

Safety data sheet

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BASF Safety data sheet according to UN GHS 4th rev.

Date / Revised: 17.05.2022

Version: 3.0

Product: **Chlormequat-Chlorid 750**

(ID no. 30058165/SDS_CPA_00/EN)

Date of print 03.05.2024

1. Identification

Product identifier

Chlormequat-Chlorid 750

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

Relevant identified uses: crop protection product, growth regulator

Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Crop Protection

Telephone: +49 621 60-27777

E-mail address: Produktinformation-Pflanzenschutz@basf.com

Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

According to UN GHS criteria

Met. Corr. 1

Acute Tox. 3 (oral)

Acute Tox. 4 (dermal)

Aquatic Acute 3

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Aquatic Chronic 3

For the classifications not written out in full in this section the full text can be found in section 16.

Label elements

Globally Harmonized System (GHS)

Pictogram:



Signal Word:

Danger

Hazard Statement:

H290	May be corrosive to metals.
H312	Harmful in contact with skin.
H301	Toxic if swallowed.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statement:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary Statements (Prevention):

P280	Wear protective gloves and clothing.
P234	Keep only in original packaging.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P330	Rinse mouth
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P390	Absorb spillage to prevent material damage.

Precautionary Statements (Storage):

P405	Store locked up.
P406	Store in a corrosion-resistant container with a resistant inner liner.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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According to UN GHS criteria

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Hazard determining component(s) for labelling: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Other hazards

According to UN GHS criteria

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/Information on Ingredients

Substances

Not applicable

Mixtures

Chemical nature

crop protection product, growth regulator, Soluble concentrate (SL)

Hazardous ingredients (GHS)

According to UN GHS criteria

chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Content (W/W): 65,56 %

Acute Tox. 3 (oral)

CAS Number: 999-81-5

Acute Tox. 4 (dermal)

EC-Number: 213-666-4

Aquatic Acute 3

INDEX-Number: 007-003-00-6

Aquatic Chronic 3

H312, H301, H402, H412

For the classifications not written out in full in this section the full text can be found in section 16.

4. First-Aid Measures

Description of first aid measures

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

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On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

Special hazards arising from the substance or mixture

Carbon monoxide, Carbon dioxide, Hydrogen chloride, halogenated compounds, nitrogen oxides
The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

For large amounts: Dike spillage. Pump off product.

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Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Wear suitable protective equipment.

7. Handling and Storage

Precautions for safe handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

Storage stability:

Storage duration: 60 Months

Protect from temperatures below: -10 °C

Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

Control parameters

Components with occupational exposure limits

| 999-81-5: Chlormequat chloride

Exposure controls

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for lower concentrations or short-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic, alkaline compounds and toxic particles (e. g. EN 14387 Type ABEK-P3) (Combination filter EN 14387 ABEK)

Hand protection:

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Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact
(Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to
EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

Eye protection:

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

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene 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**Information on basic physical and chemical properties**

Form:	liquid
Colour:	light yellow
Odour:	sweetish, moderate odour
Odour threshold:	Not determined due to potential health hazard by inhalation.
pH value:	approx. 3 - 7 (1 %(m), 20 °C)
Melting point:	approx. -17 °C
Boiling point:	approx. 100 °C (ISO 2719)
Flash point:	No flash point - Measurement made up to the boiling point.
Evaporation rate:	not applicable
Flammability:	not applicable
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Ignition temperature:	approx. 355 °C

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Vapour pressure: approx. 23,3 hPa
(20 °C)
Information applies to the solvent.

Density: approx. 1,14 g/cm³
(20 °C)

Relative vapour density (air):
not applicable

Solubility in water: miscible

Partitioning coefficient n-octanol/water (log K_{ow}):
The statements are based on the
properties of the individual
components.

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

*Partitioning coefficient n-octanol/water (log K_{ow}): -3,47
(pH value: 7)*

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Viscosity, dynamic: approx. 17,5 mPa.s
(20 °C, 100 1/s)

Explosion hazard: Based on the chemical structure
there is no indication of explosive
properties.

Fire promoting properties: Based on its structural properties
the product is not classified as
oxidizing.

Other information

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: Corrosive effect on: Aluminium mild steel Corrosion rate > 6.25 mm/a
using 7075-T6 or AZ5GU-T6

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

See SDS section 7 - Handling and storage.

Incompatible materials

Substances to avoid:

strong bases, strong acids, strong oxidizing agents

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Hazardous decomposition products

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Of pronounced toxicity after single ingestion. Of moderate toxicity after short-term skin contact.

Virtually nontoxic by inhalation. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Experimental/calculated data:

| *LD50 rat (oral): 520 mg/kg*

| *Literature data.*

| *LD50 human (oral): 50 - 200 mg/kg*

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Experimental/calculated data:

| *LC50 rat (by inhalation): > 5,2 mg/l 4 h*

| *An aerosol was tested.*

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Experimental/calculated data:

| *LD50 rabbit (dermal): 1.250 mg/kg*

| *Literature data.*

Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Experimental/calculated data:

| *Skin corrosion/irritation rabbit: non-irritant*

| *Literature data.*

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Experimental/calculated data:

| *Serious eye damage/irritation rabbit: non-irritant*

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Literature data.

Respiratory/Skin sensitization

Assessment of sensitization:

There is no evidence of a skin-sensitizing potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Experimental/calculated data:

Guinea pig maximization test guinea pig: Non-sensitizing. (OECD Guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:

Mutagenicity tests revealed no genotoxic potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity

Assessment of carcinogenicity:

The results of various animal studies gave no indication of a carcinogenic effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Developmental toxicity

Assessment of teratogenicity:

Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals. The product has not been tested. The statement has been derived from the properties of the individual components.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

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Assessment of repeated dose toxicity:

The substance may reversibly affect the nervous system, but there are no indications of permanent nerve cell damage.

Aspiration hazard

No aspiration hazard expected.

The product has not been tested. The statement has been derived from the properties of the individual components.

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:

Harmful to aquatic life with long lasting effects.

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Toxicity to fish:

LC50 (96 h) > 100 mg/l, Cyprinus carpio (OECD 203; ISO 7346; 84/449/EEC, C.1, static)

The details of the toxic effect relate to the nominal concentration.

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Aquatic invertebrates:

LC50 (96 h) 31,7 mg/l, Daphnia magna

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Aquatic plants:

EC50 (7 d) 28,0 mg/l (growth rate), Lemna gibba (static)

The product has not been tested. The data have been deduced from values for a preparation or mixture with a lower substance concentration.

EC10 (7 d) 0,6 mg/l, Lemna gibba

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Chronic toxicity to fish:

No observed effect concentration (21 d) 43,1 mg/l, Oncorhynchus mykiss

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (21 d) 2,44 mg/l, Daphnia magna

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Persistence and degradability

Assessment biodegradation and elimination (H₂O):

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Assessment biodegradation and elimination (H₂O):

Readily biodegradable (according to OECD criteria).

Bioaccumulative potential

Assessment bioaccumulation potential:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments:

Adsorption in soil: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: chlormequat chloride (ISO); 2-chloroethyltrimethylammonium chloride

Assessment transport between environmental compartments:

Adsorption in soil: Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

Other adverse effects

The product does not contain substances that are listed in the Montreal Protocol on substances that deplete the ozone layer.

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. Disposal Considerations

Waste treatment methods

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Must be sent to a suitable incineration plant, observing local regulations.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport

ADR

UN number or ID number: UN2922
UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (CHLORMEQUAT CHLORIDE)

Transport hazard class(es): 8, 6.1
Packing group: III
Environmental hazards: no
Special precautions for user: Tunnel code: E

RID

UN number or ID number: UN2922
UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (CHLORMEQUAT CHLORIDE)

Transport hazard class(es): 8, 6.1
Packing group: III
Environmental hazards: no
Special precautions for user: None known

Inland waterway transport

ADN

UN number or ID number: UN2922
UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (CHLORMEQUAT CHLORIDE)

Transport hazard class(es): 8, 6.1
Packing group: III
Environmental hazards: no
Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

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Sea transport

IMDG

UN number or ID number: UN 2922
 UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (CHLORMEQUAT CHLORIDE)

Transport hazard class(es): 8, 6.1
 Packing group: III
 Environmental hazards: no
 Marine pollutant: NO
 Special precautions for user: EmS: F-A; S-B

Air transport

IATA/ICAO

UN number or ID number: UN 2922
 UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (CHLORMEQUAT CHLORIDE)

Transport hazard class(es): 8, 6.1
 Packing group: III
 Environmental hazards: No Mark as dangerous for the environment is needed
 Special precautions for user: None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

15. Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture**

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

16. Other Information

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Met. Corr.	Corrosive to metals
Acute Tox.	Acute toxicity
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
H312	Harmful in contact with skin.
H301	Toxic if swallowed.

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H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.