

# DMDMH

## Preservatives For Focused Protection



### INCI

DMDM Hydantoin

### CAS number

6440-58-0

### Appearance

Transparent, slightly viscous liquid

### Solubility

Soluble in water and propylene glycol

Sharon Labs DMDMH is a 55% water-based solution of Dimethyl Dimethylol Hydantoin — ideal for both rinse-off and leave-on products. It is compatible with most personal care ingredients, and due to its high water solubility, can be added to aqueous systems without being heated, making it easy to use. DMDMH protects products such as shampoo, hair conditioner, creams and lotions including shaving cream, and other water-based cosmetics and toiletries.

DMDMH belongs to the formaldehyde-donor preservative group. Like other preservatives from this group (Imidiazolidinyl Urea, Diazolidinyl Urea), it is highly efficient against both Gram positive and Gram negative Bacteria.

A highly durable substance, DMDMH is active at low concentrations, effective over a wide range of pH (3 to 10) and can withstand temperatures up to 80°C. When exposed to temperatures lower than 15°C, crystallization of the product is possible but heating the material will revert this phenomenon, without effecting DMDMH's efficacy.

DMDMH is recommended to use at concentrations of 0.15% to 0.4%. It is also recommended for use in combination with Iodopropynyl butylcarbamate (IPBC), Parabens, or Isothiazolinones to obtain broad spectrum coverage. Its ease of handling, stability, and cost-effectiveness make DMDMH an excellent preservative.

### MINIMUM INHIBITION CONCENTRATIONS (MIC) FOR DMDMH

Microorganism	Type	MIC (ppm)
Burkholderia cepacia	Bacteria Gram -	200
Escherichia coli	Bacteria Gram -	400
Pseudomonas aeruginosa	Bacteria Gram -	400
Bacillus Cereus	Bacteria Gram +	200
Staphylococcus aureus	Bacteria Gram +	400
Staphylococcus epidermidis	Bacteria Gram +	400