
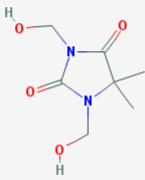


<p>Score: </p> <p>Data available: Limited</p> <p>Formaldehyde Releaser</p> <p>Summary</p> <p>Products</p> <p>Allergies/immunotoxicity</p> <p>Use restrictions</p> <p>Cancer</p> <p>Irritation (skin, eyes, or lungs)</p> <p>Persistence and bioaccumulation</p> <p>Organ system toxicity (non-reproductive)</p> <p>Chemical release concerns</p> <p>Data gaps</p> <p>Ecotoxicology</p> <p>Data sources</p> <hr/> <p style="text-align: center;">Get your 2013 Holiday Gift Bag!</p> <p style="text-align: center;">Donate to get your 2013 Holiday Gift Bag and your gift will be matched - doubling your impact</p> <p style="text-align: center;">Donate Now!</p> <hr/> <p style="text-align: center;">Sign Up!</p> <p style="text-align: center;">Stay informed by signing up to receive email tips, action alerts and more from EWG.</p> <p style="text-align: center;">E-mail Address <input type="text"/></p> <p style="text-align: center;">Zip Code <input type="text"/> Go</p>	<p style="text-align: center;">DMDM HYDANTOIN (FORMALDEHYDE RELEASER)</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>image source: PubChem</p> </div> <div style="width: 50%;"> <p>Health Concerns of the Ingredient:</p> <table border="0"> <tr> <td></td> <td style="text-align: center;">low</td> <td style="text-align: center;">moderate</td> <td style="text-align: center;">high</td> </tr> </table> <p>Overall Hazard <input type="text"/></p> <p>Cancer <input type="text"/></p> <p>Developmental & reproductive toxicity <input type="text"/></p> <p>Allergies & immunotoxicity <input type="text"/></p> <p>Use restrictions <input type="text"/></p> <p>Other HIGH concerns: Chemical release concerns, Irritation (skin, eyes, or lungs); Other LOW concerns: Data gaps</p> <p>About DMDM HYDANTOIN (FORMALDEHYDE RELEASER): DMDM hydantoin is an antimicrobial formaldehyde releaser preservative. People exposed to such formaldehyde-releasing ingredients may develop a formaldehyde allergy or an allergy to the ingredient itself and its decomposition products. In the U.S., approximately 20% of cosmetics and personal care products contain a formaldehyde-releaser and the frequency of contact allergy to these ingredients is much higher among Americans compared to studies in Europe.</p> <p>Function(s): Preservative</p> <p>Synonym(s): DMDM HYDANTOIN, 1,3-BIS (HYDROXYMETHYL) -5,5-DIMETHYL-2,4-IMIDAZOLIDINEDIONE; 1,3-BIS (HYDROXYMETHYL) -5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE; 1,3-BIS (HYDROXYMETHYL) -5,5-DIMETHYLIMIDAZOLIDINE-2,4-DIONE (+); 1,3-DIHYDROXYMETHYL-5,5-DIMETHYLHYDANTOIN; 1,3-DIMETHYLOL-5,5-DIMETHYL HYDANTOIN; 2,4-IMIDAZOLIDINEDIONE, 1,3-BIS (HYDROXYMETHYL) -5,5-DIMETHYL-; 2,4IMIDAZOLIDINEDIONE, 1,3BIS (HYDROXYMETHYL) 5,5DIMETHYL; 1,3-BIS (HYDROXYMETHYL) -5,5-DIMETHYLHYDANTOIN; 2,4-IMIDAZOLIDINEDIONE, 1,3-BIS (HYDROXYMETHYL) -5,5-DIMETHYL- (9CI) ; DANTOIN DMDMH 55; DIMETHYLOL-5,5-DIMETHYLHYDANTOIN</p> </div> </div> <hr/> <p>Allergies/immunotoxicity</p> <table border="1"> <thead> <tr> <th>Concern</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Known human immune toxicant or allergen</td> <td></td> </tr> <tr> <td>Human skin toxicant or allergen - strong evidence</td> <td>Cosmetic Ingredient Review Assessments</td> </tr> <tr> <td>Limited evidence of immune system toxicity or allergies</td> <td>National Library of Medicine HazMap</td> </tr> </tbody> </table> <hr/> <p>Use restrictions</p> <table border="1"> <thead> <tr> <th>Concern</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Restricted in cosmetics (recommendations or requirements) - use, concentration, or manufacturing restrictions - Japan - restricted for use in some types of cosmetics (concentration limit)</td> <td>Japan's Standards for Cosmetics</td> </tr> <tr> <td>Restricted in cosmetics (recommendations or requirements) - use, concentration, or manufacturing restrictions - Japan - prohibited for use in some types of cosmetics</td> <td>Japan's Standards for Cosmetics</td> </tr> </tbody> </table> <hr/> <p>Cancer</p> <table border="1"> <thead> <tr> <th>Concern</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Cancer - limited evidence</td> <td>IARC (International Agency for Research on Cancer)</td> </tr> </tbody> </table> <hr/> <p>Irritation (skin, eyes, or lungs)</p> <table border="1"> <thead> <tr> <th>Concern</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Human irritant - strong evidence (only for products for use around the eyes, on the skin, or may be aerosolized (airborne))</td> <td>Cosmetic Ingredient Review Assessments</td> </tr> </tbody> </table> <hr/> <p>Ecotoxicology</p> <table border="1"> <thead> <tr> <th>Concern</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Not suspected to be an environmental toxin</td> <td>Environment Canada Domestic Substance List</td> </tr> </tbody> </table> <hr/> <p>Data gaps</p> <table border="1"> <thead> <tr> <th>Concern</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Risk assessment method deficiencies and data gaps - Maximum reported "as used" concentration is basis of safety assessment by industry safety panel (Cosmetic Ingredient Review, CIR) - implicit safe concentration limit in product</td> <td>Cosmetic Ingredient Review Assessments</td> </tr> <tr> <td>24 studies in PubMed science library may include information on the toxicity of this chemical see search results -></td> <td>NLM PubMed</td> </tr> </tbody> </table> <hr/> <p>Persistence and bioaccumulation</p>		low	moderate	high	Concern	Reference	Known human immune toxicant or allergen		Human skin toxicant or allergen - strong evidence	Cosmetic Ingredient Review Assessments	Limited evidence of immune system toxicity or allergies	National Library of Medicine HazMap	Concern	Reference	Restricted in cosmetics (recommendations or requirements) - use, concentration, or manufacturing restrictions - Japan - restricted for use in some types of cosmetics (concentration limit)	Japan's Standards for Cosmetics	Restricted in cosmetics (recommendations or requirements) - use, concentration, or manufacturing restrictions - Japan - prohibited for use in some types of cosmetics	Japan's Standards for Cosmetics	Concern	Reference	Cancer - limited evidence	IARC (International Agency for Research on Cancer)	Concern	Reference	Human irritant - strong evidence (only for products for use around the eyes, on the skin, or may be aerosolized (airborne))	Cosmetic Ingredient Review Assessments	Concern	Reference	Not suspected to be an environmental toxin	Environment Canada Domestic Substance List	Concern	Reference	Risk assessment method deficiencies and data gaps - Maximum reported "as used" concentration is basis of safety assessment by industry safety panel (Cosmetic Ingredient Review, CIR) - implicit safe concentration limit in product	Cosmetic Ingredient Review Assessments	24 studies in PubMed science library may include information on the toxicity of this chemical see search results ->	NLM PubMed
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Concern	Reference
Not suspected to be persistent	Environment Canada Domestic Substance List
Not suspected to be bioaccumulative	Environment Canada Domestic Substance List

Organ system toxicity (non-reproductive)

Concern	Reference
Classified as not expected to be potentially toxic or harmful	Environment Canada Domestic Substance List

Chemical release concerns

Chemical	Score
FORMALDEHYDE	 Data: Fair

Data Sources

CIR (Cosmetic Ingredient Review). 2006. CIR Compendium, containing abstracts, discussions, and conclusions of CIR cosmetic ingredient safety assessments. Washington DC.

EC (Environment Canada). 2008. Domestic Substances List Categorization. Canadian Environmental Protection Act (CEPA) Environmental Registry.

European Commission. 2013. Cosing, the European Commission database with information on cosmetic substances and ingredients. Accessed on March 1, 2013 at <http://ec.europa.eu/consumers/cosmetics/cosing/>.

Formaldehyde - Global Harmonized System (GHS) Hazard Codes

IARC (International Agency for Research on Cancer). 2008. Overall Evaluations of Carcinogenicity to Humans, as evaluated in IARC Monographs Volumes 1-99.

IFRA (International Fragrance Association). 2010. IFRA Fragrance Ingredient List based on 2008 Use Survey. Accessed online 01/04/2010: [http://www.ifraorg.org/Home/News/Latest-News/page.aspx/66?xf_itemId=43&xf_selectionDatapartId=25](http://www.ifraorg.org/Home/News/Latest-News/page.aspx?66?xf_itemId=43&xf_selectionDatapartId=25)

Japan Ministry of Health, Labour and Welfare. 2006. Standards for Cosmetics. Evaluation and Licensing Division. Pharmaceutical and Food Safety Bureau.

NLM (National Library of Medicine). 2006. HazMap — Occupational Exposure to Hazardous Agents.

NLM (National Library of Medicine). 2012. PubMed online scientific bibliography data. <http://www.pubmed.gov>.

About the ratings

EWG provides information on personal care product ingredients from the published scientific literature, to supplement incomplete data available from companies and the government. The ratings below indicate the relative level of concern posed by exposure to the ingredients in this product - not the product itself - compared to other product formulations. The ratings reflect potential health hazards but do not account for the level of exposure or individual susceptibility, factors which determine actual health risks, if any. [Learn more](#) | [Legal Disclaimer](#)



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