

Revision Date 22-07-2015

Revision Number 3

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product Identifier

Product code 51102  
**Product name CCC 42,5% (CCC 460)**

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

Recommended use Growth regulator  
 Uses advised against -

### 1.3. Details of the supplier of the safety data sheet

#### Manufacturer

Taminco BVBA  
 A subsidiary of Eastman Chemical Company  
 Pantserschipstraat 207  
 9000 Ghent  
 Belgium  
 T: +32 9 254 1411  
 F: +32 9 254 1410

For further information, please contact

E-mail address SDS\_CP@eastman.com  
 MSDS\_ASC@taminco.com

### 1.4. Emergency telephone number

Emergency telephone number (+32) 9 254 10 36

Emergency telephone - §45 - (EC)1272/2008	
Europe	112
France	+33 1 40 44 30 00 (Paris) +33 3 83 22 50 50 (Nancy) Email: cap@chu-nancy.fr

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute Toxicity - Oral	Category 4 - (H302)
Acute toxicity - Dermal	Category 4 - (H312)
Corrosive to metals	Category 1 - (H290)

### 2.2. Label Elements

**Product Identifier**

**signal word**  
Warning

**hazard statements**

H302 - Harmful if swallowed

H312 - Harmful in contact with skin

H290 - May be corrosive to metals

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

**Precautionary Statements**

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P301 + P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P390 - Absorb spillage to prevent material damage

P501 - Dispose of contents/ container to an approved waste disposal plant

**2.3. Other Hazards**

None known

## SECTION 3: Composition/information on ingredients

**3.1 Substances**

Chemical Name	EINECS-No.	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number	M-Factor
Chloromequat chloride	213-666-4	999-81-5	42.5	Acute Tox. 4 (H302) Acute Tox. 4 (H312)	no data available	-

**Full text of H- and EUH-phrases: see section 16**

## SECTION 4: First aid measures

**4.1. Description of first aid measures****General advice**

If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.

**Skin contact**

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

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**Ingestion** Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting. Treat symptomatically. If swallowed, seek medical advice immediately and show this container or label. Loosen tight clothing such as collar, tie, belt and waistband.

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

**Symptoms** See Section 11: TOXICOLOGICAL INFORMATION

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

**Notes to physician** Treat symptomatically

### **SECTION 5: Fire fighting measures**

#### **5.1. Extinguishing media**

**Suitable extinguishing media**

carbon dioxide (CO<sub>2</sub>), water spray, dry chemical, Alcohol-resistant foam

**Extinguishing media which must not be used for safety reasons**

high volume water jet

#### **5.2. Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Hazardous combustion products** Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide  
Hydrogen chloride gas

#### **5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required. Do not allow run-off from fire-fighting to enter drains or water courses.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions**

Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Wear suitable protective clothing, gloves and eye/face protection.

**For emergency responders**

Use personal protection recommended in Section 8.

#### **6.2. Environmental precautions**

Should not be released into the environment. Remove immediately adhering matter. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

#### **6.3. Methods and material for containment and cleaning up**

**Methods for containment**

Large spills should be collected mechanically (remove by pumping) for disposal. Keep in suitable, closed containers for disposal.

**Methods for cleaning up**

Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Take up mechanically and collect in suitable container for disposal.

**6.4. Reference to other sections**

See section 8 for more information. See section 13 for more information.

## Section 7: HANDLING AND STORAGE

**7.1. Precautions for safe handling****Handling**

Wear suitable protective clothing, gloves and eye/face protection. Avoid contact with skin and eyes. Do not smoke. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

**Hygiene measures**

When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing.

**7.2. Conditions for safe storage, including any incompatibilities****Storage**

In accordance with local and national regulations. Store in original container. Keep container tightly closed. Keep in a dry, cool place.

**7.3. Specific end use(s)****Specific use(s)**

Growth regulator

**Risk Management Methods (RMM)**

The information required is contained in this Material Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1. Control parameters**

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

**8.2. Exposure controls**

**Engineering measures** Local exhaust.

**Personal protective equipment****Eye protection**

tightly fitting safety goggles. face-shield.

**Hand protection**

rubber gloves. Neoprene gloves. The suitability for a specific workplace should be discussed with the producers of the protective gloves. The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves must be disposed of and replaced before the breakthrough time and when they show signs of degradation.

**Skin and body protection**

Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear suitable protective equipment.

**Respiratory protection**

In case of insufficient ventilation, wear suitable respiratory equipment. In the case of vapour formation use a respirator with filter model ABEKP3. self-contained breathing apparatus (EN 133). (in case of higher concentration). In accordance with local and national regulations.

**Environmental exposure controls**

Prevent product from entering drains. Do not contaminate surface water. Avoid subsoil penetration.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Physical State</b>	liquid	<b>Colour</b>	yellow tint
<b>Odor</b>	slight		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	> 4	-
Melting point/freezing point	225 °C active ingredient	-
Boiling point/range	97 - 102 °C	-
Flash point	76 °C	-
Evaporation rate	not applicable	-
Flammability (solid, gas)	Not flammable	-
Flammability Limit in Air		
Upper flammability limit:	-	
Lower flammability limit:	-	
Vapour Pressure Value	< 1.10E-7 Pa @ 20 °C active ingredient	-
Vapor Density	No information available	-
Specific Gravity	1.241 active ingredient	-
Water solubility	500 g/l	-
Partition coefficient	log Pow < -3	-
Autoignition temperature		-
Decomposition temperature	Not applicable	-
Kinematic viscosity	No information available	-
Dissociation constant	Not applicable	-
Surface tension	Not applicable	-
Explosive properties	Not explosive	-
Oxidising properties	None	

### 9.2. Other information

<b>Density</b>	1.08 g/ml (470 g/l)
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## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

See Incompatible Materials

### 10.2. Chemical stability

Hazardous polymerisation does not occur.

#### Explosion data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

### 10.3. Possibility of hazardous reactions

#### **polymerization**

Hazardous polymerization does not occur.

#### **Possibility of hazardous reactions**

None under normal processing.

### 10.4. Conditions to avoid

Stable under normal conditions.

### 10.5. Incompatible materials

Metals.

#### 10.6. Hazardous decomposition products

Nitrogen oxides (NOx). Carbon monoxide. Hydrogen chloride gas.

### Section 11: TOXICOLOGICAL INFORMATION

#### 11.1. Information on toxicological effects

##### Product Information

LD50/oral/rat =	520 mg/kg
LD50/dermal/rat =	> 2000 mg/kg
LC50/inhalation/4h/rat =	> 4.57 mg/l
Eye irritation	rabbits, No eye irritation
Skin irritation	rabbits, Non-irritating to the skin
sensitisation	Did not cause sensitization on laboratory animals
mutagenic effects	Did not show mutagenic effects in animal experiments
Reproductive toxicity	No toxicity to reproduction
carcinogenic effects	Did not show carcinogenic effects in animal experiments

##### Human experience

Human experience	Overexposure may cause
	Nausea
	Vomiting
	Sweating
	diarrhoea
	Salivation
	cardiac irregularities
	Unconsciousness
	Impairment of vision

### Section 12: ECOLOGICAL INFORMATION

#### 12.1. Toxicity

##### Product Information

LC50/96h/Rainbow trout =	> 100 mg a.i./l
EC50/48h/daphnia =	31.7 mg a.i./l
EC50/72h/algae =	> 100 mg a.i./l
Toxicity to bacteria	IC50 : > 43 mg/l (3 h)

#### 12.2. Persistence and degradability

aquatic environment. According to the results of tests of biodegradability this product is considered as being readily biodegradable.

**12.3. Bioaccumulative potential**

minimum

**12.4. Mobility in soil**

minimum

**12.5. Results of PBT and vPvB assessment**

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)  
 This substance is not considered to be very persistent nor very bioaccumulating (vPvB)

**12.6. Other adverse effects**

None known based on information supplied

**Section 13: DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods**

<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Waste codes should be assigned by the user based on the application for which the product was used. Classified as hazardous waste according to national equivalent of EC-Dir. 91/689; disposal of toxic and hazardous waste.
<b>Contaminated packaging</b>	Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal.

**Section 14: TRANSPORT INFORMATION****IMDG/IMO**

<b>14.1 UN-No</b>	UN1760
<b>14.2 Proper shipping name</b>	Corrosive liquid, n.o.s. (Chlormequat Chloride)
<b>14.3 Hazard Class</b>	8
<b>14.4 Packing group</b>	III
<b>14.5 Marine pollutant</b>	No
<b>Environmental hazard</b>	No
<b>14.6 Special Provisions</b>	Not relevant
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	not applicable

**RID**

<b>14.1 UN-No</b>	UN1760
<b>14.2 Proper shipping name</b>	Corrosive liquid, n.o.s. (Chlormequat Chloride)
<b>14.3 Hazard Class</b>	8
<b>14.4 Packing group</b>	III
<b>14.5 Environmental hazard</b>	No
<b>14.6 Special Provisions</b>	Not relevant

**ADR**

<b>14.1 UN-No</b>	UN1760
<b>14.2 Proper shipping name</b>	Corrosive liquid, n.o.s. (Chlormequat Chloride)
<b>14.3 Hazard Class</b>	8
<b>14.4 Packing group</b>	III
<b>14.5 Environmental hazard</b>	No

14.6 Special Provisions Not relevant

**ADN**

14.1 UN-No UN1760  
 14.2 Proper shipping name Corrosive liquid, n.o.s. (Chlormequat Chloride)  
 14.3 Hazard Class 8  
 14.4 Packing group III  
 14.5 Environmental hazard No  
 14.6 Special Provisions Not relevant

**ICAO/IATA**

14.1 UN-No UN1760  
 14.2 Proper shipping name Corrosive liquid, n.o.s. (Chlormequat Chloride)  
 14.3 Hazard Class 8  
 14.4 Packing group III  
 14.5 Environmental hazard No  
 14.6 Special Provisions Not relevant

## Section 15: REGULATORY INFORMATION

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

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

#### Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances

### 15.2. Chemical safety assessment

Not applicable

## Section 16: OTHER INFORMATION

### Key or legend to abbreviations and acronyms used in the safety data sheet



**Full text of H-Statements referred to under section 3**

H302 - Harmful if swallowed

H312 - Harmful in contact with skin

## Legend

SVHC: Substances of Very High

Concern for Authorization:

**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Revision Date** 22-07-2015**Reason for revision** not applicable.**Training Advice** Provide adequate information, instruction and training for operators**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006****Disclaimer:**

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**End of Safety Data Sheet**