

Imidazolidinyl Urea

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Abstract

The Expert Panel for Cosmetic Ingredient Safety reviewed updated information that has become available since their original assessment from 1980, along with updated information regarding product types, and frequency and concentrations of use, and reaffirmed their original conclusion that Imidazolidinyl Urea is safe as a cosmetic ingredient in the practices of use and concentration as described in this report.

Keywords

Safety, Cosmetics, Imidazolidinyl Urea

The Expert Panel for Cosmetic Ingredient Safety first published the Final Report on the Safety Assessment of Imidazolidinyl Urea in 1980.¹ The Expert Panel concluded that this ingredient was safe when incorporated in cosmetic products in amounts similar to those presently marketed, as described in that report. In 2001, after considering new studies and updated use data on this ingredient, the Expert Panel determined to not re-open the safety assessment.² Data identified in the published literature^{3–31} that have become available since the 2001 re-review was issued support the conclusion reached by the Expert Panel in the original review. The Expert Panel also reviewed updated information regarding product types and ingredient use frequencies as reported in the US Food and Drug Administration (FDA) Voluntary Cosmetic Registration Program (VCRP) database,³² and the maximum use concentrations provided by the Personal Care Products Council (Council).³³ The Expert Panel determined to not re-open this safety assessment and reaffirmed the original conclusion that Imidazolidinyl Urea is safe as a cosmetic ingredient in the present practices of use and concentration, as given in Table 1.

The reported frequency of use for this ingredient has decreased significantly since the initial re-review was considered. According to VCRP data, Imidazolidinyl Urea was reported to be used in 2025 formulations in 2001.² In 2019, VCRP data indicate that Imidazolidinyl Urea is used in 1558 formulations.³² The current maximum concentration of use (0.6%) in leave-on products,³³ according to the Council, is approximately the same as that reported in 2001 (0.7%).²

The Expert Panel noted that Imidazolidinyl Urea is a formaldehyde-releasing preservative, and use of these types of

ingredients as a whole has decreased. The Expert Panel determined that there were no new relevant data that necessitated a new re-review of this ingredient.

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Author's Note

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Table I. Current and Historical Frequency and Concentration of Use of Imidazolidinyl Urea According to Duration and Exposure.

	# of Uses		Max Conc of Use (%)	
	2019 ³²	2001 ²	2018 ³³	2001 ²
Totals*	1558	2025	.0000004-0.6	.01-1
Duration of use				
Leave-on	1217	1576	.0002-0.6	.01-0.7
Rinse-off	335	363	.0000004-0.5	.1-1
Diluted for (bath) use	6	86	NR	.2-0.5
Exposure type				
Eye area	336	433	.2-0.5	.01-0.6
Incidental ingestion	2	11	0.2	0.4
Incidental inhalation-spray	2; 367 ^a ; 269 ^b	32; 369 ^a ; 202 ^b	.2-0.6 ^a	.4-.5; .2-0.6 ^{a,b}
Incidental inhalation-powder	82; 269 ^b ; 2 ^c	88; 202 ^b ; 2 ^c	.2; .3-0.5 ^c	.2-.4; .2-0.6 ^b .3-0.6 ^c
Dermal contact	1277	1814	.000024-0.5	.01-1
Deodorant (underarm)	3 ^a	4 ^a	0.3 ^a	0.4 ^a
Hair – non-coloring	152	125	.0000004-0.6	.2-0.5
Hair-coloring	91	6	.0006-0.3	.2-0.4
Nail	6	10	.0002-.35	.2-0.5
Mucous membrane	42	138	.00008-0.3	.2-0.5
Baby products	4	4	NR	.3-0.6

*Because each ingredient may be used in cosmetics with multiple exposure types, the sum of all exposure types may not equal the sum of total uses.

^aIt is possible these products are sprays, but it is not specified whether the reported uses are sprays.

^bNot specified whether a spray or a powder, but it is possible the use can be as a spray or a powder; therefore, the information is captured in both categories.

^cIt is possible these products are powders, but it is not specified whether the reported uses are powders.

NR, not reported.

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