



## SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH), as amended by UK REACH Regulations SI 2019/758

### Chlormephon Pro

Revision date 21-Oct-2024

Version 2 Supersedes Date: 09-Oct-2024

Product Code(s)

HRB05032-44

Print Date 21-Oct-2024

SFPCE30041

9511933

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

### 1.1. Product identifier

## Chlormephon Pro

### Other means of identification

Pure substance/mixture

Mixture

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

Recommended use

Herbicide; Professional use

Uses advised against

No information available

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

#### Supplier

ADAMA Agricultural Solutions UK Ltd

Third Floor East

1410 Arlington Business Park

Theale

READING

RG7 4SA

Tel: 01635 860555

Fax: 01635 861555

**For further information, please contact**

E-mail address

ukenquiries@adama.com

### 1.4. Emergency telephone number

Emergency Telephone

UK: National Chemical Emergency Centre:

Tel: 01856 407333 (24 hours, 7 days a week)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

|                          |                     |
|--------------------------|---------------------|
| Acute toxicity - Oral    | Category 4 - (H302) |
| Chronic aquatic toxicity | Category 3 - (H412) |

### 2.2. Label elements

Labelling according to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Contains Chlormequat-chloride, Ethephon

**Hazard pictograms****Signal word**

Warning

**Hazard statements**

H302 - Harmful if swallowed  
H412 - Harmful to aquatic life with long lasting effects

**Precautionary Statements**

P102 - Keep out of reach of children  
P270 - Do not eat, drink or smoke when using this product  
P501 - Dispose of contents/ container to an approved waste disposal plant

**EU Specific Hazard Statements**

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

**Additional phrases for PPP**

SP1 - Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

**2.3. Other hazards****PBT & vPvB**

The product does not contain any substance(s) classified as PBT or vPvB.

**Endocrine Disruptor Information**

None known.

**Persistent Organic Pollutants**

Not applicable.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable

**3.2 Mixtures**

| Chemical name        | CAS No     | EC No     | Index No     | Weight-% | Classification according to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567 | Specific concentration limit (SCL) | M-Factor | REACH Registration Number |
|----------------------|------------|-----------|--------------|----------|-----------------------------------------------------------------------------------|------------------------------------|----------|---------------------------|
| Chlormequat-chloride | 999-81-5   | 213-666-4 | 007-003-00-6 | 25 - 28  | Acute Tox. 4 (H302)<br>Acute Tox. 4 (H312)                                        |                                    |          | No data available         |
| Ethephon             | 16672-87-0 | 240-718-3 | 015-154-00-4 | 12 -15   | Acute Tox. 3 (H311)<br>Acute Tox. 4 (H332)<br>Acute Tox. 4                        |                                    |          | No data available         |

|  |  |  |  |  |                                                                               |  |  |  |
|--|--|--|--|--|-------------------------------------------------------------------------------|--|--|--|
|  |  |  |  |  | (H302)<br>Skin Corr. 1C<br>(H314)<br>Aquatic<br>Chronic 2<br>(H411)<br>EUH071 |  |  |  |
|--|--|--|--|--|-------------------------------------------------------------------------------|--|--|--|

Acute toxicity estimates (ATEs) according to Part 3 of Annex VI to Regulation (EC) No 1272/2008 are indicated in this table, if available

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                           |                                                                                                                                                                                                                |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General advice</b>                     | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). First aider: Pay attention to self-protection.                                                     |
| <b>Inhalation</b>                         | Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a doctor.                                                                                                   |
| <b>Eye contact</b>                        | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a doctor. |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a doctor if necessary.                                                                           |
| <b>Ingestion</b>                          | Rinse mouth. Drink plenty of water. Get medical attention immediately if symptoms occur.                                                                                                                       |
| <b>Self-protection of the first aider</b> | Use personal protective equipment as required.                                                                                                                                                                 |

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

|                 |             |
|-----------------|-------------|
| <b>Symptoms</b> | None known. |
|-----------------|-------------|

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

|                        |                        |
|------------------------|------------------------|
| <b>Note to doctors</b> | Treat symptomatically. |
|------------------------|------------------------|

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                     |                                                                                                         |
|-------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Suitable Extinguishing Media</b> | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
|-------------------------------------|---------------------------------------------------------------------------------------------------------|

|                                       |                                                                   |
|---------------------------------------|-------------------------------------------------------------------|
| <b>Unsuitable extinguishing media</b> | Do not scatter spilled material with high pressure water streams. |
|---------------------------------------|-------------------------------------------------------------------|

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

|                                                   |                           |
|---------------------------------------------------|---------------------------|
| <b>Specific hazards arising from the chemical</b> | No information available. |
|---------------------------------------------------|---------------------------|

### 5.3. Advice for firefighters

|                                                |                                                                                                                                       |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Special protective equipment for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.<br>Use personal protection equipment. |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|

## SECTION 6: Accidental release measures

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

|                      |                              |
|----------------------|------------------------------|
| Personal precautions | Ensure adequate ventilation. |
|----------------------|------------------------------|

|                          |                                                   |
|--------------------------|---------------------------------------------------|
| For emergency responders | Use personal protection recommended in Section 8. |
|--------------------------|---------------------------------------------------|

### 6.2. Environmental precautions

|                           |                                                       |
|---------------------------|-------------------------------------------------------|
| Environmental precautions | See Section 12 for additional Ecological Information. |
|---------------------------|-------------------------------------------------------|

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

|                         |                                                       |
|-------------------------|-------------------------------------------------------|
| Methods for containment | Prevent further leakage or spillage if safe to do so. |
|-------------------------|-------------------------------------------------------|

|                         |                                                                       |
|-------------------------|-----------------------------------------------------------------------|
| Methods for cleaning up | Take up mechanically, placing in appropriate containers for disposal. |
|-------------------------|-----------------------------------------------------------------------|

|                                 |                                                                                      |
|---------------------------------|--------------------------------------------------------------------------------------|
| Prevention of secondary hazards | Clean contaminated objects and areas thoroughly observing environmental regulations. |
|---------------------------------|--------------------------------------------------------------------------------------|

### 6.4. Reference to other sections

|                             |                                                                          |
|-----------------------------|--------------------------------------------------------------------------|
| 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

|                         |                              |
|-------------------------|------------------------------|
| Advice on safe handling | Ensure adequate ventilation. |
|-------------------------|------------------------------|

|                                |                                                                        |
|--------------------------------|------------------------------------------------------------------------|
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice. |
|--------------------------------|------------------------------------------------------------------------|

### 7.2. Conditions for safe storage, including any incompatibilities

|                    |                                                                                                             |
|--------------------|-------------------------------------------------------------------------------------------------------------|
| Storage Conditions | Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. |
|--------------------|-------------------------------------------------------------------------------------------------------------|

### 7.3. Specific end use(s)

|                               |                                                                  |
|-------------------------------|------------------------------------------------------------------|
| Risk Management Methods (RMM) | The information required is contained in this Safety Data Sheet. |
|-------------------------------|------------------------------------------------------------------|

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure Limits

|                                          |                           |
|------------------------------------------|---------------------------|
| Derived No Effect Level (DNEL)           | No information available. |
| Predicted No Effect Concentration (PNEC) | No information available. |

**8.2. Exposure controls**

|                                        |                                                                                                                                                                                                                                                                                         |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Engineering controls</b>            | Ensure adequate ventilation, especially in confined areas.                                                                                                                                                                                                                              |
| <b>Personal protective equipment</b>   |                                                                                                                                                                                                                                                                                         |
| <b>Eye/face protection</b>             | Tight sealing safety goggles.                                                                                                                                                                                                                                                           |
| <b>Hand protection</b>                 | Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm). |
| <b>Skin and body protection</b>        | Use suitable protective clothing and equipment if required, such as safety goggles certified to EN 166, gloves certified to EN 374, protective boots certified to EN 13832, and/or a water repellent woven coverall with 65% polyester and 35 % cotton.                                 |
| <b>Respiratory protection</b>          | In case of insufficient ventilation, wear suitable respiratory equipment.                                                                                                                                                                                                               |
| <b>General hygiene considerations</b>  | Handle in accordance with good industrial hygiene and safety practice.                                                                                                                                                                                                                  |
| <b>Environmental exposure controls</b> | Local authorities should be advised if significant spillages cannot be contained.                                                                                                                                                                                                       |

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

| <u>Property</u>                              | <u>Values</u>       | <u>Method</u> | <u>Remarks</u>                                       |
|----------------------------------------------|---------------------|---------------|------------------------------------------------------|
| <b>Appearance</b>                            |                     |               |                                                      |
| Physical state                               | : liquid            |               |                                                      |
| Colour                                       | : Cream colour      |               |                                                      |
| Odour                                        | : No odor           |               |                                                      |
| Odour threshold                              | : No data available |               |                                                      |
| pH                                           | : 1.8 - 2.2         | CIPAC MT 75.3 | solution (1%)                                        |
| Melting point / freezing point °C            | : No data available |               |                                                      |
| Boiling point / boiling range °C             | : No data available |               |                                                      |
| Flash point °C                               | : ----              |               | Not flammable                                        |
| Evaporation rate                             | : No data available |               |                                                      |
| Flammability (solid, gas)                    | : Not applicable    |               |                                                      |
| Upper/lower flammability or explosive limits | : No data available |               |                                                      |
| Vapour pressure kPa                          | : No data available |               |                                                      |
| Vapour density                               | : No data available |               |                                                      |
| Relative density                             | : 1.0 - 1.2         | EEC A.3       |                                                      |
| Solubility(ies) mg/l                         | : No data available |               |                                                      |
| Partition coefficient Log Pow                | :                   |               | See Section 12 for additional Ecological Information |
| Autoignition temperature °C                  | : No data available |               |                                                      |
| Decomposition temperature °C                 | : No data available |               |                                                      |
| Kinematic viscosity mm <sup>2</sup> /s 40 °C | : 3.061             | OECD 114      | 20°C                                                 |
| Surface tension                              | : No data available |               |                                                      |
| Particle Size                                | : Not applicable    |               |                                                      |

**9.2. Other information**

**Bulk density** g/ml : Not applicable

**9.2.1. Information with regards to physical hazard classes**

**Explosive properties** : Not an explosive

**Oxidising properties** : Not oxidizing

### 9.2.2. Other safety characteristics

No information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** No information available.

### 10.2. Chemical stability

**Stability** Stable under normal conditions.

### Explosion data

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** None under normal processing.

### 10.4. Conditions to avoid

**Conditions to avoid** None known based on information supplied.

### 10.5. Incompatible materials

**Incompatible materials** None known based on information supplied.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** None known based on information supplied.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

|                                   | <u>Values</u>                | <u>Species</u> | <u>Method</u> | <u>Remarks</u> |
|-----------------------------------|------------------------------|----------------|---------------|----------------|
| Oral LD50 mg/kg                   | : 300 - 2000                 |                |               | ATEmix         |
| Dermal LD50 mg/kg                 | : > 2000                     |                |               | ATEmix         |
| Inhalation LC50 mg/l              | : > 5                        |                |               | ATEmix         |
| Skin corrosion/irritation         | : Non-irritating to the skin | Rabbit         | OECD 404      |                |
| Serious eye damage/eye irritation | : Not irritating to eyes     | Rabbit         | OECD 405      |                |
| Sensitisation                     | : Not a skin sensitiser      | Guinea pig     | OECD 406      |                |

#### Chronic toxicity

##### Germ cell mutagenicity

##### Chemical name

Chlormequat-chloride : Not classified

Ethephon : Not classified

##### Carcinogenicity

##### Chemical name

Chlormequat-chloride : Not Carcinogenic

Ethephon : Not Carcinogenic

#### Reproductive toxicity

##### Chemical name

Chlormequat-chloride : Not toxic for the reproductive system  
Ethephon : Not toxic for the reproductive system

#### STOT - Single Exposure

##### Chemical name

Chlormequat-chloride : No data available  
Ethephon : No data available

#### STOT - Repeated Exposure

##### Chemical name

Chlormequat-chloride : No data available  
Ethephon : No data available

#### Aspiration hazard

##### Chemical name

Chlormequat-chloride : No data available  
Ethephon : No data available

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

#### 11.2.2. Other information

Other adverse effects No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

| Acute toxicity              | Values  | Species        | Method   | Remarks           |
|-----------------------------|---------|----------------|----------|-------------------|
| Fish 96-hour LC50 mg/l      | : ----  |                |          | No data available |
| Crustacea 48-hour EC50 mg/l | : 49.7  | Daphnia magna  | OECD 202 |                   |
| Algae 72-hour EC50 mg/l     | : > 100 | P. subcapitata | OECD 201 |                   |
| Other plants EC50 mg/l      | : > 10  | Lemna gibba    | OECD 221 | days 7            |

| Chronic aquatic toxicity | Values              | Species       | Method   | Remarks |
|--------------------------|---------------------|---------------|----------|---------|
| Fish NOEC mg/l           | : No data available |               |          |         |
| Crustacea NOEC mg/l      | : No data available |               |          |         |
| Algae NOEC mg/l          | : > 100             | P.subcapitata | OECD 201 |         |
| Other plants NOEC mg/l   | : No data available |               |          |         |

#### Terrestrial Toxicity

##### Birds Oral LD50 mg/kg

##### Chemical name

Chlormequat-chloride : 441 Coturnix japonica  
Ethephon : 1212 Bobwhite quail

##### Bees Oral LD50 µg/bee

##### Chemical name

Chlormequat-chloride : > 80.2  
Ethephon : > 100

### 12.2. Persistence and degradability

#### Abiotic Degradation

**Water DT50 days****Chemical name**

|                      |        |       |
|----------------------|--------|-------|
| Chlormequat-chloride | : 6.6  | 20 °C |
| Ethephon             | : 1.51 |       |

**Soil DT50 days****Chemical name**

|                      |        |       |
|----------------------|--------|-------|
| Chlormequat-chloride | : 27.5 | 20° C |
| Ethephon             | : 9.18 | RAPID |

**Biodegradation****Chemical name**

|                      |                             |
|----------------------|-----------------------------|
| Chlormequat-chloride | : Readily biodegradable     |
| Ethephon             | : Not readily biodegradable |

**12.3. Bioaccumulative potential****Partition Coefficient (n-octanol/water) Log Pow****Chemical name**

|                      |         |  |      |
|----------------------|---------|--|------|
| Chlormequat-chloride | : - 3.5 |  |      |
| Ethephon             | : -1.89 |  | pH 7 |

**Bioconcentration factor (BCF)****Chemical name**

|                      |        |
|----------------------|--------|
| Chlormequat-chloride | : ---- |
| Ethephon             | : ---- |

**12.4. Mobility in soil****Adsorption/Desorption****Chemical name**

|                      |                            |  |     |
|----------------------|----------------------------|--|-----|
| Chlormequat-chloride | : 132                      |  | KOC |
| Ethephon             | : No information available |  | KOC |

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

The components in this formulation do not meet the criteria for classification as PBT or vPvB

**12.6. Endocrine disrupting properties**

**Endocrine disrupting properties** No information available.

**12.7. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Waste from residues/unused products**

Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

**Contaminated packaging**

Improper disposal or reuse of this container may be dangerous and illegal.

**Other information**

Waste codes should be assigned by the user based on the application for which the product was used.

**SECTION 14: Transport information****ADR****14.1 UN number**

Not regulated

**14.2**

|                                    |                |
|------------------------------------|----------------|
| 14.3 Transport hazard class(es)    | Not regulated  |
| 14.4 Packing group                 | Not regulated  |
| 14.5 Environmental hazard          | Not Applicable |
| 14.6 Special Precautions for Users |                |
| Special Provisions                 | None           |

**RID**

|                                    |                |
|------------------------------------|----------------|
| 14.1 UN number                     | Not regulated  |
| 14.2                               |                |
| 14.3 Transport hazard class(es)    | Not regulated  |
| 14.4 Packing group                 | Not regulated  |
| Environmental hazard               | Not Applicable |
| Special Precautions for Users      |                |
| 14.5 Environmental hazard          | Not Applicable |
| 14.6 Special Precautions for Users |                |
| Special Provisions                 | None           |

**IMDG**

|                                                              |                               |
|--------------------------------------------------------------|-------------------------------|
| 14.1 UN number                                               | Not regulated                 |
| 14.2                                                         |                               |
| 14.3 Transport hazard class(es)                              | Not regulated                 |
| 14.4 Packing group                                           | Not regulated                 |
| 14.5 Environmental hazard                                    | Not Applicable                |
| 14.6 Special Precautions for Users                           |                               |
| 14.5 Marine pollutant                                        | Not applicable                |
| 14.6 Special Precautions for Users                           |                               |
| Special Provisions                                           | None No information available |
| 14.7 Maritime transport in bulk according to IMO instruments | No information available      |

**IATA**

|                                    |                |
|------------------------------------|----------------|
| 14.1 UN number                     | Not regulated  |
| 14.2                               |                |
| 14.3 Transport hazard class(es)    | Not regulated  |
| 14.4 Packing group                 | Not regulated  |
| 14.5 Environmental hazard          | Not Applicable |
| 14.6 Special Precautions for Users |                |
| Special Provisions                 | None           |

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

| Trade name / designation | Registration Number(s) | Date           |
|--------------------------|------------------------|----------------|
| Not Applicable           | Not Applicable         | Not Applicable |

**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

**Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not applicable

**15.2. Chemical safety assessment****Chemical Safety Report**

A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009

**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

H311 - Toxic in contact with skin

H312 - Harmful in contact with skin

H314 - Causes severe skin burns and eye damage

H332 - Harmful if inhaled

H411 - Toxic to aquatic life with long lasting effects

**Legend**

SVHC: Substances of Very High Concern for Authorisation:

**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** 21-Oct-2024

**Reason for revision** Classification according to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

**Further information** This material safety data sheet complies with the provisions of Regulation (EC) No 1907/2006, as amended by Regulation (EU) 2020/878.

**Abbreviations and acronyms**

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

CAS Number - Chemical Abstracts Service number

EC Number - EINECS and ELINCS Number

EINECS - European Inventory of Existing Commercial Substances

ELINCS - European List of notified Chemical Substances

IATA - International Air Transport Association

ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG - International Maritime Dangerous Goods

LC50 - Lethal Concentration to 50 % of a test population

LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)

OECD - Organization for Economic Co-operation and Development

PBT - Persistent, Bioaccumulative and Toxic substance

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

STOT - Specific Target Organ Toxicity

vPvB - Very Persistent and Very Bioaccumulative

**Classification according to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567****Classification of the mixture**

H302 - Harmful if swallowed

H412 - Harmful to aquatic life with long lasting effects

**Classification procedure**

Classification based on Calculation method

Classification based on Calculation method

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**Disclaimer**

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.

End of Safety Data Sheet