FINAL REGISTRATION REPORT

Part B

Section 8

Environmental Fate

Detailed summary of the risk assessment

Product code: SHA 126000 B

Product name: CLARA

Chemical active substances:

Chlormequat chloride, 720 g/L

Central Zone

Zonal Rapporteur Member State: Poland

CORE ASSESSMENT

(authorization)

Applicant: Sharda Cropchem Ltd.

Submission date: February 2022

MS Finalisation date: April 2023; October 2023

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When	What
April 2023	ZRMs evaluated dRR submitted by Applicant.
10/2023	The Final Registration Report

zRMS comments:

All comments and conclusions of the zRMS are presented in grey. Minor changes are introduced directly in the text and highlighted in grey. Not agreed or not relevant information is struck through and shaded for transparency.

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8 Fate and behaviour in the environment (KCP 9)

8.1 Critical GAP and overall conclusions

Table 8.1-1: Critical use pattern of the formulated product

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Use-No. *	Member state(s)	Crop and/or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I **	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks: e.g. g safener/ synergist per ha	**Conclusion**
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	kg or L product/ha a) max. rate per appl. b) max. total rate per crop/season	g or kg as/ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min/max			Groundwater
Zonal uses (field or outdoor uses, certain types of protected crops)														
1	CEU	**Winter wheat**	F	Regulation of growth, prevention of lodging	Foliar Spray	BBCH 29-32	a) 1 b) 1	-	a) 1.3-2.1 b) 1.3-2.1	a) 0.936-1.51 b) 0.936-1.51	200-300			A

*   Use number(s) in accordance with the list of all intended GAPs in Part B, Section 0 should be given in column 1

**   F: professional field use, Fn: non-professional field use, Fpn: professional and non-professional field use, G: professional greenhouse use, Gn: non-professional greenhouse use, Gpn: professional and non-professional greenhouse use, I: indoor application

Explanation for column 15 "Conclusion"

A	Safe use
R	Further refinement and/or risk mitigation measures required
C	To be confirmed by cMS
N	No safe use

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Table 8.1-2: Assessed (critical) uses during approval of Chlormequat concerning the Section Environmental Fate

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Use-No. *	Member state(s)	Crop and/or situation (crop destination / purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I **	Pests or Group of pests controlled (additionally: develop-mental stages of the pest or pest group)	**Application**				**Application rate**			PHI (days)	Remarks: e.g. g safener/ synergist per ha
					Method / Kind	Timing / Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	kg as/hL min-max	Water L/ha min/max	g or kg as/ha min-max		
1	See foot-note 1)	**Winter wheat**	F	Plant growth regulator	Spraying	32[2]	1	NA	0.33-1.0	150-450	1.5	See footnote 3)	[1] [2]
2	See foot-note 1)	**Spring wheat**	F	Plant growth regulator	Spraying	31[2]	1	NA	0.33-1.0	150-450	1.5	See footnote 3)	[1] [2]
3	See foot-note 1)	**Triticale**	F	Plant growth regulator	Spraying	37[2]	1	NA	0.33-1.0	150-450	1.5	See footnote 3)	[1] [2]
4	See foot-note 1)	**Durum wheat**	F	Plant growth regulator	Spraying	31[2]	1	NA	0.33-1.0	150-450	1.5	See footnote 3)	[1] [2]
5	See foot-note 1)	**Spelt wheat**	F	Plant growth regulator	Spraying	32[2]	1	NA	0.33-1.0	150-450	1.5	See footnote 3)	[1] [2]
6	See foot-note 1)	**Rye**	F	Plant growth regulator	Spraying	37[2]	1	NA	0.33-1.0	150-450	1.5	See footnote 3)	[1] [2]
7	See foot-note 1)	**Oats**	F	Plant growth regulator	Spraying	49[2]	1	NA	0.33-1.0	150-450	1.5	See footnote 3)	[1] [2]
8	See foot-note 1)	**Winter barley**	F	Plant growth regulator	Spraying	30[2]	1	NA	0.33-1.0	150-450	1.5	See footnote 3)	[1] [2]
9	See foot-note 1)	**Spring barley**	F	Plant growth regulator	Spraying	30[2]	1	NA	0.33-1.0	150-450	1.5	See footnote 3)	[1] [2]
10	France (NEU and SEU)	**Winter wheat**	F	Plant growth regulator	Spraying	32[2]	1	NA	0.22-0.67	150-450	1.0	See footnote 3)	[1] [2]

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11	France (NEU and SEU)	**Spring wheat**	F	Plant growth regulator	Spraying	31 [2]	1	NA	0.22-0.67	150-450	1.0	See footnote 3)	[1] [2]
12	France (NEU and SEU)	**Durum wheat**	F	Plant growth regulator	Spraying	31 [2]	1	NA	0.33-1.0	150-450	1.5	See footnote 3)	[1] [2]
13	France (NEU and SEU)	**Rye**	F	Plant growth regulator	Spraying	37 [2]	1	NA	0.27-0.80	150-450	1.2	See footnote 3)	[1] [2]
14	France (NEU and SEU)	**Oats**	F	Plant growth regulator	Spraying	49[é1]	1	NA	0.31-0.93	150-450	1.4	See footnote 3)	[1] [2]

*   Use number(s) in accordance with the list of all intended GAPs in Part B, Section 0 should be given in column 1

**   F: professional field use, Fn: non-professional field use, Fpn: professional and non-professional field use, G: professional greenhouse use, Gn: non-professional greenhouse use, Gpn: professional and non-professional greenhouse use, I: indoor application

[1] Data gaps were identified in section 5 (ecotoxicology)

[2] Data gaps were identified in section 3 (residue)

[3] MRLs only provisionally proposed and the risk assessment provisionally carried out due to data gaps identified in section 3 (residues)

1) Austria, Belgium, Denmark, Finland, Germany, Ireland, Luxembourg, The Netherlands, Sweden, United Kingdom, Poland, Czech Republic, Slovenia, Slovakia, Estonia, Lithuania and Latvia

2) co-formulations of Chlormequat chloride with other a.i.'s where Chlormequat chloride is applied at reduced rates, are to be applied up to GS 49

3) fixed by approved use

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8.2　　　Metabolites considered in the assessment

Not relevant.

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8.3 Rate of degradation in soil (KCP 9.1.1)

Studies on degradation in soil with the formulation were not performed, since it is possible to extrapolate from data obtained with the active substance.

8.3.1 Aerobic degradation in soil (KCP 9.1.1.1)

Table 8.3-1: Summary of aerobic degradation rates for Chlormequat - laboratory studies

Chlormequat, Laboratory studies, aerobic conditions										
Soil name	Soil type	pH	t.oC	MWHC %	DT_{50} (d)	DT_{90} (d)	DT_{50} (d) 20°C pF2/10kPa	X^2 (%)	Kinetic model	Evaluated on EU level y/n/ Reference
Speyer 2.2	Loamy sand[d]	5.8	20	40	31.8	105.6	31.8[c]	4.63	SFO	EFSA Scietific Report (2008) 179, 1-77 and Confirmatory Data – Chlormequat (May 2014)
Itingen	Silt loam	7.4	20	40	48.4[a]	120.0	44.7	8.31	SFOP	
Collombey	Loamy sand	7.5	20	40	34.6	114.9	34.6[c]	4.33	SFO	
Les Evouettes	Silt loam	7.7	20	40	27.0	89.7	23.1	5.44	SFO	
Speyer 5M	Sandy loam		20	40	12.3	41.0	11.0	10.9	SFO	
Itingen III	Cla loam		20	40	23.4[b]	77.6	23.4[c]	7.11	FOMC	
Speyer 2.2	Loamy sand		20	40	40.2	133.6	**40.2[c]**	4.9	SFO	
Geometric mean (n=7)							**27.5**			
pH-dependency:							No			

a) Calculated from Slow phase degradation of the DFOP model
b) Calculated from the DT90/3.32 of the FOMM model
c) Value not corrected because the study moisture value was higher than the reference
d) RMS notes that the soil classification has been reassessed which has resulted in Speyer 2.2 being referred to as loamy sand instead of sandy loam. This has been accepted.

8.3.2 Anaerobic degradation in soil (KCP 9.1.1.1)

An anaerobic degradation study in soil was not considered necessary because of the relatively short DT_{50} values for Chlormequat-chloride in the four study soils: 26.8 to 33.9 days and because it is only moderately mobile in soil and therefore unlikely to reach anaerobic soil layers (DAR Chlormequat-chloride – Volume 3, Annex B.8: Environmental Fate and Behaviour – April 2007).

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8.4 Field studies (KCP 9.1.1.2)

8.4.1 Soil dissipation testing on a range of representative soils (KCP 9.1.1.2.1)

The DT_{50} for the degradation of Chlormequat-chloride in soil, as determined in the laboratory soil degradation studies is < 60 days. Furthermore, only one application is envisaged. For these reasons, field studies are not considered necessary. Since there is a clear and reliable estimation of the degradation behaviour in the soil. Chlormequat-chloride residues in the soil can be reliably calculated. Therefore, soil residues testing in the field is not required and no information was submitted (DAR Chlormequat-chloride – Volume 3, Annex B.8: Environmental fate and behaviour – April 2007).

8.4.2 Soil accumulation testing (KCP 9.1.1.2.2)

No data available.

8.5 Mobility in soil (KCP 9.1.2)

Studies on mobility in soil with the formulation were not performed, since it is possible to extrapolate from data obtained with the active substance.

Table 8.5-1: **Summary of soil adsorption/desorption for Chlormequat**

Chlormequat							
Soil name	Soil type	OC (%)	pH	Kf (mL/g)	Kfoc (mL/g)	1/n	Evaluated on EU level y/n/ Reference
Bromsgrove	Sandy loam	1.7	5.0	1.34	78.8	0.60	Confirmatory data – Chlormequat (May 2014)
Evesham 3	Clay loam	1.6	7.3	4.51	282	0.99	
Warsop	Loamy sand	0.6	3.9	0.63	105	0.92	
Hodnet	Sandy loam/ Sandy clay loam	1.9	5.9	1.16	61.1	0.93	
Geometric mean (n=4)					**109.3**	-	
Arithmetic mean (n=4)					132.0	0.86	
pH-dependency					No		

8.5.1 Column leaching (KCP 9.1.2.1)

No column leaching study was submitted because there is sufficient data on the adsorption of Chlormequat chloride to soil available.
Ages residues leaching:
Aged for (d): 15 d
Time period (d): 15 d
Elution (mL): 393 mL
Analysis of soil residues post ageing (soil residues pre-leaching): 48% soil extractable residue, 20% bound residue; < 10% unidentified metabolite; 33% mineralized to $^{14}CO_2$
Leachate: 0.29-0.49% of AR for a loamy sand in leachate.

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8.5.2 Lysimeter studies (KCP 9.1.2.2)

No study submitted or considered necessary.

8.5.3 Field leaching studies (KCP 9.1.2.3)

No study submitted or considered necessary.

8.6 Degradation in the water/sediment systems (KCP 9.2, KCP 9.2.1, KCP 9.2.2, KCP 9.2.3)

Studies on degradation in water/sediment systems with the formulation were not performed, since it is possible to extrapolate from data obtained with the active substance.

Table 8.6-1: Summary of degradation in water/sediment of Chlormequat

Chlormequat Distribution (max. in water 107.1% at day 0 and max. in sediment 63.3% after 30 days)										
Water/ sediment system	pH water/ sed.	$DegT_{50}$ whole syst. (d)	$DegT_{90}$ whole syst. (d)	St. (r^2)	$DissT_{50}$ water (d)	$DissT_{90}$ water (d)	St. (r^2)	$DissT_{50}$ sed. (d)	Method of calc.	Evaluated on EU level y/n/ Reference
River	8.47/7.27	0.9	10.4	0.98	0.5	5.4	0.94	n.d.	First order SQRT	EFSA Scientific Report (2008) 179, 1-77 and Confimatory data (May 2014)
Pond	7.97/6.89	6.6	21.9	0.98	0.5	5.3	0.97	n.d.	First order SQRT (water)/ first order (whole system)	
Geometric mean (n=2)		2.4	15.1		0.5	5.3		-		

8.7 Predicted Environmental Concentrations in soil (PEC$_{soil}$) (KCP 9.1.3)

> **zRMS comment**:
>
> zRMS agrees with the calculations of PECs. Used parameters are they are in line with EFSA points and guidelines.

8.7.1 Justification for new endpoints

Not relevant as there is no deviation to EU agreed endpoints.

8.7.2 Chlormequat chloride and relevant metabolite

Table 8.7-1: Input parameters related to application for PEC$_{soil}$ calculations

Use No.	1

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Crop	Winter wheat
Application rate (g as/ha)	1510
Number of applications/interval	1/-
Crop interception (%)	20
Depth of soil layer (relevant for plateau concentration) (cm)	20 cm (tillage)

Table 8.7-2:   **Input parameter for active substances for PEC$_{soil}$ calculation**

Compound	Molecular weight (g/mol)	Max. occur-rence (%)	DT$_{50}$ (days)	Value in accordance to EU endpoint y/n/ Reference
Chlormequat	158.1 g/mol	-	40.2 d (longest lab. DT$_{50}$ corrected to 20°C)	EFSA Scientific Report (2008) 179, 1-77 and Confimatory data (March 2014)

Table 8.7-3:   **PEC$_{soil}$ for Chlormequat on winter wheat**

PEC$_{soil}$ (mg/kg)		Winter wheat	
		Single application	
		Actual	TWA
Initial		1.611	-
Short term	24h	1.583	1.597
	2d	1.556	1.583
	4d	1.503	1.556
Long term	7d	1.428	1.517
	14d	1.265	1.431
	21d	1.121	1.351
	28d	0.994	1.278
	50d	0.680	1.079
	100d	0.287	0.768

8.7.2.1   PEC$_{soil}$ of Chlormequat chloride 72% SL

Since Chlormequat chloride 72% SL is rapidly broken down into its constituent parts on contact with soil and/or crop material, it is appropriate to calculate the PEC$_S$ following a single application only, using the following equation:

$$PEC_S (mg/kg) = \frac{\text{Application rate (g/ha)} \times (1\text{-}F)}{100 \times \text{Soil depth (cm)} \times \text{Soil dry bulk density (g/cm}^3)}$$

Table 8.7-4:   **PEC$_{soil}$ for Chlormequat chloride 72% SL on winter wheat**

Preparation	Application rate (g/ha)	Crop interception (%)	PEC$_{act}$ (mg/kg)
Chlormequat chloride/ Chlormequat	2377.6*	20	**2.536**

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Preparation	Application rate (g/ha)	Crop interception (%)	PEC$_{act}$ (mg/kg)
chloride72% SL			

* based on density value of 1.1322 g/mL

8.8 Predicted Environmental Concentrations in groundwater (PEC$_{gw}$) (KCP 9.2.4)

zRMS comment:

According to the FOCUS generic groundwater guidance (2014) geometric values Koc and DT$_{50}$ obtained from EFSA endpoints (EFSA Scientific Report (2008) 179, 1-77 and Confimatory data (May 2014))., were used for the assessment PEC$_{gw.}$ zRMS was agree, however the decision to use the geometric mean values should be taken at the MS level.

The PECgw values are below of 0.1 µg/L in all scenarios, therefore the use of Chlormequat chloride 72% SL doesn't pose any risk for ground water.

Proposed by Applicant the risk mitigation measures should be considered at national level.

8.8.1 Justification for new endpoints

Not relevant as there is no deviation to EU agreed endpoints.

8.8.2 Chlormequat chloride and relevant metabolite (KCP 9.2.4.1)

Table 8.8-1: Input parameters related to application for PEC$_{gw}$ calculations

Use No.	1
Crop	**Winter wheat**
Application rate (g as/ha)	1510
Number of applications/interval (d)	1/-
Crop interception (%)	20/80
Frequency of application	annual
Models used for calculation	FOCUS PEARL v 5.5.5 ~~4.4.4~~, FOCUS PELMO v 6.6.4 ~~5.5.3~~

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It should be noted that as recommended in the Generic Guidance for Tier 1 FOCUS Ground Water Assessments (FOCUS 2011), a corrected application rate is calculated taking into account the interception by the crop canopy. Therefore, the substance is applied directly to the ground in the models, thus avoiding the internal interception routines in the models. The corrected application rate is 1208 g Chlormequat/ha (20% of interception).

Table 8.8-2: **Application dates used for groundwater risk assessment**

Crop	Scenario	Application dates (absolute)*	
		BBCH 29	BBCH 30
Winter wheat (BBCH 29)	Châteaudun	14.04	-
	Hamburg	03.05	-
	Jokioinen	13.05	-
	Kremsmünster	23.04	-
	Okehampton	20.04	21.04
	Piacenza	18.03	-
	Porto	27.01	-
	Sevilla	04.01	-
	Thiva	15.01	-

*Application dates according to AppDate 3.06 (28 June 2019)

Table 8.8-3: **Input parameters related to active substance Chlormequat for PEC_{gw} calculations**

Compound	Chlormequat	Value in accordance with EU endpoint y/n/ Reference*
Molecular weight (g/mol)	158.1	EFSA Scientific Report (2008) 179, 1-77 Addendum to the DAR (July 2008) EFSA Scientific Report (2008) 179, 1-77 and Confirmatory data (May 2014)
Water solubility (mg/L):	500000	
Saturated vapour pressure (Pa):	1×10^{-7} (worst-case)	
DT_{50} in soil (d)	27.5 (geomean, normalisation to 10 kPa or pF2, 20 °C with Q_{10} of 2.58, n=7)	
K_{foc} (mL/g)/K_{fom}	109.3 (geomean, n=4) / 63.4	
1/n	0.86 (arithmetic mean, n=4)	
Plant uptake factor	0	

Table 8.8-4: **PEC_{gw} for Chlormequat chloride on winter wheat at BBCH 29, 1510 g as/ha with 20% of interception (with FOCUS PEARL 5.5.5 & FOCUSPELMO 6.6.4)**

Crop	Scenario	80th Percentile PEC_{gw} at 1 m Soil Depth (µg/L)	
		PEARL	PELMO
Winter wheat	Châteaudun	<0.001	<0.001

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Hamburg	0.078	0.057
Jokioinen	<0.001	0.001
Kremsmünster	0.082	0.025
Okehampton	**0.120**	0.071
Piacenza	0.028	0.015
Porto	0.003	0.076
Sevilla	<0.001	<0.001
Thiva	<0.001	<0.001

Due to Okehampton PECgw is greater than 0.1 µg/L at maximum dose (1510 g as/ha) two refinements according to the lowest dose value reported in the GAP (936 g/ha) and at BBCH 30 (date 21/04, at 1510 g/ha with an 80% of interception) have been carried out. The results are given in the next tables.

Table 8.8-5: **PECgw for Chlormequat chloride on winter wheat at BBCH 29, 936 g as/ha with 20% of interception (with FOCUS PEARL 5.5.5 & FOCUSPELMO 6.6.4)**

Crop	Scenario	80th Percentile PECgw at 1 m Soil Depth (µg/L)	
		PEARL	**PELMO**
Winter wheat	Okehampton	0.041	-

Table 8.8-5: **PECgw for Chlormequat chloride on winter wheat at BBCH 30, at 1510 g as/ha with 80% of interception (with FOCUS PEARL 5.5.5 & FOCUSPELMO 6.6.4)**

Crop	Scenario	80th Percentile PECgw at 1 m Soil Depth (µg/L)	
		PEARL	**PELMO**
Winter wheat	Okehampton	0.005	-

Conclusions

The PECgw values are below of 0.1 µg/L in all scenarios, therefore the use of Chlormequat chloride 72% SL doesn't pose any risk for ground water, however the Applicant proposes the following mitigation measures that should be applied at national level:

SPe2: To protect ground water apply this product in winter wheat crops at lowest application rate (936 g as/ha) in loam soils with an organic matter content greater than 3.8% (Okehampton) or

SPe2: To protect ground water do not apply this product in winter wheat crops before BBCH 30 in loam soils with an organic matter content greater than 3.8% (Okehampton).

8.9 Predicted Environmental Concentrations in surface water (PECsw) (KCP 9.2.5)

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> **ZRMS comment:**
>
> The geometric values Koc and DT_{50} obtained from EFSA endpoints (EFSA Scientific Report (2008) 179, 1-77 and Confimatory data (May 2014)) were used for the assessment $PEC_{sw/sed}$. ZRMS agree with input parameters used for calculations of $PEC_{sw/sed}$. The calculations $PEC_{sw/sed}$ were performed in STEP ½.

Not relevant as there is no deviation to EU agreed endpoints.

8.9.1 Chlormequat chloride, relevant metabolite and the formulation (KCP 9.2.5)

Table 8.9-1: Input parameters related to application for $PEC_{SW/SED}$ calculations

Plant protection product	Chormequat chloride 72% SL
Use No.	1
Crop	**Winter wheat**
Application rate (kg as/ha)	1510
Number of applications/interval (d)	1/-
Application window	March-May (average crop cover)
Application method	Foliar spray
CAM (Chemical application method)	2*
Soil depth (cm)	4 cm*
Models used for calculation	FOCUS STEPS 1-2 v3.2

*Not applicable at Step 1-2.

Table 8.9-2: Input parameters related to active substance Chlormequat chloride for $PEC_{sw/sed}$ calculations STEP 1/2

Compound	Chlormequat	Value in accordance to EU endpoint y/n/ Reference
Molecular weight (g/mol)	158.1	
Water solubility (mg/L)	500000	
K_{foc} (mL/g)	109.3 (geomean, n=4)	EFSA Scientific Report (2008) 179, 1-77
$DT_{50,soil}$ (d)	27.5 (geomean, normalisation to 10 kPa or pF2, 20 °C with Q_{10} of 2.58, n=7)	
$DT_{50,water}$ (d)	6.6 (worst-case whole system, n=2)	EFSA Scientific Report (2008) 179, 1-77 and Confirmatory data (May 2014)
$DT_{50,sed}$ (d)	1000 (default)	
$DT_{50,whole\ system}$ (d)	6.6 (worst-case whole system, n=2)	
Maximum occurrence observed (% molar basis with respect to the parent)	Sediment: 63.3	

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PEC$_{sw/sed}$

Table 8.9-3: **FOCUS Steps 1/2 PEC$_{sw}$ and PEC$_{sed}$ for Chlormequat chloride following single application of Chlormequat chloride 72% SL on winter wheat**

Scenario FOCUS	Waterbody	Max PEC$_{sw}$ (µg/L)	Dominant entry route	21 d- PEC$_{sw,twa}$ (µg/L)	Max PEC$_{sed}$ (µg/kg)
Step 1	---	453.20	Drainage/runoff	182.19	480.17
Step 2					
Southern Europe	March-May	135.65	Drainage/runoff	59.56	147.86
Northern Europe		72.10	Drainage/runoff	31.60	78.45

8.9.1.1 PEC$_{sw/sed}$ of Chlormequat chloride 72% SL

The PEC$_{sw}$ for Chlormequat chloride 72% SL was calculated using the following equation:

$$PEC_{SW}\,(\mu g/L) = \frac{\%Drift_{90th\,\%ile} \times Application\,rate\,(g/ha)}{Water\,depth\,(cm) \times 10}$$

The application of Chlormequat chloride 72% SL is 2.1 L/ha, corresponding to 2377.6 g/ha (taking into account a density of 1.1322 g/mLg/cm^3) for winter wheat. The depth of the static water body was assumed to be 30 cm. The resulting maximum instantaneous PEC$_{sw}$ value is presented in the table 8.9-6.

Table 8.9-6: **PEC$_{sw}$ for Chlormequat chloride 72% SL following single application to winter wheat**

Crop	Distance (m)	Drift (%)	Max PEC$_{sw}$ (µg/L)
Winter wheat	1	2.77	21.953

The PEC$_{sed}$ for Chlormequat chloride 72% SL was calculated using the following equation:

$$PEC_{sed}\,(\mu g/kg\,dw) = \frac{\%Drift_{90th\,\%ile} \times Application\,rate\,(g/ha) \times \%Active\,substance\,in\,sediment}{1000 \times sediment\,density\,(g/cm^3) \times sediment\,height\,(cm)}$$

The application of Chlormequat chloride 72% SL is 2.1 L/ha, corresponding to 2377.6 g/ha (taking into account a density of 1.1322 g/mLg/cm^3) for winter wheat. The maximum percentage of Chlormequat in the sediment is 63.3%. The height of the sediment was assumed to be 5 cm and the sediment density was assumed to be 1.3 g/cm^3. The resulting maximum instantaneous PEC$_{sed}$ value is presented in the table 8.9-7.

Table 8.9-7: **PEC$_{sed}$ for Chlormequat chloride 72% SL following single application to winter wheat**

Crop	Distance (m)	Drift (%)	% in the sediment	Max PEC$_{sed}$ (µg/kg) (based on maximum occurrence)
Winter wheat	1	2.77	63.3	64.137

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8.10   Fate and behaviour in air (KCP 9.3, KCP 9.3.1)

Table 8.10-1:   Summary of atmospheric degradation and behaviour - Chlormequat

Compound	Chlormequat
Direct photolysis in air	Not studies – no data requested
Quantum yield of direct phototransformation	Not studies
Photochemical oxidative degradation in air	DT50 (h): 1.45 days, assuming 12 hours of light per day, derived by the Atkinson model
Volatilisation	No data submitted, non required. Vapour pressure (Pa): 1 x 10^{-7} (worst case)
Metabolites	None determined

The vapour pressure at 20 °C of the active substance Chlormequat is $< 10^{-5}$ Pa. Hence the active substance Chlormequat is regarded as non-volatile. Therefore, exposure of adjacent surface waters and terrestrial ecosystems by the active substance Chlormequat due to volatilization with subsequent deposition should not be considered.

ZRMS comment:

Accepted. No further data are requirement.

Appendix 1   Lists of data considered in support of the evaluation

Appendix 2   Detailed evaluation of the new Annex II studies

Appendix 3   Additional information provided by the applicant (e.g. detailed modelling data)