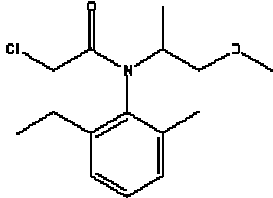


## Summary report for S-metolachlor

### SUMMARY

<b>Substance name</b>	<b>S-metolachlor</b>	
<b>CAS-number</b>	<b>87392-12-9</b>	
<b>Proposed Quality Standard</b>	<b>Freshwater</b>	
	<b>AA-QS</b>	<b>MAC-QS</b>
<b>Water</b>	<b>0.3 µg/L</b>	<b>2.7 µg/L</b>
<b>Sediment</b>	<b>/</b>	<b>/</b>
<b>Remarks</b>	<b>data from dossier</b>	

### 1. IDENTITY

Substance name	S-metolachlor
CAS-number	87392-12-9
Substance group	Herbicide-Chloroacetanilide
Synonyms	/
Molecular formula	C <sub>15</sub> H <sub>22</sub> ClNO <sub>2</sub>
Structural formula	

Substance name	CGA 51202*
CAS-number	/
Substance group	Metabolite
Synonyms	/
Molecular formula	/
Structural formula	/

Substance name	CGA 351916**
CAS-number	/
Substance group	Metabolite
Synonyms	/
Molecular formula	/
Structural formula	/

Substance name	CGA 354743**
CAS-number	/
Substance group	Metabolite
Synonyms	/
Molecular formula	/
Structural formula	/

Substance name	CGA 380168**
CAS-number	/
Substance group	Metabolite
Synonyms	/
Molecular formula	/
Structural formula	/

\* Metabolite is not relevant due to the low toxicity

\* Metabolite is not relevant due to the lack of toxicity data

**2. PHYSICO-CHEMICAL PROPERTIES**

Property	values					ref.
Substance	S-metolachlor	CGA 51202	CGA 351916	CGA 354743	CGA 380168	
Molecular weight (g/mol)	283.8	/	/	/	/	dossier
Vapour Pressure (Pa)	3.7E-03	/	/	/	/	dossier
Water Solubility (mg/L)	480	/	/	/	/	dossier
Log Kow	3.1	/	/	/	/	dossier
Log Koc	2.04-2.57 → 2.35	/				dossier
Log K <sub>SED</sub>	0.74-1.27 → 1.05	/				/
Henry-coefficient (Pa·m <sup>3</sup> /mol)	2.2E-03	/	/	/	/	dossier
pKa	No	/	/	/	/	dossier

**3. FATE AND BEHAVIOUR IN THE ENVIRONMENT**

Characteristic						ref.
Substance	S-metolachlor	CGA 51202	CGA 351916	CGA 354743	CGA 380168	
BCF	69 (fish)	/	/	/	/	dossier
(Aerobic bio) degradation	Not degradable (degradation in weeks-months)	/	/	/	/	dossier

#### 4. ECOTOXICITY (MS: most sensitive species of each group)

##### 4.1.1 Aquatic toxicity S-Metolachlor

Species	Endpoint-acute	Value – (mg/l)	Endpoint-chronic	Value – (mg/l)	ref.	Number of tests for species	F/M	AF MAC-QS	AF AA-QS	MAC-QS (µg/l)	AA-QS (µg/l)
<b>Algae</b>											
<i>Selenastrum capricornutum</i>	5d-EC50	<b>0.008</b>	(5d-NOEC extrapolated)	(NOEC→0.008/3= <b>0.0027</b> )	PPP dossier	MS	F	1	10	<b>2.7</b>	<b>0.27=0.3</b>
<b>Aquatic invertebrates</b>											
<i>Mysidopsis bahia</i>	4d-EC50	1.4			PPP dossier	MS	F				
<i>Daphnia magna</i>			21d-NOEC*	5.9*							
<i>Sediment dwelling organisms**</i>			62d-NOEC*	0.54*	PPP dossier	MS					
<b>Fish</b>											
<i>Oncorhynchus mykiss</i>	4d-LC50	1.23			PPP dossier	MS	F				
<i>Pimephales promelas</i>			35d-NOEC*	0.78*	PPP dossier	MS	F				
<b>Higher plants</b>											
<i>Lemna gibba</i>	14d-EC50		(14d-NOEC extrapolated)	(NOEC→0.023/3=0.008)	PPP dossier	MS	F	1	10	8.0	0.8

\* data for Metolachlor

\*\* benthic estuarine community-26 species of annelids, arthropods and molluscs

## 4.1.2 Aquatic toxicity metabolite CGA 51202

Species	Endpoint-acute	Value – (mg/l)	Endpoint-chronic	Value – (mg/l)	ref.	Number of tests for species	F/M	AF MAC-QS	AF AA-QS	MAC-QS (µg/l)	AA-QS (µg/l)
<b>Algae</b>											
<i>Unknown species</i>	3d-EC50	77.6				MS	F				
<b>Aquatic invertebrates</b>											
<i>Unknown species</i>	2d-LC50	16.6				MS	F				
<b>Fish</b>											
<i>Unknown species</i>	4d-LC50	>100				MS	F				

Aquatic toxicity of the metabolite CGA 51202 is between 10-100 mg/L → metabolite is not relevant due to the low toxicity