Purac Biochem L(+) Lactic Acid July/2007

Section A6.1.4 Acute Dermal Irritation

Annex Point IIA6.4

Pigs

		1 REFERENCE	Official use only
1.1	Reference		use omy
1.1	Kelerence	(1987). Acute dermal irritation/corrosion study with lactic acid (88%) in pigs GLP, unpublished.	
1.2	Data protection	Yes	
1.2.1	Data owner	Purac Biochem BV	
1.2.2	Companies with letter of access	No	
1.2.3	Criteria for data protection	Data submitted to the MS after 13 May 2000 on existing [a.s. / b.p.] for the purpose of $$ its entry into Annex I	
		2 GUIDELINES AND QUALITY ASSURANCE	
2.1	Guideline study	Yes, OECD 404 / EEC B4	
2.2	GLP	Yes	
2.3	Deviations	Pigs were used, as pigs are more appropriate test animals than rabbits (normally used for skin irritation tests). A detailed justification is included in the report.	
		3 MATERIALS AND METHODS	
		In some fields the values indicated in the EC or OECD test guidelines are given as default values. Adopt, change or delete these default values as appropriate.	
3.1	Test material	As given in section 2 (88% lactic acid)	
3.1.1	Lot/Batch number	USP, batch U198	
3.1.2	Specification	As given in section 2	
3.1.2.1	1 Description	Clear colourless liquid	
3.1.2.2	2 Purity	88 %	
3.1.2.3	3 Stability	As given in section 2	
3.2	Test Animals		
3.2.1	Species	Pigs	
3.2.2	Strain	Not applicable	
3.2.3	Source	F1 from Large White (GY) x Dutch Landrace (NL), born on 25-11-1986 and bred in the test laboratory $$	
3.2.4	Sex	Male	
3.2.5	Age/weight at study initiation	40-50 kg	
3.2.6	Number of animals per group	3	
3.2.7	Control animals	no	

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3.3	Administration/ Exposure	Dermal	
3.3.1	Application		
3.3.1.1	Preparation of test substance	Test substance was used as delivered.	
3.3.1.2	Test site and Preparation of Test Site	Three separate areas of shaved dorsal skin	
3.3.2	Occlusion	Occlusive patch	
3.3.3	Vehicle	Not applicable	
3.3.4	Concentration in vehicle	Not applicable	
3.3.5	Total volume applied	0.5 ml test material per application site	
3.3.6	Removal of test substance	Lukewarm water	
3.3.7	Duration of exposure	Three exposure periods for different application sites: 3 minutes, 60 minutes and 4 hours	
3.3.8	Post exposure period	21 days	
3.3.9	Controls	No	
3.4	Examinations		
3.4.1	Clinical signs	No	
3.4.2	Dermal examination	Yes	
3.4.2.1	Scoring system	Draize et al	
3.4.2.2	Examination time points	1 day, 2, 3, 7, 14 and 21 days	
	Other examinations	Not applicable	
3.5	Further remarks		
		RESULTS AND DISCUSSION	
3.6	Average score		

	in the second	
3.6.1	Erythema	0
3.6.2	Edema	0
3.7	Reversibility	Not applicable

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3.8 Other examinations Some minor superficial wounds and one day later small crusts were

observed at application site and non-treated skin areas in two pigs. This effect was not considered treatment related as it also occurred at non-treated skin. These minor injures were probably caused by shaving

along the walls or floor of the stable.

3.9 Overall result No dermal irritation responses related to treatment with lactic acid were

observed.

4 APPLICANT'S SUMMARY AND CONCLUSION

4.1 Materials and methods

Skin irritation was tested according to OECD 404 on three pigs

X

4.2 Results and No dermal irritation responses related to treatment with lactic acid were

observed.

4.3 Conclusion Lactic acid is not considered irritating or corrosive to skin.

4.3.1 Reliability 1
4.3.2 Deficiencies No

discussion

Evaluation by Competent Authorities

Use separate "evaluation boxes" to provide transparency as to the

comments and views submitted

EVALUATION BY RAPPORTEUR MEMBER STATE

Date 2008/07/16

Materials and Methods Applicant's version is acceptable.

Results and discussion Applicant's version is acceptable.

Conclusion 4.3 Under the conditions tested lactic acid was not irritant or corrosive to pig skin.

Reliability 1

Acceptability Acceptable without restrictions

Remarks L(+) lactic acid proved to be corrosive in *in vitro* and rabbit dermal irritation tests

and irritating in human patch tests (York et al. 1996). The participant proposed classification as R38. Since this study does not support the classification with R38, it doesn't seem to be adequate to use this study as sole dermal irritation key study (as proposed by the participant) to provide information on the irritating

properties of L(+) lactic acid.

COMMENTS FROM ...

Date Give date of 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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Acceptability Remarks	Discuss if deviating from view of rapporteur member state	