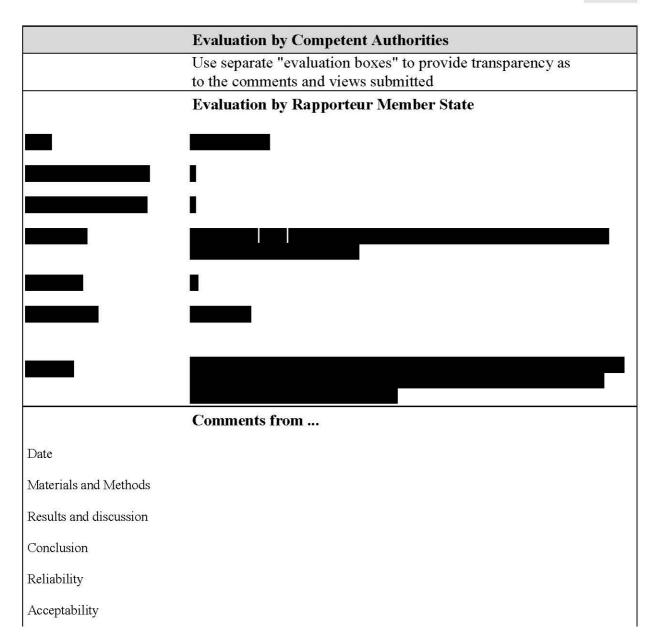
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5.2 Results and discussion The properties of the test substance give no indications to assume any relevant influences on the test result 5.2.1 LC<sub>0</sub> Could not derived from the study 5.2.2 LC<sub>50</sub> >93 mg/L  $5.2.3 \, LC_{100}$ >93 mg/L 5.3 Conclusion The validity criteria as given in table A7.4.1.1-24 can be considered as fulfilled. The result, LC<sub>50</sub> of >93 mg/L, means that classified as "slightly toxic" according to the EU classification 5.3.1 Other Conclusions No other conclusions 5.3.2 Reliability 5.3.3 Deficiencies



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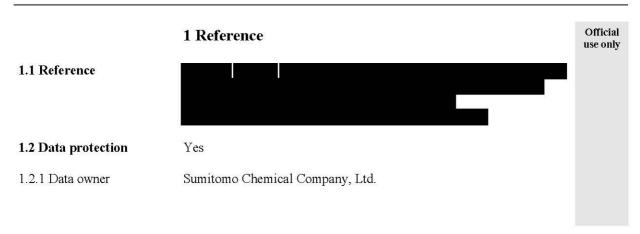
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Section A7.4.1.1/04 Acute toxicity to fish

#### **Annex Point IIA7.1**



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1.2.3 Criteria for data Data submitted to the MS after 13 May 2000 on existing a.s. for the protection purpose of its entry into Annex I 2 Guidelines and Quality Assurance OECD 203 (17 July 1992) - equivalent to EEC C.1 2.1 Guideline study 2.2 GLP 2.3 Deviations 3 Materials and Methods 3.1 Test material 3.1.1 Lot/Batch number 3.1.2 Specification 3.1.3 Purity 3.1.4 Composition of Product 3.1.5 Further relevant properties 3.1.6 Method of analysis 3.2 Preparation of TS solution for poorly soluble or volatile test substances 3.3 Reference substance 3.3.1 Method of analysis for reference substance 3.4 Testing procedure 3.4.1 Dilution water Rainbow trout 3.4.2 Test organisms 3.4.3 Test system 3.4.4 Test conditions 3.4.5 Duration of the test 96 hours 3.4.6 Test parameter Mortality Sampling interval: start (0 hours) and end (96 hours) of exposure 3.4.7 Sampling 3.4.8 Monitoring of TS Yes

Pyriproxyfen; CAS number: 95737-68-1 January 2012 RMS: NL Doc IIIA 246 / 514 concentration 0 and 96 hours 3.4.9 Statistics 4 Results 4.1 Limit Test Performed, 4.1.1 Concentration 4.1.2 Number/ percentage of animals showing adverse effects 4.1.3 Nature of adverse effects 4.2 Results test substance 4.2.1 Initial concentrations of test substance 4.2.2 Actual concentrations Mean measured concentrations were 0.061, 0.15, 0.22, 0.45 and 0.62 of test substance mg/L. 4.2.3 Effect data (Mortality) 4.2.4 Concentration / response curve 4.2.5 Other effects 4.3 Results of controls 4.3.1 Number/percentage of animals showing adverse effects 4.3.2 Nature of adverse effects 4.4 Test with reference substance 4.4.1 Concentrations 4.4.2 Results 5 Applicant's Summary and conclusion

5.1 Materials and methods

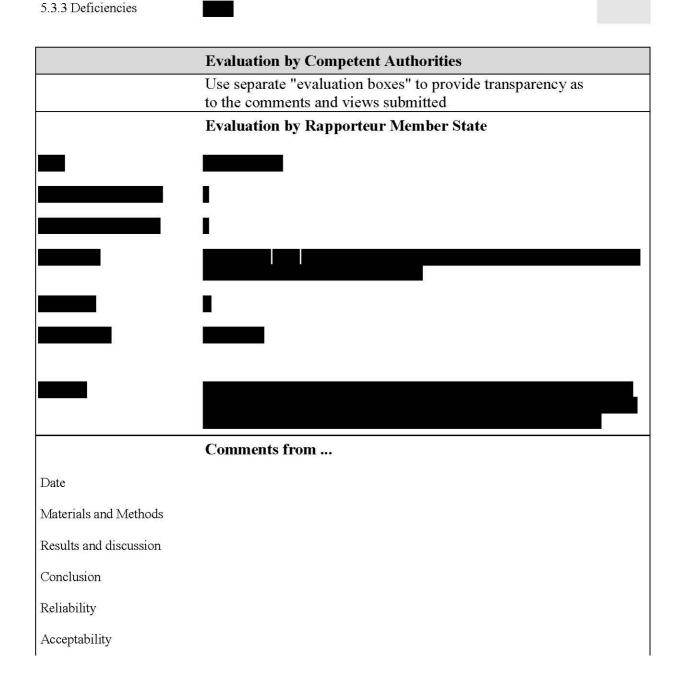
The study was conducted according to OECD guideline 203. The test system was flow-through and rainbow trout were used as the test organisms

5.2 Results and discussion

Dimethyl formamide was used to prepare concentrated stock solutions to allow dosing using the proportional diluter. Measured concentrations

Pyriproxyfen; CAS number: 95737-68-1 January 2012
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	confirmed that that the dose was performing correctly	
$5.2.1~\mathrm{LC_0}$	0.15 mg/L	
$5.2.2  \mathrm{LC}_{50}$	0.29 mg/L	
$5.2.3~{\rm LC_{100}}$	0.45 mg/L	
5.3 Conclusion	The validity criteria as given in table A 7.4.1.1-32 can be considered as fulfilled. The result, $LC_{50}$ of 0.29 mg/L, indicates that can be classified as "highly toxic" according to the EU classification	
5.3.1 Other Conclusions	No other conclusions	
5.3.2 Reliability		
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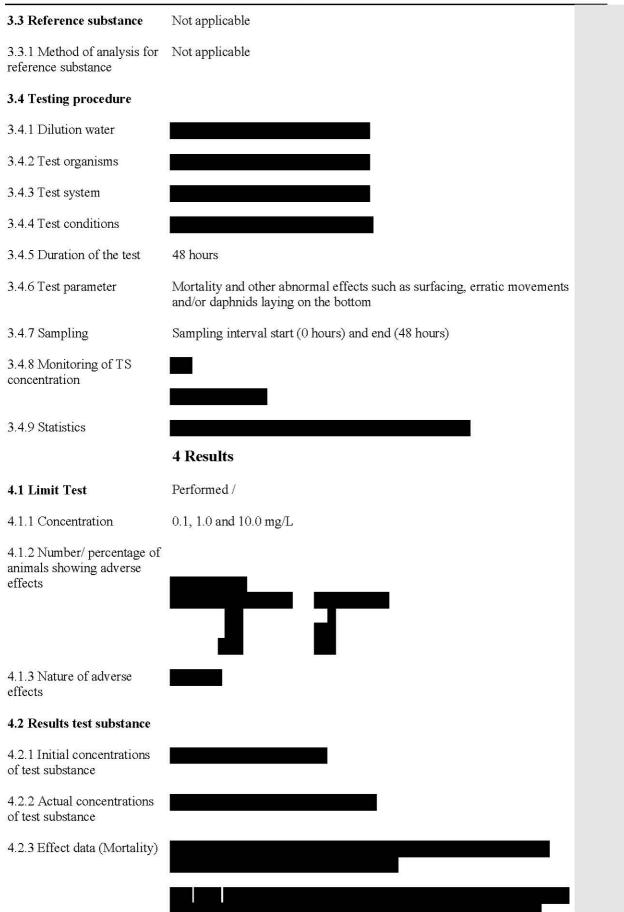
Section A7.4.1.2/01 Acute toxicity to invertebrates

Annex Point IIA7.2 Daphnia magna

7.4.1.2 Acute toxicity to invertebrates

Official 1 Reference use only 1.1 Reference (1989); 1.2 Data protection Yes 1.2.1 Data owner Sumitomo Chemical Company, Ltd. 1.2.3 Criteria for data Data submitted to the MS after 13 May 2000 on existing a.s. for the protection purpose of its entry into Annex I 2 Guidelines and Quality Assurance 2.1 Guideline study U.S. EPA Methods for acute toxicity tests with fish macroinvertebrates and amphibians, Ecological Research Series, EPA-660/3-75-009 (April 1975) 2.2 GLP 2.3 Deviations 3 Materials and Methods 3.1 Test material 3.1.1 Lot/Batch number 3.1.2 Specification 3.1.3 Purity 3.1.4 Composition of Product 3.1.5 Further relevant Not applicable properties 3.1.6 Method of analysis Not applicable 3.2 Preparation of TS solution for poorly soluble or volatile test substances

Pyriproxyfen; CAS number: 95737-68-1 January 2012
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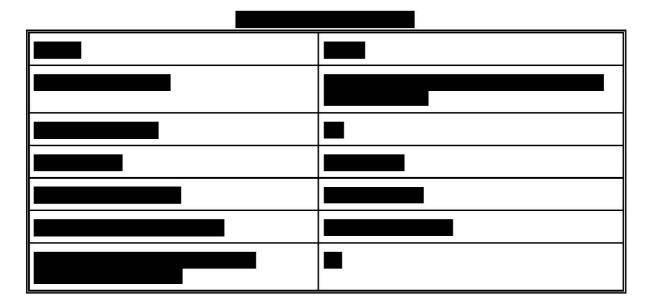
5.3.1 Reliability

5.3.2 Deficiencies

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Pyriproxyfen; CAS number: 95737-68-1 January 2012
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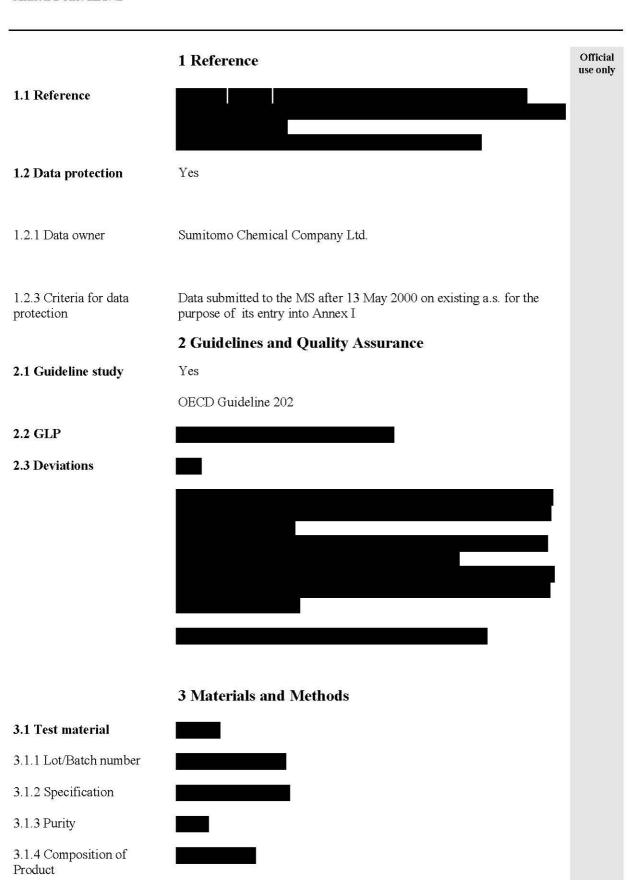
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Section A7.4.1.2/02 Acute toxicity to invertebrates

Annex Point IIA7.2 Daphnia magna



effects

4.2 Results test substance

4.2.1 Initial concentrations

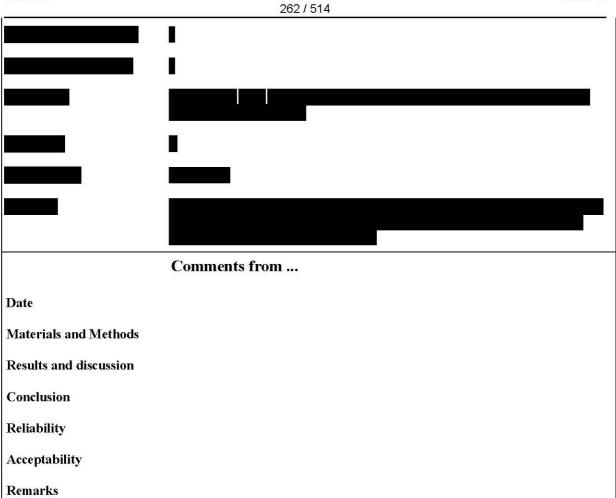
4.2.2 Actual concentrations

of test substance

of test substance

4.2.3 Effect data (Immobilisation)		
4.2.4 Concentration / response curve		
4.2.5 Other effects	No other effects were observed during the study.	
4.3 Results of controls		
4.4 Test with reference substance		
4.4.1 Concentrations	_	
4.4.2 Results		
	5 Applicant's Summary and conclusion	
5.1 Materials and methods	The study was conducted according to OECD guideline 202. The test system was static and <i>Daphnia magna</i> was the test organism	
5.2 Results and discussion	The study was conducted using up to a nominal concentration of 100 mg/L. Measured concentrations confirmed that dosing was performed correctly. Endpoints are based on mean measured concentrations	
5.2.1 EC <sub>0</sub>	95mg L	
5.2.2 EC <sub>50</sub>	>95 mg/L/L	
$5.2.3~{\rm EC}_{100}$	Not determined	
5.3 Conclusion	The validity criteria as given in Table A7.4.1.2-15 can be considered fulfilled	
	The study observed no immobilisation or adverse effects among daphnids exposed to the treatment level or the control	
5.3.1 Reliability		
5.3.2 Deficiencies		

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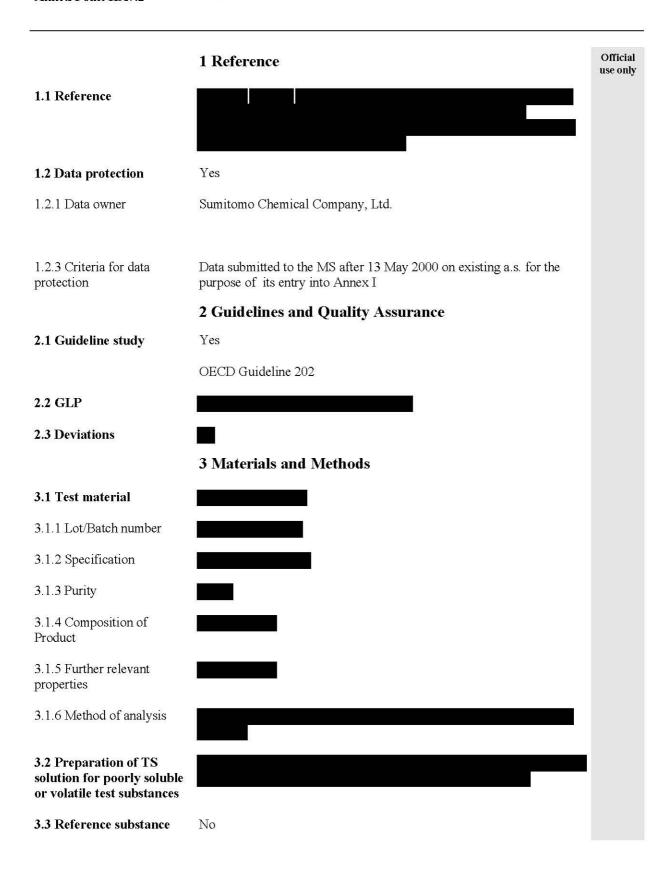
Pyriproxyfen; CAS number: 95737-68-1 January 2012
Doc IIIA RMS: NL

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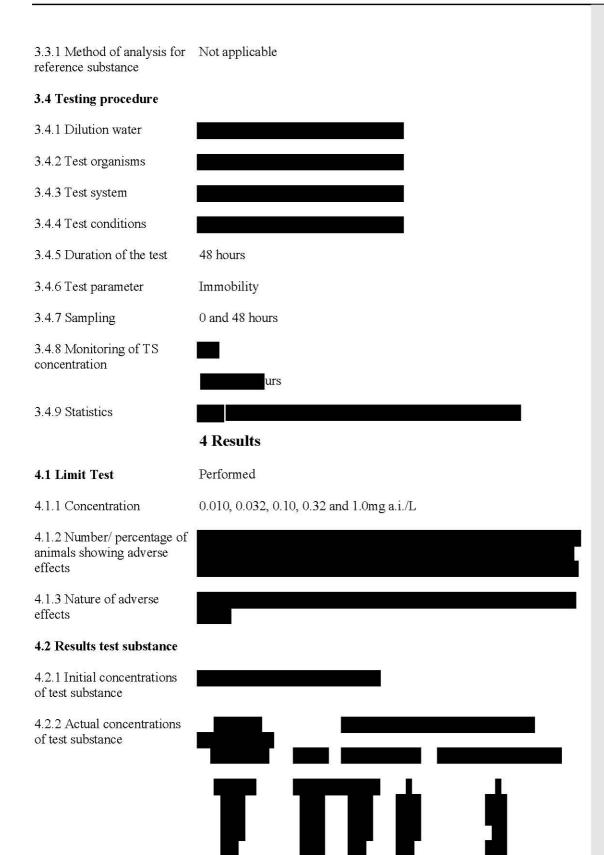
# Section A7.4.1.2/03 Acute toxicity to invertebrates

**Annex Point IIA7.2** 

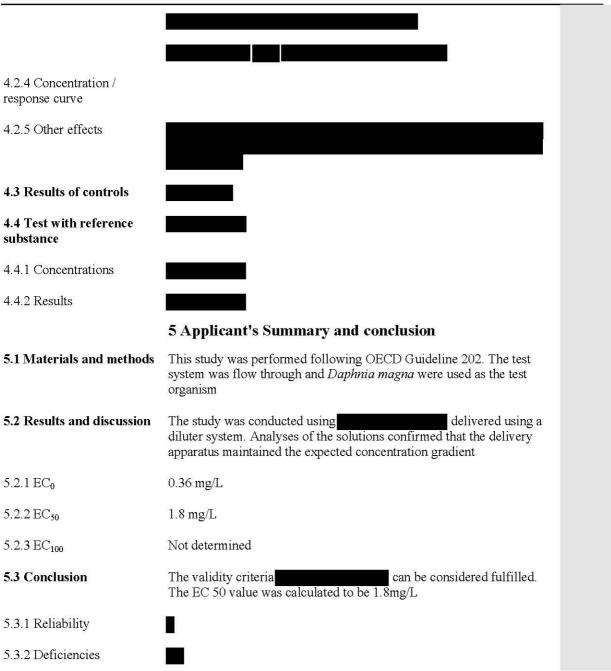
Daphnia magna



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4.2.3 Effect data (Immobilisation)



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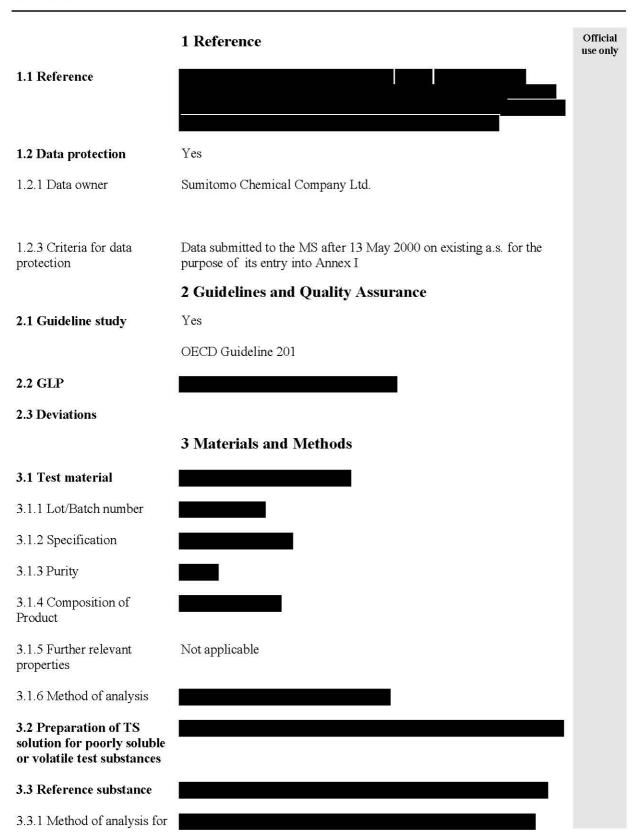
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### 7.4.1.3 Growth inhibition test on algae

### Section A7.4.1.3/01 Growth inhibition test on algae

**Annex Point IIA7.3** 



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reference substance

#### 3.4 Testing procedure

3.4.1 Culture medium The culture medium contained –

Macronutrients:

 $\begin{array}{lll} NaNO_3 & 25.5 mg/L \\ NaHCO_3 & 15.0 mg/L \\ MgSO_4 \bullet 7H_2O & 14.7 mg/L \\ MgCl_2 \bullet 6H_2O & 12.164 mg/L \\ CaCl_2 \bullet 2H_2O & 4.410 mg/L \\ K_2HPO_4 & 1.044 mg/L \end{array}$ 

Micronutrients:

 $\begin{array}{lll} MnCl_2 \bullet 4H_2O & 415.4 \ \mu g/L \\ Na_2EDTA \bullet 2H_2O & 300 \ \mu g/L \\ H_3BO_3 & 185.5 \ \mu g/L \\ FeCL_3 \bullet 6H_2O & 159.8 \ \mu g/L \\ Na_2MoO_4 \bullet 2H_2O & 7.3 \ \mu g/L \\ ZnCl_2 & 3.3 \ \mu g/L \\ CoCL_2 \bullet 6H_2O & 1.4 \ \mu g/L \\ CuCl_2 \bullet 2H_2O & 12.0 \ ng/L \end{array}$ 

The medium was pH adjusted to  $7.7 \pm 0.3$  using NaOH and re-sterilised.

3.4.2 Test organisms

3.4.3 Test system

3.4.4 Test conditions

3.4.5 Duration of the test 72 hours

3.4.6 Test parameter Cell multiplication inhibition

3.4.7 Sampling Sampling took place at 0, 24, 48 and 72 hours

3.4.8 Monitoring of TS

concentration

Yes, at 0 and 72 hours

3.4.9 Statistics

#### 4 Results

4.1 Limit Test Performed

4.1.1 Concentration 0.01, 0.10 and 0.50 mg/L

4.1.2 Number/ percentage of cells showing adverse effects

## 4.2 Results test substance

4.2.1 Initial concentrations of test substance

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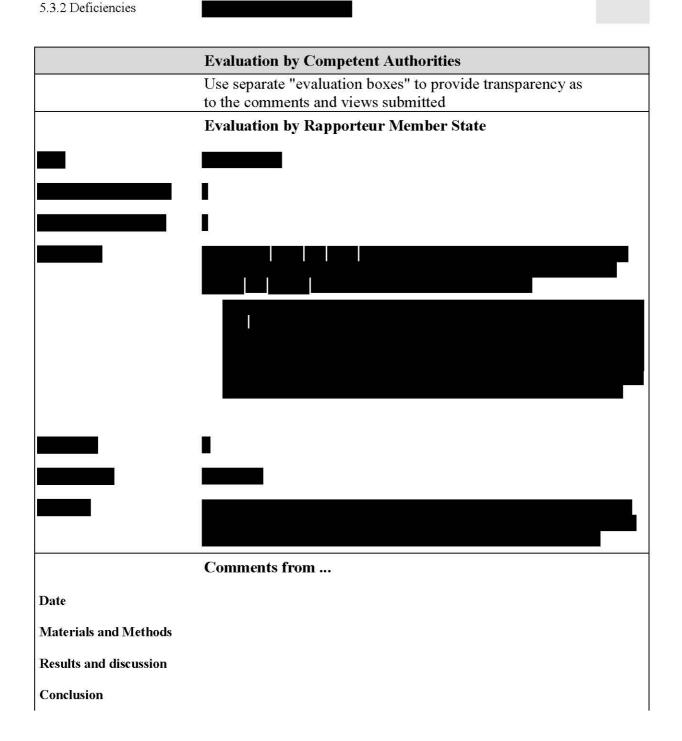
The study was conducted using stock solutions prepared in acetone at

organism

concentrations up to 0.4 mg/L

5.2 Results and discussion

Pyriproxyfen; CAS number: 95737-68-1 Doc IIIA		January 2012 RMS: NL	
	274 / 514	TOMO. INC	
5.2.1 NOEC	$0.020\mathrm{mg}\mathrm{/L}$		
5.2.2 EC <sub>50</sub>	0.064 mg/L		
5.2.3 EC <sub>100</sub>	Not reported		
5.3 Conclusion	Based on this study, the 72-hour no effect level of pyriproxyfen to the algae <i>Selenastrm capricornutum</i> Printz was $0.02 \text{mg/L}$ based on the absence of growth inhibition, and the $\text{EC}_{50}$ was $0.064 \text{ mg/L}$		
5.3.1 Reliability			
F 5 5 TO 1	:		



Pyriproxyfen; CAS number: 95737-68-1 Doc IIIA		January 2012 RMS: NL
DOC IIIA	275 / 514	TOVIO. INC
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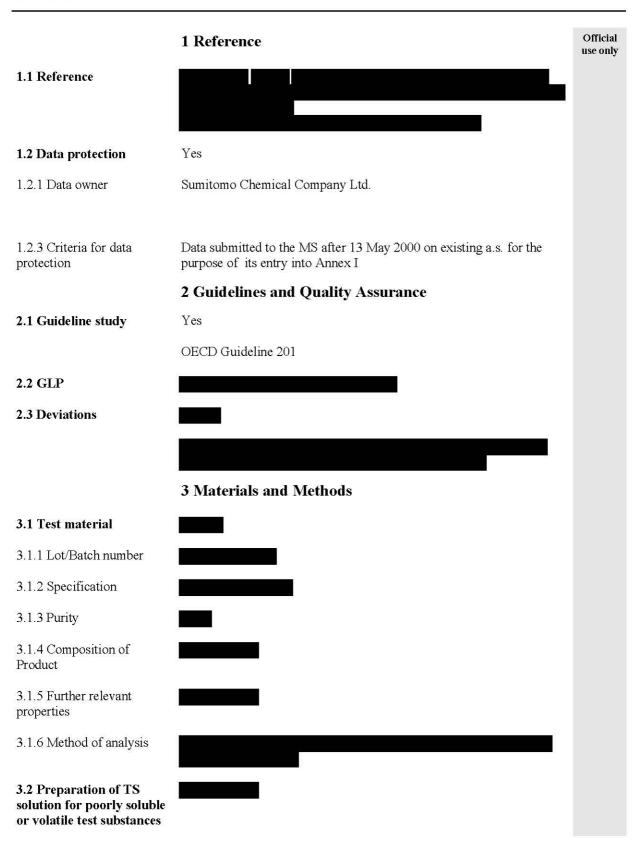






# Section A7.4.1.3/02 Growth inhibition test on algae

#### **Annex Point IIA7.3**



Pyriproxyfen; CAS number: 95737-68-1 January 2012 Doc IIIA RMS: NL

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## 3.3Reference substance

3.3.1 Method of analysis for reference substance

## 3.4 Testing procedure

3.4.1 Culture medium The culture medium contained:

Compound	Concentration
$NaNO_3$	25.5mg/L
$MgCl_2 \bullet 6H_2O$	16.16 mg/L
$CaCl_2 \bullet 2H_2O$	4.41 mg/L
$MgSO_4 \bullet 7H_2O$	14.7 mg/L
$K_2HPO_4 \bullet 3H_2O$	1.368 mg/L
NaHCO <sub>3</sub>	15.0 mg/L
$H_3BO_3$	$185.5~\mu g/L$
$Na_2SeO_4$	1.88 μg/L
$MnCl_2 \bullet 4H_2O$	$4.15~\mu g/L$
$ZnCl_2$	$3.270\mu g/L$
CoCl₂•6H₂O	$1.43~\mu g/L$
CuCl₂•6H₂O	$0.012\mu g/L$
$\mathrm{Na_2MoO_4} \bullet \mathrm{2H_2O}$	$7.26~\mu g/L$
FeCl•3H <sub>2</sub> O	$159.8\mu g/L$
${\rm NaEDTA} {\color{red} \bullet 2H_2O}$	$300~\mu g/L$

The medium was pH adjusted to  $7.5 \pm 0.1$  with 0.1 N NaOH or 0.1 N

3.4.2 Test organisms

3.4.3 Test system

3.4.4 Test conditions

3.4.6 Test parameter

3.4.5 Duration of the test

3.4.7 Sampling Samples were taken at 0, 24, 48 and 72 hours.

Biomass accumulation and growth rate.

72 hours

3.4.8 Monitoring of TS concentration

3.4.9 Statistics

4 Results

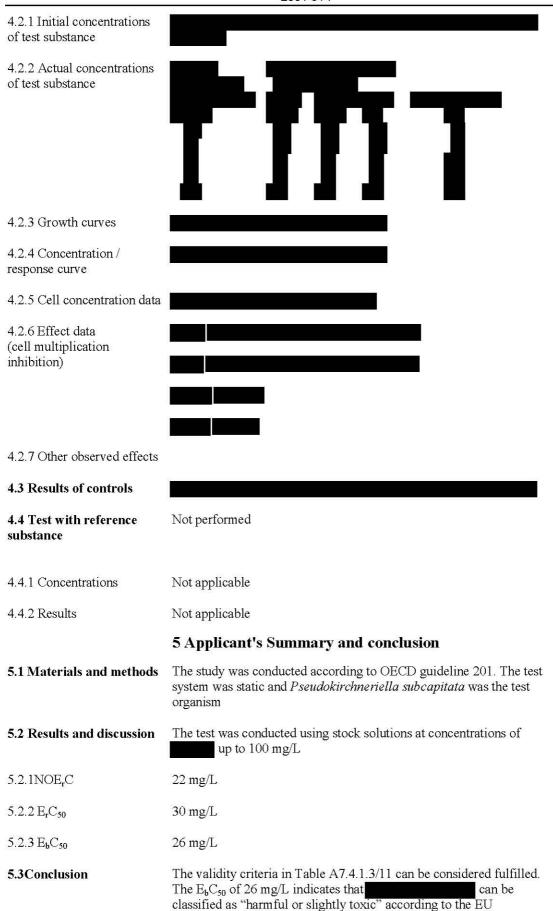
#### 4.1 Limit Test No

4.1.1 Concentration Not applicable

4.1.2 Number/percentage of Not applicable animals showing adverse effects

## 4.2 Results test substance

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classification

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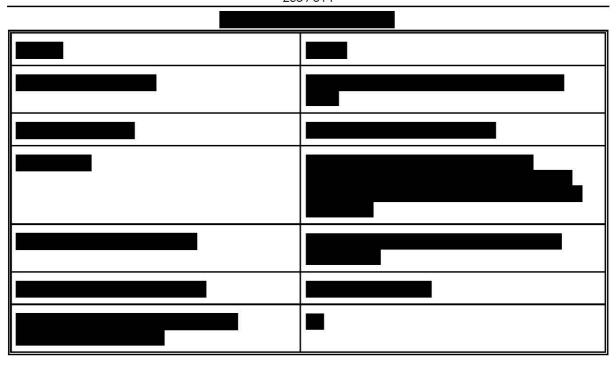
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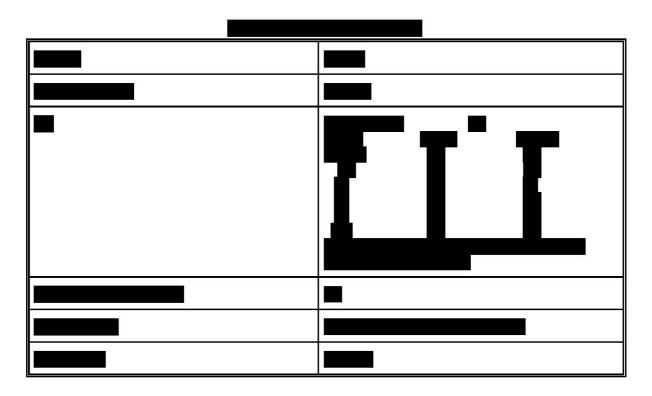
5.3.1 Reliability

5.3.2 Deficiencies No

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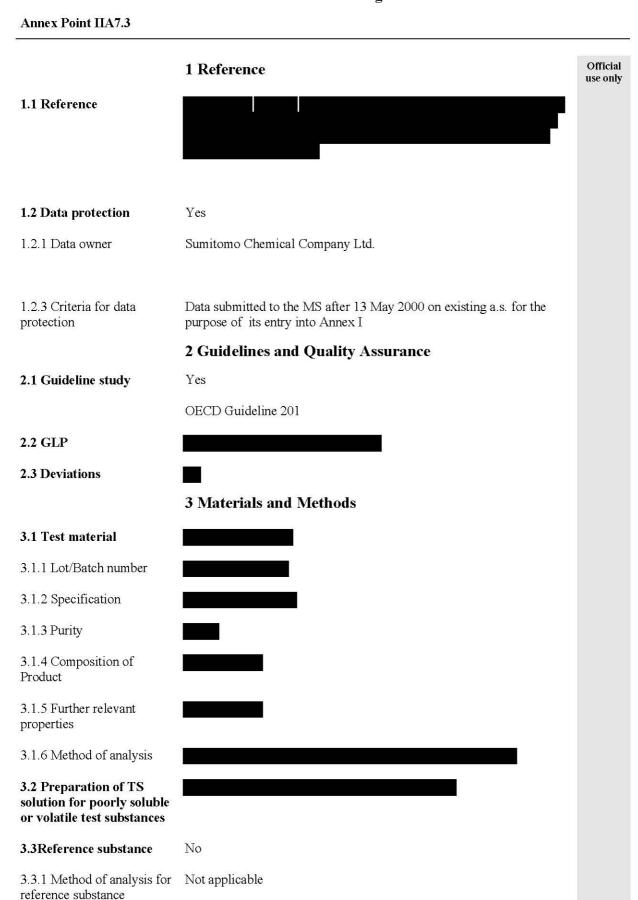
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## Section A7.4.1.3/03

## Growth inhibition test on algae



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## 3.4 Testing procedure

3.4.1 Culture medium The culture medium contained:

Compound	Concentration
NaNO <sub>3</sub>	25.5mg/L
$MgCl_2 \bullet 6H_2O$	16.16 mg/L
CaCl <sub>2</sub> •2H <sub>2</sub> O	4.41 mg/L
$MgSO_4 \bullet 7H_2O$	14.7 mg/L
$K_2HPO_4 \bullet 3H_2O$	1.368 mg/L
NaHCO <sub>3</sub>	15.0 mg/L
$H_3BO_3$	$185.5~\mu g/L$
Na <sub>2</sub> SeO <sub>4</sub>	1.88 µg/L
$MnCl_2 • 4H_2O$	4.15 μg/L
ZnCl <sub>2</sub>	$3.270\mu\text{g/L}$
CoCl₂•6H₂O	$1.43~\mu g/L$
CuCl₂•6H₂O	$0.012\mu g/L$
$Na_2MoO_4 \bullet 2H_2O$	$7.26~\mu g/L$
FeCl•3H <sub>2</sub> O	159.8 μg/L
NaEDTA•2H₂O	$300~\mu g/L$

The medium was pH adjusted to  $7.5 \pm 0.1$  with  $0.1~\mathrm{N}$  NaOH or  $0.1~\mathrm{N}$  HCl

3.4.2 Test organisms

3.4.3 Test system

3.4.4 Test conditions

3.4.5 Duration of the test

3.4.6 Test parameter Biomass, growth rate

3.4.7 Sampling Samples taken at 24, 48 and 72 hours.

72 hours

3.4.8 Monitoring of TS concentration

3.4.9 Statistics

## 4 Results

4.1 Limit Test Performed

4.1.1 Concentration 0.0001, 0.001, 0.01, 0.1 and 1.0 mg/L

4.1.2 Number/ percentage of animals showing adverse effects

Cells exposed to all treatment levels and controls were observed to be normal

#### 4.2 Results test substance

- 4.2.1 Initial concentrations of test substance
- 4.2.2 Actual concentrations of test substance

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4.2.3 Growth curves

4.2.4 Concentration / response curve

4.2.5 Cell concentration data

4.2.6 Effect data (cell multiplication inhibition)

4.2.7 Other observed effects

4.3 Results of controls

4.4 Test with reference substance

Not performed

4.4.1 Concentrations Not applicable

4.4.2 Results Not applicable

## 5 Applicant's Summary and conclusion

**5.1 Materials and methods** This study was conducted according to OECD Guideline 201. The test

system was static and Pseudokirchneriella subcapitata was used as the

test organism

**5.2 Results and discussion** The study was conducted using stock solutions prepared with dimethyl

formamide to allow testing up to 2 mg/L, the water solubility limit of

5.2.1NOE<sub>r</sub>C 0.5 mg/L

 $5.2.2 E_{r50}$  >2.5 mg/L

 $5.2.3 E_b C_{50}$  >2.5 mg/L

**5.3Conclusion** The validity criteria for OECD guideline 201 were met. The result

showed that the EC<sub>50</sub> for both biomass and growth rate exceed the water

solubility limit

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5.3.1 Reliability	
5.3.2 Deficiencies	

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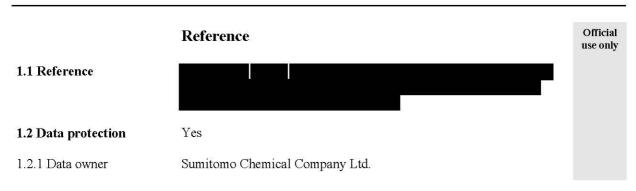
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# 7.4.1.4 Inhibition to microbiological activity

Section A7.4.1.4 Inhibition to microbial activity (aquatic)

**Annex Point IIA7.4** 



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1.2.3 Criteria for data Data submitted to the MS after 13 May 2000 on existing a.s. for the protection purpose of its entry into Annex I 2 Guidelines and Quality Assurance 2.1 Guideline study Yes OECD Guideline 209 2.2 GLP 2.3 Deviations 3 Materials and Methods 3.1 Test material 3.1.1 Lot/Batch number 3.1.2 Specification 3.1.3 Purity 3.1.4 Composition of Product 3.1.5 Further relevant Not applicable properties 3.1.6 Method of analysis Not applicable 3.2 Preparation of TS solution for poorly soluble or volatile test substances 3.3 Reference substance Yes 3,5-dichlorophenol 3.3.1 Method of analysis for reference substance 3.4 Testing procedure 3.4.1 Culture medium Not applicable 3.4.2 Inoculum / test organism 3.4.3 Test system 3.4.4 Test conditions 3.4.5 Duration of the test 3 hours

Respiration inhibition

3.4.6 Test parameter

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Pyriproxyfen; CAS number: 95737-68-1 Doc IIIA 293 / 514 3.4.7 Analytical parameter Oxygen measurement After 3 hours of aeration/contact time the contents of the test flask were 3.4.8 Sampling poured into a measuring flask and the oxygen concentration was determined for a period of approximately 10 minutes 3.4.9 Monitoring of TS No concentration 3.4.10 Controls Control without test item 3.4.11 Statistics EC<sub>50</sub> calculated according to Probit analysis 4 Results Not performed 4.1 Preliminary test 4.1.1 Concentration Not applicable 4.1.2 Effect data Not applicable 4.2 Results test substance 1, 3.16, 10, 31.6 and 100 mg/L 4.2.1 Initial concentrations of test substance 4.2.2 Actual concentrations Not measured of test substance 4.2.3 Growth curves Not recorded 4.2.4 Cell concentration data Not recorded 4.2.5 Concentration/ Not recorded response curve 4.2.6 Effect data 4.2.7 Other observed effects 4.3 Results of controls Performed 4.4 Test with reference

3,5-dichlorophenol

4, 12, 36 mg/L

substance

4.4.2 Results

4.4.1 Concentrations

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# 5 Applicant's Summary and conclusion

#### 5.1 Materials and methods

This study was performed according to OECD Guideline 209. Test solutions were prepared with activated sludge in dechlorinated water at a sludge concentration of 1.6g/L. Pyriproxyfen concentrations of 1, 3.16, 10, 31.6 and 100 mg/L were tested and 3,5-dichlorophenol concentrations of 4, 12 and 36 mg/L were tested

The solutions were aerated for 3 hours and then the oxygen consumption of these solutions was measured for approximately 10 minutes

#### 5.2 Results and discussion

As the respiration rate of the test solution containing the highest concentration of pyriproxyfen (100mg/L) was equivalent to the respiration rate of the first control the oxygen consumption rate of the other four test solutions was not determined

Pyriproxyfen should be considered as non-toxic for the microorganisms of a water treatment plant

5.2.1 EC<sub>20</sub> Not applicable

 $5.2.2 \, \text{EC}_{50}$  > 100 mg/L

5.2.3 EC<sub>80</sub> Not applicable

**5.3 Conclusion** The difference between the two controls was less than 15% and the  $EC_{50}$ 

of 3,5-dichlorophenol was between 5 and 30 mg/L. Therefore the test

was considered valid

5.3.1 Reliability

5.3.2 Deficiencies

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## 7.4.2 Bioconcentration

## Section A7.4.2

## Bioconcentration in aquatic/terrestrial organisms

## **Annex Point IIA7.5**

