

**APPENDIX E**

**Analysis of Alternative Decision Criteria for Predicting Skin Sensitizing Potential in  
the LLNA: DA**

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1 **Appendix E-1. Positive/Negative Decisions for the LLNA: DA Based on Various Stimulation Index (SI) Cut-off Points**

Substance Name <sup>1</sup>	LLNA: DA Stimulation Index																		Trad. LLNA
	3.0	2.9	2.8	2.7	2.6	2.5	2.4	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.6	1.5	1.4	1.3	
2,4-Dinitrochlorobenzene	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
p-Phenylenediamine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Toluene 2,4-diisocyanate <sup>2</sup>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Glutaraldehyde	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Potassium dichromate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Trimellitic anhydride	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Phthalic anhydride	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Formaldehyde	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cinnamic aldehyde	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Isoeugenol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cobalt (II) chloride	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Eugenol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Resorcinol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Benzocaine <sup>3</sup>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+/-
Abietic acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hexyl cinnamic aldehyde	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Imidazolidinyl urea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2-Mercaptobenzothiazole	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+
Citral	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hydroxycitronellal	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Sodium lauryl sulfate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Nickel (II) sulfate hexahydrate	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	-
Benzalkonium chloride	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-
Propyl paraben	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
Diethyl phthalate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Bromobutane	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	-
Methyl salicylate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	-
Lactic acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexane	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	-
Isopropanol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- 1 Abbreviations: LLNA=Local Lymph Node Assay; LLNA: DA=Local Lymph Node Assay Modified by Daicel Chemical Industries, Ltd. Based on ATP Content;
- 2 SI=Stimulation Index; Trad.=Traditional.
- 3 <sup>1</sup>Includes the 31 substances from the original validation study performed by Daicel Chemical Industries, Ltd. (2007).
- 4 <sup>2</sup>van Och et al. 2001. Modified version of LLNA protocol not in accordance with ICCVAM 1999 and Dean et al. 2001; Substance not included in accuracy
- 5 analysis.
- 6 <sup>3</sup>Equivocal data (ICCVAM 1999). Substance not included in accuracy analyses.
- 7