We create chemistry

Safety Data Sheet

1. Identification

Product identifier

CYCOCEL® 750

Recommended uses and restrictions on use (if any)

Recommended use:
crop protection product, plant growth regulator.

Restricted use:
not applicable

Manufacturer / Supplier

BASF New Zealand Limited
5E City Works Depot,
77 Cook Street
Auckland 1010
NEW ZEALAND
Phone: + 64 9 255 4300
0800 932 273
E-mail address: reception@basf-nz.co.nz

Emergency telephone number

National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)

2. Hazard Identification

Classification of the substance or mixture

Corrosive to metals	:	Category 1
Acute oral toxicity	:	Category 4
Acute dermal toxicity	:	Category 3
Specific target organ toxicity - repeat exposure	:	Category 2
Hazardous to terrestrial vertebrates		

GHS Label Elements, including Precautionary Statements:

Signal Word:
DANGER.

Pictograms:

GHS Hazard Statements

H290	:	May be corrosive to metals.
H311	:	Toxic in contact with skin.
H302	:	Harmful if swallowed.
H373	:	May cause damage to organs through prolonged or repeated exposure.
	:	Hazardous to terrestrial vertebrates.

GHS Precautionary Statements (Prevention)

P102	:	Keep out of reach of children.
P103	:	Read label before use.
P234	:	Keep only in original packaging.
P260	:	Do not breathe mist, vapours and spray.
P264	:	Wash hands and face thoroughly after handling.
P270	:	Do not eat, drink or smoke when using this product.
P280	:	Wear protective gloves, protective clothing, eye/face protection.

GHS Precautionary Statements (Response)

P101	:	If medical advice is needed, have product container or label at hand.
P301 + P312	:	IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
P330	:	Rinse mouth.
P302 + P352	:	IF ON SKIN: Wash with plenty of soap and water.
P312	:	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	:	Get medical advice / attention if you feel unwell.
P321	:	Specific treatment (see supplemental first aid instructions on this label).
P361 + P364	:	Take off immediately all contaminated clothing and wash before reuse.
P390	:	Absorb spillage to prevent material-damage.
P391	:	Collect spillage.

GHS Precautionary Statements (Storage)

P405	:	Store locked up
P406	:	Store in a corrosive resistant container with a resistant inner liner.

GHS Precautionary Statements (Disposal):

P501	:	Dispose of contents/container to hazardous or special waste collection point. Information regarding disposal considerations can be found in section 13.

According to UN GHS criteria

Hazard determining component(s) for labelling: Chlormequat-chloride (ISO)

Other hazards

No other hazards known.

See section 12 - Results of PBT and vPvB assessment.

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

3. Composition/Information on Ingredients

Substances
Not applicable

Mixtures
Hazardous ingredients (GHS)
According to UN GHS criteria

Chlormequat-chloride (ISO)

Content (W/W):	65.8 %
CAS Number:	999-81-5
EC- Number:	213-666-4
INDEX-Number:	007-003-00-6

4. First-Aid Measures

Description of necessary first aid measures

General advice:
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, consult an eye specialist.

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 labelling 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.

Medical advice:
Contact the National Poisons and Hazardous Chemicals Information centre.
Phone 0800 POISON (0800 764 766).

5. Fire-Fighting Measures

Suitable extinguishing media
Water spray, dry powder, foam, carbon dioxide

Unsuitable extinguishing media for safety reasons
Water jet

Specific hazards
carbon monoxide, carbon dioxide, hydrogen chloride, halogenated compounds, nitrogen oxides.
The substances/groups of substances mentioned can be released in case of fire.

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

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and chemical-protective clothing.

Precautions for fire-fighters
In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. 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.

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

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

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.

Conditions for safe storage, including any incompatibilities
Segregate from foods and animal feeds.

Further information on storage conditions:
Keep only in the original container. Keep away from heat. Protect from direct sunlight.

Storage stability: 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.

8. Exposure Controls/Personal Protection

Control parameters

Occupational exposure limits

Component:	Chlormequat chloride
CAS Number:	999-81-5

Engineering controls

Maintain air concentrations below occupational exposure standards.

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 and alkaline compounds (e.g. EN 14387 Type ABEK-P3) (Combination filter EN 14387 ABEK).

Hand protection:
Suitable chemical resistant safety gloves (EN 374-1) 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) 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

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

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
Vapour pressure:	Approx. 23.3 hPa (20°C) (Information applies to the solvent)
Density:	Approx. 1.14 g/cm^3 (20°C)
Relative vapour density (air):	Not applicable
Solubility in water:	Miscible
Partitioning coefficient n-octanol/water (log Kow):	The statements are based on the properties of the individual components; Chlormequat-chloride: -3.47 (pH value: 7)
Thermal decomposition:	No decomposition if stored and handled as prescribed / indicated.
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 oxidising.
Viscosity, dynamic:	Approx. 17.5 mPa.s (20°C, 100 1/s)

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 acids, strong bases, strong oxidizing agents

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

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:
Of pronounced toxicity after single ingestion. Of moderate toxicity after short-term skin contact. Virtually non-toxic by inhalation. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:

LD50 rat (oral):	520 mg ai /kg, Chlormequat-chloride (ISO) Literature data.
LD50 human (oral):	50 – 200 mg/kg
LC50 rat (by inhalation):	>5.2 mg ai/l 4 h, Chlormequat-chloride (ISO) An aerosol was tested.
LD50 rabbit (dermal):	1.250 mg ai/kg, Chlormequat-chloride (ISO) Literature data.

Skin Corrosion / Irritation

Assessment of irritating effects:
Not irritating to the skin. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant, Chlormequat-chloride (ISO) (literature data)

Serious Eye Damage / Irritation

Assessment of irritating effects:
Not irritating to the eyes. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:
Serious eye damage/irritation rabbit: non-irritant, Chlormequat-chloride (ISO) (literature data.

Respiratory or Skin sensitization

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

Experimental/calculated data:
Guinea pig maximisation test: non-sensitizing, Chlormequat-chloride (ISO).

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)
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.

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Ecotoxicity - Aquatic

Assessment of aquatic toxicity:
Harmful to aquatic life with long lasting effects.
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Toxicity to fish:	
LC50 (96 h):	>100 mg ai/l, *Cyprinus carpio*, Chlormequat-chloride (ISO) The details of the toxic effect relate to the nominated concentration.
NOEC (21d):	43.1 mg ai/L, *Oncorhynchus mykiss*, Chlormequat-chloride (ISO)
Aquatic invertebrates:	
EC50 (48 h)	31.7 mg ai/l, *Daphnia magna*, Chlormequat-chloride (ISO)
NOEC (21 d)	2.44 mg ai/l, *Daphnia magna*, Chlormequat-chloride (ISO)

Aquatic plants:

EC50 (7 d)	28 mg ai/l (growth rate), *Lemna gibba*, Chlormequat-chloride (ISO) 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 ai/L, *Lemna gibba*, Chlormequat-chloride (ISO)

Ecotoxicity - Terrestrial

Assessment of terrestrial toxicity:
Hazardous to terrestrial vertebrates. The product has not been tested. The statement has been derived from the properties of the active ingredient.

Toxicity to birds:

Acute oral LD50:	441 mg ai/l, *Coturnix japonica*, Chlormequat-chloride (ISO)

Toxicity to soil organisms:

LC50 (14d)	320 mg ai/kg, *Eisenia fetida*, Chlormequat-chloride (ISO)

Toxicity to Pollinators:

LD50 (oral):	>80.2 µg ai/bee, *Apis mellifera*, Chlormequat-chloride (ISO)
LD50 (contact):	>65.2 µg ai/bee, *Apis mellifera*, Chlormequat-chloride (ISO)

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)
Assessment biodegradation and elimination (H2O):
Readily biodegradable.

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)
Bioaccumulation potential:
Because of the n-octanol/water distribution coefficient (low 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)
Assessment transport between environmental compartments:
Adsorption in soil: Following exposure to soil, the product trickles away and can - dependent 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

Other ecotoxicological advice:
Do not discharge product into the environment without control.
Do not apply onto or into water.

13. Disposal Considerations

Container:

Triple rinse empty container and add rinsate to the spray tank. Recycle through Agrecovery (0800 247 326, www.agrecovery.co.nz). Do not use container for any other purpose.

Product:

Dispose of this product only by using according to the label or at an approved facility. Do NOT burn product. Do NOT contaminate water with product or used container.
Waste product/packaging 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.

Transport Information

Commercial transport:

Classified as dangerous good(s) for Land/rail (ADR/RID), sea (IMDG) and air transport (ICAO/IATA):

Land / Rail / Road (ADR/RID):

UN number:	UN 2922
UN proper shipping name:	CORROSIVE LIQUID, TOXIC, N.O.S. (chlormequat-chloride)
Transport hazard class(es) / UN DG Class:	8, 6.1
Packing group:	III
Environmental hazards:	No
HAZCHEM:	2X
Special precautions when transporting the substance:	Tunnel code: E

Sea transport (IMDG):

UN 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 when transporting the substance:	EmS: F-A; S-B

Air transport (IATA / ICAO):

UN 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
Special precautions when transporting the substance:	None known

Additional Information:

Not applicable

14. Regulatory Information

HSNO Approval Number

HSR000758.
See www.epa.govt.nz for approval conditions.

Tolerable Exposure Limit or Environmental Exposure Limit

TEL:	None set
EEL:	None set

Relevant Regulatory Requirements

Qualifications:	Required. Refer to label.
Certified Handler:	Not required
Tracking:	Not required
Record Keeping:	Required. Refer to label.
Restricted to Workplace:	Yes
Controlled substance licence:	Not required

ACVM Registration

P001493
See www.foodsafety.govt.nz/acvm for registration conditions.

International Agreements related to the substance such as Montreal Protocol, the Stockholm Convention or Rotterdam Convention

not applicable

15. Other Information

Date of preparation of the SDS

25 September 2023

Key or legend to abbreviations and acronyms used

ACGIH	The American Conference of Governmental Industrial Hygienists
ACVM	Agricultural Compounds and Veterinary Medicines
ADN	International Carriage of Dangerous Goods by Inland Waterways (EU)
ADR/RID	Dangerous Goods for Road / Rail
DG	Dangerous Goods
EC50	Median effective concentration
EEL	Environmental Exposure Limit

EHSM	Environmental Health and Safety Management
EPA	Environmental Protection Authority
EU	European Union
GHS	Globally Harmonised System
ICAO	International Civil Aviation Organisation
IATA	International Air Transport Association
IERG	International Emergency Response Guide
IMDG	International Maritime Dangerous Goods
LD50	Lethal concentration to 50% of the test population
NOEC	No Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OEL	Operator Exposure Limits
PBT or vPvP	Persistent / Bioaccumulative / Toxic or very Persistent / very Bioaccumulative
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
TDG	Transportation of Dangerous Goods
TEL	Tolerable Exposure Limit
TLVs	Threshold Limit Values
UN GHS	United Nations Globally Harmonised System
WES	Workplace Exposure Standards
49CFR	Code of Federal Regulations Title 49 for Transportation

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

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.