ECETOC

Technical Report No. 66

SKIN IRRITATION AND CORROSION: REFERENCE CHEMICALS DATA BANK

March 1995

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No. 3	Risk Assessment of Occupational Chemical Carcinogens. Jan 82
No. 4	Hepatocarcinogenesis in Laboratory Rodents : Relevance for Man. Oct 82
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No. 27	Joint Assessment of Commodity Chemicals, n-Butyl Acrylate. CAS No. 141-32-2. Aug 94
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No. 29	Joint Assessment of Commodity Chemicals, 1,1-Dichloro-1-Fluoroethane (HCFC-141b) CAS No 1717-00-6. Feb 95
No. 30	Joint Assessment of Commodity Chemicals, Methyl Methacrylate. Cas No. 80-62-6. Feb 95
No. 31	Joint Assessment of Commodity Chemicals, 1,1,1,2-Tetraflouroethane (HFC-134a) CAS No. 811-97-2. Feb 95

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SKIN IRRITATION AND CORROSION: REFERENCE CHEMICALS DATA BANK

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SUMMARY

Earlier ECETOC has published comprehensive listing of *in vivo* rabbit eye irritation data for 55 readily-available chemicals of high purity. The establishment of such a data bank allows investigators of *in vitro* or alternative methods to evaluate their own techniques without the need to carry out *in vivo* testing of the reference chemicals.

A companion data bank has now been developed for 176 chemicals for which comprehensive rabbit skin irritation/corrosion data are available. No new *in vivo* testing has been carried out to qualify a chemical for inclusion in this list. The 176 chemicals selected are readily available at high and consistent purity and are expected to be stable on storage. They have been tested undiluted in *in vivo* studies, excepting those chemicals where high concentrations of the substance could be expected to cause severe effects. The *in vivo* data have been generated since 1981 in studies carried out according to OECD Test Guideline 404 and following the principles of Good Laboratory Practice. The data presented were obtained from tests normally using at least three rabbits, involving application of 0.5ml (or 0.5g) to the flank under semi-occlusive patches and in which observations were made at least 24, 48, and 72 hours after application.

The chemicals represent a range of chemical classes (acids, acrylates/methacrylates, alcohols, aldehydes, alkalis, amides, amines, brominated derivatives, chlorinated solvents, esters, ethers, fatty acids and mixtures, fragrance oils, halogenated aromatics, hydrocarbons (unsaturated), inorganics, ketones, nitriles, phenolic derivatives, S-containing compounds, soaps/surfactants, triglycerides) and different degrees of irritancy. The chemicals are ranked for skin irritation potential on the basis of a 'primary irritation index'. They should be of use in validation tests of promising alternatives to the *in vivo* rabbit skin irritation/corrosion test. This is an essential step in the progression to regulatory acceptance.

Classification schemes for chemicals on the basis of their skin irritation/corrosion properties are appended to the report for the convenience of readers.

SECTION 1. BACKGROUND AND INTRODUCTION

The importance of high quality toxicological data on chemicals used in validation of <u>in vitro</u> methods has been emphasised (Purchase, 1990).

As a consequence, ECETOC has published comprehensive listing of *in vivo* rabbit eye irritation data for 55 chemicals (in 72 tests) (ECETOC, 1992). The *in vivo* data were generated in tests carried out according to OECD Test Guideline 404 (OECD, 1981, 1992) and following the principles of Good Laboratory Practice. All the chemicals are available at high and consistent purity and are expected to be stable on storage. The availability of this reference chemical data bank of chemicals of known purity and ocular irritation response allows investigators of alternative eye irritation assessment techniques to evaluate the performance of their techniques against reference chemicals without the need to carry out *in vivo* testing.

Subsequently (1993) a Task Force was formed to develop a similar reference data bank for chemicals found to be irritant or corrosive to rabbit skin. The data bank could be used in assessing the potential of alternative techniques as a replacement for *in vivo* rabbit skin irritation/corrosivity tests.

The terms of reference of the Task Force were:

- to derive from the literature sources of in vivo skin corrosivity/irritancy data of chemicals,
- to prepare a list of chemicals suitable for use in the validation of alternative methods for the assessment of skin corrosion and irritation; the list should contain chemicals covering different classes and different degrees of corrosion and irritancy,
- to rank the skin corrosivity/irritancy potential of the chemicals on the basis of the individual data available.

SECTION 2. PROCESS FOR THE SELECTION OF CHEMICALS

The scientific literature does not contain the detailed data required by the Task Force to compile a suitable data bank. Authors of relevant publications in the literature were contacted and asked if they would make individual rabbit skin data available to the Task Force. Additionally, companies known to possess data were requested to provide information. The activity of the Task Force was publicised by an "APPEAL FOR RABBIT SKIN IRRITATION DATA" which appeared in journals which would reach the toxicological community. This appeal was also widely publicised at internationally-supported scientific meetings.

The chemicals and the *in vivo* skin irritation/corrosivity data given in Appendix A meet the following selection criteria.

<u>Reference chemicals</u> are single chemical entities commercially available at known high consistent purity and expected to be stable on storage.

Some commercial chemicals, manufactured and supplied to a specification which ensures a consistent purity, are included in the data bank, e.g. fatty acids where composition is guaranteed by analytical parameters such as saponification value rather than percentage purity, and perfume chemicals where odour is a prime consideration.

The <u>in vivo rabbit skin irritation data</u> have been generated since 1981 in studies carried out according to OECD Test Guideline 404 (OECD 1981, 1992) and following the Principles of Good Laboratory Practice, and have been obtained in tests:

- normally using at least three albino rabbits tested at the same time,
- involving application of 0.5ml or 0.5g of the test substance to intact skin for not more than 4 hours exposure,
- in which observations were made at least 24, 48 and 72 hours after patch removal,
 - or over sufficient duration to enable reversibility/ irreversibility to be assessed,
 - and include individual scores (using the Draize scale) for each observation in each rabbit,

in which chemicals were tested undiluted (except that data from studies using dilutions of the chemical were acceptable when higher concentrations of the chemical could be expected to cause severe effects).

Some of the data for chemicals included in Appendix A were generated in multi-patch studies in which more than one chemical was tested on the same rabbit at the same time. The Task Force decided that:

- multi-patch studies did not contravene OECD Test Guideline 404,
- such studies should be identified on the individual data sheets (and on the index sheets) in Appendix A.

In no case was interference reported between reactions on different patch sites in the multi-patch studies.

SECTION 3. CHEMICALS DATA BANK

3.1 CHEMICALS SELECTED

One hundred and seventy six chemicals met the criteria defined above (Section 2) for inclusion in the data bank assessed in 215 tests.

The availability of in vivo data available precluded the need for any additional animal testing.

3.2 GRADING OF EFFECTS ON SKIN

The grading scale for irritant effects on rabbit skin, originally proposed by Draize and adopted by OECD Test Guideline 404 and the US and EC regulatory agencies, is shown in Table 1.

Table 1 Grading Scale for Skin Irritation Effects According to EC and US Regulatory
Agencies Following OECD Test Guideline 404

Erythema and eschar formation	Grade
No erythema	0
Very slight erythema (barely perceptible)	1
Well-defined erythema	2
Moderate to severe erythema	3
Severe erythema (beet redness) to slight eschar formation	
(injuries in depth)	4
Oedema formation	
Oedellia lorillation	Grade
No oedema	Grade 0
	Grade 0 1
	Grade 0 1 2
No oedema	Grade 0 1 2 3
No oedema Very slight oedema (barely perceptible)	0 1 2
No oedema Very slight oedema (barely perceptible) Slight oedema (edges of area well defined by definite raising)	0 1 2

Definition of skin 'corrosion'

There is no internationally-harmonised definition of 'corrosion'. The definitions used by different national/international regulatory bodies are summarised in Appendix B.

3.3 RANKING OF CHEMICALS SELECTED

The skin irritation potential of chemicals is often summarised as the "Primary Irritation Index" (PII) calculated from erythema and oedema grades.

PII's are not always calculated the same way. For the purpose of this data bank, PII was calculated according to the following formula:

PII =
$$\frac{\sum ERYTHEMA \text{ at } 24/48/72 \text{ hrs} + \sum OEDEMA \text{ at } 24/48/72 \text{ hrs}}{3 \times \text{no. of animals}}$$

The maximum possible PII is 8.

The use of PII in this report is for the purposes of relative ranking of skin effects, and does not necessarily represent endorsement by the Task Force of its use for assessment of irritancy hazard.

3.4 SKIN TOXICITY DATA

The data of the skin toxicity of 176 chemicals have been assembled - presented as

- (a) a list of chemicals by chemical data (Appendix A, Table A1)
- (b) a list of chemicals by Primary Irritation Index (Appendix A, Table A2)
- and (c) individual animal data (Appendix A, Table A3).

3.5 CLASSIFICATION SCHEMES

Data obtained from *in vivo* rabbit skin irritation tests are used to assess the potential of materials to cause skin irritancy or corrosion in man, and to meet regulatory requirements which require classification and appropriate labelling of a material if it is believed to be potentially irritant or corrosive. Different national/international schemes exist for the classification of the irritancy/corrosivity hazard.

The principal classification schemes are summarised, for guidance only, in Appendix C to facilitate comparison of results from alternative techniques against the scheme most appropriate to an investigator's needs.

SECTION 4. USE OF THIS REPORT

The use of these chemicals in the validation of alternative tests will help to provide comparable information on test performance. In carrying out such validation studies, sufficient chemicals from a variety of classes, with a range of PIIs should be used.

GLOSSARY

The following definitions are reproduced from an ECETOC monograph on Skin Irritation (ECETOC, 1990) and are used in this data bank:

DERMAL IRRITATION:

The production of reversible inflammatory changes in irritation skin following the application of a substance.

DERMAL CORROSION:

The production of scarring usually as the result of corrosion tissue destruction (necrosis) following the application of a substance.

ERYTHEMA:

Redness of the skin produced by vascular congestion or increased perfusion.

ESCHAR:

A superficial dry slough at the site of a heat or caustic burn which contains cell debris and dried tissue exudate and occludes the healing skin.

OEDEMA:

The presence of abnormally large amounts of fluid in the intercellular tissue spaces of the epidermis, dermis or subcutaneous tissues.

SCAR (CICATRIX):

Fibrous tissue replacing normal tissues which have been destroyed by injury or disease.

APPENDIX A: SKIN IRRITATION DATA FOR INDIVIDUAL RABBITS

All chemicals were tested applying a volume or weight of 0.5ml or 0.5g undiluted, except where an alternative weight or concentration is specified. Exposure time was for 4 hours except when specified otherwise.

Numerical suffixes (e.g [1], [2]) denote instances where the same sample of the chemical (or a sample meeting the same specification) was retested in the same laboratory.

THE CHEMICALS LISTED IN THIS APPENDIX MAY BE OBTAINED IN 10g PACKAGES FROM:

BIBRA INTERNATIONAL
WOODMANSTERNE ROAD
CARSHALTON
SURREY SM5 4DS
UNITED KINGDOM

DISCLAIMER

THE CHEMICALS LISTED IN APPENDIX A HAVE BEEN ASSESSED BY THE ECETOC TASK FORCE ONLY IN RELATION TO <u>IN VIVO</u> RABBIT SKIN IRRITATION DATA. NO OTHER POTENTIALLY HAZARDOUS PROPERTIES WERE REVIEWED. USERS OF THE CHEMICALS SHOULD SATISFY THEMSELVES WITH REGARD TO OTHER POSSIBLE HAZARDOUS PROPERTIES OF THE CHEMICALS.

Table A1. Skin Irritation Data for Individual Rabbits; Index by Chemical Class

PII = Primary Irritation Index

N = number of animals
M = tested in multi-patch study

[S] = solid, tested with chemical or patch moistened with water

[0] - 30	ond, tested with chemical of patch moistened wi	iii water				
		Conc/Time Tested	Purity(%)	Ν	PII	Page
ACIDS -	[2 chemicals]					
М	2-methylbutyric acid		>95	4	>4	21
M	10-undecenoic acid		98.8	4	2.42	22
ACRYLA	NTES/METHACRYLATES - [4 chemicals]					
	added deviation and the address of the desired		00.4		0.00	00
	ethyltriglycol methacrylate ethylthioethyl methacrylate		96.1 99.7	3 3	0.22 0.56	23 24
	2-ethoxyethyl methacrylate		99.8	3	1.67	25
	2-methoxyethyl acrylate		99.6	3	-	26
ALCOHO	DLS - [19 chemicals, 32 tests]					
М	benzyl alcohol [1]		>99	3	1.56	27
М	benzyl alcohol [2]		>99	4	1.83	28
M	cinnamyl alcohol [1]	[S]	98.9	3	0	29
M	cinnamyl alcohol [2]	[S]	98.9	6	0.5	30
	dl-citronellol [1]		98.7	3	4.22	31
M	dl-citronellol [2]		98.7	4	4.0	32
M	dl-citronellol [3]		98.7	4	3.67	33
M	1-decanol		98.8	4	3.33	34
М	dihydromercenol [1]		>98	3	3,67	35
М	dihydromercenol [2]		>98	4	2.0	36
	2,6-dimethyl-4-heptanol		90	3	0	37
М	dipropylene glycol [1]		>99	3	0.33	38
М	dipropylene glycol [2]		>99	4	0	39
M	geraniol [1]		90.7	3	3.67	40
M	geraniol [2]		90.7	4	3.33	41
M M	geraniol [3]		90.7	4	2.92	42
M	geranyl dihydrolinalool		>90	4	2.25	43
IVI	geranyl linalool		matches standard	4	4.29	44
М	alpha-lonol		90-95	4	1.33	45
M	beta-lonol		93.4	4	1.88	45 46
M	Linalol (= Linalool) [1]		97.1	3	3.33	47
M	Linalol (= Linalool) [2]		97.1	4	3.42	48
M	Linalol (= Linalool) [3]		97.1	4	2.08	49
M	p-mentha-1,8-dien-7-ol		94.6	4	3.29	50
M	2-methyl-4-phenyl-2-butanol		100	4	1.58	51
M	phenylethyl alcohol [1]		99.6	3	2.22	52
M	phenylethyl alcohol [2]		99.6	4	0.92	53
M	isopropanol		100	3	0.78	54
	stearyl alcohol		*	3	2.56	55
M	alphaterpineol [1]		98.4	3	4.44	56
M	alphaterpineol [2]		98.4	4	4.75	57
М	alphaterpineol [3]		98.4	4	4.0	58
ALDEHY	DES [24 chemicals, 31 tests]					
М	p-tert-butyl dihydrocinnamaldehyde		95.0	4	2.42	59
M	isobutyraldehyde		98	4	0.13	60
M	cinnamaldehyde		98.4	4	3.71	61
М	citrathal		*	4	3.63	62
M	cyclamen aldehyde [1]		>98	3	5.11	63
	, , , , ,					

		Conc Teste	:/Time ed	Purity(%)	N	PII	Page
М	ovolomen aldebyde [2]			.00	4	117	64
M	cyclamen aldehyde [2] cyclamen aldehyde [3]			>98 >98	4 4	4.17 4.83	64 65
M	cyclamen aldehyde [4]			>98	4	3.42	66
	2,4-decadienal						
M	·			96.5	4	4.79	67
M	2,4-dimethyl-3-cyclohexen-1-carboxaldehyde			99.0	4	3.21	68
М	3,7-dimethyl-2,6-nonadien-1-al			matches	4	3.75	69
M	O. A. aline attended to the boundary of the bo			standard	4	0.75	70
M	2,4-dimethyltetrahydrobenzaldehyde			1000	4	2.75	70
М	2-ethylhexanal				4	3.88	71
М	heptanal			95.0	4	5.0	72
М	2,4-hexadienal			1. 01.0	4	7.08	73
M	alphahexyl cinnamic aldehyde [1]			91.9	3	4.0	74
М	alphahexyl cinnamic aldehyde [2]			91.9	4	4.0	75
M	alphahexyl cinnamic aldehyde [3]			91.9	4	2.58	76
М	hydroxycitronellal [1]			98.7	3	1.11	77
М	hydroxycitronellal [2]			98.7	4	0.92	78
М	Lilestralis/Lilial [1]			97,8	3	4.56	79
М	Lilestralis/Lilial [2]			97.8	4	3.58	80
М	3-methylbutyraldehyde			>98.5	4	2.83	81
М	2,5-methylene-6-propyl-3-cyclohexen-carbaldel	nyde		>92	4	2.42	82
М	nonanal			98,9	4	3.46	83
М	2-phenylpropionaldehyde			98.4	4	2.92	84
M	p-isopropylphenylacetaldehyde			>97	4	2.29	85
М	salicylaldehyde			>98	4	2.54	86
М	tetrahydrogeranial			1.0	4	2.58	87
М	4-tricyclo-decylindene-8-butanal			>90	4	3.29	88
	methacrolein			97	3	4.11	89
ALKALIS	- [4 chemicals, 6 tests]						
М	potassium hydroxide		5%)REAGENT	3	5.22	90
М	potassium hydroxide		10%)GRADE	3	_	91
	sodium bicarbonate	[8]		99.7	3	0.11	92
М	sodium carbonate	1-1	50%	100	3	2.33	93
M	sodium metasilicate		10%)REAGENT	3	1.22	94
M	sodium metasilicate		50%)GRADE	3	3.67	95
	- [1 chemical]		33,0	,		0.01	
	erucamide [S]			•	3	0	96
AMINES	- [14 chemicals, 16 tests]				45		
	diethylaminopropylamine			99,8	1	-	97
	N,N-dimethylbenzylamine			99.3	3	-	98
	dimethyl-n-butylamine			99.5	6	5.11	99
	dimethylisopropylamine		<u> </u>	99.6	6	5.61	100
	dimethyldipropylenetriamine		3min	99.5	1	-	101
	dimethyldipropylenetriamine		4hr	99.5	3	-	101
	2,4-dinitromethylaniline	[S]		99	3	0	102
	n-heptylamine			99.5	6	6.67	103
	methoxy-3-propylamine			>99	6	6.67	104
	oleyl propylene diamine dioleate				3	3.67	105
	hydrogenated tallow amine	[S]		>95	3	3.56	106
	hydrogenated tallow propylene diamine	[S]		>85	6	0	107
	tallow polypropylene polyamine	[S]	3min	>95	3	2.67	108
	tallow polypropylene polyamine	[S]	1hr	>95	3	4.11	109
	tallowamine	[S]	3min	>95	3	-	110
	2,4-xylidine			98.1	3	1.44	111

		Conc/Time	Purity(%)	N	PII	Page
2201111	IATER REPUMENTAGE MALE IN A COLUMN	Tested				
BROMIN	NATED DERIVATIVES - [11 chemicals, 12 tests					
	allyl bromide	3min	99	1	-	112
	allyl bromide	4hr	99	2	7.17	112
	2-bromobutane		>99	3	2.44	113
	1-bromo-4-chlorobutane		98	3	0	114
	1-bromo-2-chloroethane		98	3	2.33	115
	1-bromo-4-fluorobenzene		99	3	0.33	116
	1-bromohexane 1-bromopentane		>98.5 99	3 3	4.0 4.44	117 118
	2-bromopropane		99	3	1.44	119
	1,6-dibromohexane		98.4	3	0.89	120
	1,3-dibromopropane		98.4	3	1.89	121
	phenethyl bromide		99.5	3	0	122
CHLORI	NATED SOLVENTS - [4 chemicals]					
	dichloromethane		>99.95	3	5.67	123
	tetrachloroethylene		>99.95	3	5.67	123
	1,1,1-trichloroethane		>99.95	3	5.22	125
	trichloroethylene		>99.95	3	5.44	126
ESTERS	S - [28 chemicals, 40 tests]					
	all it has a same a same		00.4	9	0.40	107
M M	allyl heptanoate allyl phenoxyacetate		98.1 100	4	2.13 0.38	127 128
M	benzyl acetate [1]		99.3	3	1.56	129
M	benzyl acetate [2]		99.3	4	0.83	130
М	benzyl benzoate [1]		>99	3	0	131
М	benzyl benzoate [2]		>99	3	1.58	132
М	benzyl salicylate [1]		100	3	0.33	133
M	benzyl salicylate [2]		100	4	0.75	134
M	isobornyl acetate [1]		93.5	3	3.89	135
М	isobornyl acetate [2] n-butyl propionate		93.5 99	4 4	3.5 1.08	136
М	diethyl phthalate [1]		99.7	3	0	137 138
M	diethyl phthalate [2]		99.7	3	0.17	139
M	dimethylbenzylcarbinylacetate [1]	[S]	>97	3	1.22	140
М	dimethylbenzylcarbinylacetate [2]	[S]	>97	6	1.39	141
	2-ethylhexylcocoate		-	3	1.67	142
	2-ethylhexylpalmitate		5	3	0.56	143
М	ethyl tiglate		98.8	4	1.17	144
	ethyl trimethyl acetate glycolbromoacetate		99 85	6 1	0.5 7.67	145 146
М	heptyl butyrate		>95	4	1.75	147
M	hexyl salicylate [1]		>98	3	3.44	148
M	hexyl salicylate [2]		>98	4	3.67	149
M	hexyl salicylate [3]		>98	4	4.17	150
M	hexyl salicylate [4]		>98	4	3.33	151
M	linalyl acetate [1]		96.6	3	3.67	152
М	linalyl acetate [2]		96.6	4	2.92	153
	methyl caproate methyl laurate		99 99.5	3 3	2.78	154 155
	methyl linoleate		99.5	3	3.89 3.11	156
М	methyl 2-methylbutyrate		>95	4	0.67	157
	methyl palmitate		99	3	4.56	158
	methyl stearate		99	3	2.11	159
	methyl trimethyl acetate		99	3	0	160
	isopropylmyristate		-	3	1.22	161
	isopropylpalmitate		*	3	1.44	162
М	isopropylisostearate α terpinyl acetate [1]		100	3 3	0.11 3.56	163 164
M	α terpinyl acetate [1] α terpinyl acetate [2]		100	4	4.33	164 165
M	α terpinyl acetate [2]		100	4	2.75	166

		Conc/Time Tested	Purity(%)	N	PII	Page	
ETHER	S - [1 chemical]						
М	1,4-cineole (eucalyptol)		*	4	2.25	167	
FATTY ACIDS AND MIXTURES - [10 chemicals/mixtures]							
М	caprylic acid 55/45 caprylic/capric acids 60/40 caprylic/capric acids 65/35 caprylic/capric acids 65/35 caprylic/capric acids lauric acid 70/30 oleine/caprylic acid 80/20 oleine/caprylic acid 90/10 oleine/caprylic acid isostearic acid	[8]	>92	3 3 3 3 3 3 3 3 3 3	4.44 5.11 - 5.33 0.44 3.78 6.67 4.67 4.33	168 169 170 171 172 173 174 175 176 177	
FRAGR	ANCE OILS [10 chemicals]						
M M M M M M M M	cinnamon leaf oil clove leaf oil Litsea Cubaba oil origanum oil parsley herb oil perilla oil pimenta leaf (allspice) oil tagetes oil Tea tree oil thyme oil, red			4 4 4 4 4 4 4	1.71 4.29 3.88 >4 3.0 2.42 2.79 3.13 3.63 4.92	178 179 180 181 182 183 184 185 186 187	
HALOG	ENATED AROMATICS [4 chemicals]						
	3-chloro-4-fluoronitrobenzene m-chloronitrobenzene fluorobenzene 2-fluorotoluene	[8]	98 99.6 99.7 99.8	6 3 3 3	1.67 0 0.11 0.11	188 189 190 191	
HYDRO	CARBONS (unsaturated) [4 chemicals]						
	cis-cyclooctene 1,9-decadiene 1,5-hexadiene 1,13-tetradecadiene		95 97 97 97	6 3 3 4	1.89 3.0 0 1.67	192 193 194 195	
INORGA	ANICS - [2 chemicals]						
	sodium bisulphite sodium chlorite	[S] 34.5%	>97 80	3 3	1.0 0.33	196 197	
KETONI	ES - [5 chemicals]						
M M M M M	benzyl acetone diacetyl cis-Jasmone isolongifolene ketone methyl lavender ketone ES - [2 chemicals]		99.3 98.3 >98 90.0 >98	4 4 4 4	1.21 0.63 2.58 3.0 3.79	198 199 200 201 202	
	2,3-dichloropropionitrile		96.3	3	2.0	203	
	3-diethylaminopropionitrile		99.8	3	0	204	

		Conc/Time Tested	Purity(%)	N	PII	Page
PHENOI	LIC DERIVATIVES - [6 chemicals]					
M M M	Carvacrol 2-tertiarybutyl phenol eugenol guaiacol (o-methoxyphenol) 4,4-methylene bis(2,6-ditertiary butyl phenol) p-tolyl alcohol (p-methyl phenol)	[8]	100 99 99.9 99.4 98	4 6 4 4 3 4	>4 5.67 2.92 2.38 0 0.04	205 206 207 208 209 210
S-CONT	AINING COMPOUNDS - [6 chemicals]					
	dimethyl disulphide di-n-propyl disulphide 3,3'-dithiodipropionic acid 2-mercaptoethanol, Na salt (1.08ml of 45.21% aq.) 3-mercapto-1-propanol 4-(methylthio)benzaldehyde	[S] 3min	99.0 99.2 99 99 99.6 98.2	6 3 3 6 6 3	3.0 2.56 0 - 1.11 0.89	211 212 213 214 215 216
SOAPS/	SURFACTANTS - [4 chemicals, 5 tests]					
M M	soap from 20/80 coconut/tallow soap from 20/80 coconut/palm sodium lauryl sulphate sodium lauryl sulphate undecylenate acid, Na salt	[S] [S] 50% 20% 33.2%	94.8 94.8	3 3 3 3	2.11 2.67 6.0 6.78 1.67	217 218 219 220 221
TRIGLY	CERIDES - [2 chemicals]					
MISOFI	glycerol tri-isostearate glycerol triundecanoate	[8]	99.7	3 3	0.67 0	222 223
MISCEL	LANEOUS - [9 chemicals, 10 tests]					
M M M M	4-amino-1,2,4-triazole beechwood creosote 6-butyl-2,4-dimethyldihydropyrane n-decylidene methyl anthranilate 2,6-dimethyl-2,4,6-octatriene 1-formyl-1-methyl-4(4-methyl-3-pentene-1-yl)-	[S]	96.7 - 83.0 - >95	6 4 4 4 4	0 >5 2.04 2.08 3.0	224 225 226 227 228
M M M M	3-cyclohexene d-limonene [1] d-limonene [2] linalool oxide Tonalid	[S]	99.8 98.8 98.8 97.2 >97	4 3 4 4 3	3.29 3.56 3.25 2.58 0	229 230 231 232 233

Table A2. INDEX IN ORDER OF PRIMARY IRRITATION INDEX (PII)

PI = Primary Irritation Index

N = number of animals

M = tested in multi-patch study

[S] = solid, tested with chemical or patch moistened with water

PII RANGE: ZERO

Nı	umber of Chemicals: 19					
		Conc. Tested	Time Tested	PII	N	Page
	4-amino-1,2,4-triazole [S]			0	6	224
M	benzyl benzoate [1]			0	3	131
	1-bromo-4-chlorobutane			0	3	114
	m-chloronitrobenzene [S]			0	3	189
М	cinnamyl alcohol [1] [S]			0	3	29
	3-diethylaminopropionitrile			0	3	204
M	diethyl phthalate [1]			0	3	138
	2,6-dimethyl-4-heptanol			0	3	37
	2,4-dinitro-N-methylaniline [S]			0	3	102
М	dipropylene glycol [2]			0	4	39
	3,3'-dithiodipropionic acid [S]			0	3	213
	erucamide [S]			0	3	96
	glycerol triundecanoate [S]			0	3	223
	1,5-hexadiene			0	3	194
	hydrogenated tallow propylene diamine [S]			0	6	107
	methyltrimethyl acetate			0	3	160
	4,4'-methylene bis(2,6-ditertiarybutylphenol)			0	3	209
	phenethyl bromide			0	3	122
М	Tonalid [S]			0	3	233
	RANGE: 0.01-<1 right of the control					
М	n tolul electral (n methylphone)) [C]			0.04	4	04.0
IVI	p-tolyl alcohol (p-methylphenol) [S] fluorobenzene			0.04	4	210
	2-fluorotoluene			0.11 0.11	3	190
	isopropylisostearate				3	191
	sodium bicarbonate [S]	0.24		0.11 0.11	3 3	163
М	isobutyraldehyde	0.3g		0.11	4	92 60
M	diethyl phthalate [2]			0.13	4	139
IVI	ethyltriglycol methacrylate			0.17	3	23
М	benzyl salicylate [1]			0.22	3	133
	1-bromo-4-fluorobenzene			0.33	3	116
М	dipropylene glycol [1]			0.33	3	38
	sodium chlorite	34.5%		0.33	3	197
М	allyl phenoxyacetate	01.070		0.38	4	128
	lauric acid [S]			0.44	3	173
М	cinnamyl alcohol [2] [S]			0.5	4	30
	ethyl trimethyl acetate			0.5	6	145
	2-ethylhexylpalmitate			0.56	3	143
	ethylthioethylmethacrylate			0,56	3	24
М	diacetyl			0.63	4	199
	glycerol tri-isostearate			0.67	3	222
М	methyl-2-methylbutyrate			0.67	4	157
М	benzyl salicylate [2]			0.75	4	134
М	isopropanol			0.78	3	54
М	benzyl acetate [2]			0.83	4	130
	1,6-dibromohexane			0.89	3	120
	4-(methylthio)-benzaldehyde			0.89	3	216
M	hydroxycitronellal [2]			0.92	4	78
М	phenylethyl alcohol [2]			0.92	4	53

			Conc. Tested	Time Tested	PII	N	Page
PII: RAN	IGE 1.0 - <2						
	of Chemicals: 29						
	sodium bisulphite	[S]			1.0	3	196
	n-butyl propionate	[O]			1.08	4	137
M	hydroxycitronellal [1]				1.11	3	77
	3-mercapto-1-propanol				1.11	6	215
М	ethyl tiglate				1.17	4	144
М	benzyl acetone dimethylbenzylcarbinylacetate [1]	101			1.21 1.22	4	198
М	isopropyl myristate	[S]			1.22	3 3	140 161
М	sodium metasilicate		10%		1.22	3	94
М	alpha-lonol		, -, -		1.33	4	45
M	dimethylbenzylcarbinylacetate [2]	[S]			1.39	6	141
	2-bromopropane				1.44	3	119
	isopropyl palmitate				1.44	3	162
М	2,4-xylidine benzyl acetate [1]				1.44 1.56	3	111
M	benzyl alcohol [1]				1.56	3 3	129 27
M	benzyl benzoate [2]				1.58	4	132
M	2-methyl-4-phenyl-2-butanol				1.58	4	51
	3-chloro-4-fluoronitrobenzene				1.67	6	188
	2-ethoxyethyl methacrylate				1.67	3	25
	2-ethylhexylcocoate				1.67	3	142
	sodium undecylenate		33.2%		1.67	3	221
М	1,13-tetradecadiene cinnamon leaf oil				1.67 1.71	4 4	195 178
M	heptyl butyrate				1.71	4	147
M	benzyl alcohol [2]				1.83	4	28
M	beta-lonol				1.88	4	46
	cis-cyclooctene				1.89	6	192
	1,3-dibromopropane				1.89	3	121
PII RAN	GE: 2 - <3						
Number	of Chemicals: 38						
	2,3-dichloropropionitrile				2.0	3	203
М	dihydromercenol [2]				2.0	4	36
M	6-butyl-2,4-dimethyldihydropyrane				2.04	4	226
M	n-decylidene methyl anthranilate				2.08	4	227
М	Linalol (= Linalool) [3]				2.08	4	49
	methyl stearate				2.11	3	159
M	soap from 20/80 coconut/tallow	[S]			2.11	3	217
M M	allyl heptanoate phenylethyl alcohol [1]				2.13 2.22	4 3	127 52
M	1,4-cineole (eucalyptol)				2.22	3 4	52 167
M	geranyl dihydrolinalool				2.25	4	43
M	p-isopropylphenylacetaldehyde				2.29	4	85
	1-bromo-2-chloroethane				2.33	3	115
М	sodium carbonate		50%		2.33	3	93
M	guaiacol (o-methoxyphenol)				2.38	4	208
M M	p-tert-butyl dihydrocinnamaldehyde 2,5-methylene-6-propyl-3-cyclohexencarba	aldebude			2.42 2.42	4 4	59 82
M	perilla oil	aiueriyue			2.42	4	82 183
M	10-undecenoic acid				2.42	4	22
	2-bromobutane				2.44	3	113
М	salicylaldehyde				2.54	4	86
	di-n-propyl disulphide				2,56	3	212
	isostearyl alcohol				2.56	3	55
M M	tetrahydrogeranial				2.58	4	87 76
M	alphahexyl cinnamic aldehyde [3] cis-Jasmone				2.58 2.58	4 4	76 200
741	CO DECITIONS				2.00	7	200

			Conc. Tested	Time Tested	Pil	N	Page
M M M M M M M	linalool oxide soap from 20/80 coconut/palm tallow polypropylene polyamine 2,4-dimethyltetrahydrobenzaldehyde α terpinyl acetate [3] methyl caproate pimenta leaf (allspice) oil 3-methylbutyraldehyde eugenol geraniol [3] linalyl acetate [2] 2-phenylpropionaldehyde	[S] [S]		3min	2.58 2.67 2.67 2.75 2.75 2.78 2.79 2.83 2.92 2.92 2.92	4 3 3 4 4 4 4 4 4 4 4	232 218 108 70 166 154 184 81 207 42 153 84
	GE: 3.0 - <4 of Chemicals: 42						
M M M M M M M M M M M M M M M M M M M	1,9-decadiene dimethyl disulphide 2,6-dimethyl-2,4,6-octatriene parsley herb oil isolongifolene ketone methyl linoleate tagetes oil 2,4-dimethyl-3-cyclohexen-1-carboxaldehy d-limonene [2] 1-formyl-1-methyl-4(4-methyl-3-pentyl-1-yl p-mentha-1,8-dien-7-ol 4-tricyclo-decylindene-8-butanal 1-decanol geraniol [2] hexyl salicylate [4] Linalol (= Linalool) [1] cyclamen aldehyde [4] Linalol (= Linalool) [2] hexyl salicylate [1] nonanal isobornyl acetate [2] hydrogenated tallowamine d-limonene [1] α terpinyl acetate [1] Lilestralis/Lilial [2] citrathal Tea tree oil		nexene		3.0 3.0 3.0 3.0 3.11 3.13 3.21 3.25 3.29 3.29 3.29 3.33 3.33 3.33 3.42 3.42 3.44 3.46 3.5 3.56 3.56 3.56 3.58 3.63	3 6 4 4 4 4 4 4 4 4 4 4 4 4 4 3 4 4 4 4	193 211 228 182 201 156 185 68 231 229 50 88 34 41 151 47 66 48 148 83 136 106 230 164 80 62
M M M M M	dl-citronellol [3] dihydromercenol [1] geraniol [1] hexyl salicylate [2] linalyl acetate [1] oleyl propylenediamine dioleate sodium metasilicate cinnamaldehyde		50%		3.63 3.67 3.67 3.67 3.67 3.67 3.67 3.67	4 4 3 3 4 3 3 4	186 33 35 40 149 152 105 95 61
M M M M	3,7-dimethyl-2,6-nonadien-1-al 70/30 oleine/caprylic acid methyl lavender ketone 2-ethylhexanal Litsea Cubaba oil isobornyl acetate [1] methyl laurate				3.75 3.78 3.79 3.88 3.88 3.89 3.89	4 3 4 4 4 3 3	69 174 202 71 180 135 155

			Conc. Tested	Time Tested	PII	N	Page
	GE: 4.0 - <5 of Chemicals: 27						
M M	Carvacrol 2-methylbutyric acid				>4 >4	4 4	205 21
M	origanum oil				>4	4	181
	1-bromohexane				4.0	3	117
М	dl-citronellol [2]				4.0	4	32
М	alphahexyl cinnamic aldehyde [1]				4.0	3	74
M	alphahexyl cinnamic aldehyde [2]				4.0 4.0	4	75 50
М	alphaterpineol [3] methacrolein				4.11	4 3	58 89
	tallow polypropylene polyamine	[S]		1hr	4.11	3	109
М	cyclamen aldehyde [2]	[0]		1111	4.17	4	64
M	hexyl salicylate [3]				4.17	4	150
M	dl-citronellol [1]				4.22	3	31
M	clove leaf oil				4.29	4	179
M	geranyl linalool				4.29	4	44
	isostearic acid				4.33	3	177
M	α terpinyl acetate [2]				4.33	4	165
	1-bromopentane				4.44	3	118
	caprylic acid				4.44	3	168
М	alphaterpineol [1]				4.44	3	56
М	Lilestralis/Lilial [1]				4.56	3	79
	methyl palmitate				4.56	3	158
	90/10 oleine/caprylic acid				4.67	3	176
M	alphaterpineol [2]				4.75	4	57
M	2,4-decadienal				4.79 4.83	4 4	67 65
M M	cyclamen aldehyde [3] thyme oil, red				4.63	4	187
PII RAN Number	GE: 5 and above of Chemicals: 21						
М	beechwood creosote				>5	4	225
М	heptanal				5.0	4	72
	55/45 caprylic/capric acids				5.11	3	169
М	cyclamen aldehyde [1]				5.11	3	63
	dimethyl-n-butylamine		F0/		5.11	6	99
М	potassium hydroxide 1,1,1-trichloroethane		5%		5.22 5.22	3 3	90
3.4	, .						125
М	63/35 caprylic/capric acids trichloroethylene				5.33 5.44	3 3	172 126
	dimethylisopropylamine				5.61	6	100
	2-tertiarybutyl phenol				5.67	6	206
	dichloromethane				5.67	3	123
	tetrachloroethylene				5.67	3	124
M	sodium lauryl sulphate		50%		6.0	3	219
	n-heptylamine				6.67	6	103
	methoxy-3-propylamine				6.67	6	104
	80/20 oleine/caprylic acid				6.67	3	175
M	sodium lauryl sulphate		20%		6.78	3	220
M	2,4-hexadienal				7.08	4	73
	allyl bromide		4hr		7.17	2	112
	glycolbromoacetate		85%		7.67	1	146

			Conc. Tested	Time Tested	PII	N	Page
PII RANG Number of	GE: NOT POSSIBLE TO CALCULATE of Chemicals: 11						
	allyl bromide 60/40 caprylic/capric acids 65/35 caprylic/capric acids diethylaminopropylamine N,N-dimethylbenzylamine dimethyldipropylenetriamine dimethyldipropylenetriamine 2-mercaptoethanol Na (1.08ml of 45.21% aq sol)			3min 3min 4hr 3min	[<3] - - - - - -	1 3 1 3 1 3 6	112 170 171 97 98 101 101 214
М	2-methoxyethyl acrylate potassium hydroxide tallowamine	[S]	10%	3min	: e; :/≥:	3 3 3	26 91 110

Of the 215 tests, 22 (19 differant chemicals) tests were carried out on undiluted solids; 10 other materials were tested as aqueous solutions; the remainder were liquids, tested undiluted. Rabbits were exposed to 5 test materials using patches for 3 minutes; 3 of these chemicals were retested, 2 under patches for 4 hours, 1 for 1 hour. All other test materials were assessed using patches for 4 hours.

Numbers of tests falling into each PII range were:

PII Range	No of Tests
0	19
0-<1	28
1-<2	29
2-<3	38
3-<4	42
4-<5	27
>5	21
Not calculable	11
Total	215

: 2-METHYL BUTYRIC ACID CONCENTRATION TESTED : 100% CHEMICAL

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : Firmenich

SPECIFICATION :

CAS No. 116-53-0 Purity >95% Spec. No. 63608

		OBSER	RVATI	ON	INTER	VAL	(days)
	1h	1d	2d	3d	7d		
ANIMAL No. 1							
ERYTHEMA	2	2GB	2	2	4		
OEDEMA	3	-	-		1 - 1		
OBSERVATIONS	W#	WGB#	В#	B#	Е	77	
ANIMAL No. 2					Ť	e L	1
ERYTHEMA	2	2	25	3.5	4		
OEDEMA	4	3	3	2.5			
OBSERVATIONS	,				Е		
ANIMAL No. 3	Ĭ					Ĩ	
ERYTHEMA	2	2	2	2	4		
OEDEMA	2.5W	2.5	1.5	2	-		
OBSERVATIONS	W	G	D	D	D		

ANIMAL No. 4	1	Í	1	1	1	1		Ĩ
ERYTHEMA	2	2	2	3	4		+	+
OEDEMA	4	4	2.5	2.5				
OBSERVATIONS	1	WY	Y	Y		-		

Areas of discolouration: W = white, G = green, B = black, Y = yellow, D =

= irritation assessed at boundary

E = eschar

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = >4

INDEX 3 x no of animals

QUENTORI	. 10 INDECEMOTO NOTE	CONCENTRATION TESTED : 10	100
CHEMICAL	: 10-UNDECENOIC ACID	CONCENTRATION TESTED : 10	106

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : IFF

SPECIFICATION :

112-38-9 98.89 CAS No. 98.8% Purity Spec. No.

ANIMAL No.	1	1h	1d	RVATIO	3d	INTERV	/AL (days)
ERYTHEMA		0.5	1.5	2	1.5	0		++
OEDEMA		0.5	0.5	0.5	0.5	0		
OBSERVATIONS		w	215		M.	De		ager la
ANIMAL No.	2							
ERYTHEMA		0.5	2	2	2	0.5		
OEDEMA		0.5	1	1.5	1	0	/	
OBSERVATIONS						De*		
ANIMAL No.	3							
ERYTHEMA		1	2	2	2	0.5		
OEDEMA		0.5	0.5	0.5	0.5	0		
OBSERVATIONS		o o		Dem	Dem	De	v	ar are
ANIMAL No.	4							
ERYTHEMA		0.5	2	1.5	1.5	0.5		
OEDEMA		0.5	0.5	0	0	0		
OBSERVATIONS					Dem	De*		

De = DESQUAMATION FROM THE SKIN (De* = MARKED m = MINIMAL)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.42

3 x no of animals INDEX

CHEMICAL : ETHYLTRIGLYCOL CONCENTRATION TESTED : 100%

METHACRYLATE

SOURCE : ELF ATOCHEM VOLUME TESTED : 0.5ml : THREE

No. OF RABBITS

SPECIFICATION :

OEDEMA

EXPOSURE TIME : 4 hours

CAS No. Purity

36670-09-2

96.1%

INTERVAL (days) OBSERVATION 1h 1d 2d 3d ANIMAL No. 1 ERYTHEMA 0 0 0 0 0 0 0 0 OEDEMA ANIMAL No. 2 ERYTHEMA 0 0 0 0 OEDEMA 0 0 0 0 ANIMAL No. 3 **ERYTHEMA** 0 0

0

0

0

0

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.22INDEX 3 x no of animals

CHEMICAL

: ETHYLTHIOETHYL CONCENTRATION TESTED : 100%

METHACRYLATE

SOURCE

: ELF ATOCHEM

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 14216-25-2 Purity 99.7%

		OBSER	RVATIO	ON :	INTERV	JAL (d	davs)
ANTWAY No. 3	1h	1d	2d	3d	5d	6d`	7d
ANIMAL No. 1							
ERYTHEMA	1	0	0	0			
OEDEMA	0	0	0	0			
ANIMAL No. 2							
ERYTHEMA	1	1	1	0	0	0	
OEDEMA	0	0	0	0	0	0	
OBSERVATIONS				Dr	Dr		
ANIMAL No. 3						1 5 (1)	
ERYTHEMA	1	1	1	1	0	0	0
OEDEMA	0	0	0	0	0	0	0
OBSERVATIONS				Dr	Dr	Dr	-

Dr = DRYNESS OF THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.56

INDEX

3 x no of animals

: 2-ETHOXYETHYL CONCENTRATION TESTED : 100% CHEMICAL

METHACRYLATE

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours : ALDRICH SOURCE

SPECIFICATION :

CAS No. 2370-63-0 Purity 99.8% Purity 99.8% Product No. 28,066-6

		OBSERVATION			INTERVAL (days)				
ANIMAL No. 1	1h	1d	2d	3d	4d	5d	6d		
ERYTHEMA	0	1	1	1	0				
OEDEMA	0	0	0	0	0				
ANIMAL No. 2	-								
ERYTHEMA OEDEMA	0	0	0	0	0		-		
ANIMAL No. 3	0								
ERYTHEMA	1	2	2	2	1	0	0		
OEDEMA	0	0	0	0	0	0	0		
OBSERVATIONS				Dr	Dr	Dr			

Dr = DRYNESS OF THE SKIN

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 1.56

3 x no of animals INDEX

CHEMICAL

: 2-METHOXYETHYL

CONCENTRATION TESTED : 100%

ACRYLATE

SOURCE

: ELF ATOCHEM

SPECIFICATION :

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

CAS No. 3121-61-7 Purity 99.6%

		OBSEI	RVATIO	NC	INTERV	/AL (days)
ANIMAL No. 1	lh 1	1d	2d	3d	7d	9d	14d
ERYTHEMA	4	4	4	Ne	CrDe	Cr	Cr
OEDEMA	4	4	4	4	0	0	0
OBSERVATIONS		Ne	Ne			,	
ANIMAL No. 2	f.			1		ř.	Í
ERYTHEMA	4	4	4	Ne	CrDe	Cr	Cr
OEDEMA	4	4	4	4	0	0	0
OBSERVATIONS		Ne	Ne		-		

ANIMAL No. 3	T.				Ĩ	ľ	
ERYTHEMA	4	4	3	2	1	0	0
OEDEMA	4	4	4	0	0	0	0
OBSERVATIONS					De	De	De

Ne = SUPERFICIAL NECROSIS

De = DESQUAMATION

Cr = CRUST

PRIMARY IRRITATION = NOT POSSIBLE TO CALCULATE INDEX

CHEMICAL

: BENZYL ALCOHOL [1]

CONCENTRATION TESTED: 100%

SOURCE

: FIRMENICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No.

100-51-6 >99% Purity Spec. No. 05377

		ODGE	7778 M T C	NN T	MEDI	77 T	(-1)
	Î at	41	RVATIO			VAL	(days)
	1 h	1d	2d	3d	7d		
ANIMAL No. 1							
ERYTHEMA	1	2	2	1	1		
OEDEMA	0	1	0	0	0		
OBSERVATIONS	-			•	De*		
ANIMAL No. 2						I	
ERYTHEMA	1	1	1	1	1		
OEDEMA	0	0	0	0	0		
OBSERVATIONS			Dvs	Dvs	De		
ANIMAL No. 3	Î	Ĭ				Ī	
ERYTHEMA	1	2	1	1	0		
OEDEMA	0	1	0	0	0		
OBSERVATIONS				Des	Des		

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED Des = SLIGHT

Dvs = VERY SLIGHT)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.56

INDEX

3 x no of animals

CHEMICAL : BENZYL ALCOHOL [2] CONCENTRATION TESTED : 100%

SOURCE : FIRMENICH VOLUME TESTED : 0.5ml No. OF RABBITS

: FOUR : 4 hours SPECIFICATION : EXPOSURE TIME

100-51-6 CAS No. Purity >99% 05377 Spec. No.

		OBSEE	NITAVS	ON INTERVAL (days			
	1h	1d	2d	3d	7 d	,	i i
ANIMAL No. 1			2.4	٥٩	'``		
ERYTHEMA	0	1	1	1	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2	ľ	1 1	1	ŕ	ĵ.	ř	1 1
ANIMAL NO. 2							
ERYTHEMA	1	1	2	2	1		1
OEDEMA	0	1	1	0	0	1	
ANIMAL No. 3	F	1 1		r	r	f:	ac a
ANIMAL No. 3							
ERYTHEMA	0	1	1	1	0		1
OEDEMA	0	1	0	0	0		1
OBSERVATIONS		Des	Des	Des	Des	1	
ANIMAL No. 4	f				ĺ		1 1
ERYTHEMA	1	2	2	2	1		
OEDEMA	1	1	1	0	0		

Des = SLIGHT DESQUAMATION FROM SKIN SURFACE

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.83 INDEX 3 x no of animals

: CINNAMYL ALCOHOL [1] CONCENTRATION TESTED : 100% CHEMICAL

WEIGHT TESTED : 0.5g
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SOURCE WEIGHT TESTED : GIVAUDAN-ROURE

SPECIFICATION :

104-54-1 98.9% CAS No. Purity Spec. No. 1173001

ANIMAL No. 1	l 1h	OBSEI 1d	RVATIO	DN BE	INTER	VAL (days)
3							
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2							
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 3							
ERYTHEMA	1	0	0	0	0		
OEDEMA	0	0	0	0	0		

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 0

3 x no of animals INDEX

CHEMICAL	: CINNAMYL ALCOH	IOL [2]	j C	ONCENI	TRATIO	ON TE	STED :	: 100%	
SOURCE	: GIVAUDAN-ROURE	: GIVAUDAN-ROURE WEIGHT TESTED : 0.50 No. OF RABBITS : SIX							
SPECIFICATION	Purity	104-54 98.9% 11730	E: 4-1	o. OF XPOSUF				: SIX : 4 hours	
			OBSE	RVATIO	ON :	INTER	VAL (days)	
ANIMAL No.	1	1h	1d	2d	3d	7d			
ERYTHEMA		0	0	0	0	0			
OEDEMA		0	0	0	0	0			
ANIMAL No.	2								
ERYTHEMA OEDEMA		0	0	0	0	0			
ANIMAL No.	3								
ERYTHEMA		0	1	1	1	0			
OEDEMA		0	0	0	0	0			
ANIMAL No.	4) - -		
ERYTHEMA		2	2	1	1	1			
OEDEMA		0	1	0	0	0			
OBSERVATIONS						Dvs			
ANIMAL No.	5								
ERYTHEMA		0	0	1	0	0			
OEDEMA		0	0	0	0	0			
ANIMAL No.	6		ľ	1			Ì	1 1	

Dvs = VERY SLIGHT DESQUAMATION FROM THE SKIN

PRIMARY

ERYTHEMA OEDEMA

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.5 INDEX 3 x no of animals

: dl-CITRONELLOL [1] CONCENTRATION TESTED : 100% CHEMICAL

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SOURCE : GIVAUDAN-ROURE

SPECIFICATION :

106-22-9 CAS No. Purity Spec. No. 4075001

		00.45				.	1		
	1 14		RVATIO		INTERV	AL (days)		
ANIMAL No. 1	lh	1d	2d	3d	'4		1 1		
#WAR-1440									
ERYTHEMA	1	2	2	2	2				
OEDEMA	2	2	2	2	2				
OBSERVATIONS	***	De*							
ANIMAL No. 2			1	ĺ	1				
ERYTHEMA	2	2	2	2	2				
OEDEMA	2	2	3	3	1				
OBSERVATIONS	*	*:			De		10.		
ANIMAL No. 3	Î		ĺ	ĺ	1		1		
ERYTHEMA	1	2	2	2	2				
OEDEMA	2	2	2	2	2				

OBSERVATIONS De*

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.22

INDEX 3 x no of animals

: dl-CITRONELLOL [2] CONCENTRATION TESTED: 100% CHEMICAL

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : GIVAUDAN-ROURE

SPECIFICATION :

106-22-9 CAS No. Purity 98.7% Spec. No. 4075001

		OBSE	RVATIO	NC	INTERVA	L (days)
	1h	1d	2d	3d	7d	•	1 1
ANIMAL No. 1							
ERYTHEMA	2	2	2	2	2		
OEDEMA	2	3	3	2	1		
OBSERVATIONS					De		
ANIMAL No. 2	Ť.	p s	F .	1	T T		r = 30
ANIMAL NO. 2							
ERYTHEMA	2	2	2	2	2		
OEDEMA	2	2	3	3	1		
ANIMAL No. 3	Î	î î	Ĺ	Î	ì ì		î î
ANIMAL NO.							
ERYTHEMA	2	2	2	2	2		
OEDEMA	1	2	1	1	1		
OBSERVATIONS					De		
ANIMAL No. 4	1	£ .	12	ŧ	1 1		1 1
ANIMAL NO. 4							
ERYTHEMA	1	2	2	2	1		
OEDEMA	1	1	1	2	1		
OBSERVATIONS					De		

De = DESQUAMATION FROM SKIN SURFACE

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.0

3 x no of animals INDEX

CHEMICAL : dl-CITRONELLOL [3] CONCENTRATION TESTED : 100%

SOURCE : 0.5ml : GIVAUDAN-ROURE VOLUME TESTED

No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours SPECIFICATION :

CAS No. 106-22-9 Purity 98.7% Spec. No. 4075001

ANTWAT No	·	lh	OBSEI 1d	RVATIO	ON 3d	INTERVA	AL '	(days)
ANIMAL No.	1							
ERYTHEMA		2	2	2	2	1		++
OEDEMA		1	2	2	2	1		
ANIMAL No.	2	V.				1 1		f f
ERYTHEMA		2	2	2	2	1		++
OEDEMA		1	2	2	2	1		
ANIMAL No.	3)						1 1
ERYTHEMA		1	2	2	2	0		
OEDEMA		1	2	1	1	0		
OBSERVATIONS				Des	Des	De*		
ANIMAL No.	4	8.				f f		1 1
ERYTHEMA		1	2	2	2	2		
OEDEMA		1	2	1	1	2		
OBSERVATIONS						De*		

De* = MARKED DESQUAMATION FROM SKIN SURFACE (Des = SLIGHT)

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.67INDEX 3 x no of animals

CHEMICAL

: 1-DECANOL

CONCENTRATION TESTED : 100%

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. Purity

CAS No. 112-30-1 Purity 98.8% Spec. No. 1140001

	1h	OBSE	RVATI 2d	ON 3d	INTER	VAL	(days)
ANIMAL No. 1	""	14	20	Ju.,	/ · ·		
ERYTHEMA	0.5	2	2.5	2.5	1		
OEDEMA	0.5	2	2	2	0		
OBSERVATIONS	***************************************				De*		-10
ANIMAL No. 2	Ť		1		Ĭ		
ERYTHEMA	1	2	2.5	2.5	1		-
OEDEMA	0	0.5	1	1	0		
OBSERVATIONS					De		
ANIMAL No. 3	Ĭ	ľ			Ì	Ī	
ERYTHEMA	1.5	2.5	2	2	2		
OEDEMA	0.5	1	1	1	0.5		
OBSERVATIONS	1	1	4		De		
ANIMAL No. 4	Ĺ				Ī		
ERYTHEMA	1.5	1.5	2	2	2		
OEDEMA	0	0.5	1	1	0.5		
OBSERVATIONS					De		-1/0

De = DESQUAMATION FROM THE SKIN (De* = MARKED)

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA $\underline{24/48/72\text{hr}}$ + $\underline{\text{SUM}}$ OEDEMA $\underline{24/48/72\text{hr}}$ = 3.33

INDEX

3 x no of animals

CHEMICAL : DIHYDROMERCENOL # [1] CONCENTRATION TESTED : 100%

SOURCE : FIRMENICH VOLUME TESTED : 0.5ml No. OF RABBITS : THREE

SPECIFICATION : EXPOSURE TIME : 4 hours

CAS No. 53219-21-9 Purity >98% Spec. No. 38618

: synonym 2-methyl-6-methylene-7-octen-2-ol

		OBSE	RVATIO	N	INTERV	AL (days)
	11	1 d	2d	3d	7d		
ANIMAL No. 1							
ERYTHEMA	1	2	2	2	2		
DEDEMA	1	1	1	1	0		
OBSERVATIONS	<i>y</i>				De*		
ANIMAL No. 2	[1 1		ľ
ERYTHEMA	1	2	2	2	2		
OEDEMA	1	2	2	2	1		
OBSERVATIONS		•			De		
ANIMAL No. 3	ĭ	ŕ	î î		1 1		ľ
ARTIMI NO.							
ERYTHEMA	1	2	2	2	1 1 1		

De*

De

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

OEDEMA

OBSERVATIONS

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.67

INDEX 3 x no of animals

SKIN IRRITATION DATA FOR INDIVIDUAL RABBITS

CHEMICAL : DIHYDROMYRCENOL # [2] CONCENTRATION TESTED : 100%

SOURCE : FIRMENICH VOLUME TESTED No. OF RABBITS : FOUR

SPECIFICATION EXPOSURE TIME : 4 hours

CAS No. 53219-21-9 Purity >98% Spec. No. 38618

: synonym 2-methyl-6-methylene-7-octen-2-ol

			OBSE	RVATIO	ON :	INTER	VAL (days)
		1h	1d	2d	3d	7d	Ť `	1 1 T
ANIMAL No.	1						1	
	-							
ERYTHEMA		1	2	2	2	1		
OEDEMA		0	1	0	0	0		
OBSERVATIONS					Des	Des		
ANIMAL No.	2	Î		1	ĺ	I	f:	1 1
ERYTHEMA		1	1	1	1	1		+
OEDEMA		0	0	ō	0	0		1 1
OBSERVATIONS						De*		
ANIMAL No.	3			1		ŀ	f-	f 1
ERYTHEMA		0	1	1	1	0		+-+
OEDEMA		0	1	0	ō	0		
OBSERVATIONS			-		Des	De		
					DCD	DC		
ANIMAL No.	4	F 8	P 7		()	ŕ	ř.	f: 1
······································	· ·							1 1
ERYTHEMA		2	2	2	2	2		+
OEDEMA		2	2	1	1	0		+
OBSERVATIONS				1		De*		1
STRUCTURE						De.		

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED Des = SLIGHT)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.0 INDEX 3 x no of animals

CHEMICAL : 2,6-DIMETHYL-4-CONCENTRATION TESTED : 100%

HEPTANOL

SOURCE : ALDRICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SPECIFICATION :

CAS No. 108-82-7 Purity 90% Product No. 29,297-4

		ODCET	RVATIO	NAT.	TMMED		d \
	[1h	l 1d	2d	3d	INTER	VAL (days
ANIMAL No. 1	111	10	_ 2u	3u	/ u		
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2							
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 3							
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0

INDEX 3 x no of animals

: DIPROPYLENE GLYCOL [1] CONCENTRATION TESTED : 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SOURCE : FIRMENICH

SPECIFICATION :

26265**-**71-8 >99% CAS No.

Purity Spec. No. 39416

ANIMAL No. 1	l 1h	OBSEI 1d	RVATIO	ON 3d	INTERV	/AL (days)
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2						ľ	
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0	ý — — —	
ANIMAL No. 3		1			1 1		
ERYTHEMA	1	1	1	1	0		
OEDEMA	0	0	0	0	0		

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.33 3 x no of animals INDEX

: DIPROPYLENE GLYCOL [2] CONCENTRATION TESTED : 100%

SOURCE : FIRMENICH

VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No.

25265**-**71-8 >99%

Purity

Spec. No. 39416

		OBSE	RVATI	ON	INTER	VAL	(days)
ANIMAL No. 1	l 1h	1d	2d	3d	7d		
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2	Ĩ	1		Ī		Î	Ĺ
ERYTHEMA	0	0	0	0	0		+
OEDEMA	0	0	0	0	0		
ANIMAL No. 3	f	1		ĺ	1	Ī	1 1
ERYTHEMA	0	0	0	0	0		1
OEDEMA	0	0	0	0	0		
ANIMAL No. 4	Ī			ĺ	1		1 1
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 03 x no of animals INDEX

CHEMICAL : GERANIOL [1]

CONCENTRATION TESTED : 100%

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours VOLUME TESTED

SPECIFICATION :

106-24-1

CAS No. Purity

90.7%

Spec. No.

5414003

								_
		v.	OBSE	RVATIO	ON .	INTERV	ZAL (days)
		1h	1d	2d	3d	7d		1 1
ANIMAL No.	1							
ERYTHEMA		1	2	2	2	1		
OEDEMA		0	1	1	1	1		
OBSERVATIONS						De*		1
ANIMAL No.	2							
ERYTHEMA		2	2	2	2	2		
OEDEMA		2	2	2	2	1	7	
OBSERVATIONS			,			De*		1, 15
ANIMAL No.	3							
ERYTHEMA		2	2	2	2	2		
OEDEMA		3	2	2	2	3		
OBSERVATIONS			1-7	——————————————————————————————————————		De*		

De* = MARKED DESQUAMATION FROM SKIN SURFACE

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.67

INDEX 3 x no of animals

CHEMICAL

: GERANIOL [2]

CONCENTRATION TESTED : 100%

De*

SOURCE

VOLUME TESTED

: 0.5ml

: GIVAUDAN-ROURE

No. OF RABBITS EXPOSURE TIME : FOUR : 4 hours

SPECIFICATION :

106-24-1

CAS No. Purity

90.7%

Spec. No.

5414003

							_	
			RVATIO	ON		VAL	(days)	an.
	1h	1d	2d	3d	7 d			1
ANIMAL No. 1								
ERYTHEMA	2	2	3	3	2			T
OEDEMA	2	2	2	2	2			Ť
OBSERVATIONS		*			Des			-
					m			
ANIMAL No. 2	Ť	ř.	1	1	Ĩ	1	1	1
								1
ERYTHEMA	0	2	2	2	1			+
OEDEMA	i	1	2	2	0	1		+
OBSERVATIONS					De*			-
					20			
ANIMAL No. 3	ï	ř i	T.	Ī	Ĩ	Ť	Î.	Ť
ANTIMA NO.								
ERYTHEMA	1	1	2	2	2	-		+
OEDEMA	1	1	1	1	2	-		+
OEDERIA		1 +	1_1_	1_1_				_
ANIMAL No. 4	ĭ	Y Y	Y .	ï	1	T.	1.	ř
ANIMAL No. 4								
TRAMITEM A		-	-		-	-	-	+
ERYTHEMA	1	2	2	2	1	-		+
OEDEMA	2	0	0	1	1			1

De* = MARKED DESQUAMATION FROM SKIN SURFACE (Des = SLIGHT)

PRIMARY

OBSERVATIONS

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 3.33

INDEX

3 x no of animals

De*

OBSERVATIONS

SKIN IRRITATION DATA FOR INDIVIDUAL RABBITS

CONCENTRATION TESTED: 100% CHEMICAL : GERANIOL [3]

: 0.5ml SOURCE : GIVAUDAN-ROURE VOLUME TESTED No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours

SPECIFICATION :

106-24-1 90.7% CAS No. Purity Spec. No. 5414003

			OBSE	RVATIO	ON	INTERV	7AT. (davs)
		1 h	1 1d	2d] 3d	7d	(1 7 7
BUTWET NO	1		14	2 u	ا	ا "' ا		1 1
ANIMAL No.	1							
ERYTHEMA		2	2	2	1	1		
OEDEMA		2	0	1	1	0		
OBSERVATIONS						De*		
		·	20 90					p
ANIMAL No.	2	1						
THE TRUTTERS A		1	-		_	-		-
ERYTHEMA		1	2	2	2	1		+-+
OEDEMA		1	1	1	1	0		
OBSERVATIONS						De*		
	.2	¥.	¥6 0		i	3 (6 6
ANIMAL No.	3	1						
MAN TAMATANA		1	2	2	-	-		-
ERYTHEMA		1	2	2	2	1		1
OEDEMA		1 1	1			0		1
OBSERVATIONS						Des		
		Ϋ́	ř	î.	í	i i		ř ř
ANIMAL No.	4							
ERYTHEMA		1	2	2	2	0		
-		0	2	1	1	0		+
OEDEMA				T	1	0		

De* = MARKED DESQUAMATION FROM SKIN SURFACE (Des = SLIGHT)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.92 3 x no of animals INDEX

CHEMICAL

: GERANYL

CONCENTRATION TESTED: 100%

DIHYDROLINALOOL

SOURCE : BEDOUKIAN

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 70851-60-4 Purity >90% Spec. No. 418

		ÿ	2)	RVATI		INTERV	/AL	(days)
		1h	1d	2d	3d	7d		
ANIMAL No.	1							
		1						
ERYTHEMA		1	1.5	1.5	1.5	0		
OEDEMA		0	0.5	0.5	0.5	0		
OBSERVATIONS						De		
ANIMAL No.	2	î	il i	t	ī	i i	ŕ	17 11
ANIMAL NO.	2							
ED MULLENA		-	1 5	1	1 6	0.5		+
ERYTHEMA		1	1.5	1	1.5	0.5		
OEDEMA		1	1.5	0.5	1.5	0		
OBSERVATIONS					Dem	De		
ANIMAL No.	3				1		1	1 1
ERYTHEMA		1.5	1.5	1.5	1	0.5		
OEDEMA		1	1.5	1.5	0.5	0		1 1
OBSERVATIONS			2.10	2.10	De	De*		
02021(111110)(0					DC	DC		
ANIMAL No.	4	Ĺ	E I	1	1	1	r	1 1
ANIMAL NO.	4							1 1
Thursday.		-	-					
ERYTHEMA		1	2	1.5	1	0		
OEDEMA		0	0.5	0.5	0.5	0		
OBSERVATIONS			Des	De	De	Des		

De = DESQUAMATION FROM THE SKIN (De* = MARKED Des = SLIGHT Dem = MINIMAL)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.25

INDEX

3 x no of animals

CHEMICAL

: GERANYL LINALOOL

CONCENTRATION TESTED : 100%

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED No. OF RABBITS

: 0.5ml : FOUR : 4 hours

EXPOSURE TIME

SPECIFICATION :

CAS No.

Purity

CAS No. 1113-21-9
Purity matches standard
Spec. No. 5469001

			OBSE	RVATI	ON	INTER	VAL (davs)
		1 1h	1 d	2 d	1 3d	7 d	ĺ Ì	1 1
ANIMAL No.	1					'-		
						1		
ERYTHEMA		1	2	2	2	0.5		$\overline{}$
OEDEMA		0.5	3	2	2	0		
		1	-					
33171/37 37-		î	ř		ī			t 110
ANIMAL No.	2							
ERYTHEMA		0.5	2	2	2	1		+
OEDEMA		0	2.5	2.5	1.5	0.5		
OBSERVATIONS					Des			-
ANIMAL No.	3	1				1	ľ	
ERYTHEMA		1.5	2	2.5	2.5	2		
OEDEMA		0.5	2.5	2.5	2.5	1		
OBSERVATIONS						De		
ANIMAL No.	4	Î	1	1	1	Ť	Ĩ	1 1
	(-							
ERYTHEMA		1.5	2	2.5	2.5	2		
OEDEMA		0	1.5	1.5	1.5	1		
OBSERVATIONS						De	-	-

De = DESQUAMATION FROM THE SKIN (Des = SLIGHT)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.29 INDEX 3 x no of animals

CHEMICAL : alpha-IONOL CONCENTRATION TESTED: 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : BEDOUKIAN

SPECIFICATION :

CAS No. 25312-34-9 Purity 90-95% Spec. No. 260

ANIMAL No. 1	1h	1d	RVATIO	ON :	INTERV 7d	VAL (days)
ERYTHEMA	1	1.5	0.5	1	0		
OEDEMA	1	1	0.5	0.5	0		
OBSERVATIONS					De		
ANIMAL No. 2			1		1		T
ERYTHEMA	1	1	1	1	0.5	1	
OEDEMA	1	1.5	0.5	0.5	0		
ANIMAL No. 3	Ï						
ERYTHEMA	1	1	1	0.5	0		
OEDEMA	0	0	0.5	0	0		
OBSERVATIONS				Dem	Dem		
ANIMAL No. 4			l	1			
ERYTHEMA	0	1.5	0.5	0.5	0		
OEDEMA	0	0	0	0	0		
OBSERVATIONS				Dem	Des	1	-

Des = SLIGHT DESQUAMATION FROM THE SKIN (Dem = MINIMAL)

PRIMARY IRRITATION = \underline{SUM} ERYTHEMA 24/48/72hr + \underline{SUM} OEDEMA 24/48/72hr = 1.33 INDEX 3 x no of animals

SKIN IRRITATION DATA FOR INDIVIDUAL RABBITS

CONCENTRATION TESTED : 100% CHEMICAL : beta-IONOL

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : BEDOUKIAN

SPECIFICATION :

22029-76-1 CAS No. Purity 93.4%

Spec. No. 265

			OBSEI	RVATI	ON	INTERV	<i>7</i> ΔΤ.	(dave)
		l 1h	l 1d	2 d] 3d	7d	i	(
ANTWAT NO	1	1	1 14	2 u	Ju	/u		1 1
ANIMAL No.	1							
ERYTHEMA		0.5	1.5	1	1	0		
OEDEMA		0	1	0.5	0	0		
OBSERVATIONS		***	***			De		
ANTWAY No	2	ř	F :	6	1	4	ř	r r
ANIMAL No.	2							
ERYTHEMA		0	1	1	1.5	0		
OEDEMA		1	1	1	0.5	0		
OBSERVATIONS			-	-	Den	ì	-	
ANIMAL No.	3							
ERYTHEMA		1	1.5	1.5	1	0.5		
OEDEMA		1	1.5	1	0.5	0		
OBSERVATIONS					De	De		
ANIMAL No.	4							
ERYTHEMA		0	1.5	1	0.5	0		
OEDEMA		0	0.5	0.5	0.5	0		
OBSERVATIONS						Des		-

De = DESQUAMATION FROM THE SKIN (Des = SLIGHT m = MINIMAL)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.88INDEX 3 x no of animals

CHEMICAL : LINALOL [1] CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml No. OF RABBITS : THREE SPECIFICATION : EXPOSURE TIME : 4 hours

CAS No. 78-70-6
Purity 97.1%
Spec. No. 6623501

		OBSE	RVATI	NC	INTERV	/AL	(days)
	1h	1d	2d	3d	7 d		``[
ANIMAL No. 1							
ERYTHEMA	2	2	2	2	2		
OEDEMA	2	2	2	2	2		
OBSERVATIONS					De		

ANIMAL No. 2	Ĩ	0	Ĩ			Î	
ERYTHEMA	1	2	2	2	2	+	\pm
OEDEMA	1	2	1	1	1		
OBSERVATIONS					De		

ANIMAL No. 3	Î	Î	Î		Ĭ	Î	ĺ
ERYTHEMA	1	2	2	1	0	\neg	
OEDEMA	0	1	1	1	1		
OBSERVATIONS			De	De*	De*	-	

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.33 INDEX 3 x no of animals

De

OBSERVATIONS

SKIN IRRITATION DATA FOR INDIVIDUAL RABBITS

CONCENTRATION TESTED : 100% CHEMICAL : LINALOL [2]

: GIVAUDAN-ROURE SOURCE VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 78-70-6 97.1% Purity Spec. No. 6623501

		OBSER	CITAV	N	INTERVA	day (day	7S)
	1h	1d	2d	3d		1	
ANIMAL No. 1							
ERYTHEMA	2	2	2	2	2		
OEDEMA	1	2	2	1	2		
OBSERVATIONS	****				De*		
ANIMAL No. 2	1	1 1	1		T I	1	
ERYTHEMA	1	2	2	2	1		
OEDEMA	1	2	2	1	0		
OBSERVATIONS	-				De*		
ANIMAL No. 3	Ĭ	ľ I	1		1 1	Ĩ	
ERYTHEMA	1	2	2	2	2		
OEDEMA	2	1	1	1	1		
OBSERVATIONS		Des	Des	Des	Des		
ANIMAL No. 4		1			1 1	1	
ERYTHEMA	1	2	2	2	1		
OEDEMA	1	2	1	1	1		

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED Des = SLIGHT)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.42 INDEX 3 x no of animals

CHEMICAL : LINALOOL [3] CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours

CAS No. 78-70-6 Purity 97.1% Spec. No. 6623501

								_
		Į.		RVATIO		INTER	VAL (days)
		1 h	1d	2d	3d	7d		
ANIMAL No.	1							
ERYTHEMA		0	1	1	1	0		
OEDEMA		0	0	0	0	0		
OBSERVATIONS					Des	Des		1000
ANIMAL No.	2	1	l			1	1	f f
ERYTHEMA		1	2	2	2	1		
OEDEMA		0	1	1	1	0		
OBSERVATIONS						De*	,	***
ANIMAL No.	3	1	I	ľ	1	1	ĺ	1 1
ERYTHEMA		1	2	2	2	0		
OEDEMA		0	0	1	1	0		
OBSERVATIONS						Des		2.00
ANIMAL No.	4	I				1	ĺ	1 1
ERYTHEMA		1	2	2	1	0		
OEDEMA		0	0	0	0	0		
OBSERVATIONS						Des		· · · ·

De* = MARKED DESQUAMATION FROM SKIN SURFACE (Des = SLIGHT)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.08 INDEX 3 x no of animals

CHEMICAL

: p-MENTHA-1,8-

CONCENTRATION TESTED : 100%

DIEN-7-OL

SOURCE

: IFF

: 0.5ml

VOLUME TESTED No. OF RABBITS

: FOUR

SPECIFICATION

EXPOSURE TIME

: 4 hours

CAS No. Purity 536-59-4

94.6%

			OBGE	RVATI(OM	INTER	77AT. /	dave)
		1h	l 1d	2d	3d	l 7d	VAL (days
	140	1 111	1 a	Zu	J Ju	/u		1 1
ANIMAL No.	1							
ERYTHEMA		1.5	2	2	2	1.5		
OEDEMA		0.5	0.5	1	1	0.5		
OBSERVATIONS		11*	-0,	300	11/	Des	,,,	
ANIMAL No.	2	ī	ř	fl f	1	Ť	r	F 1
ANIMAL NO.	2							
ERYTHEMA		1.5	2	2	2	2		
OEDEMA		1	2.5	2	1.5	0.5		
OBSERVATIONS						De*		
ANIMAL No.	3	ĭ	ľ	f	1	ī	ĭ	ĭ ſ
ANIMAL NO.	3						1	
ERYTHEMA		1	1.5	2	2	1.5		
OEDEMA		0.5	0.5	1.5	2	2		
OBSERVATIONS				1		De		
		ų.		vi i				g i
ANIMAL No.	4							
ERYTHEMA		1.5	2	2	2	2		
OEDEMA		1.5	1.5	1	1	0.5		

De = DESQUAMATION FROM THE SKIN (De* = MARKED Des = SLIGHT)

PRIMARY

OBSERVATIONS

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.29 INDEX 3 x no of animals

CHEMICAL : 2-METHYL-4-PHENYL- CONCENTRATION TESTED : 100%

2-BUTANOL

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR

SPECIFICATION :

EXPOSURE TIME : 4 hours
CAS No. 103-05-9
Purity 100%

Purity 100% Spec. No. 4596003

ANIMAL No.	1	1h	OBSE 1d	RVATION 2d	ON 3d	INTER	VAL (days)
ERYTHEMA		0.5	1	1.5	2	1.5		
OEDEMA		0	0.5	0.5	1	0.5		
ANIMAL No.	2	1	1	1		1	Î	1 1
ERYTHEMA		0.5	2	2	1	0		
OEDEMA		0	0.5	0	0	0		
OBSERVATIONS				Dem	Des	De	41	-
ANIMAL No.	3					1	Ç.	
ERYTHEMA		0.5	1	1	1	0		
OEDEMA		0	0 5	0	0	0		
ANIMAL No.	4	Ī		1		1		
ERYTHEMA		0.5	0.5	1	1	0.5		
OEDEMA		0	0	0.5	0.5	0		

De = DESQUAMATION FROM THE SKIN (Des = SLIGHT Dem = MINIMAL)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.58 INDEX 3 x no of animals

CHEMICAL

: PHENYLETHYL ALCOHOL [1] CONCENTRATION TESTED : 100%

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 60-12-8 Purity 99.6% Spec. No. 1246003

		OBSE	RVATIO	NC	INTERV	7 Δ Τ. /	dave)
	1 1h	l 1d	2d	l 3d	1 7d	, 113	l I
ANIMAL No. 1				"	-		
ERYTHEMA	1	2	1	1	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2	Ť	ř	ı	i	1 1	i	î (
ANIMAL NO. Z							
ERYTHEMA	1	2	1	1	1		
OEDEMA	1	1	1	1	0		
ANIMAL No. 3	1	fin					
ERYTHEMA	2	2	2	2	0		
OEDEMA	1	1	1	1	0		

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 2.22

INDEX 3 x no of animals

CHEMICAL : PHENYLETHYL ALCOHOL [2] CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml : FOUR : 4 hours No. OF RABBITS

SPECIFICATION: EXPOSURE TIME

60-12-8 CAS No. Purity 99.6% Spec. No. 1246003

	1 11	V-1	RVATIO			VAL	(days)
ANIMAL No. 1	l 1h	1d	2d	3d	7d		
ERYTHEMA	1	1	1	1	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2	Ĭ					Ì	Î
ERYTHEMA	1	1	1	1	0		
OEDEMA	0	1	1	0	0		
OBSERVATIONS					Des		
ANIMAL No. 3	Î						
ERYTHEMA	0	1	1	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 4	Ï						
ERYTHEMA	1	1	0	0	0		
OEDEMA	0	0	0	0	0		

Des = SLIGHT DESQUAMATION FROM THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.92

INDEX 3 x no of animals

CHEMICAL

: isoPROPANOL

CONCENTRATION TESTED : 100%

SOURCE

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No.

67-63-0

Purity

100%

		OBSEI	RVATIO	ON	INTER	VAL (days)
ANIMAL No. 1	4½h	1d	2d			,	
ERYTHEMA	1	2	2	1			
OEDEMA	0	0	0	0			
ANIMAL No. 2							
ERYTHEMA	1	1	0	0			
OEDEMA	0	0	0	0			
ANIMAL No. 3					1	1	
ERYTHEMA	1	1	0	0			
OEDEMA	0	0	0	0			

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.78

3 x no of animals INDEX

: isoSTEARYL ALCOHOL CONCENTRATION TESTED : 100% CHEMICAL

VOLUME TESTED : 0.5ml
NO. OF RABBITS : THREE
EXPOSURE TIME : 4 hours : UNICHEMA INTERNATIONAL VOLUME TESTED SOURCE

SPECIFICATION :

CAS No. 27458-93-1

Purity

Trade name PRISORINE 3515

	1h	OBSEI	RVATIO	ON 3d	INTER	RVAL (days		
ANIMAL No. 1	"	14	24	Ju	"			
ERYTHEMA	2	2	2	1	0			
OEDEMA	2	2	1	0	0			
ANIMAL No. 2			2					
ERYTHEMA	2	2	1	1	0			
OEDEMA	2	2	1	0	0			
ANIMAL No. 3	1				1			
ERYTHEMA	2	2	2	1	0			
OEDEMA	2	2	1	0	0			

3 x no of animals

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.56

INDEX

CHEMICAL : alphaTERPINEOL [1] CONCENTRATION TESTED: 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml No. OF RABBITS : THREE EXPOSURE TIME : 4 hours

SPECIFICATION :

98-55-5 CAS No. Purity 98.4% 9217001 Spec. No.

			OBSER	RVATIO	ON	INTERV	'AL (days)
		1h	1d	2d	3d	7d	,	<u> </u>
ANIMAL No.	1							
ERYTHEMA		0	1	2	2	1		
OEDEMA		1	2	2	2	1		
OBSERVATIONS						De*		
ANIMAL No.	2							
ERYTHEMA		2	2	2	2	2		
		2	2	2	2	2		
ERYTHEMA OEDEMA OBSERVATIONS		2 2	3	2	2			
OEDEMA	3					1		
OEDEMA OBSERVATIONS	3					1		

OBSERVATIONS TDe*

De* = MARKED DESQUAMATION FROM SKIN SURFACE TDe* = THICKENING AND MARKED DESQUAMATION FROM SKIN SURFACE

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.44 INDEX 3 x no of animals

CONCENTRATION TESTED : 100% : alphaTERPINEOL [2] CHEMICAL

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : GIVAUDAN-ROURE

SPECIFICATION :

98-55-5 CAS No. Purity Spec. No. 9217001

		OBSE	RVATIO	אר	INTERV	7ΔT. (davel
	1h	l 1d	2d	3d	7d	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	l I
ANIMAL No. 1	111	14	Zu	34	'4		
ANIMAL NO.							
ERYTHEMA	2	2	2	2	2		
OEDEMA	2	3	3	3	1		
OBSERVATIONS					Des		
ANIMAL No. 2	Ť	ľ		1			î i
ERYTHEMA	2	2	3	3	2		
OEDEMA	3	3	3	3	3		
OBSERVATIONS	A				De*		4
ANIMAL No. 3							
ERYTHEMA	2	2	2	2	2		
OEDEMA	2	3	2	3	3		
OBSERVATIONS	*	-			De*		
ANIMAL No. 4							
ERYTHEMA	1	2	2	2	1		
OEDEMA	2	2	2	1	0		

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED Des= SLIGHT)

PRIMARY

OBSERVATIONS

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.75

De*

3 x no of animal s INDEX

SKIN IRRITATION DATA FOR INDIVIDUAL RABBITS

CHEMICAL : alphaTERPINEOL [3] CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR

: 4 hours SPECIFICATION EXPOSURE TIME

CAS No. 98-55-5 Purity 98.4% Spec. No. 9217001

								· .
			4	RVATIO		INTER	/AL (days)
	1	1h	1d	2d	3d	7d	ľ	
ANIMAL No.	1							1 1
								1
ERYTHEMA		2	2	2	2	1		
OEDEMA		2	3	3	2	0		
OBSERVATIONS						Des		
						505		
ANIMAL No.	2		1 1	n a	1	1 1		E E
manu no.	-							1 1
ERYTHEMA		2	2	2	2	2	_	+
OEDEMA		2	2	2	2	2		+
OBSERVATIONS								
OBSERVATIONS						Des		
ANIMAL No.	3 1		0 9	E 9		i)		r c
ANIMAL NO.	3							
ERYTHEMA		1	2	2	1	0		
OEDEMA		0	1	1	0	0		
OBSERVATIONS				Des	Des	Des		
ANIMAL No.	4			1		1 1		1 1
ERYTHEMA		2	2	2	2	1		1 1
OEDEMA		ī	3	3	3	1		1
OBSERVATIONS	- I		9			De*		
ODDIN VILLOUID						De"		

De* = MARKED DESQUAMATION FROM SKIN SURFACE (Des = SLIGHT)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.0 INDEX 3 x no of animals

CHEMICAL : paratertiaryBUTYL CONCENTRATION TESTED: 100%

DIHYDROCINNAMALDEHYDE

: 0.5ml : FOUR SOURCE : QUEST VOLUME TESTED

No. OF RABBITS SPECIFICATION : EXPOSURE TIME : 4 hours

CAS No. 18127-01-0

Purity 95.0 02759 Spec. No.

			OBSE	RVATI	ON	INTER	VAL (davsl
		1h	1d	1 2d] 3d	7d	i `	1
ANIMAL No.	1	1 ***	• •	24	ا عد	/ u		
ANTIPAL NO.	*	1						
ERYTHEMA		0.5	0.5	1.5	0.5	0.5		
OEDEMA		0	0	0	0	0		
ANIMAL No.	2	1	ľ	1	1	Ĭ	Í	Ĭ
	- CCA							
ERYTHEMA		1.5	2	2	2	1.5		L
OEDEMA		0.5	2	1	0.5	0		
OBSERVATIONS		18.				De*	-	
******	2	ĭ	r ·	í.	i	4		10
ANIMAL No.	3							
ERYTHEMA		1	2	2	2	1		- 1
OEDEMA		0	1.5	1.5	1.5	0	i	1
OBSERVATIONS		,				De*		-
		Ţ.	ŷ.	ř.	,	g .		\overline{v}
ANIMAL No.	4							
ERYTHEMA		0.5	2	1.5	1	0.5		
OEDEMA		0	1.5	0.5	0	0		

De = DESQUAMATION FROM TREATED SKIN (De* = MARKED)

THE TREATED SKIN WAS STAINED YELLOW IN ANIMALS 1 & 2 AT 24, 48, 72 hr READINGS

De

PRIMARY

OBSERVATIONS

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.42 INDEX 3 x no of animals

CHEMICAL

: isoBUTYRALDEHYDE

CONCENTRATION TESTED : 100%

SOURCE

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

: IFF

SPECIFICATION :

78-84-2

CAS No. Purity Spec. No.

98%

ANIMAL No. 1	1h	OBSE:	RVATIO	ON 3d	INTERV	/AL (days)
ERYTHEMA	0	0.5	0.5	0	0		-
OEDEMA	0.5	0	0	0	0		
ANIMAL No. 2	ĺ				Ì		
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 3		i i			Î		
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 4					1		
ERYTHEMA	0.5	0.5	0	0	0		
OEDEMA	0	0	0	0	0		

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.13 INDEX 3 x no of animals

CONCENTRATION TESTED : 100% CHEMICAL : CINNAMALDEHYDE

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : IFF

SPECIFICATION :

CAS No. 104-55-2 Purity Spec. No. 98.4%

ANIMAL No. 1	ĺ	1h	OBSEI 1d	RVATIO 2d	ON 3d	INTERV	/AL (days)
ERYTHEMA		2	2	2	2	1		+ +
OEDEMA		3	2	1.5	1.5	0.5		
ANIMAL No. 2 ERYTHEMA OEDEMA		2 4	2 2	2	2	2		
ANIMAL No. 3 ERYTHEMA		2	2	2	2	DEAD		
OEDEMA		4	2	1	1	+DLIND_		
ANIMAL No. 4 ERYTHEMA OEDEMA		2 4	2 2	2.5	2	2		

YELLOW STAINING WAS OBSERVED IN ALL ANIMALS

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.71 INDEX 3 x no of animals

CHEMICAL : CITRATHAL CONCENTRATION TESTED : 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : QUEST

SPECIFICATION :

CAS No. 147060-73-9

Purity

Spec. No. 41415

			OBSE	RVATI	ON	INTER	VAT. (davs)
ANIMAL No.	1	1h	1d	2d	3d	7d	'	
	. * .							
ERYTHEMA		2	2	2	2	1.5		
OEDEMA		2	2.5	2.5	2.5	2.5		
OBSERVATIONS						De*		
ANIMAL No.	2				1	Ĭ	Ĩ	Ĩ
ERYTHEMA		2	2	2	2	1		
OEDEMA		1	2	2	2	1.5		
OBSERVATIONS						De*		
ANIMAL No.	3	Î		1			Î	
ERYTHEMA		2	2	2	1.5	1		
OEDEMA		1	2	1.5	0.5	0.5		
OBSERVATIONS						De*		
ANIMAL No.	4	Ĭ		1	1	Ĭ		
ERYTHEMA		1.5	2	2	2	0		
ERYTHEMA OEDEMA		1.5	1.5	0.5	0.5	0		

De = DESQUAMATION FROM THE SKIN (De* = MARKED)

OBSERVATIONS

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 3.63 INDEX 3 x no of animals

CHEMICAL : CYCLAMEN ALDEHYDE # [1] CONCENTRATION TESTED : 100%

SOURCE : FIRMENICH VOLUME TESTED : 0.5ml No. OF RABBITS : THREE

SPECIFICATION: EXPOSURE TIME : 4 hours

CAS No. 103-95-7

Purity >98
Spec. No. 37174

ERYTHEMA OEDEMA

OBSERVATIONS

: synonym for 2-methyl-3-(p-isopropylphenyl)propionaldehyde

		OBSE	RVATIO	N	INTER	(days)	
	1h	1d	2d	3d	7 d		
ANIMAL No. 1							
ERYTHEMA	1	2	3	3	2		
OEDEMA	0	3	3	3	2		
OBSERVATIONS					De*		
			v1 10				V. 20
ANIMAL No. 2							
ERYTHEMA	1	2	2	2	2		
OEDEMA	1	3	3	3	1		
OBSERVATIONS					De		
2		EC	e n		v ·	ē	v v
ANIMAL No. 3							
	1	I	1 1			I	1 1

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 5.11 INDEX 3 x no of animals

: CYCLAMEN ALDEHYDE # [2] CONCENTRATION TESTED : 100% CHEMICAL

SOURCE : FIRMENICH VOLUME TESTED : 0.5ml : FOUR No. OF RABBITS

SPECIFICATION : EXPOSURE TIME : 4 hours

CAS No. 103-95-7 >98 Purity Spec. No. 37174

: synonym for 2-methyl-3-(p-isopropylphenyl)propionaldehyde

		OBSE	RVATIC	N	INTERV	ΆΤ. (α	davs)
	1h	l 1d	2d	3d	7d	(1 1
ANIMAL No. 1							
ERYTHEMA	1	2	2	2	1		
OEDEMA	1	3	2	2	2		
OBSERVATIONS	· · · · · · · · · · · · · · · · · · ·				De*		
ANIMAL No. 2		i i					
ERYTHEMA	1	2	2	2	2		
OEDEMA	2	2	3	3	1		
OBSERVATIONS					De*		
ANIMAL No. 3		1			1 1		

ANIMAL No. 3						
ERYTHEMA	1	2	2	2	2	
OEDEMA	2	2	2	2	2	

ANIMAL No. 4	1	Ť	ľ	Ĩ	ä	1	1 1
ERYTHEMA	1	2	2	2	1		
OEDEMA	1	2	2	1	0		
OBSERVATIONS					De		

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA $\underline{24/48/72\text{hr}}$ + $\underline{\text{SUM}}$ OEDEMA $\underline{24/48/72\text{hr}}$ = 4.17 3 x no of animals INDEX

CHEMICAL : CYCLAMEN ALDEHYDE # [3] CONCENTRATION TESTED : 100%

SOURCE : FIRMENICH VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR

SPECIFICATION: EXPOSURE TIME : 4 hours

CAS No. 103-95-7 Purity >98 Spec. No. 37174

: synonym for 2-methyl-3-(p-isopropylphenyl)propionaldehyde

ANIMAL No. ERYTHEMA OEDEMA	1	1 h	OBSEI	RVATIO	3d 2 3	INTERV 7d 2 2 2	/AL (days)
OBSERVATIONS						De*		
ANIMAL No.	:2							
ERYTHEMA		2	2	2	2	1		
OEDEMA		0	2	3	3	1		
OBSERVATIONS						De*		
ANIMAL No.	3							
ERYTHEMA		2	2	2	2	1		
OEDEMA		1	3	2	2	0		
OBSERVATIONS						De*		
ANIMAL No.	4							

0

3

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

ERYTHEMA OEDEMA

OBSERVATIONS

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.83 INDEX 3 x no of animals

CHEMICAL : CYCLAMEN ALDEHYDE # [4] CONCENTRATION TESTED : 100%

SOURCE

: FIRMENICH

VOLUME TESTED No. OF RABBITS

: 0.5ml

SPECIFICATION:

EXPOSURE TIME

: FOUR : 4 hours

103-95-7 CAS No.

Purity Spec. No. >98 37174

: synonym for 2-methyl-3-(p-isopropylphenyl)propionaldehyde

	2 (1	•		- / -			4	
			OBSE	RVATIO	ON :	INTERV	AL (davs)
		1 1h	1 d	2d	3d	7d	(1 /
ANIMAL No.	1							
ERYTHEMA		1	2	2	2	1		
OEDEMA		0	1	2	1	0		
OBSERVATIONS						De*		-
ANIMAL No.	2					1 1		
ERYTHEMA		1	2	2	2	1		
OEDEMA		0	1	1	1	0		
OBSERVATIONS		33				De*		
ANIMAL No.	3	1	ľ			1 1		1
ERYTHEMA		1	2	2	2	1		
OEDEMA		0	2	2	2	Ô		
OBSERVATIONS		1			Des	De*		1
ANIMAL No.	4	Ĭ				1 1		Ĭ
ERYTHEMA		1	2	2	2	2		
OEDEMA		0	2	1	1	1		
OBSERVATIONS						De*		

De* = MARKED DESQUAMATION FROM SKIN SURFACE (Des = SLIGHT)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.42 INDEX 3 x no of animals

CHEMICAL

: 2,4-DECADIENAL

CONCENTRATION TESTED : 100%

SOURCE

: IFF

VOLUME TESTED No. OF RABBITS VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

SPECIFICATION :

2363-88-4

CAS No. Purity

Spec. No.

96.5%

OBSERVATION INTERVAL (days)

		ODOL.	KAVIT	OM	THILLY	L (days)
ANIMAL No. 1	1h	1d	2d	3d	7d	
ERYTHEMA	2	2	2	2	2.5	
OEDEMA	2.5	2.5	2.5	1	1	
ANIMAL No. 2	f			Ī	Î	ľ ľ
ERYTHEMA	2	2.5	2.5	2.5	3	
OEDEMA	4	3	3	2.5	3	
ANIMAL No. 3		I	1	ī	f f	f 1
ERYTHEMA	2	2	2	2	DEAD	
OEDEMA	2.5	2.5	2.5	2		
ANIMAL No. 4	ſ	1		I	Î	1 1
ERYTHEMA	2	2.5	2.5	2.5	3	
OEDEMA	3.5	3.5	3	2.5	2.5	

YELLOW STAINING WAS OBSERVED IN ALL ANIMALS

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.79INDEX 3 x no of animals

CHEMICAL : 2,4-DIMETHYL-3-CYCLO- CONCENTRATION TESTED : 100%

HEXEN-1-CARBOXALDEHYDE

: 0.5ml : FOUR SOURCE VOLUME TESTED : IFF

No. OF RABBITS

SPECIFICATION : EXPOSURE TIME : 4 hours

CAS No. 68039-49-6

Purity 99.0%

Spec. No.

ANIMAL No. 1	1h	OBSEI 1d	RVATIO	ON 3d	INTERV 7d	VAL (days)
ERYTHEMA	2	2	2	2	1		
OEDEMA	0	1	1	0.5	0		
OBSERVATIONS					De*		
ANIMAL No. 2							ĨĨ
ERYTHEMA	1	2	2	2.5	1.5		1
OEDEMA	2	1	1.5	1	0.5		
ANIMAL No. 3						ĺ	
ERYTHEMA	2	2	2	2	1.5		
OEDEMA	2	1.5	1	1	0.5		
ANIMAL No. 4	2	2	2	2	2		
OEDEMA	2	2	1.5	1	0.5		-
OBSERVATIONS	-	_ ~	12.5		De*		

De* = MARKED DESQUAMATION FROM THE SKIN

PRIMARY

IRRITATION = \underline{SUM} ERYTHEMA 24/48/72hr + \underline{SUM} OEDEMA 24/48/72hr = 3.21

INDEX 3 x no of animals

CHEMICAL

: 3,7-DIMETHYL-2,6-

CONCENTRATION TESTED : 100%

NONADIEN-1-AL

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED

SPECIFICATION :

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

41448-29-7

CAS No. Purity

matches standard

Spec. No.

4941001

		l 1h	OBSE	RVATI	ON 3d	INTER	VAL (days)
ANIMAL No.	1	***		Zu	50	'd		
ERYTHEMA		2	2	2	2	3		
OEDEMA		3	1.5	1.5	1.5	1.5		
OBSERVATIONS			-	-		De	-	
ANIMAL No.	2	ĺ						
ERYTHEMA		2	2	2	2	2		
OEDEMA		3.5	2	1.5	1	0.5		
OBSERVATIONS						De		
ANIMAL No.	3	Î	1	ĺ	Ĭ	Î.		1 1
ERYTHEMA		2	2	2	2	-		
OEDEMA		4	1.5	2	2	2		
OLI DELL'A		-9	11.5					
ANIMAL No.	4							1 1
ERYTHEMA		2	2	2	2	2.5		1
OEDEMA		3	2.5	2	2	1.5		

De = DESQUAMATION FROM THE SKIN

YELLOW STAINING WAS OBSERVED IN ALL ANIMALS

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.75INDEX 3 x no of animals

Des

SKIN IRRITATION DATA FOR INDIVIDUAL RABBITS

: 2,4-DIMETHYL-CHEMICAL CONCENTRATION TESTED : 100%

TETRAHYDROBENZALDEHYDE

: 0.5ml VOLUME TESTED No. OF RABBITS SOURCE : QUEST

: FOUR : 4 hours SPECIFICATION : EXPOSURE TIME

CAS No. 68737-61-1

Purity

Spec. No. 05668

		OBSE	RVATI	ON	INTERV	AL (davs)
	1h	1d	2 d	3d	7d	`	
ANIMAL No. 1							
ERYTHEMA	2	2	2	2	2		
OEDEMA	1.5	2	0.5	0	0.5		
OBSERVATIONS					De		
ANIMAL No. 2		ľ	I	1	1 1		
ERYTHEMA	0.5	1.5	1.5	1.5	0.5		
OEDEMA	0.5	0	0.5	0	0		
OBSERVATIONS					DesH		
ANIMAL No. 3			1	1	1 1		Ĩ
ERYTHEMA	2	2	2	2	2		
OEDEMA	20.5	1.5	1	1	0.5		
ANIMAL No. 4	L						
ERYTHEMA	0.5	2	2	2	2Des		
OEDEMA	1	1	1.5	1.5	0.5		

De = DESQUAMATION FROM THE SKIN (Des = SLIGHT)

H = SKIN HARDENING

OBSERVATIONS

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.75 INDEX 3 x no of animals

CHEMICAL : 2-ETHYLHEXANAL CONCENTRATION TESTED : 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : IFF

SPECIFICATION :

CAS No. 123-05-7

Purity Spec. No.

			OBSE	RVATI	ON	INTERV	7 A T. (davs)
		l 1h	1d	1 2d] 3d	7d	\	1 7 7 7
ANIMAL No.	1	""	14	24	Ju	, "		
ERYTHEMA		1	2	2	2	1		
OEDEMA		1.5	2.5	2.5	2.5	0		
OBSERVATIONS						De*		1000
ANIMAL No.	2	Ĩ					Ĭ	
ERYTHEMA		0.5	2	2	2	1		
OEDEMA		0.5	1.5	2	2	0		
OBSERVATIONS						De*		•
ANIMAL No.	3							1 1
ERYTHEMA		1.5	2	2	2	0.5		
OEDEMA		0.5	2.5	1.5	1	0		
OBSERVATIONS						De*		1
ANIMAL No.	4	ſ		ſ			r	r i
ERYTHEMA	× =	1.5	2	2	2	0.5		
OEDEMA		1	1.5	1.5	1.5	0		
OBSERVATIONS				-		De*		-

De* = MARKED DESQUAMATION FROM THE SKIN

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.88 3 x no of animals INDEX

De

SKIN IRRITATION DATA FOR INDIVIDUAL RABBITS

CHEMICAL : HEPTANAL CONCENTRATION TESTED : 100%

SOURCE : IFF VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours No. OF RABBITS

SPECIFICATION :

CAS No. 111-71-7 Purity 95.0% Spec. No.

			OBSE	RVATI	NC	INTER	VAL	(days)
		1h	1d	2d	3d	7d		`[
ANIMAL No.	1							
ERYTHEMA		1.5	3.5	3.5	3.5	3.5		
OEDEMA		0.5	2	2	2	2		
OBSERVATIONS						De*		
1000001100000 00	120	T.	r.		i			T .
ANIMAL No.	2							
		-				-		
ERYTHEMA		1.5	3.5	3.5	3.5	3.5		
OEDEMA		1.5	2.5	2	1.5	1.5		
OBSERVATIONS						De		
20020102 00	~	¥.	¥ .		ï	v ·	v	v .
ANIMAL No.	3							
		-				-		
ERYTHEMA		1	2	3	3H	3		
OEDEMA		1	3	2.5	2.5	2		
OBSERVATIONS						De*		
		Ŷ.	ř	ė i	i	y ·	ř	i i
ANIMAL No.	4							
PDVMIIPNA		-	-	-	2 5	2 -	_	
ERYTHEMA		1	2	2	2.5	2.5		
OEDEMA		0.5	1.5	1.5	1.5	2		

De = DESQUAMATION FROM THE SKIN (De* = MARKED)

H = SKIN HARDENED

OBSERVATIONS

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 5.0 INDEX 3 x no of animals

CHEMICAL : t,t-2,4-HEXADIENAL CONCENTRATION TESTED: 100%

SOURCE : BEDOUKIAN VOLUME TESTED : 0.5ml No. OF RABBITS

: FOUR : 4 hours SPECIFICATION : EXPOSURE TIME

CAS No. 142-83-6

Purity 360 Spec. No.

		OBSE	RVATIO	ON	INTERV	'AL (days)
	1 h	1d	2d	3d	7d		
ANIMAL No. 1							
ERYTHEMA	2	3	4	4	4		-
OEDEMA	4	3	3	4	2		-
OBSERVATIONS	В	HB	HB	В			<u> </u>
OBSERVATIONS	В	пв	пв	В			
ANIMAL No. 2	ľ	ř i	1		1 1		1 1
ERYTHEMA	2	3	4	4	4		
OEDEMA	4	4	4	4	-		
OBSERVATIONS	В	HB	В		Pi		
ANIMAL No. 3	Ť	i i	1 1		î î		f f
ERYTHEMA	2.5	3	4	4	4		
OEDEMA	4	3	3	3	_		
OBSERVATIONS	В	В	В		Pi		
ANIMAL No. 4	ĩ	ř i	1 3	ř	î î		ř i
ANTHAL NO. 4							
ERYTHEMA	2	3	3	4	4		
OEDEMA	4	4	4	3	2		
OBSERVATIONS	В	HB	HB				

- = ASSESSMENT NOT POSSIBLE

H = SKIN HARDENED

B = THE TREATED SKIN WAS STAINED BROWN

Pi = TREATED SKIN PITTED

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 7.08 INDEX 3 x no of animals

CHEMICAL : alphaHEXYLCINNAMIC

CONCENTRATION TESTED : 100%

ALDEHYDE [1]

SOURCE : GIVAUDAN-ROURE

SPECIFICATION :

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

CAS No. 101-86-0 Purity

91.9%

Spec. No.	1320001

ANIMAL No. 1	1h	OBSEI 1d	RVATIO	ON 3d	INTERV	AL	(days)
ERYTHEMA	1	2	2	2	1		+
OEDEMA	2	2	2	2	1		
ANIMAL No. 2		Ø 5	1		Ť		ĪĪ
ERYTHEMA	2	2	2	2	2		-
OEDEMA	2	3	3	2	2		
OBSERVATIONS		1			De*		
ANIMAL No. 3					ΙÍ		
ERYTHEMA	1	2	2	2	2		
OEDEMA	1	2	1	1	1		
OBSERVATIONS					De		

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.0 INDEX 3 x no of animals

CHEMICAL : alphaHEXYLCINNAMIC CONCENTRATION TESTED : 100%

ALDEHYDE [2]

SOURCE : GIVAUDAN-ROURE VOLUME TESTED

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SPECIFICATION :

CAS No. 101-86-0 Purity 91.9% Spec. No. 1320001

		OBSE	RVATIO	NC	INTERV	/AL (days)
	1h	1d	2d	3d	7d		f f
ANIMAL No. 1							
ERYTHEMA	1	2	2	2	1		
OEDEMA	2	2	2	1	0		
OBSERVATIONS					De		
ANIMAL No. 2					1 1		1 1
ERYTHEMA	2	2	2	2	2		
OEDEMA	2	2	2	2	1		
							16.
ANIMAL No. 3		ľ			1 1		1 1
ERYTHEMA	2	2	2	2	2		
OEDEMA	2	3	2	2	2		
ANIMAL No. 4		i i	1		1 1		T T
<u> </u>							
ERYTHEMA	2	2	2	2	2		
OEDEMA	2	2	2	2	2		
OBSERVATIONS					De*		

De = DESQUAMATION FROM SKIN SURFACE (* = MARKED)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.0

INDEX 3 x no of animals

CHEMICAL : alphaHEXYLCINNAMIC CONCENTRATION TESTED : 100%

ALDEHYDE [3]

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR

SPECIFICATION: EXPOSURE TIME: 4 hours

CAS No. 101-86-0 Purity 91.9% Spec. No. 1320001

OBSERVATION INTERVAL (days)			ODGE					, -1 \	
ANIMAL No. 1 ERYTHEMA		1 -1	411				VAL ((days)	100
ERYTHEMA 0 1 2 1 0 OEDEMA 0 0 0 0 0 0 OEDEMA OEDEMA 1 2 2 2 1 OEDEMA OEDEMA 1 1 1 1 1 1 OEDEMA OEDEMA 1 1 2 2 2 2 0 OEDEMA OEDEMA 1 1 2 2 2 2 0 OEDEMA OEDEMA 1 1 2 2 2 2 0 OEDEMA OEDEMA OEDEMA 1 1 2 2 2 2 0 OEDEMA OEDEMA OEDEMA OEDEMA OEDEMA OEDEMA OEDEMA O 1 1 1 1 0 OEDEMA OEDEMA OEDEMA O 1 1 1 1 0 OEDEMA OEDEMA OEDEMA O 1 1 1 1 0 OEDEMA OEDEMA OEDEMA O 1 1 1 1 0 OEDEMA OEDEMA O 1 1 1 1 0 OEDEMA OEDEMA O 1 1 1 1 0 OEDEMA O 1 1 1 1 0 OEDEMA O 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		In	та	2d	3a	/ a			
OEDEMA 0 0 0 0 0 OBSERVATIONS Des Des Des ANIMAL No. 2 ERYTHEMA OEDEMA OBSERVATIONS ANIMAL No. 3 ERYTHEMA OEDEMA 1 2 2 2 0 OEDEMA	ANIMAL NO. 1								
OEDEMA 0 0 0 0 0 OBSERVATIONS Des Des Des ANIMAL No. 2 ERYTHEMA OEDEMA OBSERVATIONS ANIMAL No. 3 ERYTHEMA OEDEMA 1 2 2 2 0 OEDEMA	THE STREET BY B		-	_	1	_		_	+
OBSERVATIONS Des Des Des ANIMAL No. 2								-	+
ANIMAL No. 2 ERYTHEMA	The state of the s	0	0	37.5					
ERYTHEMA 1 2 2 2 1	OBSERVATIONS			Des	Des	Des			
ERYTHEMA 1 2 2 2 1									
ERYTHEMA 1 2 2 2 1		ř							110
OEDEMA 1 1 1 1 1 1 1 De* ANIMAL No. 3 Image: Company of the co	ANIMAL No. 2								
OEDEMA 1 1 1 1 1 1 1 De* ANIMAL No. 3 Image: Company of the co				_				_	4
OBSERVATIONS De* ANIMAL No. 3 ERYTHEMA 1 2 2 2 0 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0									1
ANIMAL No. 3 ERYTHEMA 1 2 2 2 0 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0		1	1	1	1				
ERYTHEMA 1 2 2 2 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0	OBSERVATIONS					De*			
ERYTHEMA 1 2 2 2 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0									
ERYTHEMA 1 2 2 2 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0									1.61
OEDEMA 0 1 1 1 0	ANIMAL No. 3	ľ	ľ		1	1			
OEDEMA 0 1 1 1 0	**************************************								
- 10 M M M M	ERYTHEMA								\perp
OBSERVATIONS De*	OEDEMA	0	1	_ 1	1	0			\perp
	OBSERVATIONS					De*	71.		
ANIMAL No. 4	ANIMAL No. 4					1 1		ľ	1
ERYTHEMA 1 2 2 2 0	ERYTHEMA	1	2	2	2	0			Ť
OEDEMA 0 1 1 1 0	OEDEMA					0			Ť
OBSERVATIONS Des	AD ADDITED BY AND		-						_

De* = MARKED DESQUAMATION FROM SKIN SURFACE (Des = MARKED)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.58

INDEX 3 x no of animals

CHEMICAL : HYDROXYCITRONELLAL [1] CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml No. OF RABBITS : THREE EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 107-75-5 98.7% Purity Spec. No. 5920003

ANIMAL No. 1	lh	OBSEI 1d	RVATIO 2d	N 3d	INTER	VAL (days)
ERYTHEMA	2	1	1	1	0		
OEDEMA	1	1	0	0	0		
ANIMAL No. 2	1	1	1	1			
OEDEMA	0	1	0	0	0		
OBSERVATIONS					Des		
ANIMAL No. 3							
ERYTHEMA	1	1	1	0	0		
OEDEMA	1	0	0	0	0		

Des = SLIGHT DESQUAMATION FROM SKIN SURFACE

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.11 INDEX 3 x no of animals

CHEMICAL : HYDROXYCITRONELLAL [2] CONCENTRATION TESTED : 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : GIVAUDAN-ROURE

SPECIFICATION :

CAS No. 107-75-5 Purity 98.7% Purity 98.7% Spec. No. 5920003

		OBSEI	RVATIO	אר	TNTER	7 5 T.	(days)
	1h	l 1d	2d	3d	1 7d	1	(days)
ANIMAL No. 1	1 111	14	24	ا	'u		1. 1
ANIMALI NO.							
ERYTHEMA	1	2	2	1	0		
OEDEMA	0	1	0	0	0		
	· ·	r 5	y: 2			ř	v (v)
ANIMAL No. 2							
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 3	1				Ī		1 1
ERYTHEMA	0	1	1	0	0		
OEDEMA	0	0	0	0	0		
OBSERVATIONS	,,,				Dvs	ē-	
ANIMAL No. 4	Î						1 1
ERYTHEMA	1	1	1	1	0		
OEDEMA	0	0	0	0	0		

Dvs = VERY SLIGHT DESQUAMATION FROM SKIN SURFACE

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 0.92

INDEX 3 x no of animals

CHEMICAL : LILESTRALIS/LILIAL #[1] CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE

SPECIFICATION: EXPOSURE TIME : 4 hours

CAS No. 80-54-6

CAS No. 80-54-6 Purity 97.8% Spec. No. 6580003

: tradenames for p-t-butyl-alpha-methylhydrocinnamic aldehyde

		OBSEI	RVATIO	ON	INTERV	AL	(days)
	1h	1d	2d	3d	7d		1 - 1
ANIMAL No. 1							
ERYTHEMA	0	1	2	2	1		
OEDEMA	1	2	2	2	0		
OBSERVATIONS	77				De*		

ANIMAL No. 2	1	ľ	1	1	Ĩ		
ERYTHEMA	2	2	2	2	2	+	
OEDEMA	2	2	3	3	2		
OBSERVATIONS		1			De*	e e	

ANIMAL No. 3	ĵ	Í	1	Ī	1		1
ERYTHEMA	1	2	2	3	2		-
OEDEMA	2	3	3	3	2		

OBSERVATIONS De*

De* = MARKED DESQUAMATION FROM SKIN SURFACE

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.56

INDEX 3 x no of animals

: LILESTRALIS/LILIAL #[2] CONCENTRATION TESTED : 100% CHEMICAL

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR

SPECIFICATION :

EXPOSURE TIME

: 4 hours

CAS No.

80-54-6

Purity 97.8% Spec. No. 6580003

: tradenames for p-t-butyl-alpha-methylhydrocinnamic aldehyde

				RVATIO	NC	INTERV	л (days)
	5400	1h	1d	2d	3d	7d		
ANIMAL No.	1			ii i				
ERYTHEMA		1	2	2	2	2		
OEDEMA		1	2	2	1	1		
OBSERVATIONS					??	De		
ANIMAL No.	2				ĺ	1 1		
ERYTHEMA		1	1	2	2	2		
OEDEMA		2	1	2	2	1		
OBSERVATIONS						De		
ANIMAL No.	3		Ì					Î
ERYTHEMA		1	2	2	2	1		
OEDEMA		1	3	2	2	0		
OBSERVATIONS						De		
ANIMAL No.	4					ĪĬ		Ī
ERYTHEMA		2	2	2	2	2		
OEDEMA		1	1	1	1	1		
OBSERVATIONS						Des		

De = DESQUAMATION FROM SKIN SURFACE (Des = SLIGHT)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.58 3 x no of animals INDEX

: 3-METHYLBUTYRALDEHYDE CONCENTRATION TESTED : 100% CHEMICAL

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : BEDOUKIAN

SPECIFICATION :

590-86-3 >98.5% CAS No. Purity Spec. No. 290

ANIMAL No. 1	l 1h	OBSEI 1d	RVATIO	ON 3d	INTER	VAL (days)
ERYTHEMA	2	2	2	2	1		
OEDEMA	2	2.5	2	1.5	0.5		
ANIMAL No. 2	Ĭ		ľ.				
ERYTHEMA	1	2	2	1.5	0.5		
OEDEMA	2	1.5	1.5	1	0		
ANIMAL No. 3							
ERYTHEMA	1	2	1	0.5	1		
OEDEMA	1	1	0	0	1		
OBSERVATIONS			,		De*		
ANIMAL No. 4							
ERYTHEMA	1	1	1	2	0.5		
OEDEMA	1	1	1.5	1.5	0		
OBSERVATIONS	-				De*	-	

De* = MARKED DESQUAMATION FROM THE SKIN

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.83

INDEX 3 x no of animals

CHEMICAL

: 2,5-METHYLENE-6-PROPYL CONCENTRATION TESTED : 100%

-3-CYCLOHEXENCARBALDEHYDE #

SOURCE

: QUEST

VOLUME TESTED

De

: 0.5ml

SPECIFICATION

No. OF RABBITS

: FOUR

CAS

EXPOSURE TIME

: 4 hours

CAS No. Purity 39067-39-5 >92.0%

Spec. No.

04471

synonym for 3-propylbicyclo[2.2.1]hept-5-ene-2-carboxaldehyde

			OBSE	RVATIO	NC	INTERV	VAL (days)
		l 1h	1d	2 d	3 d	1 7d	ľ Ì	
ANIMAL No.	L.				1	1		
ERYTHEMA		1	1	1.5	1.5	0.5		
OEDEMA		1	0.5	0	0	0		
OBSERVATIONS						De*		*
ANIMAL No.	2	Ť			İ	1	ľ	
ERYTHEMA		1.5	2	2	2	0.5		
OEDEMA		2.5	1.5	0.5	0.5	0		
OBSERVATIONS		0				De		
ANIMAL No.	3	ľ	1	1	1	1		
ERYTHEMA		1.5	2	2	2	1		
OEDEMA		0.5	1.5	0.5	0.5	0		
OBSERVATIONS						T		•
ANIMAL No.	4	f	1	1	1	1		1
100								
ERYTHEMA		0.5	2	2	1.5	0.5		
OEDEMA		1.5	1.5	0.5	0	0		

De = DESQUAMATION FROM TREATED SKIN (De* = M,ARKED)

T = SKIN THICKENING

PRIMARY

OBSERVATIONS

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.42

INDEX 3 x no of animals

CHEMICAL

: NONANAL

CONCENTRATION TESTED : 100%

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 124-19-6 Purity 98.9% Spec. No. 1358583

		1	ERVATI	ON	INTERV	AL (days)
	11	n 1d	2 d	3d	7d		
ANIMAL No. 1							
ERYTHEMA	0.5	5 2	2	2	2		
OEDEMA	0.5	5 1	1	1.5	1.5		
OBSERVATIONS	***				De*		ti tila
ANIMAL No. 2	Ť	f	1	1	T f		f T
ERYTHEMA	1.5	5 2	2	2	2		
OEDEMA	1	1	1.5	1.5	1.5		
OBSERVATIONS				1 =	De*		-
ANIMAL No. 3	i i	ř	1	ī	I I		1 1
millio.							
ERYTHEMA	1	2	2	2	2		
OEDEMA	1.5		1	1.5	1		
OBSERVATIONS	1.3.0.0				De*		h
ANIMAL No. 4	Í	ľ	1				
ERYTHEMA	0.5	5 2	2	2.5	3.5		
OEDEMA	2.5		2	2	2		
OBSERVATIONS					De*		

De* = MARKED DESQUAMATION FROM THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.46

INDEX

3 x no of animals

CHEMICAL

: 2-PHENYLPROPION-

CONCENTRATION TESTED : 100%

ALDEHYDE

SOURCE

: GIVAUDAN-ROURE

SPECIFICATION :

VOLUME TESTED No. OF RABBITS EXPOSURE TIME

: 0.5ml : FOUR : 4 hours

CAS No. 93-53-8 Purity 98.4%

Purity Spec. No.

1557001

			OBSER	VATIO		INTERVA	L (lays)
	1	1h	1d	2d	3d	7d		- i
ANIMAL No. 1								
ERYTHEMA		0.5	2	2	2	0.5		
OEDEMA		0	1	0.5	0	0		
OBSERVATIONS						Des		
******* W- 0	ï	1	i				1	. 100
ANIMAL No. 2								
ERYTHEMA		1	2	2	2	0.5		
OEDEMA		0.5	1	1	0.5	0.5		
OBSERVATIONS		0.5	1	1	0.5	De		
OBSERVATIONS						De		
ANIMAL No. 3	1	F	1	1		f f	1	4
ANTHAL NO.			1					
ERYTHEMA		1	2	2	2	0.5		
OEDEMA			0.5	0.5	0.5	0		
OLI DELLE	1.0	0 0 1	0.5	0.5	0.5			
ANIMAL No. 4	Ĩ	Î	1	î î		1 1	Ì	1
ERYTHEMA		1	2	2	2	2		
OEDEMA		2	2	2	1.5	1.5		
OBSERVATIONS						De*		

De = DESQUAMATION FROM THE SKIN (De* = MARKED Des = SLIGHT)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.92

INDEX 3 x no of animals

: p-isoPROPYLPHENYL-

CONCENTRATION TESTED: 100%

ACETALDEHYDE

SOURCE

: FIRMENICH

VOLUME TESTED

: 0.5ml : FOUR

No. OF RABBITS

SPECIFICATION :

4395-92-0

EXPOSURE TIME

: 4 hours

CAS No.

>97%

Purity Spec. No. 13042

	1h	OBSEI	RVATIO	ON :	INTERV	VAL (days)
ANIMAL No. 1		14	20	Ju	/4		
ERYTHEMA	2	2	2	2	2		
OEDEMA	1	1.5	1.5	1.5	1.5		
OBSERVATIONS					De		
ANIMAL No. 2							
ERYTHEMA	1	1	0.5	0.5	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 3							
ERYTHEMA	1	1.5	0.5	0.5	0		
OEDEMA	0	1	0	0	0		
ANIMAL No. 4							
ERYTHEMA	1.5	2	2	1.5	1.5		
OEDEMA	1.5	2.5	2	1.5	0.5		

De = DESQUAMATION FROM THE SKIN

YELLOW STAINING WAS OBSERVED IN ALL ANIMALS

PRIMARY

CHEMICAL

: SALICYLALDEHYDE

CONCENTRATION TESTED : 100%

SOURCE

: FIRMENICH

VOLUME TESTED

: 0.5ml

No. OF RABBITS EXPOSURE TIME : FOUR : 4 hours

SPECIFICATION :

90-02-8 >98%

CAS No. Purity

Spec. No. 08132

ANIMAL No.	1	l 1h	OBSEI 1d	RVATIO	ON 3d	INTER'	VAL (days)
ERYTHEMA		2	2	2	2	2.5		+ +
OEDEMA		4	2.5	ī	1	1.5		
ANIMAL No.	2	Î				Ĭ		
ERYTHEMA		2	2	1.5	1.5	2		1
OEDEMA		3	1.5	1	1	0.5		
OBSERVATIONS						De		
ANIMAL No.	3	Î				Î		
ERYTHEMA		1	1	1	0.5	0		
OEDEMA		0.5	0.5	0	0	0		
ANIMAL No.	4						Ĭ	
ERYTHEMA		2	2	1.5	1.5	1.5		
OEDEMA		2	1.5	1	1	0.5		
OBSERVATIONS						De		

De = DESQUAMATION FROM THE SKIN

YELLOW STAINING WAS OBSERVED IN ALL ANIMALS

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.54

INDEX 3 x no of animals

: TETRAHYDRO GERANIAL # CONCENTRATION TESTED : 100% CHEMICAL

SOURCE : QUEST VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 5988-91-0

Purity 09419 Spec. No.

: synonym for 3,7-dimethyl octanal

		OBSE	RVATI	ON	INTER	VAT.	(days)
	l 1h	l 1d	2d] 3d	1 7d	1	1,75,1
ANIMAL No. 1		14	2.4	""	' ^u		
ERYTHEMA	0.5	2	2	2	2		1 1
OEDEMA	1	1	0.5	0.5	0.5		
					1		
	¥	ÿ.		2	ş		
ANIMAL No. 2							
			-	-			
ERYTHEMA	0.5	1.5	1.5	1.5	1		
OEDEMA	0	0	0.5	0.5	0.5		
OBSERVATIONS					De		
ANIMAL No. 3	1		1	1	1	1	1 1
ERYTHEMA	1.5	2	2	2	1.5		
OEDEMA	0	1.5	1	0.5	0		
	*			-			-
ANIMAL No. 4		1	1		I		
4							
ERYTHEMA	0.5	2	2	2	2		
OEDEMA	0.5	0.5	1	1	1		

De = DESQUAMATION FROM THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.58

3 x no of animals INDEX

: 4-TRICYCLO-DECYLINDENE CONCENTRATION TESTED : 100%

-8-BUTANAL

SOURCE

: QUEST

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No.

30168-23-1

Purity

>90.0%

Spec. No. 05481

			OBSE	RVATI	ON	INTERV	/AL	(davs)
		1 h	1 d	2d	1 3d	7d		` 1 /
ANIMAL No.	1				1			
ERYTHEMA		1	2	2	2	1		
OEDEMA		1	1.5	0.5	0	0		
OBSERVATIONS		×	***			DeT		***
ANIMAL No.	2	1	ř.	1	1	1 1		1 1
ERYTHEMA		1.5	3	2.5	2	2		
OEDEMA		1	3	0.5	0	0		
OBSERVATIONS						T		_
ANIMAL No.	3	Ŧ	r ·	r.	1	1 1		7 (
ANIMAL NO.	3							
ERYTHEMA		0.5	1.5	2	2	1.5		
OEDEMA		1	3	0.5	0.5	0		
OBSERVATIONS			1			De		
						20		
ANIMAL No.	4	f	ř i	1	ī	î î		ř ir
AUTHUR NO.	78.							
ERYTHEMA		1.5	2.5	2	2	2		
OEDEMA		2	2	1.5	1	1		
OBSERVATIONS					-	T		

De = DESQUAMATION FROM TREATED SKIN

T = SKIN THICKENING

THE TREATED SKIN WAS STAINED YELLOW IN ANIMALS 1, 2, & 4 FROM 24 hr ON

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.29INDEX 3 x no of animals

CHEMICAL : METHACROLEIN CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

78-85-3

CAS No. Purity

97%

Product No. 13,303-5

	*	30mn	OBSEI 1d	RVATIO	MC 3d	INTERV		days) 13d
ANIMAL No.	1							
ERYTHEMA		2	2	2	2	2	4	4
OEDEMA		2	2	2	2	2	2	2
OBSERVATIONS		1,11		Bl	Bl	Bl	Ne	Ne
ANIMAL No.	2	Î						
ERYTHEMA		2	2	2	2	2	4	4
OEDEMA		2	3	3	1	1	1Ne	1Ne
OBSERVATIONS					Bl	Bl	Bl Ne	Bl Ne
ANIMAL No.	3	1	p 8				R	
ERYTHEMA		2	2	2	2	2	4	4
OEDEMA		2	2	2	2	1	2Ne	2Ne
OBSERVATIONS					Bl	Bl	Bl	Bl
							Ne	Ne

Bl = BLANCHING

Ne = NECROSIS

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.11 INDEX 3 x no of animals

CHEMICAL : POTASSIUM HYDROXIDE CONCENTRATION TESTED : 5% aq

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SOURCE : MALLINDKRODT

SPECIFICATION :

CAS No. 1310-58-3
Purity REAGENT GRADE Product No. Lot 6984

ANIMAL No. 1	4½h	OBSEI 1d	RVATIO	ON 3d	INTER	VAL	(days)
ERYTHEMA	2	3	3	3	+		+ +
OEDEMA	1	2	2	2			
ANIMAL No. 2							
ERYTHEMA	2	3	3	3	-		
OEDEMA	1	2	2	2			
OBSERVATIONS	Ex	Ex	Ex	Ex			
ANIMAL No. 3					1	1	1 1
ERYTHEMA	3	3	4	4		1	
OEDEMA	2	2	2	2			
OBSERVATIONS	Ex	Ex	Ex	Ex			-

Ex = REACTION EXTENDED OUTSIDE APPLICATION SITE

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 5.22 INDEX 3 x no of animals

CHEMICAL : POTASSIUM HYDROXIDE CONCENTRATION TESTED : 10%aq

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SOURCE : MALLINDKRODT

SPECIFICATION :

CAS No. 1310-58-3
Purity REAGENT GRADE
Product No. Lot 6984

	4½h	OBSERVATION	INTERVA	L (days)
ANIMAL No. 1	- 2			
ERYTHEMA	NeEx			
OEDEMA	Sev			
ANIMAL No. 2				
ERYTHEMA	NeEx			
OEDEMA	Sev			
ANIMAL No. 3	[1 1	1 [
ERYTHEMA	NeEx			
OEDEMA	Sev			

Ne = NECROSIS

Ex = REACTION EXTENDED OUTSIDE APPLICATION SITE

Sev = NOT EVALUATED DUE TO SEVERITY OF EFFECTS

PRIMARY

IRRITATION = NOT POSSIBLE TO CALCULATE INDEX

CHEMICAL

: SODIUM BICARBONATE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

WEIGHT TESTED : 0.3g
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

144-55-8

CAS No. Purity

99.7%

Product No. 23652-7

		OBGE	RVATIO	זור	INTER	darra)	
	1 1d	2d	l 3d	7d	114d	YAU (uays)
ANIMAL No. 1	14	20		'~	144		
ERYTHEMA	1	0	0		1		
OEDEMA	0	0	0				
ANIMAL No. 2	Ï		ĺ		Ĩ	Ĩ	
ERYTHEMA	0	0	0		_		
OEDEMA	0	0	0				
ANIMAL No. 3	Ť		1		1	Ĭ	1 1
ERYTHEMA	0	0	0		_		1
OEDEMA	0	0	0				

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.11 INDEX 3 x no of animals

: SODIUM CARBONATE CONCENTRATION TESTED : 50% aq CHEMICAL

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SOURCE

SPECIFICATION :

CAS No. 497-19-8 100% Purity

			OBSERVATION			INTER	VAL ((days)	
	4	½h	1d	2d	3d	I	ľ.	1 1 1	
ANIMAL No. 1									
ERYTHEMA	C)	2	2	2				
OEDEMA	C		1	1	1				
OBSERVATIONS			Ex	Ex	Ex	X			
ANIMAL No. 2	Ĭ					1			
ERYTHEMA	1		1	1	1				
OEDEMA	0)	0	0	0				
ANIMAL No. 3									
ERYTHEMA	2	2	2	2	2				
OEDEMA			1	1	1				

Ex = REACTION EXTENDED OUTSIDE APPLICATION SITE

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.33

3 x no of animals INDEX

: SODIUM METASILICATE CONCENTRATION TESTED : 10% aq CHEMICAL

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours : FISHER SCIENTIFIC VOLUME TESTED No. OF RABBITS SOURCE

SPECIFICATION :

CAS No. 6834-92-0 Purity REAGENT GRADE Product No. Lot 704631

			OBSEI	RVATIO	ON	INTER	VAL ((days)
		4½h	1d	2d	3d	1	ř i	1 - 1
ANIMAL No.	1							
ERYTHEMA		2	1	1	1			
OEDEMA		0	0	0	0			
ANIMAL No.	2						ľ	1 1
ERYTHEMA		2	1	1	1			
OEDEMA		0	0	0	0	, , , , , , , , , , , , , , , , , , , ,		
ANIMAL No.	3						ĺ	1 1
ERYTHEMA		2	2	1	1			
OEDEMA		1	1	0	0			

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 1.22 INDEX 3 x no of animals

: SODIUM METASILICATE CONCENTRATION TESTED : 50% aq CHEMICAL

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours : FISHER SCIENTIFIC VOLUME TESTED No. OF RABBITS SOURCE

SPECIFICATION :

CAS No. 6834-92-0 Purity REAGENT GRADE Product No. Lot 704631

		OBSE	RVATIO	ON	INTER	VAL	(days)
	4½h	1d	2d	3d	1	1	1 1
ANIMAL No. 1							
ERYTHEMA	3	4	4	4			
OEDEMA	2	3	3	3			
OBSERVATIONS	Ex	Ex	Ex	Ex			
ANIMAL No. 2	f		1 1		1	Ţ	ľ
ERYTHEMA	2	2	2	2	-		
OEDEMA	1	1	1	1		\vdash	
OBSERVATIONS	Ex	Ex	Ex	Ex			
ANTWAL May 2	Ť	ř	90 B	i	1	1	f f
ANIMAL No. 3							
ERYTHEMA	1	1	1	1			
OEDEMA	0	0	0	0			

Ex = REACTION EXTENDED OUTSIDE APPLICATION SITE

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.67

3 x no of animals INDEX

CHEMICAL

: ERUCAMIDE

CONCENTRATION TESTED : 100%

SOURCE

WEIGHT TESTED : 0.5g
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 112-84-5

Purity

Trade name UNISLIP 1753

			OBSER	RVATIO	ON	INTERVAL (days)
ANIMAL No.	1	1h	1d	2d	3d	
ERYTHEMA		1	0	0	0	
OEDEMA		0	0	0	0	
ANIMAL No.	2					
ERYTHEMA		1	0	0	0	
OEDEMA		0	0	0	0	
ANIMAL No.	3	Î				
ERYTHEMA		1	0	0	0	
OEDEMA		0	0	0	0	

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0 INDEX 3 x no of animals

CHEMICAL

: DIETHYLAMINO-

CONCENTRATION TESTED : 100%

PROPYLAMINE

SOURCE : ALDRICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : ONE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 104-78-9 Purity 99.8% Product No. D8,920-4

		OBSE	RVATI	ON	INTERVAL	(days)
ANIMAL No. 1	1h	1d	2d	3d	4d	
ERYTHEMA	Ne	Ne	Ne	Ne	SACRIFI	CED
OEDEMA	0	0	0	0	T	

Ne = NECROSIS

COMMENTS :

TISSUE NECROSIS WAS OBSERVED AT THE PATCH SITE

CHEMICAL

: N, N-DIMETHYL-

CONCENTRATION TESTED : 100%

BENZYLAMINE

SOURCE

: BAYER AG

: 0.5ml

SPECIFICATION

VOLUME TESTED No. OF RABBITS EXPOSURE TIME

SACRIFICED

: THREE : 4 hours

CAS No.

103-83-3

Purity Batch No. 99.34% 419311

			OBSEI	RVATIO	N :	INTER	VAL	(days)
ANIMAL No.	1	lh	1d	2d	3d	Ì		1 1
ERYTHEMA		4	4	SACE	IFIC	ΞD		
OEDEMA		2	1	Г				
ANIMAL No.	2							
ERYTHEMA		4	4	SACE	IFIC	ΞD		
OEDEMA		1	1					
ANIMAL No.	3	Ĭ	ĺ	1 1		ĺ	Î	1 1

THE SEVERE SKIN REATIONS WERE "DEEP RED TO BLACK INJURIES"

PRIMARY

ERYTHEMA

OEDEMA

IRRITATION = NOT POSSIBLE TO CALCULATE INDEX

CHEMICAL : DIMETHYL-n-BUTYLAMINE CONCENTRATION TESTED : 100% VOLUME TESTED : 0.5ml
No. OF RABBITS : SIX
EXPOSURE TIME : 4 hours SOURCE : ALDRICH SPECIFICATION : CAS No. 927-62-8
Purity 99.5%

Purity 99.5% Product No. 36,952-7

				RVATIO	ON :		VAL (
ANIMAL No.	1	1h	1d	2d	3d	7d	14d	15d
ERYTHEMA		4	4	4	4	4	4	SACD
OEDEMA		1	1	1	1	1	0	
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No.	2			0 0			T.	
ERYTHEMA		4	4	4	4	4	4	SACD
OEDEMA		1	1	1	1	1	0	
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No.	3	Ĭ	Î	ĺ				
ERYTHEMA		4	4	4	4	4	4	SACD
OEDEMA		1	1	1	1	1	0	
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No.	4		E .				Î	
ERYTHEMA		4	4	4	4	4	4	SACD
OEDEMA		2	2	1	1	1	0	
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No.	5				ĺ		1	
ERYTHEMA		4	4	4	4	4	4	SACD
OEDEMA		3	2	1	1	2	0	
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No.	6	Ì					Î	ĹĹ
ERYTHEMA		4	4	4	4	4	4	SACD
OEDEMA		2	1	1	1	1	1	
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc	

Bu = BURNS;

Sc = SCABS; SACD = SACRIFICED

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 5.11 INDEX 3 x no of animals

CHEMICAL : DIMETHYLisoPROPYLAMINE CONCENTRATION TESTED : 100%

SOURCE : ALDRICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : SIX
EXPOSURE TIME : 4 hours SPECIFICATION :

CAS No. 996-35-0 Purity 99.6% Product No. 34,398-6

			OBSEI	RVATIO	NC	INTER	VAL (days)
		1h	1d	2d] 3d	7d	114d	115d
ANIMAL No.	1					"		
*1								
ERYTHEMA		4	4	4	4	4	4	SACD
OEDEMA		1	2	1	1	1	1	
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No.	2	£	F 8	r.	1	f	T.	ř s
ANTHAL NO.	2					1		
ERYTHEMA		4	4	4	4	4	4	SACD
OEDEMA		1	2	2	2	1	1	
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No.	3	Î		1	1	ĺ	Ĭ	ĺ
ERYTHEMA		4	4	4	4	4	4	SACD
OEDEMA		1	2	1	1	1	1	DITOD
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No.	4	Ť	Í	1		ĺ		
ERYTHEMA		4	4	4	4	4	4	SACD
OEDEMA		2	2	1	1	1	1	
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc	1
ANIMAL No.	5	Î				ĺ		
ERYTHEMA		4	4	4	4	4	4	SACD
OEDEMA		3	3	2	2	2	2	DITOD
OBSERVATIONS		Bu	Bu	Bu	Bu	Sc	Sc	
ANIMAL No.	6	Ĩ	ľ	I	I	I	Ê	1
EDVENDA		-	4	4	4			
ERYTHEMA		4	4	4	4	DEA	D	
OEDEMA		2	2	1	1			
OBSERVATIONS		Bu	Bu	Bu	Bu			

Bu = BURNS;

Sc = SCABS;

SACD = SACRIFICED

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 5.61INDEX 3 x no of animals

CHEMICAL

: DIMETHYLDIPROPYLENE- CONCENTRATION TESTED : 100%

TRIAMINE

SOURCE

: ELF ATOCHEM

SPECIFICATION :

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

CAS No. 10563-29-8 Purity 99.5%

FOUR HOUR EXPOSURI	
	7

======================================		OBSEI	RVATION	INTERVAL (days)				
ANIMAL No. 1	1h	1d	2d		Î			
ERYTHEMA	Ne	Ne	SACRIFI	CED	_			
OEDEMA	2	2						
ANIMAL No. 2				1				
ERYTHEMA	Ne	Ne	SACRIFI	CED	10			
OEDEMA	4	4						
ANIMAL No. 3	1			Ī				
ERYTHEMA	Ne	Ne	SACRIFI	CED				
OEDEMA	4	4	-					

Ne = NECROSIS

COMMENTS:

APPLICATION FOR 4 HOURS RESULTED IN TISSUE DESTRUCTION OF THE WHOLE DEPTH OF THE SKIN AND THE ANIMALS WERE SACRIFICED FOR HUMANITARIAN REASONS.

THREE MINUTES EXPOSURE ______

ANIMAL No. 4	lhr	1d	2d	3d	7d	10d	14d
ERYTHEMA	Ne	Ne	Ne	Ne	Ne	Ne	Ne
OEDEMA	2	2	0	0	0	0	0

Ne = NECROSIS

COMMENTS:

FOLLOWING APPLICATION FOR 3 MINUTES, SEVERE ERYTHEMA TO SLIGHT ESCHAR FORMATION WAS OBSERVED AFTER 1 HOUR AND THEN WAS IRREVERSIBLE OVER $14\ \mathrm{DAYS}$. SLIGHT OEDEMA (GRADE 2) WAS OBSERVED AFTER 1 DAY.

: 2,4-DINITRO-N-METHYL- CONCENTRATION TESTED : 100%

ANILINE

SOURCE

: HOECHST AG

SPECIFICATION :

WEIGHT TESTED : 0.5g
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

CAS No. 2044-88-4 Purity 99.0%

ANIMAL No. 1	lh	OBSEI 1d	RVATIO	ON 3d	INTER	VAL (days)
ERYTHEMA	1	0	0	0			
OEDEMA	0	0	0	0			
ANIMAL No. 2 ERYTHEMA		0	0	0			
OEDEMA	0	0	0	ő	1		+ +
ANIMAL No. 3							
ERYTHEMA	1	0	0	0			
OEDEMA	0	0	0	0			

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0 INDEX 3 x no of animals

CHEMICAL

: n-HEPTYLAMINE

CONCENTRATION TESTED : 100%

SOURCE

: SIGMA

VOLUME TESTED : 0.5ml
No. OF RABBITS : SIX
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 111-68-2 Purity 99.5% Product No. H 3750

		OBSE	RVATI	ON .	TNITTO	77NT /	days)
ANIMAL No. 1	1h	1d	2d	3d	7d	14d	15d
ERYTHEMA	4	4	4	4	4	4	SACD
OEDEMA	4	3	3	î	2	2	DIACE
OBSERVATIONS	Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No. 2		1				ľ	
ERYTHEMA	4	4	4	4	4	4	SACD
OEDEMA	4	4	2	1	1	1	
OBSERVATIONS	Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No. 3	Ĩ	1			ĺ	1	1 1
ERYTHEMA	4	4	4	4	4	4	SACD
OEDEMA	4	4	2	1	1	1	
OBSERVATIONS	Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No. 4		1					1 1
ERYTHEMA	4	4	4	4	4	4	SACD
OEDEMA	4	4	3	1	2	1	
OBSERVATIONS	Bu	Sc	Sc	Sc	Sc	Sc	-
ANIMAL No. 5						1	1 1
ERYTHEMA	4	4	4	4	4	4	SACD
OEDEMA	4	4	4	1	2	2	
OBSERVATIONS	Bu	Sc	Sc	Sc	Sc	Sc	
ANIMAL No. 6							
ERYTHEMA	4	4	4	4	4	4	SACD
OEDEMA	4	4	4	2	2	1	
OBSERVATIONS	Bu	Sc	Sc	Sc	Sc	Sc	

Bu = BURNS;

Sc = SCABS;

SACD = SACRIFICED

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 6.67INDEX 3 x no of animals

CHEMICAL : METHOXY-3-PROPYLAMINE CONCENTRATION TESTED : 100%

SOURCE : ALDRICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : SIX
EXPOSURE TIME : 4 hours SPECIFICATION :

CAS No. 5332-73-0 Purity >99% Product No. M2,500-7

			OBSEI	RVATIO	ои .	TNTER	VAT. ((days)		
		1h	1d	2d	3d	7d	[14d	15d		
ANIMAL No.	1									
ERYTHEMA		4	4	4	4	4	4	SACD		
OEDEMA		3	3	3	1	2	1			
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc			
ANIMAL No.	2									
ERYTHEMA		4	4	4	4	4	4	SACD		
OEDEMA		3	4	4	2	2	2			
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc			
ANIMAL No.	3	Ĩ								
ERYTHEMA		4	4	4	4	4	4	SACD		
OEDEMA		3	3	3	1	2	2			
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc			
ANIMAL No.	4	ſ		1		1	ľ	1		
ERYTHEMA		4	4	4	4	4	4	SACD		
OEDEMA		3	4	4	1	2	2			
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc			
ANIMAL No.	5	Ĩ				1				
ERYTHEMA		4	4	4	4	4	4	SACD		
OEDEMA		3	4	3	1	2	2			
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc	10		
ANIMAL No.	6	Î		ľ		ĺ	Ĭ			
ERYTHEMA		4	4	4	4	4	4	SACD		
OEDEMA		3	3	3	1	2	2			
OBSERVATIONS		Bu	Sc	Sc	Sc	Sc	Sc			

Bu = BURNS;

Sc = SCABS;

SACD = SACRIFICED

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 6.67 3 x no of animals

CHEMICAL

: OLEYL PROPYLENE

OLEYL PROPYLENE CONCENTRATION TESTED: 100% DIAMINE DIOLEATE

SOURCE

: ELF ATOCHEM

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours VOLUME TESTED

SPECIFICATION :

CAS No. 40027-38-1 Purity unknown

Trade Name INILOP 002

			OBSEI	RVATIO	מר י	מידינוז	VAL (dave)
ANIMAL No.	1	1h	1d	2d	3d	7d	10d	12d
ERYTHEMA		2	2	3	4	2	0	0
OEDEMA		2	3	3	4	2	0	0
OBSERVATIONS						Dr	Dr	
ANIMAL No.	2							
ERYTHEMA		1	2	2	1	0		
OEDEMA		1	1	1	0	0		
OBSERVATIONS						Dr		
ANIMAL No.	3							
ERYTHEMA		2	2	2	1	0	0	0
OEDEMA		0	1	1	0	0	0	0
OBSERVATIONS						Dr	Dr	

Dr = DRYNESS OF THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.67

INDEX

3 x no of animals

CHEMICAL

: HYDROGENATED

CONCENTRATION TESTED : 100%

TALLOW AMINE

SOURCE

: ELF ATOCHEM

SPECIFICATION :

WEIGHT TESTED : 0.5g
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours EXPOSURE TIME

CAS No. 61788-45-2 Purity >95% Trade Name NORAM SH

			OBSER	RVATIO	on I	NTERV	7AL (davs)
ANIMAL No.	1	1h	1d	2d	3d	6d	9d`	
77 TO N S P P P P P P P P P P P P P P P P P P		_	_					
ERYTHEMA		2	3	2	2	_1		
OEDEMA		4	4	2	2	1		
OBSERVATIONS						Dr		
ANIMAL No.	2							
ERYTHEMA		0	0	0	0			
OEDEMA		0	0	0	0			
ANIMAL No.	3							
ERYTHEMA		2	3	3	3	2	0	
OEDEMA		2	3	3	2	0	0	
OBSERVATIONS	•					Dr		-

Dr = DRYNESS OF THE SKIN

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 3.56

CHEMICAL : HYDROGENATED TALLOW CONCENTRATION TESTED: 100%

PROPYLENE DIAMINE

SOURCE : ELF ATOCHEM

WEIGHT TESTED : 0.5g
No. OF RABBITS : SIX
EXPOSURE TIME : 4 hours SPECIFICATION :

CAS No. 68603-64-5 Purity >85% Trade Name DINORAM SH

		OBSEI	RVATIO	ON	INTERVA	L (d	days)
i	1h	1d	2d	3d	1 1	,	1 - 1
ANIMAL No. 1							
		_					
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			
** · · · · · · · · · · · · · · · · · ·					00		
sat :			er o		w w		vi 121
ANIMAL No. 2					I		
40							
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			
		E I	e		T T		E E
ANIMAL No. 3							
ERYTHEMA	0	_	0	0	+	_	
OEDEMA	0	0	0	0			
OEDEMA	- 0	.0	U	0			<u></u>
ANIMAL No. 4		ĺ	i i		î î		î î
ANIMAL NO.							
ERYTHEMA	0	0	0	0	+ +		-
OEDEMA	0	0	0	0	 		-
Oliblia							
ANIMAL No. 5		1	ľ i		1 1		f f
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			
1							-
ANIMAL No. 6					1 1		1 1
WAR-A-CARACTER ST. 17.							
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0

CHEMICAL : TALLOW POLYPROPYLENE CONCENTRATION TESTED : 100%

POLYAMINE

: ELF ATOCHEM SOURCE

WEIGHT TESTED : 0.5g
No. OF RABBITS : THREE
EXPOSURE TIME : 3 mins SPECIFICATION :

CAS No. 68911-79-5 Purity >95% Trade name POLYRAM S

		OBSEI	RVATIO	ON :	INTER	VAL (days)
ANIMAL No. 1	lh	1d	2d	3d	7d	10d	
ERYTHEMA	1	2	2	2	Dr	0	
OEDEMA	0	2	1	1	0	0	
ANIMAL No. 2						1	
ERYTHEMA	0	1	1	0			
OEDEMA	0	0	0	0			
ANIMAL No. 3							
ERYTHEMA	1	2	2	2	1	0	
OEDEMA	0	2	2	2	0	0	

Dr = DRYNESS OF THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.67

CHEMICAL

: TALLOW POLYPROPYLENE CONCENTRATION TESTED : 100%

POLYAMINE

SOURCE

: ELF ATOCHEM

WEIGHT TESTED

SPECIFICATION :

NO. OF RABBITS : THREE EXPOSURE TIME : 1 have

: 1 hour

CAS No.

68911-79-5

CAS No. 68911 Purity >95%

Trade name POLYRAM S

			OBSEI	RVATIO	ON	INTERV	7AT. (davs)
ANIMAL No.	1	l 1h	1d	2d	3d	7d	8d	10d
ERYTHEMA		1	2	2	0	0	0	0
OEDEMA		2	4	4	3	2	1	0
OBSERVATIONS					Dr	Dr	Dr	
ANIMAL No.	2	1	ſ	ĺ	1			1 1
ERYTHEMA		3	4	4	3	CrDr	0	
OEDEMA		1	4	4	3	2	0	
OBSERVATIONS			Dr	Dr	Dr			•
ANIMAL No.	3	1				1 1		Î I
ERYTHEMA		0	0	0	0			
OEDEMA		0	0	0	0			

Dr = DRYNESS OF THE SKIN

Cr = CRUST

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.113 x no of animals

INDEX

CHEMICAL

: TALLOW AMINE

CONCENTRATION TESTED : 100%

SOURCE

: ELF ATOCHEM

WEIGHT TESTED No. OF RABBITS

EXPOSURE TIME

: THREE : 3 MINS

SPECIFICATION :

CAS No. 61790-33-8 Purity Technical of

Technical grade, >95%

Trade name. NORAM S

THREE	MIN	UTES	EXPOSURE

	==	OBSERVATION INTE					
ANIMAL No. 1	1h	1d	2d	3d	4d	7d	13d
ERYTHEMA OEDEMA	2 4	3 4	XE 4	XE 4	XE 4	Ne 4	Ne XO
OBSERVATIONS		wd			Dr	rc Dr	rc Dr
ANIMAL No. 2	1		1			Ì	
ERYTHEMA OEDEMA	1 4	3 4	XE 4	XE 4	XE 4	Ne 4	Ne XO
OBSERVATIONS		wd	Dr	Dr	Dr	rc	rc

ANIMAL No. 3					Ī	ľ	
ERYTHEMA	2	3	XE	XE	XE	rc	rc
OEDEMA	4	4	4	4	4	4	xo
OBSERVATIONS	A	wd				Dr	Dr

wd = WHITE DISCOLORATION

rc = RED COLORATION OF THE SKIN

Dr = DRYNESS OF THE SKIN

XE = ERYTHEMA NOT SCORABLE DUE TO WHITE DISCOLORATION

XO = OEDEMA NOT SCORABLE DUE TO DRYNESS OF SKIN

Ne = NECROSIS

PRIMARY

IRRITATION = NOT POSSIBLE TO CALCULATE INDEX

CHEMICAL

: 2,4-XYLIDINE

CONCENTRATION TESTED : 100%

SOURCE

: BAYER AG

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 95-68-1 Purity 98.1% Batch No. 048824-04

		OBSEI	RVATIO	ON	INTER	VAL (days)
ANIMAL No. 1	30mn	1d	2d	3d	4d	5d`	
ERYTHEMA	2	1	1	1	0	0	
OEDEMA	2	1	1	0	0	0	
ANIMAL No. 2							
ERYTHEMA	2	1	1	1	1	0	
OEDEMA	1	1	1	0	0	0	
ANIMAL No. 3							
ERYTHEMA	2	1	1	1	0	0	
OEDEMA	2	0	0	0	0	0	

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.44

INDEX

3 x no of animals

: ALLYL BROMIDE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

VOLUME TESTED

: 0.5ml

SPECIFICATION :

No. OF RABBITS

: THREE : 3 mins

106-95-6

EXPOSURE TIME

OR 4 hours

CAS No.

Purity

998

Product No. A2,958-5

3 MINUTE APPLICATION		OBSE	RVATIO	ON	INTER	VAL (days)
ANIMAL No. 1	l 1h	ld	2d	3d	7d	10d`	14d
ERYTHEMA	2	2	3	3	3		
OEDEMA	2	0	0	0	0		
OBSERVATIONS				Dr	Dr		

4 HOUR APPLICATION

ANIMAL No. 2	ľ			1			
ERYTHEMA	3	4	4	4	4	Cr	Cr
OEDEMA	2	2	3	3	0	0	0
OBSERVATIONS			-		Cr		

ANIMAL No. 3	Î	1	Ĩ		1 1 1 1
ERYTHEMA	3	4	4	4	TD obs'd day 5
OEDEMA	3	3	4	4	SAC day 6

Dr = DRYNESS OF THE SKIN

Cr = CRUST

TD = TISSUE DESTRUCTION

SAC = SACRIFICE

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 7.17INDEX 3 x no of animals

CHEMICAL

: 2-BROMOBUTANE

CONCENTRATION TESTED : 100%

SOURCE

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

: ALDRICH

SPECIFICATION :

CAS No. 78-76-2 Purity >99.0% Product No. B5,950-0

		OBCEI	RVATIO)NI	TNIMEDS		ראעכ /
ANIMAL No. 1	1h	ld ld	2d	3d	INTERV 5d	7d	14d
ERYTHEMA	1	2	2	2	2	0	
OEDEMA	0	0	0	0	0	0	
OBSERVATIONS					Dr	Dr	
ANIMAL No. 2 ERYTHEMA	2	2	2	1	1	0	
OEDEMA	2	2	1	0	0	0	0
OBSERVATIONS					Dr	Dr	Dr
ANIMAL No. 3						ľ	1 1
ERYTHEMA	2	2	2	1	1	0	0
OEDEMA	4	2	1	0	0	0	Ö
OBSERVATIONS	*				*	Dr	Dr

Dr = DRYNESS OF THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.443 x no of animals

INDEX

CHEMICAL : 1-BROMO-4-CHLORO-CONCENTRATION TESTED : 100%

BUTANE

SOURCE : ALDRICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 6940-78-9
Purity 98.0% Purity 98.0% Product No. B6,080-0

	1h	OBSEI 1d	RVATIO	ON 3d	INTER	VAL (days)
ANIMAL No. 1							
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			
ANIMAL No. 2			6 7		1		ľ
ERYTHEMA	0	0	0	0	1		+
OEDEMA	0	0	0	0			
ANIMAL No. 3						ĺ	
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			

PRIMARY

IRRITATION = $\frac{\text{SUM ERYTHEMA } 24/48/72\text{hr} + \text{SUM OEDEMA } 24/48/72\text{hr}}{3 \text{ x no of animals}} = 0$

CHEMICAL : 1-BROMO-2-CHLORO- CONCENTRATION TESTED: 100%

ETHANE

SOURCE : ALDRICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 107-04-0 Purity 98% Purity 98% Product No. 23,275-0

ANIMAL No.	1	l 1h	OBSEI 1d	RVATIO 2d	ON 3d	INTER		days) 14d
ERYTHEMA		2	2	1	1	0	0	0
OEDEMA		0	2	0	0	0	0	0
OBSERVATIONS						Dr	Dr	Dr
ANIMAL No.	2	2	2	2	2	1	0	0
OEDEMA		2	2	0	0	0	0	0
OBSERVATIONS						Dr	Dr	Dr
ANIMAL No.	3							
ERYTHEMA		2	2	2	2	0		
OEDEMA		0	1	0	0	0		
OBSERVATIONS	·					Dr		

Dr = DRYNESS OF THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.33 INDEX 3 x no of animals

CHEMICAL

: 1-BROMO-4-FLUORO-

CONCENTRATION TESTED : 100%

BENZENE

SOURCE

: ALDRICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 460-00-4
Purity 99.8% Purity

Product No. B6720-1

99.8%

		OBSE	RVATIO	אר	INTERV	71AT. (dave)
	l 1h	l 1d	2d	3d	1 4d) שהי	days
ANIMAL No. 1		14	24	"	""		
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2	1	ſ	1		1	Ç.	f f
ERYTHEMA	0	1	1	1	0		++
OEDEMA	0	0	0	0	0		
ANIMAL No. 3	Ĺ		1				
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 0.33 INDEX 3 x no of animals

CHEMICAL : 1-BROMOHEXANE CONCENTRATION TESTED : 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SOURCE : ALDRICH

SPECIFICATION :

CAS No. 111-25-1 Purity >98.5% Product No. B6,824-0

			OBSE	RVATIO	ON :	INTERV	/AL (DAYS)
		1h	1 d	2d	3d	5d	7d	15d
ANIMAL No.	1							
ERYTHEMA		0	2	3	3	2	0	0
OEDEMA		0	0	0	0	0	0	0
OBSERVATIONS						Dr	Dr	Dr
ANIMAL No.	2						ir.	1 1
ERYTHEMA		2	2	2	2	2	0	0
OEDEMA		4	4	2	2	0	0	0
OBSERVATIONS						Dr	Dr	Dr
ANIMAL No.	3						ľ	1 1
ERYTHEMA		1	2	3	3	2	0	0
OEDEMA		2	2	2	2	0	0	0
OBSERVATIONS						Dr	Dr	Dr

Dr = DRYNESS OF THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.0

CHEMICAL

: 1-BROMOPENTANE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

VOLUME TESTED No. OF RABBITS EXPOSURE TIME

: 0.5ml : THREE : 4 hours

SPECIFICATION :

110-53-2

CAS No. Purity

99%

Product No. 11,781-1

		OBSE	RVATIO	ON :	INTERVAL (days		
ANIMAL No. 1	l 1h	1d	2d	3d	5d	7d`	14d
ERYTHEMA	2	3	4	4	2	0	0
OEDEMA	4	4	2	2	0	0	0
OBSERVATIONS				Dr	Dr	Dr	Dr
ANIMAL No. 2			1		ĺ		
ERYTHEMA	2	2	2	1	0	0	
OEDEMA	2	0	0	0	0	0	
OBSERVATIONS					Dr	Dr	
ANIMAL No. 3	Ĭ						ř.
ERYTHEMA	2	2	3	3	2	0	0
OEDEMA	1	0	4	4	0	0	0
OBSERVATIONS					Dr	Dr	Dr

Dr = DRYNESS OF THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.44 INDEX 3 x no of animals

CHEMICAL

: 2-BROMOPROPANE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

VOLUME TESTED

: 0.5ml

No. OF RABBITS

: THREE : 4 hours

SPECIFICATION :

CAS No.

EXPOSURE TIME 75-26-3

Purity

998

Product No. B7,811-4

								_
			OBSE	RVATIO	ON :	INTERV		days)
		1 1 h	1 d	2d	3d	4d	7d	10d
ANIMAL No.	1							
ERYTHEMA		2	2	2	1	1	0	0
OEDEMA		0	0	0	0	0	0	0
OBSERVATIONS							Dr	
	-	÷						
ANIMAL No.	2							
ERYTHEMA		2	2	1	0			
OEDEMA		0	0	0	0			
ANIMAL No.	3							
ERYTHEMA	·	2	2	2	1	1	0	
OEDEMA		0	0	0	0	0	0	
OBSERVATIONS						Dr		

Dr = DRYNESS OF THE SKIN

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.44

CHEMICAL

: 1,6-DIBROMOHEXANE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 629-03-8

Purity		98.4%
Product	No.	D4,100-7

ANIMAL No. 1	1h	OBSEF 1d	RVATIO 2d	ON 3d	INTER	VAL	(days)
ERYTHEMA	0	1	1	0		_	
OEDEMA	0	0	0	0			+ +
·							
ANIMAL No. 2							1 1
ERYTHEMA	1	2	1	0	+		
OEDEMA	0	0	0	0			
ANIMAL No. 3							
ERYTHEMA	2	2	1	0			
OEDEMA	0	0	0	0			

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.89 INDEX 3 x no of animals

: 1,3-DIBROMOPROPANE CONCENTRATION TESTED : 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SOURCE : ALDRICH

SPECIFICATION :

CAS No. 109-64-8 Purity 98.4% Product No. 12,590-3

			OBSEI	RVATIO	ON :	INTERV	VAL (days)
		1h	1d	2d	3d	5d	6d	7d
ANIMAL No.	1							
ERYTHEMA		1	2	2	2	0	0	0
OEDEMA		0	0	0	0	0	0	0
OBSERVATIONS						Dr	Dr	***
ANIMAL No.	2							
ERYTHEMA		1	2	2	1	0	0	
OEDEMA		0	0	0	0	0	0	
OBSERVATIONS						Dr		
ANIMAL No.	3							
ERYTHEMA		1	2	2	2	0	0	
OEDEMA		0	0	0	0	0	0	
OBSERVATIONS						Dr		

Dr = DRYNESS OF THE SKIN

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA $\underline{24/48/72hr}$ + $\underline{\text{SUM}}$ OEDEMA $\underline{24/48/72hr}$ = 1.89 INDEX 3 x no of animals

CHEMICAL : PHENETHYL BROMIDE CONCENTRATION TESTED : 100%

SOURCE : ALDRICH VOLUME TESTED : 0.5ml : THREE : 4 hours No. OF RABBITS

SPECIFICATION : EXPOSURE TIME

CAS No. 103-63-9 99.5% Purity Product No. B6,578-0

			OBSEI	RVATIO	NC	INTERV	/AL	(davs)
		1h	1d	2d	3d	1	ľ	` 1''
ANIMAL No.	1							
ERYTHEMA		0	0	0	0			
OEDEMA		0	0	0	0			
ANIMAL NO.	2	0	0	0	0			
OEDEMA		ō	0	0	0		-	+
ANIMAL No.	3						P.	
ERYTHEMA		0	0	0	0			
OEDEMA		0	0	0	0			

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0
INDEX 3 x no of animals

CHEMICAL

: DICHLOROMETHANE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

VOLUME TESTED

: 0.5ml

SPECIFICATION :

No. OF RABBITS EXPOSURE TIME

: THREE : 4 hours

75-09-2

CAS No. Purity >99.95%

Product No. D,6510-0

	l 15	OBSERVATION INTERV						
ANIMAL No. 1	111	Iu	2u	3 u	90	16d		
ERYTHEMA	1	4	4	4	4	0		
OEDEMA	2	2	1	1	1	0		
ANIMAL No. 2					Ť	Î		
ERYTHEMA	4	4	4	4	1	1		
OEDEMA	i	2	1	2	1	0		
ANIMAL No. 3								
ERYTHEMA	2	4	4	4	4	1		
OEDEMA	2	2	2	2	1	1		

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 5.67

CHEMICAL : TETRACHLOROETHYLENE CONCENTRATION TESTED : 100%

SOURCE : ALDRICH VOLUME TESTED : 0.5ml No. OF RABBITS : THREE

SPECIFICATION : EXPOSURE TIME : 4 hours

CAS No. 127-18-4 Purity >99.95% Product No. T750-0

		OBSEI	RVATIO	ON	INTER	VAL (davs)
	1h	1d	2d	3d	9 d	16d`	[1 1
ANIMAL No. 1							
ERYTHEMA	2	4	4	4	4	1	
OEDEMA	1	3	1	2	1	0	
ANIMAL No. 2		1				ľ	
ERYTHEMA	1	4	4	4	2	1	
OEDEMA	2	2	1	2	1	0	
ANIMAL No. 3					Ī	ľ	
ERYTHEMA	1	4	4	4	4	2	
OEDEMA	2	2	1	1	1	2	

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 5.67

CHEMICAL : 1,1,1-TRICHLORO- CONCENTRATION TESTED : 100%

ETHANE

SOURCE : ALDRICH VOLUME TESTED

No. OF RABBITS

: 0.5ml : THREE : 4 hours SPECIFICATION : EXPOSURE TIME

CAS No. 71-55-6 Purity >99.95% CAS No. Product No. 29,899-9

				RVATIO			VAL (days)
ANIMAL No.	1	l h	1d	2d	3d	9d	16d	
ERYTHEMA		2	4	4	4	4	0	
OEDEMA		2	2	2	2	1	0	
ANIMAL No.	2	2				0		
OEDEMA		2	2	4	4	1	0	-
ANIMAL No.	3							
ERYTHEMA		1	4	4	1	0	0	
OEDEMA		2	2	1	1	1	0	

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 5.22

CHEMICAL : TRICHLOROETHYLENE CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

CAS No.

SPECIFICATION :

79-01-6 >99.95%

Purity Product No. 37,214-5

			OBSE	RVATIO	ON	INTER	VAL (davs)
	-	1h	1d	2d	3d	9 d	[16d`	1 1
ANIMAL No.	1							
ERYTHEMA		2	4	4	4	4	1	
OEDEMA		2	2	2	1	1	0	
ANIMAL No.	2				ŀ	1		
ERYTHEMA		1	4	4	4	4	0	
OEDEMA		1	2	1	1	1	0	
ANIMAL No.	3							
ERYTHEMA		1	4	4	4	4	0	
OEDEMA		2	2	1	1	1	0	

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 5.44 INDEX 3 x no of animals

CHEMICAL : ALLYL HEPTANOATE CONCENTRATION TESTED : 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : IFF

SPECIFICATION :

142-19-8 >98% CAS No. Purity

		OBGE	RVATI	ON	TNIMEDI	77 T /	dorral
	1 11	A	9-1		INTERV	ALL (uays
	1h	1d	2d	3d	7d		
ANIMAL No. 1							
ERYTHEMA	1	1.5	1	1	0.5		
OEDEMA	0	0.5	0	0	0		
ANIMAL No. 2	Í						ľ
ERYTHEMA	1.5	2	2	2	0.5		
OEDEMA	0.5	0.5	0.5	0.5	0		
ANIMAL No. 3	Ĭ	i	Ĺ	ı	i	l	r
ERYTHEMA	1	2	1.5	1.5	0		
OEDEMA	0.5	0.5	0.5	0.5	0		
STRATION AND SHE OF			(40)	·v	a s		y
ANIMAL No. 4							
ERYTHEMA	1	2	2	2	1.5		
OEDEMA	0	0.5	0.5	0.5	0		

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.13 INDEX 3 x no of animals

CHEMICAL : ALLYL PHENOXYACETATE CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 7493-74-5 Purity 100% Spec. No. 0435001 CAS No. Purity

			OBSE	RVATI	ON	INTER	VAT.	'davs)
		1 1h	1d	2 d	l 3d	l 7d	,	ارتروس
ANIMAL No.	1					'-		
ERYTHEMA		0	0.5	0	0	0		
OEDEMA		0	0.5	0	0	0		
ANIMAL No.	2	Ĭ	ĺ	1		I		1 1
ERYTHEMA		0.5	0.5	0.5	0.5	0		
OEDEMA		0.5	0	0	0	0		
ANIMAL No.	3		Ť	Ť'			Î	
ERYTHEMA		0.5	0.5	0	0	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	4		ľ	l				
ERYTHEMA		0	0.5	0.5	0	0		
OEDEMA	·	0	0.5	0	0	0		

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.38 INDEX 3 x no of animals

CHEMICAL : BENZYL ACETATE [1] CONCENTRATION TESTED: 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml No. OF RABBITS : THREE EXPOSURE TIME : 4 hours

SPECIFICATION :

140-11-4 99.3% CAS No. Purity Spec. No. 0178121

ANIMAL No.	1	1h	OBSEF	2d	3d	INTERV	/AL	(days)
ERYTHEMA		2	2	2	1	0		
OEDEMA		1	1	1	1	1		
ERYTHEMA	2	1	0	0	0	0		
OEDEMA		_ 1	0	0	0	0		
ANIMAL No.	3							
ERYTHEMA		2	2	1	1	1		
OEDEMA		2	1	1	0	0		
OBSERVATIONS						Des		

Des = SLIGHT DESQUAMATION FROM SKIN SURFACE

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.56 INDEX 3 x no of animals

CHEMICAL : BENZYL ACETATE [2] CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml : FOUR : 4 hours No. OF RABBITS

SPECIFICATION : EXPOSURE TIME

CAS No. 140-11-4 99.3% Purity Spec. No. 0178121

		P. San. 1	and the same of th	RVATIO			ZAL	(days)
ANIMAL No.	1.	1h	1d	2d	3d	7d		
ERYTHEMA		1	2	2	1	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	2		r e		ĺ		1	1 1
ERYTHEMA		0	0	0	0	0Des		
OEDEMA		0	0	0	0	0		
ANIMAL No.	3							1 1
ERYTHEMA		0	1	1	0	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	4	Î			Ì			
ERYTHEMA		1	1	1	1	0		
OEDEMA		0	0	0	0	0		

Des = SLIGHT DESQUAMATION FROM SKIN SURFACE

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.83 INDEX 3 x no of animals

CHEMICAL : BENZYL BENZOATE [1] CONCENTRATION TESTED: 100%

SOURCE : FIRMENICH VOLUME TESTED : 0.5ml : THREE : 4 hours No. OF RABBITS

SPECIFICATION : EXPOSURE TIME

CAS No. 120-51-4 Purity >99% Spec. No. 15204

			OBSEI	RVATIO	ON	INTERV	AL ((days)
ANIMAL No.	1	lh	1d	2d	3d	7d		
ERYTHEMA		1	0	0	0	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	2	1	0	0	0	0		
OEDEMA		0	0	0	0	0		1
ANIMAL No.	3							
ERYTHEMA		1	0	0	0	0		
OEDEMA		0	0	0	0	0		

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0
INDEX 3 x no of animals

CHEMICAL : BENZYL BENZOATE [2] CONCENTRATION TESTED : 100%

SOURCE : FIRMENICH VOLUME TESTED : 0.5ml No. OF RABBITS

: FOUR : 4 hours EXPOSURE TIME SPECIFICATION :

CAS No. 120-51-4 >99% Purity Spec. No. 15204

			OBCEI	RVATIO	זאר	INTER	77 T.	(dave)
		[1h	l 1d	2d	3d		V ALL	(days)
ANIMAL No.	1		14	24	Ju	'u		
ANTHAL NO.	-							
ERYTHEMA		0	0	0	0	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	2	Ť				Î	ľ	ľ
ERYTHEMA		1	2	2	1	0		
OEDEMA		1	1	0	0	0		
	sald)							
ANIMAL No.	3					1		
ERYTHEMA		1	1	1	1	0		
OEDEMA		1	1	0	0	0		
ANIMAL No.	4	Î			Ì		1	
ERYTHEMA		1	2	2	2	1		
OEDEMA		1	1	1	1	0		

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 1.58 INDEX 3 x no of animals

CHEMICAL : BENZYL SALICYLATE [1] CONCENTRATION TESTED : 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SOURCE : GIVAUDAN-ROURE

SPECIFICATION :

CAS No. 118-58-1 Purity 100% Spec. No. 8813001

ANIMAL No.		1h	OBSEF 1d	RVATIO 2d	ON 3d	INTERV 7d	VAL (days)
ERYTHEMA		2	1	0	0	0		
OEDEMA		1	0	0	0	0		
ANIMAL No. 2	2		C. A			1		
ERYTHEMA		2	1	1	0	0		
OEDEMA		2	0	0	0	0		
ANIMAL No.	3			,				
ERYTHEMA		1	0	0	0	0		
OEDEMA		0	0	0	0	0		

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.33 INDEX 3 x no of animals

CHEMICAL : BENZYL SALICYLATE [2] CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED NO. OF RABBITS : FOUR EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 118-58-1 100% Purity Spec. No. 8813001

ANIMAL No. 1	1h	OBSEI 1d	RVATIO	ON 3d		VAL	(days)
ERYTHEMA	1	1	1	1	0		++
OEDEMA	2	1	0	0	0		
ANIMAL No. 2 ERYTHEMA OEDEMA	1 0	1 0	0	0	0 0		
ANIMAL No. 3					Ï		
ERYTHEMA	2	1	1	1	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 4 ERYTHEMA	1	0	0	0	0		
OEDEMA	1	1	0	0	0		

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.75 INDEX 3 x no of animals

CHEMICAL : isoBORNYL ACETATE [1] CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml

No. OF RABBITS : THREE EXPOSURE TIME : 4 hours No. OF RABBITS SPECIFICATION :

CAS No. 125-12-2 Purity 93.5% Spec. No. 0190001

		OBSEI	RVATIO	ON	INTERV	AL ((days)	
ANIMAL No. 1	l h	1d	2d	3d	7d	(
ERYTHEMA	2	2	2	2	1			
OEDEMA	2	2	2	2	1			
ANIMAL No. 2								
OEDEMA	2	2	2	2	+ + +		-	
OBSERVATIONS		2	2	1	De			
ANIMAL No. 3	1		1		1 1			
ERYTHEMA	2	2	2	2	2			
OEDEMA	3	2	2	2	Tī I			
OBSERVATIONS					De			

De = DESQUAMATION FROM SKIN SURFACE

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.89INDEX 3 x no of animals

: isoBORNYL ACETATE [2] CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml No. OF RABBITS

: FOUR : 4 hours SPECIFICATION : EXPOSURE TIME

CAS No. 125-12-2 Purity 93.5% Spec. No. 0190001

			OBSEI	RVATI	ОИ	INTER	VAL	(days)
ANIMAL No.	1	1h	1d	2d	3d	7d		
ERYTHEMA		2	2	2	2	2		
OEDEMA		2	2	2	2	1		
OBSERVATIONS			**			Des		-
ANIMAL No.	2					Ī	Ï	1 1
ERYTHEMA		2	2	2	2	2	_	+
OEDEMA		2	2	2	2	1		
OBSERVATIONS						Des		*
ANIMAL No.	3							
ERYTHEMA		2	2	2	2	1		1
OEDEMA		1	1	1	1	1		
ANIMAL No.	4		1				ľ	1 1
ERYTHEMA		1	2	2	1	0		+ +
OEDEMA		1	2	1	1	0		
OBSERVATIONS						De		-

De = DESQUAMATION FROM SKIN SURFACE (Des = SLIGHT)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.5 INDEX 3 x no of animals

CHEMICAL

: n-BUTYL PROPIONATE

CONCENTRATION TESTED: 100%

SOURCE

VOLUME TESTED

: 0.5ml

: ALDRICH

No. OF RABBITS

: FOUR : 4 hours

SPECIFICATION :

EXPOSURE TIME 590-01-2

CAS No. Purity

99%

Product No.

30,737-8

			OBSERVATION			TNTER	7Δ Τ.	(days)
		1h	l 1d	2d	3d		1	(44,7)
ANIMAL No.	1		14	24	54	۱ / ۵		
ANIMALI NO.	÷.							
ERYTHEMA		1	1	2	2	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	2		ĺ		Î	Î	ľ	1 1
·								
ERYTHEMA		1	1	1	0	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	3	i .	fi 9	1	ĺ	Ť	Ĩ	f 1
ANTIMAL NO.	,							
ERYTHEMA		0	1	1	1	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	4	F	F P	1	ı	1	ŧ	f 1
	37							
ERYTHEMA		0	1	1	1	0		
OEDEMA		0	0	0	0	0		

PRIMARY

INDEX

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA $\underline{24/48/72hr}$ + $\underline{\text{SUM}}$ OEDEMA $\underline{24/48/72hr}$ = 1.08 3 x no of animals

CHEMICAL : DIETHYL PHTHALATE [1] CONCENTRATION TESTED : 100%

: 0.5ml SOURCE : GIVAUDAN-ROURE VOLUME TESTED No. OF RABBITS

: THREE : 4 hours SPECIFICATION : EXPOSURE TIME

84-66-2 99.7% CAS No. Purity Spec. No. 8317001

			OBSEI	RVATIO	ON	INTERV	VAL (days)
ANIMAL No.	1	l 1h	1d	2d	3d	7d		
ERYTHEMA		1	0	0	0	0		1 1
OEDEMA		0	0	0	0	0		
ANIMAL No.	2					Î		1 1
ERYTHEMA		1	0	0	0	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	3	Ç.				Î	ľ	1 1
ERYTHEMA		0	0	0	0	0		
OEDEMA		0	0	0	0	0		

PRIMARY IRRITATION = \underline{SUM} ERYTHEMA 24/48/72hr + \underline{SUM} OEDEMA 24/48/72hr = 0 3 x no of animals INDEX

CHEMICAL : DIETHYL PHTHALATE [2] CONCENTRATION TESTED : 100%

VOLUME TESTED SOURCE : GIVAUDAN-ROURE : 0.5ml No. OF RABBITS

: FOUR : 4 hours EXPOSURE TIME SPECIFICATION :

CAS No. 84-66-2 Purity 99.7% Spec. No. 8317001

		OBSERVATION			INTERV	7AL ((days)	
	1h	1d	2 d	3d	7d	`	1 - 1	
ANIMAL No. 1								
ERYTHEMA	1	0	0	0	0			
OEDEMA	0	0	0	0	0			
ANIMAL No. 2	ĺ		1		Ĭ			
ERYTHEMA	0	0	0	0	0			
DEDEMA	0	0	0	0	0			
ANIMAL No. 3	[ſ	1		1	f. 	P)	
ERYTHEMA	0	1	1	0	0			
OEDEMA	0	0	0	0	0			
ANIMAL No. 4								
ERYTHEMA	0	0	0	0	0			
OEDEMA	0	0	0	0	0			

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.17

3 x no of animals INDEX

CHEMICAL

: DIMETHYLBENZYL

CONCENTRATION TESTED : 100%

CARBINYL ACETATE # [1]

SOURCE

: FIRMENICH

WEIGHT TESTED

: 0.5g

SPECIFICATION :

No. OF RABBITS EXPOSURE TIME

: THREE : 4 hours

CAS No.

151-05-3

Purity Spec. No. >97% 00684

: synonym for alpha, alpha-dimethylphenethyl acetate

			211	ERVATION		INTERVAL		(days)
ANIMAL No.	1	l h	1d	2d	3d	7d		
ERYTHEMA		1	1	1	1	0		
OEDEMA		0	1	0	0	0		
ANIMAL No.	2	0	1	1	1	0		
OEDEMA		0	1	0	0	0		
ANIMAL No.	3							
ERYTHEMA		1	1	1	1	0		
OEDEMA		0	0	0	0	0		
OBSERVATIONS						Dvs		

Dvs = VERY SLIGHT DESQUAMATION FROM SKIN SURFACE

PRIMARY

IRRITATION = <u>SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr</u> = 1.22

INDEX

3 x no of animals

CHEMICAL : DIMETHYLBENZYL CONCENTRATION TESTED : 100%

CARBINYL ACETATE # [2]

SOURCE : FIRMENICH WEIGHT TESTED : 0.5g
No. OF RABBITS : SIX

SPECIFICATION: EXPOSURE TIME: 4 hours

CAS No. 151-05-3 Purity >97% Spec. No. 00684

: synonym for alpha, alpha-dimethylphenethyl acetate

ANIMAL No. 1	1h	OBSEF 1d	RVATIO 2d	ON 3d	INTERVAL 7d	(days)
ERYTHEMA	1	1	1	2	0	-
OEDEMA	0	2	1	1	0	
OBSERVATIONS					Des	
ANIMAL No. 2					1	
ERYTHEMA	1	1	1	0	0	
OEDEMA	0	0	0	0	0	
ANIMAL No. 3		9				r i
ERYTHEMA	1	1	1	1	0	
OEDEMA	1	1	1	0	0	
ANIMAL No. 4						
ERYTHEMA	2	2	2	2	1	
OEDEMA	1	2	1	0	ō	
OBSERVATIONS					De	
ANIMAL No. 5		1			ĺ	
ERYTHEMA	1	0	0	0	0	
OEDEMA	0	0	0	0	0	
ANIMAL No. 6						1 1
ERYTHEMA	1	1	0	0	0	
OEDEMA	1	0	0	0	0	

De = DESQUAMATION FROM SKIN SURFACE (Des = SLIGHT

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.39 INDEX 3 x no of animals

: 2-ETHYLHEXYL COCOATE CONCENTRATION TESTED : 100% CHEMICAL

: UNICHEMA INTERNATIONAL VOLUME TESTED SOURCE

: O.5ml : THREE : 4 hours

No. OF RABBITS

SPECIFICATION :

EXPOSURE TIME

CAS No.

92044-87-6

Purity

Trade name ESTOL 1540/1972

ANIMAL No. 1	lh	OBSEI 1d	RVATIO 2d	ON 3d	INTER	VAL (days)
ERYTHEMA	1	1	1	1	0		
OEDEMA	1	1	1	1	0		
ANIMAL No. 2	1	1		1	0		
OEDEMA	1	1	1	0	0	-	+
ANIMAL No. 3							
ERYTHEMA	1	1	1	0	0		
OEDEMA	1	1	1	0	0		

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.673 x no of animals INDEX

CHEMICAL

: 2-ETHYLHEXYL

CONCENTRATION TESTED : 100%

PALMITATE

SOURCE

: DS INDUSTRIES

VOLUME TESTED

No. OF RABBITS

SPECIFICATION :

EXPOSURE TIME

: O.5ml : THREE : 4 hours

CAS No.

29806-73-3

Purity

Trade name ESTAMOL EH 16

	F 43		RVATIO		INTERV	/AL (days)
ANIMAL No. 1	l 1h	1d	2d	3d			
ERYTHEMA	0	1	1	0			
OEDEMA	0	0	0	0			
ANIMAL No. 2 ERYTHEMA OEDEMA	0 0	1 0	0 0	0			
ANIMAL No. 3		-				ś.	
ERYTHEMA	0	1	1	0			
OEDEMA	0	0	0	0			

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA $\underline{24/48/72hr}$ + $\underline{\text{SUM}}$ OEDEMA $\underline{24/48/72hr}$ = 0.56

INDEX

3 x no of animals

CONCENTRATION TESTED : 100% CHEMICAL : ETHYL TIGLATE

VOLUME TESTED : 0.5ml SOURCE : IFF No. OF RABBITS

: FOUR : 4 hours SPECIFICATION : EXPOSURE TIME

5837-78-5 CAS No. Purity Spec. No. 98.8%

ANIMAL No. 1	l 1h	OBSE	RVATIO	ON 3d	INTERV 7d	VAL (days)
ERYTHEMA	0.5	1.5	1	1	0.5		
OEDEMA	0.5	0.5	0	0	0		
OBSERVATIONS					De		
ANIMAL No. 2		ĺ					
ERYTHEMA	1	1	0.5	0.5	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 3							
ERYTHEMA	1.5	1.5	1.5	0.5	0		
OEDEMA	0	0.5	0	0	0		
ANIMAL No. 4							
ERYTHEMA	1.5	2	1	0.5	0		
OEDEMA	0	0.5	0	0	0		
OBSERVATIONS					Des		

De = DESQUAMATION FROM THE SKIN (Des = SLIGHT)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.17INDEX 3 x no of animals

CHEMICAL

: ETHYL TRIMETHYL CONCENTRATION TESTED : 100%

ACETATE

SOURCE

: ALDRICH

VOLUME TESTED

SPECIFICATION :

VOLUME TESTED : 0.5ml
No. OF RABBITS : SIX
EXPOSURE TIME EXPOSURE TIME

CAS No.

3938-49-2

: 4 hours

Purity 99% Product No. 23,455-9

		OBSER	RVATIO	ON	INTERV	AL	(days)
	1h	1d	2d	3d	7d		1 - 1
ANIMAL No. 1					1 1		
ERYTHEMA	1	1	1	0	0		
OEDEMA	0	0	0	0	0		
21121121 12 I		ap 0.	gr 7/		a a		2 2
ANIMAL No. 2							
TTD T/MITTER A							
ERYTHEMA	0	1	1	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 3		n o	is 8	i	1 r		F F
ANIMAL NO.							1 1
ERYTHEMA	1	1	0	0			+
OEDEMA	0	0	0	0	0		
OEDENA	U	0	U.	U	0		
ANIMAL No. 4		i i	i î		î î		f E
ERYTHEMA	0	1	1	0	0	_	+-+
OEDEMA	0	0	0	0	0		
ANIMAL No. 5		i i	1		1 1		1 1
- CANACAN ACCES V MASS CA							
ERYTHEMA	0	1	0	0	0		1 1
OEDEMA	0	0	0	0	0		
ANIMAL No. 6		1	1		1 1		1 1
ERYTHEMA	0	1	0	0	0		
OEDEMA	0	0	0	0	0		
10							

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.5 INDEX 3 x no of animals

CHEMICAL : GLYCOLBROMOACETATE CONCENTRATION TESTED: 85%

SOURCE : SA SOPURA VOLUME TESTED : 0.5ml No. OF RABBITS

: ONE : 4 hours SPECIFICATION : EXPOSURE TIME

CAS No. 3785-34-0

Purity 85%

		OBSERVATION INTERVAL (d							
ANIMAL No. 1	1h	1d	2d	3d	7d	10d	14d		
ERYTHEMA	4Ne	4Ne	4Ne	4Ne	4Cr	4Sc	2St		
OEDEMA	4	4	4	3	3	3	3		

Ne = VERY SLIGHT TO MODERATE ISCHEMIC NECROSIS

Cr = SLIGHT OR MODERATE INCRUSTATION

Sc = MODERATE SCALINESS AND SLIGHT TO MODERATE INCRUSTATION

St = SCAR TISSUE AND DECREASED HAIR GROWTH

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 7.67 INDEX 3 x no of animals

CHEMICAL

: HEPTYL BUTYRATE

CONCENTRATION TESTED : 100%

SOURCE

: BBA

SPECIFICATION :

CAS No. 5870-93-9
Purity 5059

>95%

Purity Spec. No.

			ODGE	777 MT	~ NT	TNMEDT	77AT /	darral
		1 1h	l 1d	RVATIO	JN 3d	INTERV 7d	AL (days
	1	1 In	l Id	zu	Ju	' ^u		
ANIMAL No.	1							
ERYTHEMA		0.5	1.5	1.5	1.5	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	2	Ĩ		1	ĺ	1 1	ĺ	1 1
ERYTHEMA		1	2	2	2	1.5		
OEDEMA		0	0.5	0	0	0		
OBSERVATIONS						Ts		
		1	t	i i	1	i i	Î	Y 1
ANIMAL No.	3							
ERYTHEMA		0.5	0.5	1	0.5	0.5		
OEDEMA		0	0	0	0	0		
OBSERVATIONS						Des		
ANIMAL No.	4	1	Ť	1	1	1	1	1 1
	○ 77							
ERYTHEMA		1	2	2	2	2		
OEDEMA		0	1	0.5	0.5	0		
OBSERVATIONS				11.		Des		

Des = SLIGHT DESQUAMATION FROM TREATED SKIN

Ts = SLIGHT SKIN THICKENING

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.75

3 x no of animals INDEX

OBSERVATIONS

De

SKIN IRRITATION DATA FOR INDIVIDUAL RABBITS

CHEMICAL : HEXYL SALICYLATE [1] CONCENTRATION TESTED : 100%

SOURCE : FIRMENICH VOLUME TESTED : 0.5

NO. OF RABBITS : THREE SPECIFICATION : EXPOSURE TIME : 4 hours

CAS No. 6259-76-3
Purity >98%
Spec. No. 80916

			OBCE	RVATIO	ONT.	TNMEDT	73 T /	\
ANIMAL No.	1	1h	l 1d	2d	3d	INTERV 7d	AL (days)
ERYTHEMA		1	2	2	2	1		
OEDEMA		1	1	1	1	1		
OBSERVATIONS						De*		·
ANIMAL No.	2	Ĩ						
ERYTHEMA		1	2	2	2	2		
OEDEMA		1	1	1	2	2		
OBSERVATIONS						De*		l
ANIMAL No.	3		1			ľ		1 1
ERYTHEMA		2	2	2	2	2		
OEDEMA		1	2	2	2	1		

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.44 INDEX 3 x no of animals

CHEMICAL

: HEXYL SALICYLATE [2] CONCENTRATION TESTED : 100%

SOURCE

VOLUME TESTED

: 0.5ml

: FIRMENICH

No. OF RABBITS EXPOSURE TIME

: FOUR : 1001. : 4 hours

SPECIFICATION :

CAS No.

Purity Spec. No. 6259-76-3 >98% 80916

			OBSE	RVATIO	ON	INTERVAL	ر د (ر	days)
		1h	1d	2d	3d	7d	`	
ANIMAL No.	1							
ERYTHEMA		1	2	2	2	1		
OEDEMA		1	1	1	0	0		
OBSERVATIONS						De*		
	1000		ar n			w w		v 900
ANIMAL No.	2							
·								
ERYTHEMA		2	2	2	2	2		
OEDEMA		2	2	2	2	1		
12 (8 drug) (8 drug) V (8 drug)	= 1		er n	o a		r r		r r:
ANIMAL No.	3				1			
		_		_	_	 		-
ERYTHEMA		2	2	2	2	2		-
OEDEMA		3	2	2	2	1		
	· ·		P 7		í	i i		ř ř
ANIMAL No.	4				1			
		-	_	_	-	 		-
ERYTHEMA		2	2	2	2	2	_	
OEDEMA		2	2	2	2	2		
OBSERVATIONS						De*		

De* = MARKED DESQUAMATION FROM SKIN SURFACE

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.67

INDEX

3 x no of animals

: HEXYL SALICYLATE [3] CONCENTRATION TESTED : 100% CHEMICAL

VOLUME TESTED : 0.5ml : FIRMENICH SOURCE No. OF RABBITS

: FOUR : 4 hours EXPOSURE TIME SPECIFICATION :

6259-76-3 CAS No. Purity Spec. No. >98% 80916

			OPCEI	RVATIO)NI	INTERVAL (days			
		l 1h	l 1d	2d	3d	7d l	(days)		
ANIMAL No.	1	1 111	14	24	J 34	/ "	- 1		
ANIMAL NO.	1								
ERYTHEMA		2	2	2	2	2			
OEDEMA		2	2	3	3	1			
OBSERVATIONS		·h·				Des			
ANIMAL No.	2	1	ſ		1	1 1	1 1		
S. S									
ERYTHEMA		2	2	2	2	2			
OEDEMA		1	1	2	1	1			
OBSERVATIONS						De*			
ANIMAL No.	3	1	Ī		1		1 1		
ERYTHEMA		2	2	2	2	2			
OEDEMA		1	2	2	2	2			
OBSERVATIONS						De*	,		
ANIMAL No.	4								
ERYTHEMA		2	2	2	2	1			
OEDEMA		1	2	3	3	1			

De* = MARKED DESQUAMATION FROM SKIN SURFACE (Des = SLIGHT)

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.173 x no of animals INDEX

CHEMICAL : HEXYL SALICYLATE [4] CONCENTRATION TESTED : 100%

SOURCE : FIRMENICH VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR

SPECIFICATION: EXPOSURE TIME: 4 hours

CAS No. 6259-76-3
Purity >98%
Spec. No. 80916

		÷		RVATI		INTERV	AL (days)
		1h	1d	2d	3d	7d		1 1
ANIMAL No.	1					1 1		1 1
		1						1 1
ERYTHEMA		1	2	2	2	1		
OEDEMA		0	1	1	2	1		
OBSERVATIONS						De*		
						DC		
ANIMAL No.	2	i i	ř.	1	i	î î		í i
ANTIALI NO.	2							
ERYTHEMA		1	2	2	2	-		-
OEDEMA		1		2	2	2		-
		Т.	2		2	1		
OBSERVATIONS						De		
		20 0						
ANIMAL No.	3							1 1
ERYTHEMA		1	2	2	2	1		1
OEDEMA		0	1	1	1	1		+
OBSERVATIONS		-				De*		
						De.		
ANTMAT No	4	È	i :		t	r r		ar. a
ANIMAL No.	4							
ERYTHEMA		1	2	2	2	0		
OEDEMA		0	1	1	1	0		

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

OBSERVATIONS

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.33 INDEX 3 x no of animals

De*

CHEMICAL

: LINALYL ACETATE [1]

CONCENTRATION TESTED : 100%

SOURCE

: GIVAUDAN-ROURE

: 0.5ml : THREE

VOLUME TESTED No. OF RABBITS EXPOSURE TIME

: 4 hours

SPECIFICATION :

CAS No.

115-95-7 96.6%

Purity Spec. No.

0373001

		OBSE	RVATI	ОN	INTERV	AL (days)
	1h	1d	2d	3d	7d	·	
ANIMAL No. 1							1 1
TO TEMPETAL TO		-		_			+
ERYTHEMA	0	1	2	2	0		
OEDEMA	0	2	1	1	0		
OBSERVATIONS					De*		
ANIMAL No. 2		ľ	1		Î Î		1 1
					1 1		
ERYTHEMA	2	2	2	2	2		
OEDEMA	2	2	2	2	1		
OBSERVATIONS					De		
ANIMAL No. 3	Ĩ	i i	r i	i	i i		i i
ANTIMAL NO.							
ERYTHEMA	2	2	2	2	2		
OEDEMA	3	2	2	2	2		
OBSERVATIONS					De*		

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 3.67

INDEX 3 x no of animals

CHEMICAL : LINALYL ACETATE [2] CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR

SPECIFICATION : EXPOSURE TIME : 4 hours

CAS No. 115-95-7 Purity 96.6% Spec. No. 0373001

	**							
			OBSEI	RVATIO	ON	INTER	VAL (davs)
		1 h	l 1d	2 d	3 d	1 7d	1 `	[
ANIMAL No.	1				""	' "		
miimi no.	-							
ERYTHEMA		2	2	2	2	2		
OEDEMA		1	1	1	1	1		
OBSERVATIONS						De	fa)	
	2	c	V 6 12					4 0 15
ANIMAL No.	2				ĺ			
DD MINITING.				_			-	
ERYTHEMA		1	2	2	2	1		
OEDEMA		2	1	1	2	0		
OBSERVATIONS						De*		
732-225-225 (S.C.)	927							20
ANIMAL No.	3						ĺ	
		_	-	_		-		
ERYTHEMA		2	2	2	2	2		
OEDEMA		2	2	1	1	0		
		r	t s	0 0	1		c.	r: n
ANIMAL No.	4							
ERYTHEMA		1	2	2	1	1		
OEDEMA		2	1	0	0	0		_
OEDEPLA		4	1	0	U	1 0		I

Des

OBSERVATIONS

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.92 INDEX 3 x no of animals

CHEMICAL : METHYL CAPROATE CONCENTRATION TESTED : 100%

: 0.5ml : THREE : 4 hours SOURCE : ALDRICH VOLUME TESTED No. OF RABBITS

SPECIFICATION : EXPOSURE TIME

CAS No. 106-70-7 Purity 998 Product No. 25994-2

			OBSE	RVATI	ON	N INTERVAL (days				
	a1	1d	2d	3d	7d	14d	21d	1 - 1		
ANIMAL No.	1									
ERYTHEMA		2	2	1						
OEDEMA		1	1	1						
ANIMAL No.	2	Î								
ERYTHEMA		1	2	2		1				
OEDEMA		1	1	1						
ANIMAL No.	3	Î				Î	Ĩ	1		
ERYTHEMA		2	2	1						
OEDEMA		2	1	1						

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 2.78 INDEX 3 x no of animals

CHEMICAL

: METHYL LAURATE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 111-82-0 Purity 99.5%

Product No. 23459-1

		OBSER	RVATIO	ON	INTERV	AL (days)
	1d	2d	3d	7d	14d		
ANIMAL No. 1							
ERYTHEMA	2	2	2	2	0		
OEDEMA	2	2	2	2	0		
ANIMAL No. 2							
ERYTHEMA	2	2	2	2	0		
OEDEMA	2	2	2	2	0		
2	ř	1 3			1		
ANIMAL No. 3							
ERYTHEMA	2	2	2	2	0		
OEDEMA	2	2	1	2	0		

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.89 INDEX 3 x no of animals

CHEMICAL

: METHYL LINOLEATE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

VOLUME TESTED

: 0.5ml

No. OF RABBITS EXPOSURE TIME

: THREE : 4 hours

SPECIFICATION :

112-63-0

CAS No. Purity

998

Product No.

25994-2

		OBSE	RVATIO	ON	INTER	VAL (davs)
ANIMAL No. 1	1d	2d	3d	7d	14d	21d`	
ERYTHEMA	1	3	3				
OEDEMA	0	2	2		1		
ANIMAL No. 2	ĺ					1	
ERYTHEMA	1	1	1				
OEDEMA	1	0	0				
ANIMAL No. 3	Ĩ					Ì	ĺĺ
ERYTHEMA	2	3	2				
OEDEMA	2	2	2				

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.11 INDEX 3 x no of animals

CHEMICAL

: METHYL 2-METHYL CONCENTRATION TESTED : 100%

BUTYRATE

SOURCE

: FIRMENICH

VOLUME TESTED

: 0.5ml

No. OF RABBITS

SPECIFICATION :

EXPOSURE TIME

: FOUR : 4 hours

CAS No. 868-57-5

>95%

Purity Product No. 65070

ANIMAL No. 1 ERYTHEMA OEDEMA	0.5 0	OBSEI 1d	0.5 0	ON 0	INTERV 7d 0	/AL	(days)
ANIMAL No. 2 ERYTHEMA	1	1	0.5	0.5	0		
OEDEMA ANIMAL No. 3	0.5	0.5	0	0	0		
OEDEMA	1.5	1.5	0	0.5	0.5		
ANIMAL No. 4							
ERYTHEMA OEDEMA	0.5	0.5	0.5	0.5	0		

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.67

INDEX

3 x no of animals

CHEMICAL

ERYTHEMA OEDEMA

: METHYL PALMITATE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

CAS No.

VOLUME TESTED

: 0.5ml

No. OF RABBITS EXPOSURE TIME

: THREE : 4 hours

SPECIFICATION :

112-39-0

Purity

99%

Product No. 26065-7

			OBSE	RVATIO	ΟN	INTER	VAL (days)
ANIMAL No.	1	1h	2d	3d	7d	14d	21d`	
ERYTHEMA		2	2	1				
OEDEMA		1	1	1				
ANIMAL No.	2						ľ	
ERYTHEMA		3	3	3				
OEDEMA		3	3	2				
ANTMAT. NO	3	ſ	r	1 1	ſ	Ŧ	f	r r

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.56INDEX 3 x no of animals

CHEMICAL

: METHYL STEARATE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

VOLUME TESTED

: 0.5ml

No. OF RABBITS EXPOSURE TIME

: THREE : 4 hours

SPECIFICATION :

112-61-8

CAS No. Purity

Product No.

998 33518-5

			OBSE	RVATIO	ON	INTER	VAL (days)
		1d	2d	3d	7d	14d	21d`	1 1
ANIMAL No.	1							
ERYTHEMA		1	1	1				
OEDEMA		0	0	0				
ANIMAL No.	2	ĺ	ĺ			Ì	Ĭ	ĺĺ
ERYTHEMA		2	2	3		1		
OEDEMA		2	2	2				
ANIMAL No.	3	Ĭ		1		Ì	ĵ	Î Î
ERYTHEMA		1	1	1				
OEDEMA		0	0	0				

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 2.11 INDEX 3 x no of animals

CHEMICAL

: METHYL TRIMETHYL CONCENTRATION TESTED : 100%

ACETATE

SOURCE

: ALDRICH

VOLUME TESTED

: 0.5ml

No. OF RABBITS

EXPOSURE TIME

: THREE : 4 hours

SPECIFICATION :

CAS No.

598-98-1

Purity

99ቄ

Product No. M8,650-2

		OBSEI	RVATIO	ON	INTERV	VAL	(davs)
	1h	1 d	2d	3d	7d		`[1
ANIMAL No. 1							
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2	ĺ	ľ			Ī		1 1
ERYTHEMA	0	0	0	0	0		_
OEDEMA	0	0	0	0	0		
ANIMAL No. 3		t e	E.				f I
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 0 INDEX 3 x no of animals

CHEMICAL : isoPROPYL MYRISTATE CONCENTRATION TESTED : 100%

SOURCE : UNICHEMA INTERNATIONAL VOLUME TESTED : 0.5ml No. OF RABBITS

: THREE : 4 hours SPECIFICATION : EXPOSURE TIME

CAS No. 110-27-0

Purity

ESTOL 1512 Trade name

		OBSE	RVATIO	ON	INTERV	7 A T. (davs)
	1h	1d	2d	l 3d	7d	(1 1
ANIMAL No. 1				"			
ERYTHEMA	1	1	1	1	0		
OEDEMA	0	1	1	0	0		
ANIMAL No. 2	[ľ	p s		Ţ	X	ľ
ERYTHEMA	1	1	1	1	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 3	ĺ	Î	ĺ		Ī	Ĭ	
ERYTHEMA	1	1	1	1	0		
OEDEMA	0	0	0	0	0		

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 1.22 3 x no of animals INDEX

CHEMICAL

: isoPROPYL PALMITATE

CONCENTRATION TESTED : 100%

SOURCE

: UNICHEMA INTERNATIONAL VOLUME TESTED

: 0.5ml

No. OF RABBITS EXPOSURE TIME

: THREE : 4 hours

SPECIFICATION :

3.40

CAS No.

142-91-6

Purity Trade name

ESTOL 1517

		OBSEI	RVATIO	ON :	INTER	VAL (c	lays)
ANIMAL No. 1	lh	1d	2d	3d	7d	14d	
ERYTHEMA	0	1	1	1	0	0	
OEDEMA	0	0	0	0	0	0	
ANIMAL No. 2						Č .	1
ERYTHEMA	1	1	2	2	1	0	
OEDEMA	0	0	1	1	0	0	
ANIMAL No. 3						,	
ERYTHEMA	0	1	1	1	0	0	
OEDEMA	0	0	0	0	0	0	

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.44 INDEX 3 x no of animals

: isoPROPYLisoSTEARATE CONCENTRATION TESTED : 100% CHEMICAL

: UNICHEMA INTERNATIONAL VOLUME TESTED SOURCE

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SPECIFICATION :

68171-33-5 CAS No.

Purity.

Trade name PRISORINE 2021 (Tested as Estol 2021)

			OBSEI	RVATIO	ON	INTER	VAL	(days)
		1h	1d	2d	3d	1		1 - 1
ANIMAL No.	1							
ERYTHEMA		1	1	0	0			
OEDEMA		1	0	0	0			
ANIMAL No.	2							
ERYTHEMA		1	0	0	0			
OEDEMA		0	0	0	0			
ANIMAL No.	3					1		
ERYTHEMA		1	0	0	0			
OEDEMA		0	0	0	0			

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.11 3 x no of animals INDEX

CHEMICAL

: alpha-TERPINYL

CONCENTRATION TESTED: 100%

ACETATE # [1]

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED

No. OF RABBITS EXPOSURE TIME

: 0.5ml : THREE : 4 hours

SPECIFICATION :

CAS No.

80-26-2 100%

Purity Spec. No.

0495001

: synonym p-menth-1-en-8-ol acetate

ANIMAL No.	1	1h	OBSEF 1d	RVATIO 2d	ON :	INTER	VAL (days)
ERYTHEMA		0	1	2	2	1 1		
OEDEMA OBSERVATIONS			1 1			De*		
ANIMAL No.	2		Î					

ANIMAL No. 2		1		1	1		
ERYTHEMA	2	2	2	2	1		_
OEDEMA	1	2	2	2	1		
OBSERVATIONS					De		

ANIMAL No. 3	Ĩ				1	1	
ERYTHEMA	1	2	2	2	2		
OEDEMA	2	2	2	2	1		
OPCEDIATIONS					De		

OBSERVATIONS

INDEX

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.56 3 x no of animals

CHEMICAL

: alpha-TERPINYL

CONCENTRATION TESTED: 100%

ACETATE # [2]

SOURCE

: GIVAUDAN-ROURE

SPECIFICATION :

NO. OF RABBITS : FOUR EXPOSURE TIME : 4 L

: 4 hours

CAS No. 80-26-2 Purity 100% Spec. No.

0495001

: synonym p-menth-1-en-8-ol acetate

		OBSE	RVATI	ИС	INTERVA	L (days)
	1h	1d	2 d	3d	7d	1	
ANIMAL No. 1							
ERYTHEMA	2	2	2	2	2		二
OEDEMA	3	3	3	3	1		
ODGEDUARTONG					Des		

OBSERVATIONS

ANIMAL No. 2	ľ						
ERYTHEMA	2	2	2	2	1		ightharpoons
OEDEMA	2	2	2	2	1		\perp

ANIMAL No. 3	1					
ERYTHEMA	2	2	2	2	1	
OEDEMA	2	3	2	2	1	

ANIMAL No. 4							
ERYTHEMA	1	2	2	2	1		\Box
OEDEMA	0	2	2	2	1		\perp

OBSERVATIONS

De

De = DESQUAMATION FROM SKIN SURFACE (Des = SLIGHT)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.33

3 x no of animals INDEX

CONCENTRATION TESTED : 100% : alpha-TERPINYL CHEMICAL

ACETATE # [3]

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours : GIVAUDAN-ROURE SOURCE

SPECIFICATION :

CAS No. 80-26-2 100% Purity Spec. No. 0495001

: synonym p-menth-1-en-8-ol acetate

			OBSER	RVATIO	NC	INTERV	AL (days)
		1 h	1d	2d	3d	7d		
ANIMAL No.	1							
ERYTHEMA		2	2	2	2	1		
OEDEMA		1	2	2	2	1		
OBSERVATIONS						Dem		
ANIMAL No.	2	Î				1		
ERYTHEMA		1	2	2	1	1		
OEDEMA		1	2	1	0	0		
OBSERVATIONS						Des		Ni
ANIMAL No.	3	Ĭ				1 1		1
ERYTHEMA		1	2	2	2	1		

ERYTHEMA	1	2	2	2	1	
OEDEMA	1	1	1	0	0	
OBSERVATIONS					Des	

ANIMAL No. 4			1			1 1	
ERYTHEMA	1	2	1	1	0		
OEDEMA	0	1	0	0	0		
No. of the Control of					Des		

OBSERVATIONS Des

Des = SLIGHT DESQUAMATION FROM SKIN SURFACE (Dem = MINIMAL)

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.753 x no of animals INDEX

CHEMICAL

: 1,4-CINEOLE

CONCENTRATION TESTED : 100%

SOURCE

: QUEST

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

SPECIFICATION :

470-67-7

CAS No. Purity

01245 Spec. No.

			OBS	ERVATI	ON	INTERV	/AL	(days)
		11	n 1d	2d	3d	7d		
ANIMAL No.	1							
ERYTHEMA		2	2	2	2	1.5		
OEDEMA		0.	5 0.5	0	0	0		
			w	100	12	· ·		
ANIMAL No.	2							
ERYTHEMA		0.		1.5	1.5	1		
OEDEMA		0	0	0.5	0.5	0.5		
OBSERVATIONS						De		
		7	φ	ř.	ii.	77	î	Ť
ANIMAL No.	3							
ERYTHEMA		1.	5 2	2	2	1.5		
OEDEMA		0	0.5	0.5	0.5	0.5		
		i i	i	ř.	E		i	1
ANIMAL No.	4							
ERYTHEMA		0		2	2	1.5		
OEDEMA		0.	5 0.5	0.5	0.5	0.5		

De = DESQUAMATION FROM THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.25

3 x no of animals INDEX

CHEMICAL

: CAPRYLIC ACID

CONCENTRATION TESTED: 100%

SOURCE

: UNICHEMA INTERNATIONAL VOLUME TESTED

: 0.5ml

No. OF RABBITS

NO. OF RABBITS : THREE EXPOSURE TIME : 4 hours

SPECIFICATION :

124-07-02

CAS No.

Purity Trade name

PRIFRAC 2901/2903

			OBSEI	RVATIO	ON :	INTERVAL (days)
		1h	1d	2d	3d	
ANIMAL No.	1					
ERYTHEMA		1	1	4	4	TERMINATED
OEDEMA		2	3	2	0	
OBSERVATIONS		7.		Ne	Es	
ANIMAL No.	2	1	ľ			
ERYTHEMA		1	1	4	4	TERMINATED
OEDEMA		1	2	2	0	
OBSERVATIONS			-	Ne	Es	
ANIMAL No.	3	1	ī	f a	ſ	1 1 1
ANIMAL NO.						
ERYTHEMA		1	1	4	4	TERMINATED
OEDEMA		1	2	2	0	
OBSERVATIONS				Ne	Es	

Ne = NECROSIS

Es = ESCHAR

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.44

3 x no of animals INDEX

: 55/45 MIXTURE OF

CONCENTRATION TESTED : 100%

CAPRYLIC/CAPRIC ACIDS

SOURCE

: UNICHEMA INTERNATIONAL VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
: EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No.

68937-75-7

Purity

Trade name

PRIFRAC 2910

ANIMAL No. 1	lh	OBSEI 1d	RVATIC 2d	ON 3d	INTERVAL (days)
ERYTHEMA	1	2	4	4	TERMINATED
OEDEMA	1	2	2	0	
OBSERVATIONS			Ne	Es	
ANIMAL No. 2 ERYTHEMA	1	2	4 2	4 0	TERMINATED
OEDEMA	1_1_	2		Es	
OBSERVATIONS ANIMAL No. 3			Ne	Es	
ERYTHEMA	1	2	4	4	TERMINATED
OEDEMA	1	3	3	3	
OBSERVATIONS			Ne	Es	

Ne = NECROSIS

Es = ESCHAR

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 5.11 INDEX 3 x no of animals

CHEMICAL

: 60/40 MIXTURE OF

CONCENTRATION TESTED : 100%

CAPRYLIC/CAPRIC ACIDS

SOURCE

: UNICHEMA INTERNATIONAL VOLUME TESTED No. OF RABBITS

: 0.5ml : THREE : 4 hours

EXPOSURE TIME

SPECIFICATION :

CAS No.

68937-75-7

Purity Trade name

PRIFRAC 2912

		AL (d	avs)					
	1	1h	l 1d l	VATIC 2d	3d	7d	14d	21d
ANIMAL No.	1							
ERYTHEMA		2	4	4	4	4	1	1
OEDEMA		1	3	_*	_*	-*	1	0
OBSERVATIONS		1	Es	Es	Es	Es	NS	NS
ANIMAL No.	2	ſ						
ERYTHEMA		1	2	2	2	4	1	1
OEDEMA		2	4	4	4	-*	1	0
OBSERVATIONS						Es	NSC	NS
ANIMAL No.	3							
ERYTHEMA		1	4	4	4	4	0	1
OEDEMA		2	4	_*	_*	_*	1	2
OBSERVATIONS			Es	Es	Es	Es	NS	

Es = ESCHAR

NS = NEW SKIN FORMATION

NSc = NEW SKIN FORMATION WITH SCALINESS

* = NO SCORE POSSIBLE DUE TO ESCHAR FORMATION

IRRITATION = NOT POSSIBLE TO CALCULATE INDEX

CHEMICAL

: 65/35 MIXTURE OF

CONCENTRATION TESTED : 100%

CAPRYLIC/CAPRIC ACIDS

SOURCE

: UNICHEMA INTERNATIONAL VOLUME TESTED

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No.

68937-75-7

Purity Trade name

PRIFRAC 2911

		OBSERVATION INTERVAL (days)									
	1	1h	1d	2d	3d	7d [14d	21d			
ANIMAL No.	1		ĺ								
ERYTHEMA		2	4	4	4	4	1	0			
OEDEMA		2	3	_*	_*	_*	1	0			
OBSERVATIONS			Es			Es	NS	NS			
ERYTHEMA	2	2	4	4	4	4	1	1			
OEDEMA		2	_*	_*	_*	_*	1	2			
OBSERVATIONS			Es	Es	Es	Es	NS	NS			
ANIMAL No.	3										
ERYTHEMA		2	3	4	4	1	0	0			
OEDEMA		2	3	3	3	1	0	0			
OBSERVATIONS				Es	Es	NS	Sc				

Es = ESCHAR

NS = NEW SKIN FORMATION

Sc = SCALINESS

* = NO SCORE POSSIBLE DUE TO ESCHAR FORMATION

PRIMARY

IRRITATION = NOT POSSIBLE TO CALCULATE INDEX

CHEMICAL

: 65/35 MIXTURE OF

CONCENTRATION TESTED : 100%

CAPRYLIC/CAPRIC ACIDS

SOURCE

: PROCTER & GAMBLE

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 67762-36-1 Purity 53.9% C8, 41.2%C10 Brand code 47032

	OBSERVATION						(days)
	4½h	1d	2d	3d			
ANIMAL No. 1							
ERYTHEMA	2	3	3	3			
OEDEMA	0	2	2	2			
OBSERVATIONS	Ex	Ex	Ex	Ex			
ANIMAL No. 2	1 1		ll i	ĺ	Ĩ	Ĩ	i î
355							
ERYTHEMA	2	3	3	3			
OEDEMA	2	2	2	3			
OBSERVATIONS		Ex	Ex	Ex			
ANIMAL No. 3	1				1	1	1 1
ERYTHEMA	2	3	4	4			
OEDEMA	0	2	2	2			
OBSERVATIONS	*	Ex	Ex	Ex			

Ex = REACTION EXTENDED OUTSIDE APPLICATION SITE

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA $\underline{24/48/72hr}$ + $\underline{\text{SUM}}$ OEDEMA $\underline{24/48/72hr}$ = 5.33

3 x no of animals INDEX

CHEMICAL : LAURIC ACID

CONCENTRATION TESTED: 100%

SOURCE : UNICHEMA INTERNATIONAL WEIGHT TESTED : 0.5g
No. OF RABBITS : THREE
SPECIFICATION : EXPOSURE TIME : 4 hours

CAS No. 143-07-7
Purity >92%
Trade name PRIFRAC 2922

			OBSE	RVATIO	ON :	INTER	VAL (days)
		l 1h	1 d	2d	3d	7d	,	1 1
ANIMAL No.	1							
ERYTHEMA		1	1	1	1	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	2		e 5					
ERYTHEMA		1	0	0	0	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	3							
ERYTHEMA		1	1	0	0	0		
OEDEMA		0	0	0	0	0		

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.443 x no of animals INDEX

CONCENTRATION TESTED : 100% : 70/30 MIXTURE OF CHEMICAL

OLEINE & CAPRYLIC ACID

SOURCE

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours SPECIFICATION :

CAS No. Purity -

			OBSET	RVATIO	ר מכ	INTERVAL (da			
		l 1h	1d	2d	3d	7d	14d	, ,	
ANIMAL No.	1								
ERYTHEMA		2	2	1	2	1	0		
OEDEMA		3	3	2	2	0	0		
OBSERVATIONS						SC			
541									
ANIMAL No.	2	Ì							
ERYTHEMA		2	2	1	2	1	0		
OEDEMA		2	2	2	2	0	0		
OBSERVATIONS						Sc	Sc		
ANIMAL No.	3								
ERYTHEMA		2	2	1	2	1	0		
OEDEMA		3	2	2	2	0	0		
OBSERVATIONS		(N)			0.00	Sc	Sc		

Sc = SCALINESS

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.783 x no of animals INDEX

CHEMICAL

: 80/20 MIXTURE OF

CONCENTRATION TESTED: 100%

OLEINE & CAPRYLIC ACID

SOURCE

VOLUME TESTED

: 0.5ml

No. OF RABBITS EXPOSURE TIME

: THREE : 4 hours

SPECIFICATION

CAS No.

:

Purity

		OBSERVATION				INTERVAL (days)					
ANIMAL No. 1	l 1h	1d	2d	3d	7 d	14d					
ERYTHEMA	2	2	2	4	4	0					

OBSERVATIONS

ANIMAL No.

ERYTHEMA

OEDEMA

- 1	1	1	Ť	1	1	1
2	2	3	4	3	0	
1	4	4	-*	2	0	

Sc

4

OEDEMA OBSERVATIONS

ANIMAL No. 3	1						
ERYTHEMA	2	2	2	3	4	0	I
OEDEMA	2	4	4	4	2	0	

OBSERVATIONS

Sc NS

0

NS

Sc = SCALINESS

* = CRUST FORMATION PREVENTED OEDEMA BEING GRADED(assumed grade 4 for calculation)

NS = NEW SKIN FORMATION

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 6.67

3 x no of animals INDEX

CHEMICAL

: 90/10 MIXTURE OF

CONCENTRATION TESTED : 100%

OLEINE & CAPRYLIC ACID

SOURCE

SPECIFICATION :

CAS No. -Purity

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

		r	eri .	RVATI	ON :		VAL (days)
		1h	1d	2d	3d	7d	14d	
ANIMAL No.	1							
ERYTHEMA		1	1	1	2	2	0	
OEDEMA		2	2	3	3	2	0	
OBSERVATIONS						Sc	NS	
ANIMAL No.	2	1	8	1	i	1	F	

ANIMAL No. 2		1					
ERYTHEMA	1	1	2	3	3	0	
OEDEMA	3	3	3	4	2	0	
OBSERVATIONS					NS		

OBSERVATIONS

ANIMAL No. 3		1		1			
ERYTHEMA	1	1	2	2	2	0	
OEDEMA	2	2	3	4	2	0	

OBSERVATIONS

Sc

Sc = SCALINESS

NS = NEW SKIN FORMATION

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.67 INDEX 3 x no of animals

CHEMICAL

: isoSTEARIC ACID

CONCENTRATION TESTED : 100%

SOURCE

: UNICHEMA INTERNATIONAL VOLUME TESTED

SPECIFICATION :

30399-84-9

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

CAS No.

Purity

Trade name

PRISORINE 3501/3502/3505

	1 h	OBSEF	RVATIO	ON :	INTERV	/AL (days) 14d
ANIMAL No. 1						
ERYTHEMA	1	1	2	3	1	0
OEDEMA	2	1	2	2	1	0
OBSERVATIONS	2:	Ex	Ex	Ex	Ex	
ANIMAL No. 2						
ERYTHEMA	1	1	2	2	2	0
OEDEMA	1	2	3	3	2	0
OBSERVATIONS		Ex	Ex	Ex	Ex	NS
ANIMAL No. 3						
ERYTHEMA	1	1	2	3	3	0
OEDEMA	1	2	3	4	3	0
OBSERVATIONS		Ex	Ex	Ex	Ex	

Ex = ERYTHEMA & OEDEMA EXTENDED OUTSIDE APPLICATION SITE

NS = NEW SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 4.33

INDEX 3 x no of animals

: CINNAMON LEAF OIL

CONCENTRATION TESTED : 100%

SOURCE

: PRODAROM

VOLUME TESTED

: 0.5ml

SPECIFICATION :

No. OF RABBITS EXPOSURE TIME

: FOUR

CAS No.

8015-91-6

: 4 hours

Purity

Spec. No.

a de la companya de			RVATIO	DИ	INTER	VAL (days)
	1h	1d	2d	3d	7 d		
ANIMAL No. 1							
ERYTHEMA	2	2	2	2	0.5		
OEDEMA	1	1	1	0.5	0.5		
ANTWAT No. 2							n n
ANIMAL No. 2							
ERYTHEMA	2	1.5	1.5	1.5	0.5		+
OEDEMA	1	0.5	0.5	0.5	0.5		
OBSERVATIONS	-			Dem			-
	279	er e					over to
ANIMAL No. 3							
ERYTHEMA	1	1.5	1	1	0.5		+
	0	0	0	0	0.5		+
OBSERVATIONS		-			Des		1

			_			_	-
ERYTHEMA	1	1	0.5	0.5	0		
OEDEMA	0	0.5	0	0	0		Г
OBSERVATIONS	***			Dem	De		

De = DESQUAMATION FROM THE SKIN (Des = SLIGHT Dem = MINIMAL)

PRIMARY

ANIMAL No. 4

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.71INDEX 3 x no of animals

CHEMICAL : CLOVE LEAF OIL CONCENTRATION TESTED : 100%

SOURCE : PRODAROM VOLUME TESTED : 0.5ml No. OF RABBITS

: FOUR : 4 hours SPECIFICATION : EXPOSURE TIME

CAS No. 8000-34-8

Purity Spec. No.

			OBSEI	RVATIO	ON	INTER	/AT. (davs)
		l 1h	1 1d	2d	3 d	7d	,	1 1
ANIMAL No.	1		""	24	J 34	۱ ′ ۳		1 1
ANTHAL NO.	•							1 1
ERYTHEMA		2	2.5	2.5	2	1.5		
OEDEMA		3	2	2	1	0.5		
ANIMAL No.	2	E	r i	1	1	1	ſ	E 3
ANIMAL NO.	2							
ERYTHEMA		2	2.5	2	2	1		
OEDEMA		3.5	2	1.5	1.5	0.5		
OBSERVATIONS						De	n.	N
		r	10 10		1	v.	e	r 20
ANIMAL No.	3							
ERYTHEMA		2	2.5	3	4	DEAD		
OEDEMA		3	3	3	2	+00		
OBSERVATIONS					Dr			_
				10.0		62		65
ANIMAL No.	4				1			
ERYTHEMA		2	2	2	2	2		
OEDEMA		2.5	2	2	0.5	1		

De

De = DESQUAMATION FROM SKIN SURFACE

Dr = SKIN DRY

OBSERVATIONS

YELLOW STAINING WAS OBSERVED IN ALL ANIMALS

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 4.29 INDEX 3 x no of animals

CHEMICAL

: LITSEA CUBEBA OIL CONCENTRATION TESTED : 100%

SOURCE

: FIRMENICH

VOLUME TESTED

: 0.5ml

SPECIFICATION :

No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours

CAS No. 68855-99-2

Purity

Spec. No.

ANIMAL No.	1	lh	OBSE 1d	RVATI	ON 3d	INTERVA 7d	L (days)
ERYTHEMA		1.5	2	2	2	2.5		
OEDEMA		2.5	2.5	2.5	2	2		
ANIMAL No.	2	1	Ï					
ERYTHEMA		2	2	2	2	2		-
OEDEMA		3	2.5	2.5	2.5	1		
OBSERVATIONS			2.0	2.5	2.0	De*		
ANIMAL No.	3							
ERYTHEMA		2	2	2	2	1.5		
OEDEMA		3.5	2	1.5	1	0.5		
OBSERVATIONS						De*		**
ANIMAL No.	4	1						
ERYTHEMA		1.5	2	2	2	1.5		
OEDEMA		2.5	2	1	0.5	0		
OBSERVATIONS		N				De		**************************************

De = DESQUAMATION FROM THE SKIN (De* = MARKED)

YELLOW STAINING WAS OBSERVED IN ALL ANIMALS

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.883 x no of animals

INDEX

CHEMICAL : ORIGANUM OIL CONCENTRATION TESTED: 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : PRODAROM

SPECIFICATION : CAS No. 8007-11-2

Purity

Spec. No.

			OBSE	RVATIO	ON	INTER	VAL	(days)
		1 1h	l 1d	2d] 3d	1 7d	1	, , , , ,
ANIMAL No.	1		-~		""	'~		
IMITED NO.	-							
ERYTHEMA		0.5	4	4	4	4		
OEDEMA		1	-	-	-	-		
OBSERVATIONS		Br	EH	EH	EH	EH		
		ř						
ANIMAL No.	2							
ERYTHEMA		1	3	3.5	3.5	3.5		
OEDEMA		2.5	2	-	-	-		
OBSERVATIONS				Н	Н	Н		
ANIMAL No.	3	1					ĺ	
ERYTHEMA		1	2	3.5	3.5	3.5		
OEDEMA		1.5	2	1	-	_		
OBSERVATIONS					H	Н		
ANIMAL No.	4	Ť	KC 25				Ī	Ĭ
ERYTHEMA		0.5	3	3.5	4	2		
OEDEMA		2.5	1.5	-	-	2.5		
OBSERVATIONS		75	77	Н	EH			

Br = BROWN STAINING

E = ESCHAR

H = SKIN HARDENED

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = >4

INDEX 3 x no of animals

SKIN IRRITATION DATA FOR INDIVIDUAL RABBITS

CHEMICAL : PARSLEY HERB OIL CONCENTRATION TESTED : 100%

SOURCE : PRODAROM VOLUME TESTED : 0.5ml No. OF RABBITS : FOUR

SPECIFICATION : EXPOSURE TIME : 4 hours

CAS No. 8000-68-8

Purity Spec. No.

				RVATI		INTER	VAL ((days)
		1h	1d	2 d	3d	7 d		1 1
ANIMAL No.	1				1			
022								
ERYTHEMA		1	2	2	2	1		
OEDEMA		2.5	1.5	0.5	0.5	0		
OBSERVATIONS						т	0	
						7.		
ANIMAL No.	2	1	F	1	ł	1	E .	1 1
								1 1
ERYTHEMA		1.5	2	2	2	1.5		+
OEDEMA		2.5	2	0	0	0		++
OBSERVATIONS		2.5	2			T		_
OBOLICVATIONS						+		
XXITAAX XX-	3	r ·	ri s	i i	î	Ÿ	ŕ	1 1
ANIMAL No.	3							
		-						
ERYTHEMA		1	1.5	2	2	0.5		
OEDEMA		2	1.5	1.5	1	0		
OBSERVATIONS						Des		
ANIMAL No.	4		1		1		1	1 1
ERYTHEMA		2	2	2	2	2		
OEDEMA		3	2	1	1	0		1 1
A STATE OF THE PARTY OF THE PAR		_			1	1 2		

Des = SLIGHT DESQUAMATION FROM TREATED SKIN

T = SKIN THICKENING (Ts = SLIGHT)

THE TREATED SKIN WAS STAINED YELLOW INTERMITTENTLY IN ALL ANIMALS THROUGHOUT THE STUDY

OBSERVATIONS

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.0 INDEX 3 x no of animals

CHEMICAL : PERILLA OIL CONCENTRATION TESTED: 100%

SOURCE : PRODAROM VOLUME TESTED : 0.5ml

No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours SPECIFICATION : EXPOSURE TIME

CAS No. 68132-21-8

Purity Spec. No.

		OBSE	RVATI	ON	INTERV	AL (days)
	11		2 d	3d	7d	`	j /
ANIMAL No. 1							
ERYTHEMA	1	1.5	2	1	0.5		
OEDEMA	1	0	0	0	0		
OBSERVATIONS					De		
ANIMAL No. 2	Ì	ĺ		1	i i		
ERYTHEMA	2	2	2	2	1.5		
OEDEMA	4	2	1	1	1		
OBSERVATIONS					De		
ANIMAL No. 3	Ī			Ī	1 1		
ERYTHEMA	1.	5 2.5	2	2	1.5		
OEDEMA	0.	5 0.5	0.5	0.5	0.5		
OBSERVATIONS	U.		10		De		
ANIMAL No. 4	1	1		1	1 1		[
ERYTHEMA	0.	5 2	2	2	0.5		
OEDEMA	0	0.5	0	0	0		

De = DESQUAMATION FROM TREATED SKIN (De* = MARKED)

PRIMARY

OBSERVATIONS

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.42

De*

INDEX 3 x no of animals

CHEMICAL : PIMENTA LEAF OIL CONCENTRATION TESTED : 100%

SOURCE : PRODAROM : 0.5ml VOLUME TESTED No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours No. OF RABBITS

SPECIFICATION :

CAS No. 8006-77-7

Purity Spec. No.

			OBSE	RVATI(ON	INTER	VAL (davs)
		1h	1 d	2d	3d	l 7d	i ,	1 1
ANIMAL No.	1			2	""	' "		
111111111111111111111111111111111111111								
ERYTHEMA		2	2	2	2	1.5		1
OEDEMA		1	1.5	1.5	1.5	0.5		
ANIMAL No.	2	Ī	1		1	1	1	
ERYTHEMA		2	2	2	2	1.5		
OEDEMA		1.5	1.5	1	1	0		
OBSERVATIONS			77			Des		
ANIMAL No.	3	1			1			
ERYTHEMA		2	1	2	1.5	1		
OEDEMA		0.5	0.5	0.5	0.5	0		
		8		20 0	9	9		
ANIMAL No.	4							
ERYTHEMA		2	1.5	2	1.5	1		
OEDEMA		0.5	1.5	0.5	0.5	0		

Des = SLIGHT DESQUAMATION FROM THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.79INDEX 3 x no of animals

CHEMICAL : TAGETES OIL CONCENTRATION TESTED : 100%

SOURCE : PRODAROM VOLUME TESTED : 0.5ml No. OF RABBITS

: FOUR : 4 hours EXPOSURE TIME SPECIFICATION :

CAS No. 8016-84-0

Purity Spec. No.

		OBSE	RVATI	ON	INTERV	AL (days)
19	1h	1d	2d	3d	7d	•	i - 1
ANIMAL No. 1							
ERYTHEMA	2	2	2	2	1.5		
OEDEMA	2	1.5	1	0.5	0		
OBSERVATIONS					De		
ANIMAL No. 2	Ť	ĺ		ĺ	Ì		
ERYTHEMA	2	2	2	1.5	2),
OEDEMA	1	1.5	1	0	0.5		
OBSERVATIONS					De*		
ANIMAL No. 3	I	ľ	Ť	1	1 1		ſ
ERYTHEMA	1	2	2	2.5	1.5		
OEDEMA	2	2	1.5	1.5	2		
OBSERVATIONS	,	***			De		-
ANIMAL No. 4	[1		1 1		Ī
ERYTHEMA	1	2	2	2	0.5		
OEDEMA	2	1.5	1	0.5	0		

De = DESQUAMATION FROM THE SKIN (De* = MARKED)

THE TREATED SKIN WAS STAINED YELLOW INTERMITTENTLY IN ALL ANIMALS

De

PRIMARY

OBSERVATIONS

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA $\underline{24/48/72hr}$ + $\underline{\text{SUM}}$ OEDEMA $\underline{24/48/72hr}$ = 3.13

INDEX 3 x no of animals

CHEMICAL : TEA TREE OIL

CONCENTRATION TESTED : 100%

SOURCE

: PRODAROM

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 68647-73-4

Purity

Spec. No.

			OBSE	RVATI	ON	INTERV	VAL (days)
		1 h	1d	2d	3 d	7d	Γ,	1 1
ANIMAL No.	1							
ERYTHEMA		2	2	2	2	2		1
OEDEMA		1	2.5	2.5	2	2		
ANIMAL No.	2	1				1		
ERYTHEMA		1.5	2	2	2	2		
OEDEMA		1	1.5	1.5	2	0		
OBSERVATIONS					-	T		
	147		v	.				
ANIMAL No.	3							
ERYTHEMA		2	2	2	2	2		
OEDEMA		0.5	1	1	1	0		
OBSERVATIONS				I .		T		-
ANIMAL No.	4							
ERYTHEMA		1	2	2	2	1.5		
OEDEMA		1.5	1.5	1.5	1.5	0.5		
OBSERVATIONS		-				De		-

De = DESQUAMATION FROM THE SKIN

T = SKIN THICKENING

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 3.63

INDEX 3 x no of animals

CHEMICAL

: THYME OIL, RED

CONCENTRATION TESTED : 100%

SOURCE

: PRODAROM

VOLUME TESTED

No. OF RABBITS

: FOUR

: 4 hours

SPECIFICATION :

CAS No.

8007-46-3

Purity Spec. No.

							_
		OBSE	RVATI	ON	INTER	VAL (days)
	1h	1d	2d	3d	7d	i i	
ANIMAL No. 1							
ERYTHEMA	3	3	4	4	4		-
OEDEMA	3	1	0.5	0.5	-		+
OBSERVATIONS		1 -	10.5	DrH			
OBSERVATIONS				DIH	п		
ANIMAL No. 2	Ĭ				Ī	Ĩ	
ERYTHEMA	2	2	3	3	3		-
	3	2.5	2	3			_
OEDEMA	3	2.5					_
OBSERVATIONS				H	H		
ANIMAL No. 3	1	1		1	1	l	1 1
ERYTHEMA	2	2.5	3	3	3		
OEDEMA	2	2	0.5	1.5	7770		
OBSERVATIONS			H	H	Н		
ANIMAL No. 4	1	F	ri i	T.	4	į.	r i
ANTRAL NO. 4							
ERYTHEMA	2	3	4	4	4		
OEDEMA	3	3	2	2	_		
OBSERVATIONS	11	Н	Н	Н	Н		•

- = NO ASSESSMENT POSSIBLE

Dr = DRYSKIN

H = SKIN HARDENED

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 4.92

INDEX

3 x no of animals

CHEMICAL

: 3-CHLORO-4-

CONCENTRATION TESTED : 100%

FLUORONITROBENZENE

SOURCE

: ALDRICH

CAS No.

VOLUME TESTED

: 0.5ml

SPECIFICATION :

No. OF RABBITS EXPOSURE TIME

: SIX : 4 hours

350-30-1

98% Purity

Product No. 23,323-4

			OBSE	RVATIO	ON :	INTERVAL (days			
ANIMAL No.	1	l h	1d	2d	3d	7 d	14à		
ERYTHEMA		0	2	2	1	1	0		
OEDEMA		Ö	ī	ī	0	ō	0		
ANIMAL No.	2			1				Î	
ERYTHEMA		0	1	1	1	1	0		
OEDEMA		0	0	0	0	0	0		
ANIMAL No.	3							1	
ERYTHEMA		0	1	1	1	0	0		
OEDEMA		0	0	0	0	0	ő		
ANIMAL No.	4							1	
ERYTHEMA		0	2	2	1	1	0		
OEDEMA		0	1	ĩ	ō	Ō	ő		
ANIMAL No.	5							1	
ERYTHEMA		0	2	2	1	1	0		
OEDEMA		0	1	1	0	ō	0		
ANIMAL No.	6							Ĭ	
ERYTHEMA		0	1	1	1	1	0		
OEDEMA		0	0	0	0	0	0		

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.67 INDEX 3 x no of animals

CHEMICAL

: m-CHLORONITROBENZENE CONCENTRATION TESTED : 100%

SOURCE

: BAYER AG

WEIGHT TESTED

No. OF RABBITS

: 0.5g : THREE : 4 hours

SPECIFICATION :

CAS No.

EXPOSURE TIME

Purity

121-73-3 99.6%

Product No.

		OBSE	RVATIO	אכ	TNTER	VAT.	(days)
	1h	ld l	2d	3d	Ī		(
ANIMAL No. 1							
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			
ANIMAL No. 2						ľ	
ERYTHEMA	0	0	0	0			1
OEDEMA	0	0	0	0			
ANIMAL No. 3	1			1	1	ľ	1 1
4004							
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0		A.	

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0 INDEX 3 x no of animals

CHEMICAL

: FLUOROBENZENE

CONCENTRATION TESTED : 100%

SOURCE

: REIDEL-de HAËN AG

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No.

CAS No. 462-06-6 Purity 99.7%

	1 12		RVATIO			VAL (days)
ANIMAL No. 1	l 1h	1d	2d	3d	7d	16d	
ERYTHEMA	0	0	0	0	0	0	
OEDEMA	0	0	0	0	0	0	
ANIMAL No. 2 ERYTHEMA	0	0	0	0	0	0	
OEDEMA	0	0	0	0	0	0	-
ANIMAL No. 3							
ERYTHEMA	0	0	0	1	1	0	
OEDEMA	0	0	0	0	0	0	

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.11

INDEX

3 x no of animals

CHEMICAL : 2-FLUOROTOLUENE CONCENTRATION TESTED: 100%

: 0.5ml : THREE : 4 hours SOURCE : REIDEL-de HAËN AG VOLUME TESTED No. OF RABBITS

SPECIFICATION : EXPOSURE TIME

95-52-3 CAS No. Purity Batch No. 99.8% 92500

		OBSEI	RVATIO	ON	INTERV	AL (days)
ANIMAL No. 1	1h	1d	2d	3d		•	
ERYTHEMA	0	1	0	0			
OEDEMA	0	0	0	0			
ANIMAL No. 2	Ï				Î		Ĭ I
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			
ANIMAL No. 3	ĺ						
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.11INDEX 3 x no of animals

: cis CYCLOOCTENE CONCENTRATION TESTED : 100% CHEMICAL

SOURCE : FLUKA VOLUME TESTED : 0.5ml No. OF RABBITS

: SIX : 4 hours SPECIFICATION : EXPOSURE TIME

931-87-3 CAS No. Purity 95% Product No. 29650

		OBSER	RVATIO	ON]	INTERV	/AL (d	ays)
	1h	1d	2d	3d	7d	[14d	i 1
ANIMAL No. 1							
ERYTHEMA	0	2	3	1	1 :	1 0	
OEDEMA	0	1	1	0	0	0	
ANIMAL No. 2	I	ľ				l i	ĺ
							
ERYTHEMA	0	1	1	1	1	0	
OEDEMA	0	0	0	0	0	0	
ANIMAL No. 3		1		1			
ERYTHEMA	0	2	3	1	1	0	
OEDEMA	0	1	1	0	0	0	-
OBBBIN							
	í	ı	r	r		í i	i i
ANIMAL No. 4							
ERYTHEMA	0	2	2	1	1	0	
OEDEMA	0	1	1	0	0	0	
ANIMAL No. 5	1		1	1		1 1	Ĩ
ERYTHEMA	0	1	1	1	0	0	
OEDEMA	0	0	0	0	0	0	
OLD LIFTS							
	ì	1	r	E 3	1 :	()	r
ANIMAL No. 6							
ERYTHEMA	0	1	2	1	0	0	
OEDEMA	0	0	1	0	0	0	

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.893 x no of animals INDEX

CHEMICAL

: 1,9-DECADIENE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

VOLUME TESTED

: 0.5ml

No. OF RABBITS

: THREE

SPECIFICATION :

EXPOSURE TIME

: 4 hours

CAS No. 1647-16-1 Purity 97%

Product No. 11,830-3

ANIMAL No. 1	l 1h	OBSEI 1 d	RVATIO	ON 3d	INTER	VAL	(days)
ERYTHEMA	1	2	2	2	0		+
OEDEMA	1	1	1	1	0		
OBSERVATIONS		FB	FB				
ANIMAL No. 2							ļ. ļ.
ERYTHEMA	1	2	2	2	0		
OEDEMA	1	1	1	1	0		
OBSERVATIONS		FB	FB	FB			10.
ANIMAL No. 3					1		f 1
ERYTHEMA	1	2	2	2	0		
OEDEMA	1	1	1	1	0		
OBSERVATIONS	-	FB	FB	FB			-

FB = FAINT BLANCHING

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.0

INDEX 3 x no of animals

CHEMICAL

: 1,5-HEXADIENE

CONCENTRATION TESTED : 100%

SOURCE

: FLUKA

VOLUME TESTED

: 0.5ml

CAS No.

No. OF RABBITS EXPOSURE TIME

: THREE

SPECIFICATION :

592-42-7

Purity Product No. 52440

97%

	w	OBSE	RVATIO	ON	INTER	days)	
ANIMAL No. 1	lh	1d	2d	3d	7 d		
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2					Ì	10	ĬĬ
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 3	1				Ι		ſſ
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0 INDEX 3 x no of animals

CHEMICAL

: 1,13-TETRADECADIENE

CONCENTRATION TESTED: 100%

SOURCE

: ALDRICH

VOLUME TESTED

: 0.5ml

No. OF RABBITS

: FOUR : 4 hours

SPECIFICATION :

EXPOSURE TIME

CAS No.

21964-49-8

Purity Product No.

97% 33,364-6

			OBSET	RVATIO	זאר ד	ים שיחיות ז	VAL (dave)
		1 1h	l 1d	2d	3d	7d	14d	21d
ANIMAL No.	1	1 ***	14	2 u	_ Ju	'``	144	214
ANTIAL NO.	-							
ERYTHEMA		0	2	2	2	1	0	0
OEDEMA		1	1	1	0	0	0	0
V								
			r. 33					
ANIMAL No.	2							
7777 7777 777			-	- 1	-	- 1	-	
ERYTHEMA		0	1	0	0	1	0	0
OEDEMA		0	0	0	0	0	0	0
ANIMAL No.	3	ı	1 1	F 3		f	T .	1 1
ERYTHEMA		0	1	1	1	1	0	0
OEDEMA		0	0	0	0	0	0	0
								0
	£1	¥.	en 10	40 B		į.	v.	
ANIMAL No.	4							
		_						
ERYTHEMA		0	2	2	1	1	0	0
OEDEMA		0	1	0	0	0	0	0

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 1.67

INDEX

3 x no of animals

CHEMICAL : SODIUM BISULPHITE

CONCENTRATION TESTED : 100%

SOURCE

: ALDRICH

WEIGHT TESTED : 0.5g
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 7631-90-5 Purity >97%

Product No. 24397-3

ANIMAL No. 1	1d	OBSEI 2d	RVATIO 3d		INTER	VAL (days)
ERYTHEMA	1	1	1		1		
OEDEMA	0	0	0				
ANIMAL No. 2 ERYTHEMA				1	1		
OEDEMA	0	<u> </u>	1				+
ANIMAL No. 3	0	0	0		Î		1 1
ERYTHEMA	1	1	1				
OEDEMA	0	0	0				

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.0 INDEX 3 x no of animals

CHEMICAL : SODIUM CHLORITE

CONCENTRATION TESTED : 34.5%aq

SOURCE

: ALDRICH

VOLUME TESTED : U.SAMI_
NO. OF RABBITS : THREE
TUDOCIRE TIME : 4 hours

SPECIFICATION :

CAS No. Purity

7758-19-2 tech. 80%

Product No. 24,415-5 *not neutralised

			OBSEI	RVATIO	ON :	INTERV	JAL (d	davs)
ANIMAL No.	1	1h	1d	2d	3d	5d	7d`	9ď
ANIMAL NO.	1							
ERYTHEMA		0	1	1	1	0	0	0
OEDEMA		0	0	0	0	0	0	0
OBSERVATIONS						Dr	Dr	***
ANIMAL No.	2		j.					
ERYTHEMA		0	0	0	0	-		
OEDEMA		0	0	0	0			
ANIMAL No.	3	ĺ	iii					Ī
ERYTHEMA		0	0	0	0			
OEDEMA		0	0	0	0			

Dr = DRYNESS OF THE SKIN

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.33

INDEX

3 x no of animals

CHEMICAL

: BENZYL ACETONE

CONCENTRATION TESTED : 100%

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

SPECIFICATION :

2550-2 99.3% 2550-26-7

CAS No. Purity

Spec. No. 2660003

	1h	OBSERVATION			12		days)
ANIMAL No. 1				"	'-		
ERYTHEMA	0.5	0	0	0	0	\vdash	
OEDEMA	0	0	0	0	0		
ANIMAL No. 2	1			1	1		
ERYTHEMA	0.5	0.5	0.5	0.5	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 3			I		Ï		
ERYTHEMA	1.5	2	2	2	0.5		
OEDEMA	0	0.5	0.5	0.5	0		
ANIMAL No. 4							
ERYTHEMA	0.5	1.5	1.5	1.5	0		
OEDEMA	0	0.5	0.5	0	0		

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.21 INDEX 3 x no of animals

CHEMICAL : DIACETYL CONCENTRATION TESTED : 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : IFF

SPECIFICATION :

431-03-8 98.3% CAS No. Purity

Spec. No.

ANIMAL No.	1	l 1h	OBSE	RVATI	ON 3d		VAL	(days)
ERYTHEMA		0.5	1	1	1	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	2	1	ſ	1	I	Ī	ľ	[]
ERYTHEMA		0	0.5	0.5	0.5	0		_
OEDEMA		0	0	0	0	0		
ANIMAL No.	3						ſ	
ERYTHEMA		0.5	1	1	1	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	4	ji:			1	f	Î	1 1
ERYTHEMA		0	0	0	0	0		
OEDEMA		0	0	0	0	0		

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.63 INDEX 3 x no of animals

CHEMICAL

: cis-JASMONE

CONCENTRATION TESTED : 100%

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours

: 0.5ml

SPECIFICATION :

CAS No.

Purity

488-10-8 >98%

Spec. No. 6340001

ANIMAL No.	1	1h	OBSE	RVATIO	ON 3d	INTER	VAL (days)
ERYTHEMA		2	2	2	2	1.5		+-+
OEDEMA		0	1.5	1.5	1	0.5		
OBSERVATIONS						De*		· · · · · · · · · · · · · · · · · · ·
ANIMAL No.	2		ř					
ERYTHEMA		1	2	1.5	1	0.5		
OEDEMA		1	0.5	0.5	0	0.5		
OBSERVATIONS						De		
ANIMAL No.	3						Ĭ	
ERYTHEMA		1	2	2.5	1.5	1.5		
OEDEMA		1	1	2	0.5	2		
OBSERVATIONS						De		
ANIMAL No.	4		Ĭ			Ī		
ERYTHEMA		0	2	1.5	1	0.5		
OEDEMA		0	1	0.5	0	0		
OBSERVATIONS	*					De*	4	

De = DESQUAMATION FROM THE SKIN (De* = MARKED)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.58 INDEX 3 x no of animals

CHEMICAL

: isoLONGIFOLENE

CONCENTRATION TESTED : 100%

KETONE #

SOURCE

: IFF

SPECIFICATION :

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

CAS No. Purity

33407-62-4 90.0

Spec. No.

: synonym for Piconia

ANIMAL No. 1	l 1h	OBSE 1d	RVATIO	ON 3d	INTERV 7d	VAL	(days)
ERYTHEMA	0	2	1.5	1	0		+
OEDEMA	0.5	0.5	0	0	0		
OBSERVATIONS		Des	Des	Des	Des		

ANIMAL No. 2	ľ	1	1		Ĭ		
ERYTHEMA	0	2.5	2	2	1	1	+
OEDEMA	0	3	0.5	0.5	0		Ť
OBSERVATIONS					De		-

ANIMAL No. 3	ľ					Ī	1	1
ERYTHEMA	1	2.5	2	2	3.5		-	+
OEDEMA	1.5	4	2.5	2	0		_	\neg
OBSERVATIONS		T	TY	TY	TH	-	-	

ANIMAL No. 4			1	1	1	1	1 1
ERYTHEMA	0.5	2	1.5	1.5	0		1
OEDEMA	0	0	0.5	0	0		
OBSERVATIONS					Des	3	

De = DESQUAMATION FROM THE SKIN (Ds = SLIGHT)

T = THICKENED

H = HARDENED

Y = YELLOW DISCOLORATION

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.0 INDEX 3 x no of animals

CHEMICAL

: METHYL LAVENDER

CONCENTRATION TESTED : 100%

KETONE

SOURCE

: IFF

SPECIFICATION :

67633-95-8

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

>98.0%

CAS No. Purity

Spec. No.

ANIMAL No. 1	1h	OBSE	RVATI 2d	ON 3d	INTER	VAL	(days)
ERYTHEMA	1	2	2	2	0		+
OEDEMA	2	1.5	1	1	0		
OBSERVATIONS					De*		
ANIMAL No. 2	Ĭ	1	Î	Î	ř	ĺ	1 1
ERYTHEMA	2	2	2	2	2		+ +
OEDEMA	4	1	1	1.5	1.5		
OBSERVATIONS					De		
ANIMAL No. 3	Ï	1	ĺ			1	1 1
ERYTHEMA	2	2	2	2	2	-	+
OEDEMA	4	2.5	2	1.5	1		
OBSERVATIONS					De*		
ANIMAL No. 4			ĺ	l			1 1
ERYTHEMA	2	2	2.5	3.5	3.5		
OEDEMA	3	2	2.5	2	2		
OBSERVATIONS			2-		DesH		

 ${\tt De} \; = \; {\tt DESQUAMATION} \; \; {\tt FROM} \; \; {\tt THE} \; \; {\tt SKIN} \; \; ({\tt De*} \; = \; {\tt MARKED} \; \; \\$ Des = SLIGHT)

H = HARDENED SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.79INDEX 3 x no of animals

: DICHLORO-2,3-PROPIONITRILE

CONCENTRATION TESTED : 100%

SOURCE

: ELF ATOCHEM

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 3 mins VOLUME TESTED

SPECIFICATION :

CAS No. 2601-89-0 Purity 96.3%

		OBSEI	RVATIO	ON	INTER	VAT. (davs)
ANIMAL No. 1	l 1h	1d	2d	3d	7 d	10d	14d
ERYTHEMA	2	2	2	2	0		
OEDEMA	2	0	0	0	0		
ANIMAL No. 2 ERYTHEMA	1	2	2	2	2	1	1
OEDEMA	0	0	0	0	0	0	0
OBSERVATIONS					Dr	Dr	Dr
ANIMAL No. 3							
ERYTHEMA	2	2	2	2	2	2	2
OEDEMA	2	0	0	0	0	0	0
OBSERVATIONS					Dr	Dr	Dr

Dr = DRYNESS OF THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.0 3 x no of animals

CHEMICAL

: 3-DIETHYLAMINO-PROPIONITRILE

CONCENTRATION TESTED: 100%

SOURCE

: ELF ATOCHEM

SPECIFICATION :

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

CAS No. 5351-04-2 Purity 99.8%

			OBSEI	RVATIO	NC	INTER	VAL	(days)
ANIMAL No.	1	l h	ld	2d	3d			
ERYTHEMA		1	0	0	0			
OEDEMA		0	0	0	0			
ANIMAL No.	2			í			1	1 1
ERYTHEMA		0	0	0	0			
OEDEMA		0	0	0	0			
ANIMAL No.	3							
ERYTHEMA		0	0	0	0			
OEDEMA		0	0	0	0			

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0

INDEX

3 x no of animals

CHEMICAL

: CARVACROL

CONCENTRATION TESTED : 100%

SOURCE : GIVAUDAN-ROURE

VOLUME TESTED No. OF RABBITS

: 0.5ml : FOUR : 4 hours

EXPOSURE TIME

SPECIFICATION :

CAS No. 499-75-2 Purity 100% 3362701 Spec. No.

			OBSER	RVATIO	ON	INTERVA	工 (days)
	I	1h	1d	2d	3d	7d	•	F 1
ANIMAL No.	1					"		
ERYTHEMA		2	4	4	4	4		
OEDEMA		4	1	_	_			
OBSERVATIONS	1	Br	ЕН	ЕН	ЕН	EH		
ANIMAL No.	2			ĺ		ĬĬ		ĺ
ERYTHEMA		2	4	4	4	4		
OEDEMA		4		_	_			
OBSERVATIONS	*	Br	EH	ЕН	ЕН	ЕН		
ANIMAL No.	3							1 1
ERYTHEMA		2	4	4	4	DEAD		
OEDEMA		3	2	_	-			
OBSERVATIONS	-	Br	Е	EH	EH			-
ANIMAL No.	4			1		1 1		ſ
ERYTHEMA		2	4	4	4	4		
OEDEMA		3	2	-	-	-		
OBSERVATIONS		Br		EH	EH	EH		10

Br = BROWN STAINING

E = ESCHAR

H = SKIN HARDENED

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = >4 INDEX 3 x no of animals

CHEMICAL

: 2-tertiary-

CONCENTRATION TESTED : 100%

BUTYL PHENOL

SOURCE

: ALDRICH

VOLUME TESTED

VOLUME TESTED : 0.5ml
No. OF RABBITS : SIX
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 88-18-6 Purity 99% Product No. B9,940-5

			OBSE	RVATIO	ON	INTER	VAL (days)
		1h	1d	2d	3d	1 7d	Ť Ì	1 1
ANIMAL No.	1							
ERYTHEMA		1	4	4	4	4		
OEDEMA		0	2	2	2	2		
OBSERVATIONS		Di	Ne	Ne	Ne	Es		
ANIMAL No.	2	1		(C)			1	
ERYTHEMA		4	4	4	4	4		
OEDEMA		1	1	1	1	1		
OBSERVATIONS		Ne	Ne	Ne	Ne	Es		
ANIMAL No.	3					1	1	1 1
ERYTHEMA		4	4	4	4	4		
OEDEMA		1	1	2	1	1		
OBSERVATIONS		nE	Ne	Ne	Ne	Es		
ANIMAL No.	4	Ï				1	ľ	
ERYTHEMA		4	4	4	4	4		
OEDEMA		1	1	2	2	2		
OBSERVATIONS		Ne	Ne	Ne	Ne	Es		-
ANIMAL No.	5	H ^V	10	KI 3		Ĭ	1	
ERYTHEMA		4	4	4	4	4		
OEDEMA		1	2	2	2	2		
OBSERVATIONS		Ne	Ne	Ne	Ne	Es	-	
ANIMAL No.	6					1		1
ERYTHEMA		4	4	4	4	4		
OEDEMA		1	2	2	2	1		
OBSERVATIONS		Ne	Ne	Ne	Ne	Es		
Ne = NECROSIS;	Di = D	Di = DISCOLOURATION;						

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 5.67 3 x no of animals

CHEMICAL

: EUGENOL

CONCENTRATION TESTED : 100%

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 97-53-0 Purity 99.9% Purity

Spec. No.

5002001

		OBSE	RVATIO	NC	INTERVAL (day		
ANIMAL No. 1	lh	1d	2d	3d	7 d		
ERYTHEMA	0.5	2	2	2	0		
OEDEMA	0.5	1.5	1.5	1	0		

ANIMAL No. 2				
ERYTHEMA	0.5 1 2	1.5 1.5	0	
OEDEMA	0.5 1.5	1 0.5	0	

ANIMAL No. 3			1	1	ľ	1
ERYTHEMA	1.5	2	2	2	1	
OEDEMA	1	0.5	1	0.5	0.5	

ANIMAL No. 4	Ţ ^r	1	1	Î	Ĩ	
ERYTHEMA	2	2	2	2	2	
OEDEMA	1	1	1	1	0.5	
OBSERVATIONS					Des	•

Des = SLIGHT DESQUAMATION FROM THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.92INDEX 3 x no of animals

CHEMICAL

: GUAIACOL

CONCENTRATION TESTED : 100%

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED

: 0.5ml

No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours No. OF RABBITS

SPECIFICATION :

90-05-1

CAS No.

99.4%

Purity Spec. No. 5332001

			OBSERVATION			INTERV	(davs)	
		1h	1 1 d	2 d	1 3d	1 7d		1 1
ANIMAL No.	1	""	14	24	34	'"		
ERYTHEMA		1	2	2	2	0.5		
OEDEMA		0.5	1.5	1	0.5	0		
ANIMAL No.	2	1	f 1	f	1	1	ŕ	ř i
ERYTHEMA		1	2	1	0.5	0		
OEDEMA		0	0.5	0.5	0	0		
ANIMAL No.	3							
ERYTHEMA		1.5	2	2	2	1		
OEDEMA		0.5	0.5	0.5	0.5	0		
ANIMAL No.	4		į.					
ERYTHEMA		1.5	2	2	2	1		
OEDEMA		0.5	0.5	0.5	0.5	0		-

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.38INDEX 3 x no of animals

CHEMICAL

ERYTHEMA

OEDEMA

: 4,4-METHYLENE bis

CONCENTRATION TESTED : 100%

(2.6-DITERTIARYBUTYL PHENOL)

SOURCE

: ALDRICH

VOLUME TESTED

: 0.5ml

SPECIFICATION

No. OF RABBITS EXPOSURE TIME

: THREE : 4 hours

CAS No. Purity

118-82-1

Product No.

98% 27,792-4

						INTER	VAL ((days)	
ANIMAL No.	1	1h	1d	2d	3d	7d			
ERYTHEMA		0	0	0	0	0			
OEDEMA		0	0	0	0	0			
ANIMAL No.	2						1		
ERYTHEMA		0	0	0	0	0			
OEDEMA		0	0	0	0	0			
ANIMAL NO.	3	ř	î î	n a	ì	ĭ	ľ	ř	

0

0

0

0

0

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0 INDEX 3 x no of animals

CHEMICAL

: p-TOLYL ALCOHOL

CONCENTRATION TESTED : 100%

SOURCE

: IFF

WEIGHT TESTED : 0.5g
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours

SPECIFICATION :

589-18-4

CAS No.

Purity Spec. No.

ANIMAL No. 1	l 1h	OBSEI 1d	RVATIO	ON 3d	INTER	/AL	(days)
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2	Ĩ	1			j l	Ĭ	1 1
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 3	1	ľ			Ť I		1 1
ERYTHEMA	0.5	0.5	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 4		T.	Ì	ĺ			1 1
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.04INDEX 3 x no of animals

CHEMICAL

: DIMETHYL DISULPHIDE

CONCENTRATION TESTED : 100%

SOURCE

VOLUME TESTED

: 0.5ml

: ALDRICH

No. OF RABBITS EXPOSURE TIME

: SIX : 4 hours

SPECIFICATION :

CAS No. 624-92-0

Purity 99.0% Product No. 32,041-2

ANIMAL No. 1	1	obs h 1d	SERVATI	ON 3d	INTERVAL	(days)
ERYTHEMA	2		2	1		
OEDEMA	1	2	1	0		
ANIMAL No. 2	1	1	ľ	ĺ	1 1	
ERYTHEMA	1		2	2		
OEDEMA	2	1	1	1		
ANIMAL No. 3	1	Î	f	1	1 1	
ERYTHEMA	1		2	2		
OEDEMA	2	2	2	1		
ANIMAL No. 4	Ĩ	1	f	ľ	1 1	
ERYTHEMA	1	2	1	1	+	
OEDEMA	1	2	1	0		
ANIMAL No. 5	1	1	ľ	ĺ		
ERYTHEMA	1	2	2	1		
OEDEMA		2	1	0		
ANIMAL No. 6	1	1	j"	1	1 1	
ERYTHEMA	2	2	2	2		
OEDEMA	2	2	2	1		

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.0

INDEX 3 x no of animals

CHEMICAL : DI-n-PROPYL DISULPHIDE CONCENTRATION TESTED : 100%

SOURCE : ALDRICH VOLUME TESTED : 0.5ml No. OF RABBITS

: THREE : 4 hours SPECIFICATION : EXPOSURE TIME

CAS No. 629-19-6 99.2% Purity Product No. 14,922-5

ANIMAL No. 1	1h	OBSEI 1d	RVATIO	ON :	INTER 7d		days) 13d
ERYTHEMA	2	2	2	1			
OEDEMA	2	0	0	0			
ANIMAL No. 2 ERYTHEMA	2	3	3	3	0	0	0
OEDEMA	2	0	0	0	0	0	0
OBSERVATIONS					Dr	Dr	
ANIMAL No. 3							
ERYTHEMA	2	3	3	3	0	0	0
OEDEMA	2	0	0	0	0	0	0
OBSERVATIONS					Dr	Dr	220

Dr = DRYNESS OF THE SKIN

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 2.56 3 x no of animals INDEX

CHEMICAL : 3,3'-DITHIODIPROPIONIC CONCENTRATION TESTED : 100%

ACID

SOURCE : ALDRICH WEIGHT TESTED

: 500mg : FOUR : 4 hours

No. OF RABBITS

SPECIFICATION :

EXPOSURE TIME

CAS No.

1119-62-6

Purity Product No. 10,901-0

998

	1h	OBSEI 1d	RVATIO	ON 3d	INTERV	/AL	(days)
ANIMAL No. 1							
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			
ANIMAL No. 2							
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			
ANIMAL No. 3							1 1
ERYTHEMA	0	0	0	0			1 1
OEDEMA	0	0	0	0			
ANIMAL No. 4					1 1	Ï	
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0 INDEX 3 x no of animals

CHEMICAL : 2-MERCAPTOETHANOL CONCENTRATION TESTED : 45%aq.

SODIUM

SOURCE : ELF ATOCHEM VOLUME TESTED : 1.05ml*

No. OF RABBITS : THREE

SPECIFICATION : EXPOSURE TIME : 3 mins

CAS No. 37482-11-4

Purity 45.21% aqueous solution

*1.05ml of 45.21%aq = 0.5q

THREE MINUTE EXPOSURE		OBSEE	RVATIO	OM .	rnmrb	VAL (dave\
	l 1h	1d	2d	3d			12d
ANIMAL No. 1			24	Ju	, "	liva	
ERYTHEMA	0	2	2	2	0		
OEDEMA	0	4	2	2	0		
OBSERVATIONS			Dr	Dr			
ANIMAL No. 2				9			
ERYTHEMA	2	2	2	2	0		
OEDEMA	2	2	2	0	0		
OBSERVATIONS					Dr	•	
ANIMAL No. 3				0			
ERYTHEMA	4	Cr	Cr	Cr	Cr	Cr	0
OEDEMA	0	4	4	4	0	0	0

Dr = DRYNESS OF THE SKIN

Cr = CRUST

COMMENTS:

ONE HOUR AFTER REMOVAL OF THE PATCH AFTER A 4 HOUR APPLICATION TO A SINGLE ANIMAL, SIGNS OF LESIONS THROUGH THE WHOLE DEPTH OF THE SKIN WERE OBSERVED AND THE ANIMAL WAS SACRIFICED FOR HUMANITARIAN REASONS.

AFTER A 3 MINUTE EXPOSURE NO ULCERATION OR NECROSIS WAS SEEN.

PRIMARY

IRRITATION = NOT POSSIBLE TO CALCULATE INDEX

CHEMICAL : 3-MERCAPTO-1-PROPANOL CONCENTRATION TESTED : 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : SIX
EXPOSURE TIME : 4 hours SOURCE : ELF ATOCHEM

SPECIFICATION :

CAS No. 63947-56-8 Purity 99.6%

	rullcy	22.00						
			OBSEI	RVATIO	יאר	INTER	7AT. (davel
		[1h]	1d	2d	3d	I	van (lays
ANIMAL No.	1	1 ***	Iu	2.0	54			
111111111111111111111111111111111111111	-							
ERYTHEMA		1	1	1	1			
OEDEMA		1	1	1	0			
OBSERVATIONS		Ex	Ex	EDDr	EDDr			
ANIMAL No.	2	ľ			ľ	Ī		
-								
ERYTHEMA		1	_1	0	0			
OEDEMA		1	0	0	0			
OBSERVATIONS		Ex						
arpailangura parc		8 8		i	i	Ŷ.	ř	i i
ANIMAL No.	3							
TD WOUTH A			-	_	_	-		-
ERYTHEMA		1	0	0	0			
OEDEMA		1	U	_ 0	0	L		
ANIMAL No.	4	ř i		i	Î	Ĩ	Î	1 1
ANIMAL NO.	4							
ERYTHEMA		1	1	1	0	\vdash		
OEDEMA		1	0	0	0			
3.00.00								
ANIMAL No.	5	Ï		1	ĺ	Ï	Î	T 1
ERYTHEMA		1	1	2	2			
OEDEMA		0	1	1	1			
OBSERVATIONS		-	Ex	ExDr	Dr			
ANIMAL No.	6	1			1	1		1 1
(n								
ERYTHEMA		1	1	1	1			
OEDEMA		1	0	0	0			

Ex = REACTION EXTENDED OUTSIDE APPLICATION AREA

De = DESQUAMATION; Dr= DRYNESS; EDDr = Ex + De + Dr

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 1.11INDEX 3 x no of animals

CHEMICAL

: 4-(METHYLTHIO)-

CONCENTRATION TESTED : 100%

BENZALDEHYDE

SOURCE

: ALDRICH

SPECIFICATION :

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

CAS No. 3446-8 Purity 98.2% 3446-89-7

Product No. 22,277-1

		OBSE	RVATIO	ON	INTER	VAL (davs)
ANIMAL No. 1	lh	1d	2d	3d	4d	7d	8d
ERYTHEMA	1	1	1	1	0	0	0
OEDEMA	0	0	0	0	0	0	0
OBSERVATIONS				Dr	Dr	Dr	
ANIMAL No. 2	1				1	İ	
ERYTHEMA	2	2	1	1	0	0	0
OEDEMA	0	0	0	0	0	0	0
OBSERVATIONS				Dr	Dr	Dr	
ANIMAL No. 3	1						
ERYTHEMA	0	1	0	0			
OEDEMA	0	0	0	0			

Dr = DRYNESS OF THE SKIN

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.89INDEX 3 x no of animals

CHEMICAL

: SOAP FROM 20/80

CONCENTRATION TESTED : 100%

COCONUT OIL/TALLOW

SOURCE

: UNICHEMA INTERNATIONAL WEIGHT TESTED

: 0.5g

No. OF RABBITS : THREE EXPOSURE TIME : 4 hour

SPECIFICATION :

CAS No.

: 4 hours

NO SINGLE CAS No. APPLICABLE

Purity

Trade name

PRISAVON 1981

		ODCE	D 7 7 7 11 T /	- N.	T NIME IN	77T / Å	
	35mn	6.1	RVATIO 2d	ли . I 3d	l 7d	VAL (d 14d	ays)
ANIMAL No. 1	35mii	Id	2u	3u	/ a	140	
ERYTHEMA	2	1	1	1	1	0	
OEDEMA	2	1	1	1	1	0	
ANIMAL No. 2	1		1				
ERYTHEMA	2	1	1	1	1	0	
OEDEMA	2	1	1	1	0	0	
ANIMAL No. 3							
ERYTHEMA	2	2	1	1	1	0	
OEDEMA	2	1	1	1	1	0	

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 2.11 3 x no of animals

INDEX

CHEMICAL

: SOAP FROM 20/80

CONCENTRATION TESTED : 100%

COCONUT/PALM OILS

SOURCE

: UNICHEMA INTERNATIONAL WEIGHT TESTED

SPECIFICATION :

NO. OF RABBITS : THREE EXPOSURE TIME

: 4 hours

CAS No.

NO SINGLE CAS No. APPLICABLE

Purity

Trade name

PRISAVON 9240

			OBSE	RVATIO	ON :	INTER	VAL (days)
ANIMAL No.	1	40mn	1d	2d	3d	7d	14à 1
ERYTHEMA		2	2	2	2	0	0
OEDEMA		1	0	0	0	0	0
ANIMAL No.	2		2	2			
OEDEMA		3	2	2	2	0	0
OBSERVATIONS						Sc	0
ANIMAL No.	3			ĺ			
ERYTHEMA		2	2	2	2	1	0
OEDEMA		3	1	1	1	0	0

Sc = SCALINESS

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.67 INDEX 3 x no of animals

CHEMICAL

: SODIUM LAURYL

CONCENTRATION TESTED : 50% aq

SULPHATE

SOURCE

VOLUME TESTED : 0.5ml
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 151-21-3 Purity 94.8%

		OBSE	RVATI	ON	INTER	VAL	(days	3)
ANIMAL No. 1	4½h	1d	2 d	3d				
ERYTHEMA	3	4	4	4				\neg
OEDEMA	1	2	2	2				

ANIMAL No. 2			1	1 1	1	1 1
ERYTHEMA	3	4	4	4		
OEDEMA	2	2	2	2		

ANIMAL No. 3		1 1	Ĩ	Ĩ	ľ	j v
ERYTHEMA	3	3Ex	4Ex	4Ex		_
OEDEMA	1	2	2	3		

Ex = REACTION EXTENDED OUTSIDE APPLICATION SITE

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 6.0 INDEX 3 x no of animals

CHEMICAL

: SODIUM LAURYL

CONCENTRATION TESTED : 20% aq

SULPHATE

SOURCE

SPECIFICATION :

NO. OF RABBITS : THREE EXPOSURE TIME . 4 L-

CAS No. 151-21-3 Purity 94.8%

: 4 hours

		OBSER	VATIO	N	титер	77AT.	(days)
ANIMAL No. 1	4½h	1d	2d	3d			days
ERYTHEMA	2Ex	3Ex	3Ex	4Ex			
OEDEMA	1	2	2	3			
ANIMAL No. 2			1		Ţ	ľ	1 1
ERYTHEMA	2Ex	4Ex	4Ex	4Ex		1	
OEDEMA	1	3	3	3			
ANIMAL No. 3			1		ĺ	ľ	1 1
ERYTHEMA	2	4Ex	4Ex	4Ex			
OEDEMA	1	3	4	4			

Ex = REACTION EXTENDED OUTSIDE APPLICATION SITE

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 6.78 3 x no of animals

CHEMICAL : SODIUM UNDECYLENATE CONCENTRATION TESTED : 33%aq

VOLUME TESTED No. OF RABBITS : ELF ATOCHEM : 0.5ml* SOURCE

: THREE SPECIFICATION : EXPOSURE TIME : 4 hours

CAS No. 3398-33-2 *of 33.2% aqueous solution

		V.	RVATIO		INTER		
ANIMAL No. 1	1h	1d	2d	3d	5d	7d	10d
ERYTHEMA	2	1	1	1	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2 ERYTHEMA	2	2	2	2	1	0	0
OEDEMA	0	0	0	0	0	0	0
OBSERVATIONS					Dr	Dr	
ANIMAL No. 3	1	ĺ				i.	1 1
ERYTHEMA	2	2	2	2	1	0	0
OEDEMA	0	0	0	0	0	0	0
OBSERVATIONS		4			Dr	Dr	

Dr = DRYNESS OF THE SKIN

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA $\underline{24/48/72hr}$ + $\underline{\text{SUM}}$ OEDEMA $\underline{24/48/72hr}$ = 1.67 3 x no of animals INDEX

CHEMICAL : GLYCEROL TRI-CONCENTRATION TESTED : 100%

isoSTEARATE

SOURCE : UNICHEMA INTERNATIONAL VOLUME TESTED

: 0.5ml : THREE : 4 hours No. OF RABBITS SPECIFICATION : EXPOSURE TIME

CAS No. 26942-95-5

Purity

Trade name PRISORINE 2041

			OBSEI	RVATIO	ON	INTER	VAT.	(davs)
		1h	1d	2d	3d	7d		`
ANIMAL No.	1							
ERYTHEMA		1	1	1	1	0		
OEDEMA		0	0	0	0	0		
ANIMAL No.	2							ľ
ERYTHEMA		1	1	1	1	0		
OEDEMA		0	0	0	0	0		
							-	
ANIMAL No.	3		Î					
ERYTHEMA		0	0	0	0	0		
OEDEMA		0	0	0	0	0		

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0.67

INDEX 3 x no of animals

CONCENTRATION TESTED : 100% CHEMICAL : GLYCEROL

TRIUNDECANOATE

SOURCE : ELF ATOCHEM WEIGHT TESTED

: 0.5g : THREE : 4 hours No. OF RABBITS

SPECIFICATION : EXPOSURE TIME

CAS No. 13552-80-2 Purity 97.7%

		OBSEI	RVATIO	ON	INTER	VAL	(davs)
	1h	1d	2d	3d	1		` 1 ()
ANIMAL No. 1							
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			
ANIMAL No. 2					1	1	1 1
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			
ANIMAL No. 3			1		Ĭ	ľ	1 1
ERYTHEMA	0	0	0	0			
OEDEMA	0	0	0	0			

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0 3 x no of animals INDEX

CHEMICAL : 4-AMINO-1,2,4-TRIAZOLE CONCENTRATION TESTED : 100%

SOURCE : ALDRICH WEIGHT TESTED : SIX : 4 hours No. OF RABBITS

SPECIFICATION : EXPOSURE TIME

CAS No. 584-13-4 Purity 96.7% Product No. A8,180-3

				RVATIO		INTERV	AL	(days)
	. ~ 3	1h	1d	2d	3d			
ANIMAL No.	1					1 1		
ERYTHEMA		1	0	0	0			
OEDEMA		0	0	0	0			
44-00-00-00-00-00-00-00-00-00-00-00-00-0								
ANIMAL No.	2		1	1 1		1 1		1 1
ERYTHEMA		0	0	0	0	1		
OEDEMA		ō	ō	ō	0			
OLD DITE.						+		
ANIMAL No.	3	i i	r n	ñ ŝ	ì	T T		r r
ANIMAL NO.	3							1 1
TIDAMITTIMA		_	_	_	_			
ERYTHEMA		0	0	0	0	+		
OEDEMA		0	0	0	0		_	
nerthannania ber	· 2			er n		т т		6 16
ANIMAL No.	4							
1								
ERYTHEMA		1	0	0	0			
OEDEMA		0	0	0	0			
ANIMAL No.	5							1 1
ERYTHEMA		0	0	0	0			
OEDEMA		0	0	0	0			
The same service of the sa		× .	-		3,500			
ANIMAL No.	6	i i	ř ř	i i	ı	î î		f f
ANTHAL NO.	9							
EDVINIENA		0	0	0	_			
ERYTHEMA		0	0	0	0	-		
OEDEMA		0	0	0	0			

PRIMARY IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 0 INDEX 3 x no of animals

CHEMICAL : BEECHWOOD CREOSOTE CONCENTRATION TESTED : 100%

OIL

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : IFF

SPECIFICATION :

CAS No. 8021-39-4

Purity Spec. No.

ANIMAL No.	1	1h	OBSER	RVATIO 2d	DN 3d	INTERV	7AL	(days)
ERYTHEMA			_	2	4	4		
OEDEMA		3	-	3	2	-		
OBSERVATIONS		Bl	Bls	ICS	IE	E		
ANIMAL No.	2	ľ		1				
ERYTHEMA			2	4	4	4		+ +
OEDEMA		4	3	2	2			
OBSERVATIONS		ві	ICS	BaE	IE	Е		
ANIMAL No.	3					1		
ERYTHEMA			2	2	4	4		
OEDEMA		4	3	3	_			
OBSERVATIONS		Bl	IC	IC	EH	ESl		-
ANIMAL No.	4	ř				1 1	6	
ERYTHEMA		2	2	3	3.5	4		
OEDEMA		4	3.5	2	1	-		
OBSERVATIONS						E		

Bl = BLACKENED s = sunken

I = IRRITATION AT EDGES C = CENTRE BLACKENED

E = ESCHAR Ba = BLACKENED AREA

H = HARDENED sl = sloughing

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ $\underline{\text{ERYTHEMA}}$ 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = >5

INDEX 3 x no of animals

CHEMICAL

: 6-BUTYL-2,4-DIMETHYL- CONCENTRATION TESTED : 100%

DIHYDROPYRANE

SOURCE

: QUEST

VOLUME TESTED

: 0.5ml : FOUR

SPECIFICATION :

No. OF RABBITS

: 4 hours

EXPOSURE TIME 24237-00-1

CAS No. Purity

83.0

Spec. No.

38462

ANIMAL No.	1	1h	OBSE	RVATI 2d	ON 3d	INTER	VAL	(days)
ERYTHEMA		0	1	1.5	1	0		
OEDEMA		0	0.5	0	0	0		
ANIMAL No.	2	ľ	1	1	1	Ĭ	ľ	1 1
ERYTHEMA		1.5	2	2	2	1.5		+
OEDEMA		3	1	0.5	0.5	0		
OBSERVATIONS			- 112			De		
ANIMAL No.	3		1	ĺ	Ī	Ĩ	I	1 1
ERYTHEMA		0.5	2	1.5	1.5	0.5	_	
OEDEMA		0	0.5	0	0	0		
ANIMAL No.	4				1		1	1 1
ERYTHEMA		0	2	2	2	0.5		
OEDEMA		0.5	1	0	0	0		
OBSERVATIONS						De*		

De = DESQUAMATION FROM TREATED SKIN (De* = MARKED)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.04

INDEX 3 x no of animals

CHEMICAL

: n-DECYLIDENE METHYL CONCENTRATION TESTED : 100%

ANTHRANILATE #

SOURCE

: BRI

VOLUME TESTED

: 0.5ml

No. OF RABBITS

CAS No.

EXPOSURE TIME

: FOUR : 4 hours

SPECIFICATION

67874-67-3

Purity Spec. No.

: synonym for decanal-methylanthranilate (Schiff base)

ANIMAL No. 1	1h	OBSEI 1d	RVATIO	ON 3d	INTERV	/AL (days)
ERYTHEMA	1	1.5	1	1	0		
OEDEMA	0	1	0.5	0	0	_	
OBSERVATIONS	· · · · · · · · · · · · · · · · · · ·				Des		
ANIMAL No. 2						i II	
ERYTHEMA	0	1.5	1.5	1	0		
OEDEMA	0	0	0.5	0.5	0		
ANIMAL No. 3							
ERYTHEMA	1	2	2	2	0		
OEDEMA	0	0.5	0.5	0	0		
ANIMAL No. 4 ERYTHEMA	0	2	1.5	1.5	0.5	ï	
The state of the s							+
OEDEMA	0	1.5	1	0.5	0		

Des = SLIGHT DESQUAMATION FROM THE SKIN

THE TREATED SKIN WAS STAINED YELLOW IN ANIMALS AT THE 1 & 24hr READINGS

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.08

INDEX

: 2,6-DIMETHYL-2,4,6- CONCENTRATION TESTED : 100%

OCTATRIENE

SOURCE

: BBA

VOLUME TESTED

: 0.5ml

No. OF RABBITS EXPOSURE TIME

: FOUR : 4 hours

SPECIFICATION :

3016-19-1

CAS No. Purity Spec. No.

>95%

			OBCE	RVATI	ON	INTERV	77 T /	darra)
		l 1h	l 1d	2d	l 3d	1 7d l	Au (days)
ANTWAT No	1	1 111	14	Zu	Ju	' ^u		
ANIMAL No.	1							
ERYTHEMA		1	2	2	2	1.5		
OEDEMA		0.5	1	0.5	0.5	0.5		
ANIMAL No.	2	Ĩ						
ERYTHEMA		1.5	2.5	2	2	1.5		
OEDEMA		2	2	0.5	0.5	0		
OBSERVATIONS				dina	-	De		
	2	r	ř	1	1	γ y		ř 1
ANIMAL No.	3							
ERYTHEMA		1.5	2	2	2	2		
OEDEMA		3	2	0.5	0.5	0		
OBSERVATIONS						De		
ANIMAL No.	4	Ĭ		ĺ				
ERYTHEMA		1	2	2	2	2		
OEDEMA		2	1.5	1	1	1		
OBSERVATIONS		737	70			DeTs		

De = DESQUAMATION FROM TREATED SKIN

Ts = SLIGHT THICKENING

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.0

INDEX

CHEMICAL

: 1-FORMYL-1-METHYL-4

CONCENTRATION TESTED : 100%

(4-METHYL-3-PENTEN-1-YL)

-3-CYCLOHEXENE

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED

: 0.5ml

SPECIFICATION :

No. OF RABBITS : FOUR EXPOSURE TIME : 4 hours

CAS No. 66327-54-6 Purity 99.8%

Spec. No.

9644601

		1.12		RVATI		INTER	VAL (days)
ANIMAL No.	1	1h	1d	2 d	3d	7d		
ERYTHEMA		1	2	2	2	2		
OEDEMA		0.5	2.5	2	1.5	1		
OBSERVATIONS						De		
ANIMAL No.	2		ĺ	1	Ĭ	Ī	Î	
ERYTHEMA		0.5	2	2	2	1		
OEDEMA		0	1	1.5	1.5	0		
OBSERVATIONS	,					De		
ANIMAL No.	3					Ī		1
ERYTHEMA		1.5	2	2	2	1.5		
OEDEMA		0.5	2	1	1	0.5		
OBSERVATIONS						Des	1	t
ANIMAL No.	4					f		
ERYTHEMA		1.5	2	2	2	2		
OEDEMA		0.5	0.5	0.5	0.5	0.5		

De = DESQUAMATION FROM THE SKIN (Des = SLIGHT)

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.29

INDEX

CHEMICAL

: d-LIMONENE [1]

CONCENTRATION TESTED : 100%

SOURCE

: GIVAUDAN-ROURE

VOLUME TESTED

: 0.5ml

No. OF RABBITS EXPOSURE TIME

: THREE : 4 hours

SPECIFICATION :

CAS No. 5989-27-5 Purity 98.8% Spec. No. 6588333

		ODGE);;;>,m=,		T.1.III.E.D.1.1	· · · /	١ ١
	1h	l 1d	RVATIO	и . 3d	INTERVA 7d	νь (lays)
ANIMAL No. 1	***	14	24	Ju	'"		
ERYTHEMA	2	2	2	2	1		
OEDEMA	3	2	1	1	1		
OBSERVATIONS					De*		
ANIMAL No. 2 ERYTHEMA	2	2	2	2	2		
OEDEMA	4	2	2	2	3		
OBSERVATIONS		_,			De		
ANIMAL No. 3				6.			
ERYTHEMA	1	2	2	2	1		
OEDEMA	3	2	1	1	1		
OBSERVATIONS		10			De*		

De = DESQUAMATION FROM SKIN SURFACE (De* = MARKED)

PRIMARY

IRRITATION = $\underline{\text{SUM}}$ ERYTHEMA 24/48/72hr + $\underline{\text{SUM}}$ OEDEMA 24/48/72hr = 3.56

INDEX

CHEMICAL : d-LIMONENE [2] CONCENTRATION TESTED : 100%

VOLUME TESTED : 0.5ml
No. OF RABBITS : FOUR
EXPOSURE TIME : 4 hours SOURCE : GIVAUDAN-ROURE

SPECIFICATION :

CAS No. 5989-27-5 Purity 98.8% Spec. No. 6588333

		OBSE	RVATIO	NC	INTERVA	L (days)
	1h	1d	2d	3d	7d	`	1 '
ANIMAL No. 1							
ERYTHEMA	- t 1	2	2	2	2		-
OEDEMA	4	2	1	1	1		
OBSERVATIONS					Des		
ANIMAL No. 2	1	ľ	ľ		1 1		Ĭ
ERYTHEMA	1	2	2	2	1		
OEDEMA	3	1	1	0	0		
ANIMAL No. 3	1				ΪΙΙ		
ERYTHEMA	0	1	2	2	2		
OEDEMA	3	2	1	1	2		
ANIMAL No. 4	Ť			ĺ	i i		ř
ERYTHEMA	2	2	2	2	2		
OEDEMA	3	2	2	2	2		

Des = SLIGHT DESQUAMATION FROM SKIN SURFACE

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 3.25INDEX 3 x no of animals

CHEMICAL : LINALOOL OXIDE CONCENTRATION TESTED : 100%

: GIVAUDAN-ROURE VOLUME TESTED : 0.5ml SOURCE : FOUR : 4 hours No. OF RABBITS

EXPOSURE TIME SPECIFICATION :

1365-19-1 CAS No. 97.2% Purity Spec. No. 7852501

			OBCET	RVATI	ON	יסישיתוד	77 N.T.	(days)
		1 1h	l 1d	2d	3d	1 7d	الم	(days)
ANIMAL No.	1	111	14	24	ا عد	/ "		1 1
ANIMALI NO.	*							
ERYTHEMA		1.5	1.5	2	2	0.5		
OEDEMA		0	0.5	1	1	0.5		
	2		e :		1		r	e 9
ANIMAL No.	2							
ERYTHEMA		1	2	2	2	0	-	-
OEDEMA		0.5	1	0.5	0.5	Ö	_	_
OLDLIN		10.3		0.5	0.5	1 0		
ANIMAL No.	3	1			[]	1	Ĭ	1 1
ERYTHEMA		1	2	2	2	1		
OEDEMA		0.5	0.5	0.5	0.5	0		
		¥.	ř.	To the	1	î	í	i i
ANIMAL No.	4							
ED HOHELY A			-	2	-	- 3	1	_
ERYTHEMA		1	2	2	2	1	-	_
OEDEMA		0.5	0.5	0.5	0.5	0	4	_

PRIMARY IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 2.58 INDEX 3 x no of animals

CHEMICAL

: TONALID #

CONCENTRATION TESTED : 100%

SOURCE

: FIRMENICH

WEIGHT TESTED : 0.5g
No. OF RABBITS : THREE
EXPOSURE TIME : 4 hours

SPECIFICATION :

CAS No. 21145-77-7 Purity >97% Spec. No. 88152

: tradename for 6-acetyl-1,1,2,4,4,7-hexamethyltetraline

		OBSE	RVATI	NC	INTER	VAL	(days)
	1h	1d	2d	3d	7 d		1 1
ANIMAL No. 1							
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		
ANIMAL No. 2	Ī	I	1		Ĩ	Ĩ	1 1
ERYTHEMA	0	0	0	0	0		-
OEDEMA	0	0	0	0	0		
ANIMAL No. 3					1	1	1 1
ERYTHEMA	0	0	0	0	0		
OEDEMA	0	0	0	0	0		

PRIMARY

IRRITATION = SUM ERYTHEMA 24/48/72hr + SUM OEDEMA 24/48/72hr = 0

INDEX

APPENDIX B. SKIN CORROSION

Definitions of Skin Corrosion

OECD Test Guideline 404 defines dermal corrosion as irreversible tissue damage, but gives no criteria for assessment. The above OECD definition was used in this study, observation of necrosis or eschar formation being interpreted as evidence of corrosive effects.

There is reasonable agreement on the definition of skin corrosion between those classification schemes which include corrosion. The following definitions are used:

AUSTRIA Destruction of the whole thickness of skin tissue,

CANADA Evidence of visible necrosis of human skin tissue; corrosive to skin when tested

in accordance with OECD Test Guideline 404,

EEC Full thickness tissue destruction in at least one animal (of three tested),

FINLAND Full thickness destruction of tissue in at least one animal,

NORWAY Destruction of living tissue leaving a sore,

SWEDEN Damage of tissue causing burns,

US-CPSC Visible destruction or irreversible alterations in tissue,

US-OSHA Destruction or irreversible change in the structure of tissue in two animals (of six

tested),

US-DoT Visible necrosis of the skin,

UN Full thickness destruction of the skin.

Note: an ECETOC review (ECETOC,1990) comments that the EEC definition should be amended to make clear whether "full thickness destruction refers to the epidermis or both epidermis and dermis".

Some authorities recognise more than one category of skin corrosion:

3 Categories: United Nations, US Department of Transportation,

2 Categories: European Union, Austria, Sweden,

1 Category: Finland, Norway, US Consumer Product Safety Commission.

In each case the discrimination between categories is on the basis of the duration of the exposure following which the 'corrosive' effect was observed, for example:

UNITED NATIONS:

Packing Group I (very dangerous substances)

effect observed up to 60 minutes after the exposure time of 3 minutes or less,

Packing Group II (substances presenting medium danger)

effect observed up to 14 days after the exposure time of more than 3, and not more than 60 minutes,

Packing Group III (substances presenting minor danger)

- effect observed up to 14 days after the exposure time of more than 60 minutes and not more than 4 hours.

US Department of Transportation (US-DoT):

Packing Group I

 Substances that cause visible necrosis of the skin at the site of contact when tested on the intact skin of an animal for a period of not more than 3 minutes,

Packing Group II

 Substances that cause visible necrosis of the skin at the site of contact when tested on the intact skin of an animal for a period of more than 3 but not more than 60 minutes,

Packing Group III

 Substances that cause visible necrosis of the skin at the site of contact when tested on the intact skin of an animal for a period of not more than four hours. Note: the UN-RTDG (1993) phraseology was the same as that of US-DoT (1993) before the former was updated from 'visible necrosis' to 'full thickness destruction' in 1993. Presumably the US-DoT wording will in due time be amended to match that of UN-RTDG.

EEC:

causes severe burns (R35)

- up to 3 minutes exposure,

causes burns (R34)

- up to 4 hours exposure.

AUSTRIA: severely corrosive

- up to 3 minutes exposure,

corrosive

- up to 4 hours exposure.

SWEDEN: highly corrosive

- up to 3 minutes exposure,

corrosive

- up to 4 hours exposure.

Criteria for Identification of "Corrosive Effects"

Other than the definitions of "corrosive" effects ("full tissue destruction" etc), the only test method to present criteria on the basis of which a test material can be identified as being "corrosive" is 16 CFR 173.240 (US-CPSC, 1994):

"Corrosion will be considered to have resulted if the substances in contact with the rabbit skin have caused destruction or irreversible alteration of the tissue on at least two out of each six rabbits tested. Tissue destruction is considered to have occurred if, at any of the readings, there is ulceration or necrosis. Tissue destruction does not include merely sloughing of the epidermis, or erythema, oedema, or fissuring"

Additional Criteria for Classification as Corrosive

References to classification as corrosive on the basis of "human experience" are made by:

CANADA: "if there is evidence that it causes visible necrosis of human skin tissue" (Canada, 1987),

US-CPSC: "if, by human experience, visible destruction or irreversible alterations in tissue occur at the site of contact" (US-CPSC, 1994),

US-DoT: "a corrosive material is a liquid or solid that causes visible destruction or irreversible alterations in human skin tissue at the site of contact" (US-DoT, 1993),

UN: "account should be taken of human experience in instances of accidental exposure. In the absence of human experience the grouping should be based on data obtained from animal experiments in accordance with OECD Test Guideline 404" (UN-RTDG, 1993).

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APPENDIX C. CLASSIFICATION BASED ON SKIN CORROSION

OR IRRITATION

The following summary of classification schemes is believed to be correct at the time of publication.

Readers are advised to check the validity of the statements made.

C.1. European Community (EEC, 1993)

Definitions:

Corrosion: symbol/code: C

a substance or a preparation is considered to be corrosive if, when it is applied to intact

healthy animal skin, it produces full thickness destruction of skin tissue on at least one

animal during the test for skin irritation cited in Annex V or during an equivalent method

or if the result can be predicted, for example from strongly acidic or alkaline reactions

(demonstrated pH of 2 or less or 11.5 or greater. Alkaline or acidic reserve should also

be taken into account).

Two levels of corrosivity are recognised by the assignment of different risk phrases:

R 35: Causes severe burns if

when applied to healthy intact animal skin, full thickness destruction of skin tissue

occurs as a result of up to 3 minutes exposure, or if this result can be predicted;

R 34: Causes burns if

when applied to healthy intact animal skin, full thickness destruction of skin tissue

occurs as a result of up to 4 hours exposure, or if this result can be predicted.

Irritation: symbol/code Xi

R 38: Irritating to skin

substances or preparations which cause significant inflammation of the skin

which persists for at least 24 hours after an exposure period of up to 4 hours

determined on the rabbit according to the cutaneous irritation test method cited in

Annex V.

Inflammation of the skin is significant if:

- the mean value of the scores for either erythema and eschar formation or oedema formation, calculated over all the animals tested, is 2 or more,
- or, in the case where the Annex V test has been completed using 3 animals, either erythema and eschar formation or oedema formation equivalent to a mean value of 2 or more calculated for each animal separately has been observed in 2 or more animals.

In both cases all scores at each of the reading times (24, 48, and 72 hours) for an effect should be used in calculating the respective mean scores.

Inflammation of the skin is also significant if it persists in at least two animals at the end of the observation time. Particular effects e.g. hyperplasia, scaling, discolouration, fissures, scabs and alopecia should be taken into account.

Substances and preparations which cause significant inflammation of the skin, based on practical observation in man are also classified.

C.2. Canada (Canada, 1987)

Definitions:

Corrosion:

A product, material or substance shall be included in Class E - Corrosive Material if

- (a)
- (b) it is corrosive to skin when tested in accordance with OECD Test Guideline 404 (May 12 1981),
- (c) it is included in Class 8 in Part III of the Transportation of Dangerous Goods Regulations (TDGR),
- (d) it is a gas included in Division 4 of Class 2 in Part III of TDGR,
- (e) there is evidence that it causes visible necrosis of human skin tissue, or
- (f) it is an untested mixture containing a product, material or substance that meets the criteria referred to in paragraph (b) or (e) and is present at a concentration of at least 1%.

Skin irritation:

A pure substance or tested mixture falls into Subdivision B of Division 2 of Class D - Poisonous and Infectious Material if, in an animal assay,

- (a) mean erythema formation grade is 2
 - or more mean oedema formation grade is 2 or more
 - when tested in accordance with OECD Test Guideline No 404 (May 12, 1981) as measured at any of the times specified in the test.

C.3. Finland (Finland, 1986)

Definitions:

Corrosive: symbol C

a substance which, when applied to healthy intact skin, causes full thickness destruction of tissue in at least one animal in a test carried out according to instructions, or if this result can be predicted, for example from the strong acidity or alkalinity of the substance.

Irritant to skin: symbol Xi

a substance which, when applied to healthy intact skin, causes significant inflammation which is present 24 hours or more after the end of the exposure period in a test carried out according to instructions. Inflammation is significant if the mean value of the scores for either erythema and eschar formation, or oedema formation, is 2 or more.

C.4. United States of America

(a) Occupational Safety and Health Standards (US-OSHA, 1993)

Definitions:

Corrosive:

- a chemical that causes visible destruction or irreversible alterations in living tissue at the site of contact when tested on the intact skin of albino rabbits following an exposure period of 4 hours. This term shall not refer to action on inanimate surfaces.

Irritant:

 a chemical, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact when tested on the intact skin of albino rabbits for 4 hours.

Evaluation criteria:

Skin irritation (method CFR 1500.41):

Erythema and eschar formation, and oedema formation, are evaluated (a) 24 and 72 hours after removal of the patches on (b) intact and abraded rabbit skin, giving 4 values for each rabbit for both erythema and eschar formation and oedema formation. The total of the 8 values is divided by 4 to give the primary irritation score. If this empirical score is 5 or more, the chemical is a skin irritant.

(b) Federal Hazardous Substances Regulations (US-CPSC, 1994)

Definitions:

Corrosive:

 any substance which in contact with living tissue will cause destruction of tissue by chemical action, but shall not refer to action on inanimate surfaces.

Irritant:

- any (not corrosive) substance which on immediate, prolonged, or repeated contact with normal living tissue will induce a local inflammatory reaction.

Criteria for classification:

Corrosive:

- if, by human experience, visible destruction or irreversible alterations in tissue occur at the site of contact,
- if, when tested by the technique described in CFR 1500.41 the tissue at the site of contact is destroyed or changed irreversibly in 24 hours or less.

Irritant:

includes "primary irritant to the skin" as well as substances irritant to the eye or to mucous membranes. "Primary irritant" means a substance that is not corrosive and that human experience data indicate is a primary irritant and/or means a substance that results in an empirical score of 5 or more when tested by the method described in CFR 1500.41.

Toxicity test methods:

- US Department of Transportation method (US-DoT, 1993) and CFR 1500.41 specified for skin corrosion and skin irritation respectively.

(c) Federal Insecticide, Fungicide, and Rodenticide Act (US-FIFRA, 1984)

FIFRA assigns products to one of four categories based on toxicological properties.

For skin effects, the criteria are as follows:

Category I Corrosive (tissue destruction into the dermis and/or scarring),

Category II Severe irritation at 72 hours (severe erythema or oedema),

Category III Moderate erythema at 72 hours (moderate erythema),

Category IV Mild or slight irritation (no irritation or slight erythema).

The labels of products assigned to Categories I, II, III, IV on the basis of skin effects are required to carry the signal words DANGER, WARNING, CAUTION, CAUTION respectively.

C.5. United Nations-Related Organisations

"CORROSIVES" constitute Class 8 of dangerous goods in the "Orange Book" (UN-RTDG, 1993).

Classification criteria.

Class 8 dangerous substances are allocated to the three packing groups based on the length of time of contact necessary to produce visible necrosis on intact animal skin:

Packing Group I (very dangerous substances):

 Substances that cause full thickness destruction of intact skin tissue within an observation period up to 60 minutes starting after the exposure time of three minutes or less,

Packing Group II (substances presenting medium danger):

- Substances that cause full thickness destruction of intact skin tissue within an observation period up to 14 days starting after the exposure time of more than three minutes but not more than 60 minutes,

Packing Group III (substances presenting minor danger):

- (a) Substances that cause full thickness destruction of intact skin tissue within an observation period up to 14 days starting after the exposure time of more than 60 minutes but not more than 4 hours,
- (b) Substances which are judged not to cause full thickness destruction of intact skin tissue but which exhibit a corrosion rate on steel or aluminium surfaces exceeding 6.25mm a year at a test temperature of 55°C......

Toxicity test methods:

OECD Test Guideline 404 is to be used.

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