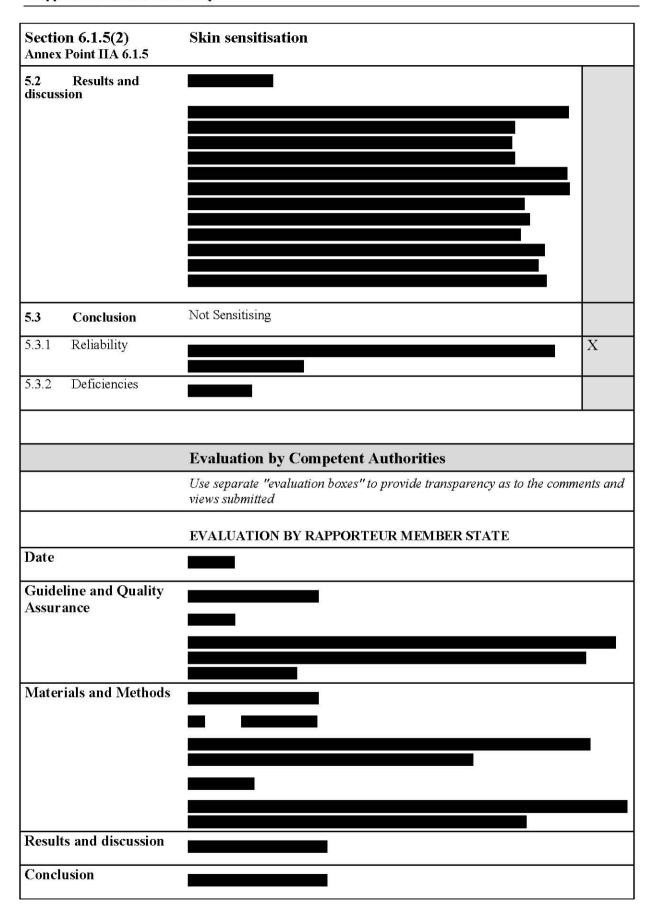
Lonza GmbH; Stepan Europe; Alkyl (C₁₂₋₁₆) dimethylbenzyl ammonium chloride September 2012

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Section 6.1.5(2) Annex Point IIA 6.1.5	Skin sensitisation
Reliability	
Acceptability	
Remarks	
	COMMENTS FROM OTHER MEMBER STATE
Date	Give date of the comments submitted
Materials and Methods	Discuss additional relevant discrepancies referring to the (sub)heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state
Results and discussion	Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Reliability	Discuss if deviating from view of rapporteur member state
Acceptability	Discuss if deviating from view of rapporteur member state

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	ion 6.1.5(3) x Point IIA 6.1.5	Skin sensitisation	
		1. REFERENCE	Official use only
1.1	Reference	Durando, J. (2005). Barquat MB-80: Dermal Sensitization Study in Guinea Pigs (Buehler Method). Study No. 17426. Product Safety Laboratories, Dayton, NJ, USA. (Unpublished)	
		[Ref. No. A112 (LON 4002)]	
1.2	Data protection	Yes	
1.2.1	Data owner	ADBAC Issues Steering Committee	
1.2.2	Criteria for data protection	Data submitted to the MS after 13 May 2000 on existing a.s. for the purpose of its entry into Annex I/IA.	
		2. GUIDELINES AND QUALITY ASSURANCE	
2.1	Guideline study	U.S. EPA Health Effects Test Guidelines, OPPTS 870.2600 (2003)	
		OECD Guideline for the Testing of Chemicals, Procedure 406 (1992)	
	GLP (only where required)	Yes	
2.3	Deviations	No	X
		3. MATERIALS AND METHODS	
3.1	Test material		X
3.1.1	Lot/Batch number		
3.1.2	Specification	As given in Section 2 of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein.	
		Active substance (a.s.), alkyl(C ₁₂ -C ₁₆)dimethylbenzylammonium chloride (ADBAC; CAS RN 68424-85-1), in aqueous/ethanol solution.	
3.1.3	Description		
3.1.4	Purity		X
3.1.5	Stability	The a.s., ADBAC, is hydrolytically and photolytically stable under the conditions of this study and has been shown to be stable in aqueous, alcohol and alcohol/aqueous solutions for extended periods, <i>e.g.</i> at least five years under standard laboratory conditions (see Section 2.6.1 of Annex IIA).	X
3.2	Test Animals		
3.2.1	Species	Guinea pig	
3.2.2	Strain	Hartley albino	
3.2.3	Source		

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	on 6.1.5(3) a Point IIA 6.1.5	Skin sensitisation	
3.2.4	Sex	Males and females	
3.2.5	Age/weight at study initiation		
3.2.6	Number of animals per group		
3.2.7	Control animals		
3.3 H	Preliminary Irritation Festing for HNIC		
3.3.1	Preparation of Animals		
3.3.2	Test Article Concentration		
3.3.3	Vehicle		
3.3.4	Dose Volume		
3.3.5	Route of Administration	Occlusive dermal exposure using a 25 mm Hill Top Chamber	
3.3.6	Exposure Duration	6 hours	
3.3.7	Dermal Evaluations		
	Main Sensitisation Fest		
3.4.1	Preparation of Animals		I
3.4.2	Induction Phase		
3.4.2.1	Test Article Concentration		
3.4.2.2	2 Vehicle		
3.4.2.3	B Dose Volume		
3.4.2.4	Route of Administration	Occlusive dermal exposure using a 25 mm Hill Top Chamber	
3.4.2.5	Dosing Schedule		
3.4.2.6	Exposure Duration	6 hours	
3.4.2.7	Dermal Evaluations		×

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Section 6.1.5(3) Annex Point IIA 6.1.5		Skin sensitisation	
3.4.3	Challenge Phase		
3.4.3.1	Test Article Concentration (HNIC)		
3.4.3.2	Vehicle		
3.4.3.3	Dose Volume		
3.4.3.4	Route of Administration	Occlusive dermal exposure using a 25 mm Hill Top Chamber	
3.4.3.5	Dosing Procedures: Test Animals		
3.4.3.6	Dosing Procedures: Naive Control Animals		
3.4.3.7	Exposure Duration	6 hours	
3.4.3.8	Dermal Evaluations		
3.4.4	Body Weights		
3.5 E	Evaluations		
3.5.1	Incidence Index		
3.5.2	Severity Index		
3.5.3	Further Remarks		
3.6 P	Positive Control		
3.6.1	Historical Positive Control Validation Study		
		4. RESULTS	
4.1 R	esults		
4.1.1	Induction Phase: Test Animals	Very faint to faint erythema (05-1.0) was noted for all sites during the induction phase.	
4.1.2	Challenge Phase		

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	on 6.1.5(3) Point IIA 6.1.5	Skin sensitisation	
4.1.2.1	Test Animals	None of the test animals exhibited a positive sensitisation response (score greater than 0.5) at 24 or 48 hours after challenge. Very faint erythema (0.5) was noted for nine of 20 test animals at 24 hours after challenge. Similar irritation persisted at two sites through 48 hours.	
4.1.2.2	Naive Control Animals		
4.1.3	Historical Positive Control Study		
4.1.4	Incidence Index	See Table 6.1.5(3)-2.	
4.1.5	Severity Index	See Table 6.1.5(3)-2.	
3,011.00	20.01109 1110011	5. APPLICANT'S SUMMARY AND CONCLUSION	
5.2 R	esults and discussion		
5.3 C	onclusion	Based on these findings and under the conditions of this study, ADBAC is not considered to be a contact sensitiser.	
5.3.1	Reliability	·	
5.3.2	Deficiencies		

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Section 6.1.5(3) Annex Point IIA 6.1.5	Skin sensitisation
	Evaluation by Competent Authorities
	EVALUATION BY RAPPORTEUR MEMBER STATE
Date	
Guidelines and Quality Assurance	
Materials and Methods	
Results and discussion	
Conclusion	
Reliability	
Acceptability	Acceptable
Remarks	
	COMMENTS FROM
Date	Give date of the comments submitted
Materials and Methods	Discuss additional relevant discrepancies referring to the (sub)heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state
Results and discussion	Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Reliability	Discuss if deviating from view of rapporteur member state
Acceptability	Discuss if deviating from view of rapporteur member state

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Rapporteur Member State: Italy

Table 6.1.5(3)-1

Scoring System

0	No reaction	
0.5	Very faint erythema, usually non-confluent*	
1	Faint erythema, usually confluent	
2	Moderate erythema	
3	Severe erythema with or without edema	

^{*}Very faint erythema is not considered a positive reaction.

Table 6.1.5(3)-2

	Sensitisation Response Indices			
	Incidence of Positive Response ¹ Seve			ity ²
	Н	Hours Hours		ırs
	24	48	24	48
Test Animals	0/20	0/20	0.23	0.05
Naïve Control Animals	0/10	0/10	0.25	0.10

Animals with scores greater than 0.5.

²Sum of the erythema scores divided by the number of animals evaluated.

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Section 6.2(1) Annex Point IIA 6.2	Metabolism studies in mammals. Basic toxicokinetics, including a dermal absorption study		
	1. REFERENCE	Official use only	
1.1 Reference	Selim, S. (1987) Absorption, distribution, metabolism and excretion studies of Alkyl Dimethyl Benzyl Ammonium Chloride (ADBAC) in the rat. Biological Test Center, Irvine, CA, USA. BTC Study No. P01359 (unpublished)		
	[Ref Nos A50 and A50a (LON 1872)]		
1.2 Data protection	Yes		
1.2.1 Data owner	ADBAC Joint Venture		
1.2.2 Criteria for data protection	Data submitted to the MS before 14 May 2000 on existing a.s. for the purpose of its entry into Annex I/IA		
	2. GUIDELINES AND QUALITY ASSURANCE		
2.1 Guideline study	Yes		
	U.S. EPA Guideline 85-1		
	1987		
2.2 GLP (only where required)	Yes		
2.3 Deviations	No		
	3. MATERIALS AND METHODS		
3.1 Test material	Alkyldimethylbenzylammonium Chloride	X	
3.1.1 Lot/Batch number			
3.1.2 Specification	As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein.		
	Non-radiolabelled active substance (a.s.), alkyl(C_{12} - C_{16})dimethylbenzylammonium chloride (ADBAC; CAS RN 68424-85-1), in aqueous/ethanol solution.		
3.1.3 Description			
3.1.4 Purity		X	
3.1.5 Stability	The a.s., ADBAC, is hydrolytically and photolytically stable under the conditions of this study and has been shown to be stable in aqueous, alcohol and alcohol/aqueous solutions for extended periods, <i>e.g.</i> at least five years under standard laboratory conditions (see Section 2.6.1 of Annex IIA).		

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	on 6.2(1) Point IIA 6.2	Metabolism studies in mammals. Basic toxicokinetics, including dermal absorption study	а
3.2 Te	st Procedure	In vivo	
3.2.1	Method of analysis		
3.3 T	est Animals		
3.3.1	Species	Rat	
3.3.2	Strain	Sprague Dawley	
3.3.3	Source		
3.3.4	Sex	Male and female	
3.3.5	Age/weight at study initiation		
3.3.6	Number of animals per group		X
3.3.7	Control animals		
3.4 exposi	Administration/		
3.4.1	Dose route	Experiment 1: Oral gavage – single low dose	X
		Experiment 2: Dietary – repeated low dose	
		Experiment 3: Oral gavage – single high dose	
		Experiment 4: Intravenous	
3.4.2	Post exposure period		X
3.4.3	Concentration		X
3.4.4	Vehicle		X
3.4.5	Concentration in vehicle		X
3.4.6	Controls		
		4. RESULTS	

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Section 6.2(1) Metabolism studies in mammals. Basic toxicokinetics, including a dermal absorption study			
4.1	Results		
4.1.1	% Recovery	Experiment 1:	
		Males: 5.77% urine; 98.61% faeces	
		Female: 6.88% urine; 91.20% faeces	
		Total Recovery: $104.54 \pm 5.29\%$ - males; $98.11 \pm 3.25\%$ females	
		Experiment 2:	
		Males: 4.76% urine; 95.12% faeces	
		Female: 5.80% urine; 97.22% faeces	
		Total Recovery: $100.19 \pm 4.94\%$ - males; $103.1 \pm 5.18\%$ females	
		Experiment 3:	
		Males: 7.75 % urine; 90.03% faeces	
		Female: 6.95% urine; 87.48% faeces	
		Total Recovery: $98.36 \pm 2.42\%$ - males; $94.58 \pm 7.57\%$ females	
		Experiment 4:	
		Males: 30.63% urine; 44.44% faeces	
		Female: 20.58% urine; 55.09% faeces	
		Total Recovery: $108.43 \pm 5.56\%$ - males; $111.45 \pm 3.96\%$ females	
		Less than 1% in tissues in all oral dosing experiments.	
		Approximately 30-35% of the administered dose in tissues following i.v. dosing.	
4.1.2	Metabolites	Over 50% of the faecal radioactivity was unchanged Alkyldimethylbenzylammonium Chloride. 4 major metabolites were identified. The only metabolism which occurred involved oxidation of the two decyl side chains to hydroxy and hydroxyketo derivatives. All were more polar and presumed less toxic than the parent compound. It is predicted that there is no major metabolite greater than 10% of the dosed radioactivity.	X
4.2	Remarks	Residual ¹⁴ C in tissues was negligible after administration of ¹⁴ C Alkyldimethylbenzylammonium Chloride by gavage. A high level of residual ¹⁴ C radioactivity (30-35% of total dose) was present in the tissues following intravenous administration.	X
		Most, if not all, the metabolism appears to be in the gut by intestinal microflora. No significant difference in metabolism between male and female rats or among the dosing regimens was observed.	
		5. APPLICANT'S SUMMARY AND CONCLUSION	
5 1 M	aterials and methods		
3.1 IVI	awitais and methods		

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2		
Date	EVALUATION BY RAPPORTEUR MEMBER STATE	
	Use separate "evaluation boxes" to provide transparency as to the comm views submitted	ents and
	Evaluation by Competent Authorities	
5.3.2 Deficiencies		
5.3.1 Reliability		
5.3 Conclusion	The majority of orally administered Alkyldimethylbenzylammonium Chloride is excreted via the faeces. Residual ¹⁴ C in tissues was negligible after administration of ¹⁴ C-Alkyldimethylbenzylammonium Chloride by gavage. In the intravenous experiment, Alkyldimethylbenzylammonium Chloride was found in faeces and in urine, suggesting that both the kidney and liver are capable of excreting Alkyldimethylbenzylammonium Chloride. The majority of orally administered Alkyldimethylbenzylammonium Chloride appears to be metabolised in the gut of rats, apparently by microflora. No significant difference in metabolism between male and female rats or among the dosing regimens was observed. Repeated dosing did not alter the uptake, distribution or metabolism of Alkyldimethylbenzylammonium Chloride.	X
5.2 Results and discussion		X
Section 6.2(1) Annex Point IIA 6.2	Metabolism studies in mammals. Basic toxicokinetics, including a dermal absorption study	1

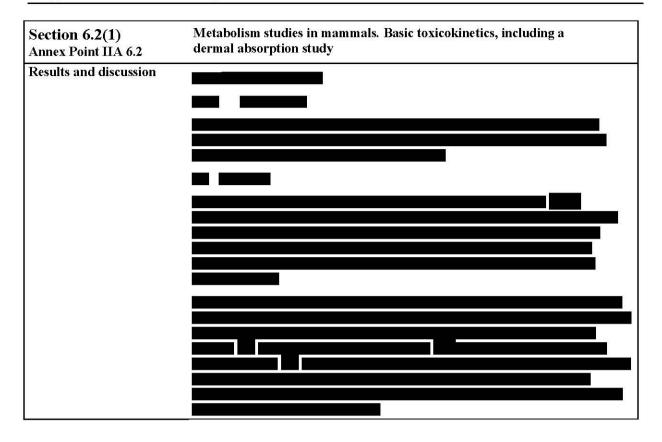
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Section 6.2(1)	
D. L. TT. CO	Metabolism studies in mammals. Basic toxicokinetics, including a dermal absorption study
Annex Point IIA 6.2	uer mar absorption study
Materials and Methods	
	<u> </u>

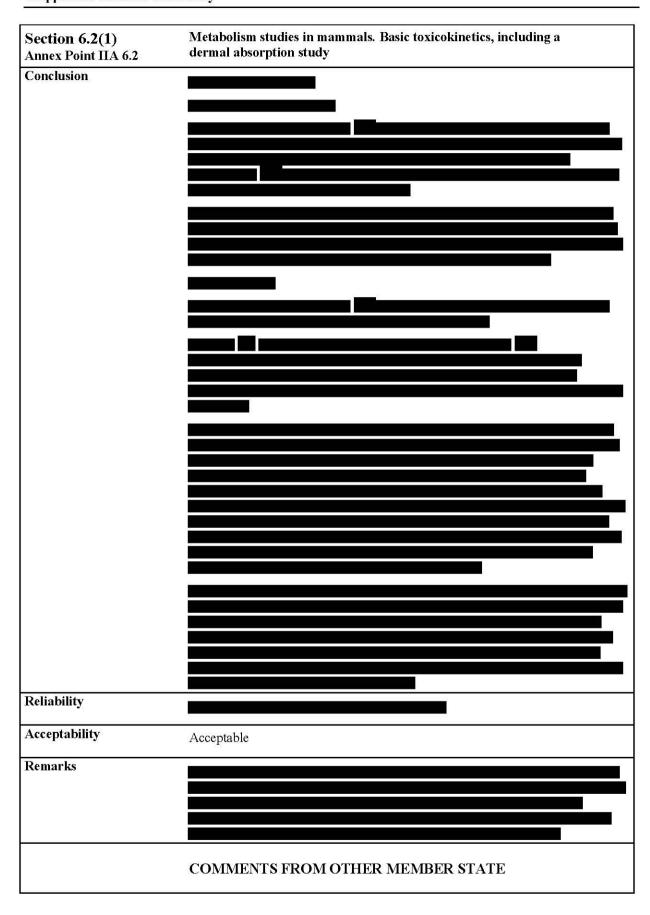
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Section 6.2(1) Annex Point IIA 6.2	Metabolism studies in mammals. Basic toxicokinetics, including a dermal absorption study Give date of the comments submitted	
Date		
Materials and Methods	Discuss additional relevant discrepancies referring to the (sub)heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state	
Results and discussion	Discuss if deviating from view of rapporteur member state	
Conclusion	Discuss if deviating from view of rapporteur member state	
Reliability	Discuss if deviating from view of rapporteur member state	
Acceptability	Discuss if deviating from view of rapporteur member state	

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	Section 6.2(2) Metabolism studies in mammals. Basic toxicokinetics, including a dermal absorption study		
		1 REFERENCE	Official use only
1.1	Reference	Roper, C. and Toner, F. (2006). The In Vitro Percutaneous Absorption of Radiolabelled Alkyl(C12-C16)dimethylbenzylammonium Chloride (ADBAC; CAS RN 68424-85-1) in Two Test Preparations Through Human Skin. Report No. 25982. Charles River Laboratories Tranent, Edinburgh, UK. (Unpublished) Ref No. 101809 (LON xxxx)	
1.2	Data protection	Yes	
1.2.1	Data owner	ADBAC Issues Steering Committee	
1.2.2	Criteria for data protection	Data submitted to the MS after 13 May 2000 on existing a.s. for the purpose of its entry into Annex I/IA	
		2 GUIDELINES AND QUALITY ASSURANCE	
2.1	Guideline study	Yes OECD Guideline for Testing of Chemicals, Guideline 428. Skin Absorption: <i>In Vitro</i> Method (2004); and	
		OECD Environmental Health and Safety Publications Series on Testing and Assessment No. 28. Guidance Document for the Conduct of Skin Absorption Studies (2004).	
2.2	GLP (only where required)	Yes	
2.3	Deviations	No	
		3 MATERIALS AND METHODS	
3.1	Test material		
3.1.1	Lot/Batch number		
3.1.2	Specification	As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein.	
		Active substance (a.s.), alkyl(C_{12} - C_{16})dimethylbenzylammonium chloride (ADBAC), in aqueous/alcohol solution.	
3.1.3	Description		
33XC WO - 100			33"003
3.1.4	Purity		X

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Stability The non-radiolabelled a.s., ADBAC, is hydrolytically and photolytically stable under the conditions of this study and has been shown to be stable in aqueous, alcohol and alcohol/aqueous solutions for extended periods, e.g. at least five years under standard laboratory conditions (see Section 2.6.1 of Annex IIA). 3.1.6	Section 6.2(2) Metabolism studies in mammals. Basic toxicokinetics,			
stable under the conditions of this study and has been shown to be stable in aqueous, alcohol and alcohol/aqueous solutions for extended periods, e.g. at least five years under standard laboratory conditions (see Section 2.6.1 of Annex IIA). 3.1.6 Method of analysis 3.2.1 Test procedure 3.2.2 Method of application 3.2.3 Application media 3.2.4 Concentrations 3.2.5 Receptor fluid	Annex	Point IIA 6.2	including a dermal absorption study	
3.2.1 Test system Human skin membranes, in vitro 3.2.2 Method of application Automated flow-through diffusion cell system application 3.2.3 Application media r 3.2.4 Concentrations	3.1.5	Stability	stable under the conditions of this study and has been shown to be stable in aqueous, alcohol and alcohol/aqueous solutions for extended periods, e.g. at least five years under standard laboratory conditions (see Section	
3.2.1 Test system Human skin membranes, in vitro 3.2.2 Method of application Automated flow-through diffusion cell system application 3.2.3 Application media r 3.2.4 Concentrations 3.2.5 Receptor fluid	3.1.6	Method of analysis		
3.2.2 Method of application 3.2.3 Application media T 3.2.4 Concentrations 3.2.5 Receptor fluid	3.2	Test procedure		
application 3.2.3 Application media r 3.2.4 Concentrations 3.2.5 Receptor fluid	3.2.1	Test system	Human skin membranes, in vitro	
3.2.4 Concentrations 3.2.5 Receptor fluid	3.2.2		Automated flow-through diffusion cell system	
3.2.5 Receptor fluid	3.2.3	Application media	r	
	3.2.4	Concentrations		
3.2.6 Remarks	3.2.5	Receptor fluid		
4 RESULTS			4 RESULTS	

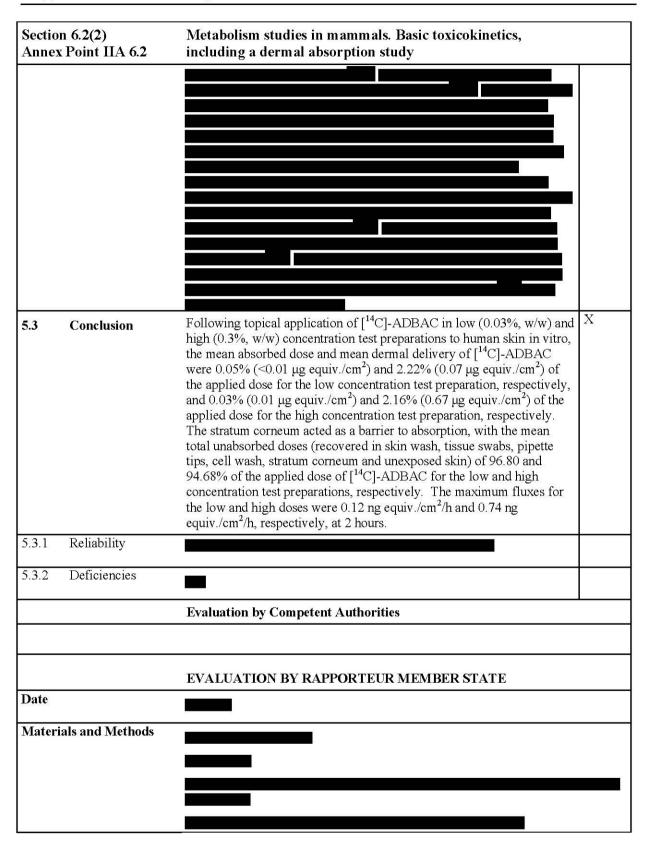
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Secti Anne	on 6.2(2) ex Point IIA 6.2	Metabolism studies in mammals. Basic toxicokinetics, including a dermal absorption study	
4.1	Application rate		
4.1.1	Target dose levels		
4.2	Mean % recovery after 24 hours	See Table 6.2(2)-1	
4.4	Remarks	At the low dose (0.030%), 0.05% ($<$ 0.01 µg equiv./cm ²) ¹⁴ C-ADBAC was absorbed into the skin over 24 hours. 96.80% was not absorbed.	X
		At the high dose (0.300%), 0.03% (0.01 µg equiv./cm ²) ¹⁴ C-ADBAC was absorbed into the skin over 24 hours. 94.68% was not absorbed.	
		5 APPLICANT'S SUMMARY AND CONCLUSION	
5.1	Materials and methods		
5.2	Results and discussion		oral control of the c
			I

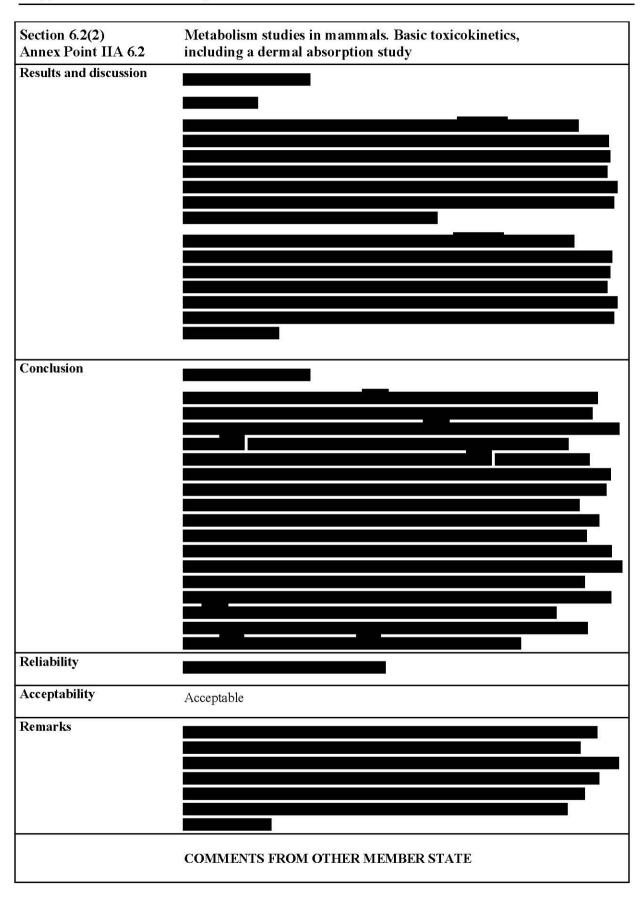
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Section 6.2(2) Annex Point IIA 6.2	Metabolism studies in mammals. Basic toxicokinetics, including a dermal absorption study
Date	Give date of the comments submitted
Materials and Methods	Discuss additional relevant discrepancies referring to the (sub)heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state
Results and discussion	Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Reliability	Discuss if deviating from view of rapporteur member state
Acceptability	Discuss if deviating from view of rapporteur member state

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Table 6.2(2)-1. Summary of recoveries after 24 hours

Test Preparation	Low Concentration	High Concentration
Target ADBAC Concentration (%, w/w)	0.030	0.300
ADBAC Concentration by Radioactivity (%, w/w)	0.031	0.306
Test Preparation Application Rate (mg/cm ²) ^a	10.01	10.09
ADBAC Application Rate (µg equiv./cm²)	3.12	30.87
Dislodgeable Dose (% Applied Dose)	60.53	77.87
Unabsorbed Dose (% Applied Dose)	96.80	94.68
Absorbed Dose (% Applied Dose)	0.05	0.03
Dermal Delivery (% Applied Dose)	2.22	2.16
Mass Balance (% Applied Dose)	99.03	96.84
Dislodgeable Dose (µg equiv./cm²)	1.89	24.05
Unabsorbed Dose (µg equiv./cm²)	3.02	29.24
Absorbed Dose (µg equiv./cm²)	<0.01	0.01
Dermal Delivery (µg equiv./cm²)	0.07	0.67
Mass Balance (μg equiv./cm²)	3.09	29.91

^a Milligrams of test preparation per centimetre of skin

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Rapporteur Member State: Italy

Section 6.3 Short-term repeated dose toxicity (28 days) Annex Point IIA 6.3 – headline only

Section 6.3.1 Annex Point IIA.6.3.1			
	JUSTIFICATION FOR NON-SUBMISSION OF DATA	Official use only	
Other existing data []	Technically not feasible [] Scientifically unjustified [X]		
Limited exposure []	Other justification []		
Detailed justification:			
		Z.	
Undertaking of intended data submission []			
	Evaluation by Competent Authorities		
	EVALUATION BY RAPPORTEUR MEMBER STATE		
Date			
Evaluation of applicant's justification			
Conclusion	Applicant's justification is acceptable		
Remarks			
	COMMENTS FROM OTHER MEMBER STATE (specify)		
Date	Give date of comments submitted		
Evaluation of applicant's justification	Discuss if deviating from view of rapporteur member state		

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Section 6.3.1 Annex Point IIA.6.3.1	Short term repeated dose toxicity (oral)
Conclusion	Discuss if deviating from view of rapporteur member state
Remarks	

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Section 6.3.2 Annex Point IIA.6.3.2			
	JUSTIFICATION FOR NON-SUBMISSION OF DATA	Official use only	
Other existing data []	Technically not feasible [] Scientifically unjustified [X]		
Limited exposure []	Other justification []		
Detailed justification:			
Undertaking of intended data submission []			
	Evaluation by Competent Authorities		
	EVALUATION BY RAPPORTEUR MEMBER STATE		
Date			
Evaluation of applicant's justification			
Conclusion	Applicant's justification is acceptable		
Remarks			
	COMMENTS FROM OTHER MEMBER STATE (specify)		
Date	Give date of comments submitted		
Evaluation of applicant's justification	Discuss if deviating from view of rapporteur member state		
Conclusion	Discuss if deviating from view of rapporteur member state		
Remarks			

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Rapporteur Member State: Italy

Section 6.3.3 Annex Point IIA.6.3.3	Short term repeated dose toxicity (inhalation)	
	JUSTIFICATION FOR NON-SUBMISSION OF DATA	Official use only
Other existing data []	Technically not feasible [] Scientifically unjustified [X]	
Limited exposure []	Other justification []	
Detailed justification:		
T		
Undertaking of intended data submission []		
	Evaluation by Competent Authorities	
	EVALUATION BY RAPPORTEUR MEMBER STATE	
Date		
Evaluation of applicant's justification		
Conclusion	Applicant's justification is acceptable	
Remarks		
	COMMENTS FROM OTHER MEMBER STATE (specify)	
Date	Give date of comments submitted	

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Rapporteur Member State: Italy

Section 6.3.3 Annex Point IIA.6.3.3	Short term repeated dose toxicity (inhalation)
Evaluation of applicant's justification	Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Remarks	

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Rapporteur Member State: Italy

Section 6.4 – Subchronic toxicity Annex Point IIA 6.4 – headline only

Section 6.4.1(1) Annex Point IIA 6.4.1		Sub-chronic oral toxicity test		
		1.	REFERENCE	Official use only
1.1 R	eference	study wit rats. Bus	er, J. P. and Weaver E.V. (1988) Ninety-day dietary toxicity th Alkyl dimethyl benzyl ammonium Chloride (ADBAC) in shy Run Research Center, Export, PA, U.S.A. Report No: 51-published).	
		[Ref No:	A17 (LON 1885)]	
1.2 D	ata protection	Yes		
1.2.1	Data owner	ADBAC	Joint Venture	
1.2.2	Criteria for data protection		mitted to the MS before 14 May 2000 on existing a.s. for the of its entry into Annex I/IA	
		2.	GUIDELINES AND QUALITY ASSURANCE	
2.1	Guideline study	Yes		
		U.S. EPA	A FIFRA Guideline 82-1	
		OECD G	uideline No. 408	
		1988		
2.2 (only w	GLP here required)	Yes		
2.3	Deviations	No		
		3.	MATERIALS AND METHODS	
3.1 To	est material	Alkyldim	nethylbenzylammonium Chloride	X
3.1.1	Lot/Batch number			
				er e
				Ja
3.1.2	Specification		in section II of Annex IIA of Directive 98/8/EC, especially 2.6-2.8 therein.	X
3.1.3	Description			

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Section 6.4.1(1) Annex Point IIA 6.4.1		Sub-chronic oral toxicity test	
3.1.4	Purity		
3.1.5	Stability	The a.s., ADBAC, is hydrolytically and photolytically stable under the conditions of this study and has been shown to be stable in aqueous, alcohol and alcohol/aqueous solutions for extended periods, <i>e.g.</i> at least five years under standard laboratory conditions (see Section 2.6.1 of Annex IIA).	
3.2 Te	est animals		
3.2.1	Species	Rat	
3.2.2	Strain	Sprague-Dawley CD®	
3.2.3	Source	<u>;</u>	
3.2.4	Sex	Male and female	
3.2.5	Age/weight at study initiation		
3.2.6	Number of animals per group		
3.2.7	Control Animals		
3.3	Administration/ Exposure		
3.3.1	Dose route	Oral mixed in diet	
3.3.2	Duration of test/exposure	95 and 96 days for males and females, respectively.	
3.3.3	Frequency of exposure	7 days/week	
3.3.4	Post exposure period		
3.3.5	Concentration		X
3.3.6	Vehicle		
3.3.7	Concentration in vehicle		

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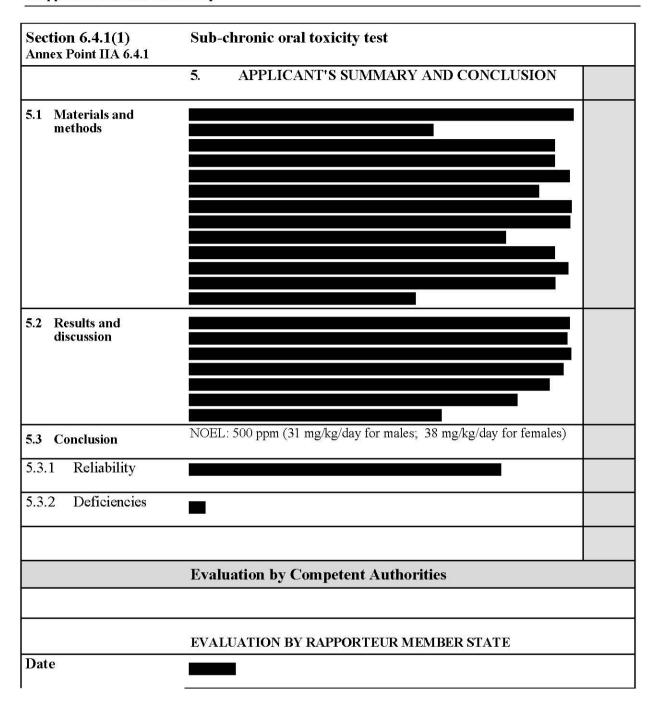
Section Annex	n 6.4.1(1) Point IIA 6.4.1	Sub-chronic oral toxicity test	
3.3.8	Actual dose received		
3.3.9	Controls		
3.4	Examinations		
3.4.1	Observations		X
3.4.2	Clinical signs		
3.4.3	Mortality		
3.4.4	Bodyweight	·	
3.4.5 consum	Food ption		
3.4.6 consum	Water option		
3.4.7	Ophthalmoscopic examination		
3.4.8	Haematology		
3.4.9 Chemis	Clinical stry		
3.4.10	Urinalysis		
3.5	Sacrifice and Pathology		
3.5.1	Organ weights		
3.5.2	Gross and histopathology		
3.5.3 examin	Other ations		
3.5.4 analysi	Statistical s		

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n 6.4.1(1) Point IIA 6.4.1	Sub-chronic oral toxicity test	
	4. RESULTS	
Examinations		
Clinical signs	Treatment-related clinical findings were restricted to animals from the 4000 and 8000 ppm groups. The observations were of two types, general cachexia and loose faeces. Findings for the surviving animals were similar to those that died.	
Mortality	All animals in the 8000 ppm group died. For the 4000 ppm group 12/15 males and 11/15 females died or were sacrificed in a moribund condition.	
Bodyweight	Decrease in body weight was observed for the 4000 and 8000 ppm dose group surviving the first week of the study. A slight decrease was also noticed in the males of the 1000 ppm dose group.	X
od consumption	Decrease in food consumption was observed for the 4000 and 8000 ppm dose group surviving the first week of the study. A slight decrease in the food consumption was also noticed in the males of the 1000 ppm dose group.	
Water consumption	Not applicable	
Ophthalmoscopic examination	No treatment related findings at any treatment level.	
Haematology	No treatment related changes were observed for males or females from any treatment group (4000 ppm or lower).	
Clinical Chemistry	No treatment related effects up to 1000 ppm. Significant increases in ALT and phosphorus were observed for 3 surviving males of the 4000 ppm group.	
Urinalysis	Not applicable	
Sacrifice and Pathology		
Organ weights	No treatment related effects up to 1000 ppm	
Gross and thology	No treatment related effects up to 1000 ppm. Gross lesions related to the treatment were restricted to the animals that died in the 8000 and 4000 ppm group and to a lesser degree in the animals that survived the 4000 ppm group. The findings were principally ileus consisting of distended fluid – and gas-filled viscera. Histopathologic effects related to the gastro-intestinal changes were observed for animals in the 4000 and 8000 ppm dose group.	
Other examinations	None	
Statistical analysis	As stated above.	
	Examinations Clinical signs Mortality Bodyweight od consumption Ophthalmoscopic examination Haematology Clinical Chemistry Urinalysis Sacrifice and Pathology Organ weights Gross and thology Other examinations	## A RESULTS Examinations

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Section 6.4.1(1) Annex Point IIA 6.4.1	Sub-chronic oral toxicity test
Materials and Methods	
Results and discussion	
Conclusion	
Reliability	
Acceptability	Acceptable
Remarks	
	COMMENTS FROM OTHER MEMBER STATE
Date	Give date of the comments submitted
Materials and Methods	Discuss additional relevant discrepancies referring to the (sub)heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state
Results and discussion	Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Reliability	Discuss if deviating from view of rapporteur member state

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Section 6.4.1(1) Annex Point IIA 6.4.1	Sub-chronic oral toxicity test
Acceptability	Discuss if deviating from view of rapporteur member state

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Section 6.4.1(2) Annex Point IIA 6.4.1	Subchronic oral toxicity study.	
	1. REFERENCE	Official use only
1.1 Reference	Goldenthal, E.I. (1994) Evaluation of ADBAC in a eight-week dietary toxicity study in dogs. International Research and Development Corporation, Mattawan, MI USA. Report No: 638-003 (Unpublished)	
	[Ref No: 19 (LON 3442a)]	
1.2 Data protection	Yes	
1.2.1 Data owner	ADBAC Joint Venture	
1.2.2 Criteria for data protection	Data submitted to the MS before 14 May 2000 on existing a.s. for the purpose of its entry into Annex I/IA	
	2. GUIDELINES AND QUALITY ASSURANCE	
2.1 Guideline study	No – this is an 8-week study for which no specific guideline applies.	
2.2 GLP (only where required)	Yes	
2.3 Deviations	Not a guideline study	
	3. MATERIALS AND METHODS	
3.1 Test material	Alkyldimethylbenzylammonium Chloride	X
3.1.1 Lot/Batch number		
3.1.2 Specification	As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein.	X
	Active substance (a.s.), alkyl(C ₁₂ -C ₁₆)dimethylbenzylammonium chloride (ADBAC; CAS RN 68424-85-1), in aqueous/ethanol solution.	
3.1.3 Description		
3.1.4 Purity		
3.1.5 Stability	The a.s., ADBAC, is hydrolytically and photolytically stable under the conditions of this study and has been shown to be stable in aqueous, alcohol and alcohol/aqueous solutions for extended periods, <i>e.g.</i> at least five years under standard laboratory conditions (see Section 2.6.1 of Annex IIA).	
3.2 Test animals		

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Section 6.4.1(2) Annex Point IIA 6.4.1		Subchronic oral toxicity study.	
3.2.1	Species	Dog	
3.2.2	Strain	Beagle	
3.2.3	Source		
3.2.4	Sex	Male and female	
3.2.5	Age/weight at study initiation		
3.2.6	Number of animals per group		
3.2.7	Control Animals		
3.3	Administration/ Exposure		
3.3.1	Dose route	Dietary	
3.3.2	Duration of test/ exposure	8 weeks	
3.3.3	Frequency of exposure	Daily	
3.3.4	Post exposure period		
3.3.5	Concentration		X
3.3.6	Vehicle		
3.3.7	Concentration in vehicle		
3.3.8	Actual dose received		X
3.3.9	Controls		
3.4	Examinations		
3.4.1	Observations		
3.4.2	Clinical signs		
3.4.3	Mortality		

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Section 6.4.1(2) Annex Point IIA 6.4.1		Subchronic oral toxicity study.	
3.4.4	Bodyweight		X
3.4.5	Food		X
consur	nption	· · · · · · · · · · · · · · · · · · ·	
3.4.6	Water		
consur	npuon		
3.4.7	Ophthalmoscopic examination		
3.4.8	Haematology		
3.4.9	Clinical		
Chemi	stry		
3.4.10	Urinalysis		
3.5	Sacrifice		
	and Pathology		
3.5.1	Organ weights		X
3.5.2	Gross and histopathology		X
3.5.3 examin	Other nations		
3.5.4 analysi	Statistical is		
		4. RESULTS	
4.1	Examinations		
4.1.1	Observations		
4.1.2	Clinical signs	None.	
4.1.3	Mortality	None	
4.1.4	Bodyweight	Reduction in body weight gains was noted in all treated animals receiving 1200 and 1600 ppm.	
4.1.5 consur	Food nption	No treatment-related differences from control observed.	
4.1.6 consur	Water nption	Not applicable.	

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Section 6.4.1(2) Subchronic oral toxicity study. Annex Point IIA 6.4.1 Not applicable. 4.1.7 Ophthalmoscopic examination 4.1.8 Haematology No treatment-related differences from control observed Clinical 4.1.9 Decreased total cholesterol was noted in all treated animals receiving Chemistry 1200 and 1600 ppm. 4.1.10 Urinalysis Not applicable. 4.2 Sacrifice and Pathology 4.2.1 Organ weights No treatment related differences from control. 4.2.2 Gross and No treatment related differences from control. Histopathology 4.2.3 Other None. examinations 4.2.4 Statistical Not applicable. analysis 4.3 LO(A)EL 1200 ppm (approximately 48 mg/kg/day) 4.4 NO(A)EL 800 ppm (approximately 31 mg/kg/day) 5. APPLICANT'S SUMMARY AND CONCLUSION 5.1 Materials and methods 5.2 Results and discussion NOEL = 800 ppm (27.4 mg/kg/day for males; 34.3 mg/kg/day for 5.3 Conclusion females

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Section 6.4.1(2) Annex Point IIA 6.4.1		Subchronic oral toxicity study.	
		LOAEL = 1200 ppm (45.5 mg/kg/day for males; 50.7 mg/kg/day for females	
5.3.1	Reliability		
5.3.2	Deficiencies		
		Evaluation by Competent Authorities	
		EVALUATION BY RAPPORTEUR MEMBER STATE	
Date			

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Section 6.4.1(2) Annex Point IIA 6.4.1	Subchronic oral toxicity study.
Materials and Methods	
Results and discussion	
Conclusion	
Reliability	
Acceptability	Acceptable
Remarks	
L	-

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Rapporteur Member State: Italy

Section 6.4.1(2) Annex Point IIA 6.4.1	Subchronic oral toxicity study.
	COMMENTS FROM OTHER MEMBER STATE
Date	Give date of the comments submitted
Materials and Methods	Discuss additional relevant discrepancies referring to the (sub)heading numbers and to applicant's summary and conclusion. Discuss if deviating from view of rapporteur member state
Results and discussion	Discuss if deviating from view of rapporteur member state
Conclusion	Discuss if deviating from view of rapporteur member state
Reliability	Discuss if deviating from view of rapporteur member state
Acceptability	Discuss if deviating from view of rapporteur member state

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Rapporteur Member State: Italy

1. REFERENCE 1. REFERENCE Van Miller, J. P. and Weaver E. V. (1988) Ninety-day dietary dose range-finding study with alkyl dimethyl benzyl ammonium Chloride (ADBAC) in mice. Bushy Run Research Center, Export, PA, U.S.A. Report No. 51-504 (Unpublished). [Ref No: A16 (LON 1883)]	Section 6	5.4.1(3)	ubchronic oral toxicity test		
1.1 Reference Van Miller, J. P. and Weaver E.V. (1988) Ninety-day dictary does range finding study with alkyl dimethyl benzyl ammonium Chloride (ADBAC) in mice. Bushy Run Research Center, Export, PA, U.S.A. Report No: 51-504 (Unpublished). [Ref No: Al6 (LON 1883)] 1.2 Data protection Yes ADBAC Joint Venture ADBAC Joint Venture 1.2.2 Criteria for data protection Data submitted to the MS before 14 May 2000 on existing a.s. for the purpose of its entry into Annex I/IA 2. GUIDELINES AND QUALITY ASSURANCE					
finding study with alkyl dimethyl benzyl ammonium Chloride (ADBAC) in mice. Bushy Run Research Center, Export, PA, U.S.A. Report No: 51-504 (Unpublished). [Ref No: A16 (LON 1883)] 1.2 Data protection Yes 1.2.1 Data owner ADBAC Joint Venture 2. GUIDELINES AND QUALITY ASSURANCE 2. GUIDELINES AND QUALITY ASSURANCE 2.1 Guideline study Yes U.S. EPA FIFRA 82-1 OECD Guideline No. 408 1987 2.2 GLP (only where required) A limited number of endpoints were examined because this study was designed for selecting doses for a chronic oncogenicity study. 3. MATERIALS AND METHODS 3.1.1 Test material Alkyldimethylbenzylammonium Chloride X 3.1.2 Specification As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein.			1. REFERENCE	ENGRAPHICA STREET	
1.2.1 Data protection 1.2.1 Data owner ADBAC Joint Venture 1.2.2 Criteria for data protection Data submitted to the MS before 14 May 2000 on existing a.s. for the purpose of its entry into Annex I/IA 2. GUIDELINES AND QUALITY ASSURANCE 2.1 Guideline study Yes U.S. EPA FIFRA 82-1 OECD Guideline No. 408 1987 2.2 GLP (only where required) 3. MATERIALS AND METHODS 3. MATERIALS AND METHODS 3.1.1 Test material Alkyldimethylbenzylammonium Chloride X 3.1.2 Specification As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein.	1.1 Refer	rence	finding study with alkyl dimethyl benzyl ammonium Chloride (ADBAC) in mice. Bushy Run Research Center, Export, PA, U.S.A. Report No: 51-504		
1.2.1 Data owner ADBAC Joint Venture 1.2.2 Criteria for data protection 2. GUIDELINES AND QUALITY ASSURANCE 3. LA GUIDELINES AND QUALITY ASSURANCE 2. GUIDE			[Ref No: A16 (LON 1883)]	,	
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2.1 Guideline study Ves U.S. EPA FIFRA 82-1 OECD Guideline No. 408 1987 2.2 GLP (only where required) 2.3 Deviations A limited number of endpoints were examined because this study was designed for selecting doses for a chronic oncogenicity study. 3. MATERIALS AND METHODS 3.1 Test material Alkyldimethylbenzylammonium Chloride X 3.1.1 Lot/Batch number As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein.					
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2.2 GLP (only where required) 2.3 Deviations A limited number of endpoints were examined because this study was designed for selecting doses for a chronic oncogenicity study. 3. MATERIALS AND METHODS 3.1 Test material Alkyldimethylbenzylammonium Chloride X 3.1.1 Lot/Batch number As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein. 3.1.2 Description		•	U.S. EPA FIFRA 82-1		
2.2 GLP (only where required) 2.3 Deviations A limited number of endpoints were examined because this study was designed for selecting doses for a chronic oncogenicity study. 3. MATERIALS AND METHODS 3.1 Test material Alkyldimethylbenzylammonium Chloride X 3.1.1 Lot/Batch number As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein.			OECD Guideline No. 408		
2.3 Deviations A limited number of endpoints were examined because this study was designed for selecting doses for a chronic oncogenicity study. 3. MATERIALS AND METHODS 3.1 Test material Alkyldimethylbenzylammonium Chloride X 3.1.1 Lot/Batch number As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein.			1987		
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3.1.1 Lot/Batch number 3.1.2 Specification As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein. 3.1.3 Description			3. MATERIALS AND METHODS		
3.1.1 Lot/Batch number 3.1.2 Specification As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein. 3.1.3 Description				V	
3.1.2 Specification As given in section II of Annex IIA of Directive 98/8/EC, especially Sections 2.6-2.8 therein. 3.1.3 Description	3.1 Test i	material	Alkyldimethylbenzylammonium Chloride	Λ	
Sections 2.6-2.8 therein. 3.1.3 Description	3.1.1 Lo	ot/Batch number			
Sections 2.6-2.8 therein. 3.1.3 Description					
	3.1.2 Sp	oecification		X	
3.1.4 Purity	3.1.3 De	escription			
	3.1.4 Pu	urity			

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Section 6.4.1(3) Subchronic oral toxicity test Annex Point IIA 6.4.1		Subchronic oral toxicity test	
3.1.5	Stability	The a.s., ADBAC, is hydrolytically and photolytically stable under the conditions of this study and has been shown to be stable in aqueous, alcohol and alcohol/aqueous solutions for extended periods, <i>e.g.</i> at least five years under standard laboratory conditions (see Section 2.6.1 of Annex IIA).	
3.2 T	est animals		
3.2.1	Species	Mice	
3.2.2	Strain	CD-1 [®]	
3.2.3	Source		
3.2.4	Sex	Male and female	
3.2.5	Age/weight at study initiation		
3.2.6	Number of animals per group		
3.2.7	Control Animals		
3.3	Administration/ Exposure		
3.3.1	Dose route	Oral by diet	
3.3.2	Duration of test/ exposure	93 Days (males) and 94 days (females)	
3.3.3	Frequency of exposure	7 days/week.	
3.3.4	Post exposure period		
3.3.5	Concentration		
3.3.6	Vehicle		
3.3.7	Concentration in vehicle		
3.3.8	Actual dose received		

Lonza GmbH; Stepan Europe; Alkyl (C₁₂₋₁₆) dimethylbenzyl ammonium chloride September 2012

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