Details of the supplier of the safety data sheet

Nufarm UK Limited

Wyke Lane Wyke Bradford

West Yorkshire BD12 9EJ

United Kingdom

Telephone: +44 (0)1274 691234 Telefax: +44 (0)1274 691176

E-mail address: infouk@uk.nufarm.com

1.4. Emergency telephone number

+44 (0)1274 696603

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

R52/53 - Harmful to aquatic organisms, may cause long-term

adverse effects in the aquatic environment.

EG_1272/08: AcuteTox.4 H302 - Harmful if swallowed.

AcuteTox.4 H312 - Harmful in contact with skin.

AquaticChronic3 H412 - Harmful to aquatic life with long lasting effects.

2.2. Label elements

according directive 1999/45/EG

Pictogram:



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R22 - Harmful if swallowed.

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

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.

S 7 - Keep container tightly closed.

S36/39 - Wear suitable protective clothing and eye/face protection.

S46 - If swallowed, seek medical advice immediately and show this container or label.

S61 - Avoid release to the environment. Refer to special instructions/ Safety data

sheets.

REGULATION (EC) No 1272/2008

Pictogram:



GHS07

Signal word: Warning

H302 - Harmful if swallowed.

H312 - Harmful in contact with skin.

H412 - Harmful to aquatic life with long lasting effects.

EUH401 - To avoid risks to human health and the environment, comply with the instructions

for use.

P234 - Keep only in original container.

P262 - Do not get in eyes, on skin, or on clothing.

P270 - Do not eat, drink or smoke when using this product.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301 + - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel

P312 unwell

P302 + - IF ON SKIN: Wash with plenty of soap and water.

P352

P330 - Rinse mouth.

P363 - Wash contaminated clothing before reuse.

P501 - Dispose of contents/ container to a licensed hazardous-waste disposal contractor

or collection site except for empty clean containers which can be disposed of as

non hazardous waste.

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2.3. Other hazards

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Aqueous solution

Contains 750 g/l Chlormequat chloride

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

General advice : When symptoms persist or in all cases of doubt seek medical

advice.

Eye contact : Rinse immediately with plenty of water for at least 15 minutes.

If eye irritation persists, consult a specialist.

Skin contact : Remove and wash contaminated clothing before re-use. Wash

off immediately with soap and plenty of water. If symptoms

persist, call a physician.

Inhalation : Move out of dangerous area. Move affected person(s) into

fresh air. If symptoms persist, call a physician.

Ingestion : Rinse mouth. Do NOT induce vomiting. Obtain medical

attention. If swallowed, seek medical advice immediately and

show this container or label.



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

Symptoms : Nausea, Vomiting, sweating, Diarrhoea, Salivation, Irregular

cardiac activity, unconsciousness, Impairment of vision

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

Treatment : Treat symptomatically.

5. FIREFIGHTING 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

firefighting

: In the event of fire (HCI,CI2,NOx,CO) may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters

: 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

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

binder, universal binder). Sweep up and shovel into suitable

containers for disposal.

Additional advice : Never return spills in original containers for re-use.

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.

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. Keep

out of reach of children.

Storage stability

Storage temperature : > 0 °C

7.3. Specific end use(s)

none

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters

(EH40/2005 Workplace exposure limits)

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Components	CAS-No.	National	Note
		occupational	
		exposure limits	
chlormequat chloride	999-81-5		no classification available

8.2. Exposure controls

Personal protective equipment

Respiratory protection : Suitable respiratory protection for higher concentrations or

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long-term effect: Combination filter for gases/vapours of

organic, inorganic, acid inorganic and alkaline compounds (e.g.

EN 14387 Type ABEK).

Hand protection Suitable chemical resistant safety gloves (EN 374) also with

> prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5

mm), butyl rubber (0.7 mm) and other

Eye protection Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection must be chosen depending on activity and Skin and body protection

possible exposure, e.g. apron, protecting boots, chemicalprotection suit (according to EN 14605 in case of splashes or

EN ISO 13982 in case of dust).

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.

Protective measures The statements on personal protective equipment in the

> instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away

from food, drink and animal feeding stuffs.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

Physical state : liquid at 20 °C, : Soluble concentrate Form

Colour : light yellow Odour amine-like

Start of crystallisation : < -5 °C

Boiling point/boiling range : 100 °C

at 1,013 hPa

Flash point : not applicable

Ignition temperature : not applicable

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Explosivity : Not explosive

Vapour pressure : <1.0E-06 Pa

at 20 °C

(Chlormequat chloride)

Density : 1.138 g/cm3

at 20 °C

Water solubility : completely miscible

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)

Dissociation constant : not applicable

Viscosity, dynamic : 22 mPa.s

at 20 °C

15 mPa.s at 40 °C

9.2. Other information

none

10. STABILITY AND REACTIVITY

10.1. Reactivity

no data available

10.2. Chemical stability

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Stable under recommended storage conditions., No spontaneous or exothermic decomposition up to 150 $^{\circ}$ 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: ca. 600 mg/kg

Acute dermal toxicity : LD50 rabbit

Dose: 1,250 mg/kg

Acute inhalation toxicity : LC50 rat

Exposure time: 4 h Dose: > 0.709 mg/l

Skin irritation : rabbit

Result: No skin irritation

Eye irritation : rabbit

Result: No eye irritation

Sensitisation : Guinea-pig

Result: Did not cause sensitization.

Carcinogenicity : Did not show carcinogenic effects in animal experiments.

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12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to bees : Not toxic to bees.

Toxicity to fish : LC50

Dose: 652 mg/l Testing period: 96 h

Toxicity to daphnia : EC50 Daphnia

Dose: ca. 379 mg/l Testing period: 3 d

Toxicity to algae : LC50 Toxicity to algae

Dose: 652 mg/l Exposure time: 72 h

EbC50 Lemna gibba (Duckweed)

Dose: 5.3 mg/l Exposure time: 7 d

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

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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 : Dispose of product and packaging in accordance with The

Green Code. (The Code of Practice for the safe use of Pesticides on Farms and Holdings.) A MAFF Publication.

Contaminated packaging : Dispose of as unused product.

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

14.4. Packaging group

ADR/RID : III

IMDG : III

IATA-DGR : III



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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 : 2015/01/12

The date format YYYY/MM/DD is used according to ISO 8601. (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.

The information contained herein is based on the present state of our knowledge and does therefore not quarantee certain properties.