

## NIPAGUARD DMDMH

Page 1

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

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## SECTION 1. IDENTIFICATION

<b>Identification of the company:</b>	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000
<b>Information of the substance/preparation:</b>	Product Safety 1-704-331-7710
<b>Emergency tel. number:</b>	+1 800-424-9300 CHEMTREC


<b>Trade name:</b>	<b>NIPAGUARD DMDMH</b>
<b>Material number:</b>	171088
<b>Synonyms:</b>	Product Has No Synonyms
<b>Primary product use:</b>	Personal Care Preservatives
<b>Chemical family:</b>	Cosmetic preservative in water solution.

## SECTION 2. HAZARDS IDENTIFICATION

**GHS Classification**

Skin sensitisation : Category 1

Carcinogenicity : Category 1A

**GHS Label element**Hazard pictograms : 

Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.  
H350 May cause cancer.Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P308 + P313 IF exposed or concerned: Get medical advice/

## NIPAGUARD DMDMH

Page 2

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

attention.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

No additional hazards are known except those derived from the labelling.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture

• Mixture

**Hazardous components**

Chemical Name	CAS-No.	Concentration (%)
1,3-Bis(hydroxymethyl)-5,5-dimethylimidazolidine-2,4-dione	6440-58-0	54
Formaldehyde	50-00-0	<= 1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**SECTION 4. FIRST AID MEASURES**

- General advice : Remove/Take off immediately all contaminated clothing. Show this safety data sheet to the doctor in attendance.
- If inhaled : Move the victim to fresh air. Give oxygen or artificial respiration if needed. Get immediate medical advice/ attention. Never give anything by mouth to an unconscious person.
- In case of skin contact : Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if irritation develops and persists.
- If swallowed : Do NOT induce vomiting. Call a physician immediately.
- Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2). No additional symptoms are known.
- Notes to physician : None known.

## NIPAGUARD DMDMH

Page 3

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

---

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water spray jet  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : In case of fires, hazardous combustion gases are formed:  
Carbon monoxide (CO)  
  
Carbon dioxide (CO<sub>2</sub>)  
Nitrogen oxides (NO<sub>x</sub>)  
  
Emits toxic and corrosive fumes under fire conditions.
- Further information : Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.
- Special protective equipment for firefighters : Self-contained breathing apparatus  
Full protective suit

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Wear suitable protective clothing.  
Ensure adequate ventilation.  
Avoid contact with skin and eyes.  
Pre-wet material with water to avoid dust formation. Sweep or vacuum and place in sealable container for disposal. Wear protective equipment and wash thoroughly after handling.  
Flush residue with water.
- Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.  
Do not empty into drains.
- Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal.  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

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**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Keep away sources of ignition. Keep away from heat.

## NIPAGUARD DMDMH

Page 4

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

- Advice on safe handling : Keep containers tightly closed when not in use. Store at temperatures between 59 - 104 F. Store away from direct sunlight.
- Conditions for safe storage : Keep only in the original container.
- Technical measures/Precautions : Store in original container.  
Keep container closed.
- Materials to avoid : Keep away from oxidizing agents.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Formaldehyde	50-00-0	C	0.3 ppm	ACGIH
	Further information: Eye & Upper Respiratory Tract irritation, Suspected human carcinogen, Sensitizer			
		TWA	0.016 ppm	NIOSH REL
	Further information: Potential Occupational Carcinogen, See Appendix A			
		C	0.1 ppm	NIOSH REL
	Further information: Potential Occupational Carcinogen, See Appendix A, 15 minute ceiling value			

- Engineering measures** : Local ventilation recommended, mechanical may be used. Provide adequate ventilation upon heating as formaldehyde vapors may be released.

**Personal protective equipment**

- Respiratory protection : If airborne concentrations pose a health hazard, become irritating or exceed recommended limits, use a NIOSH approved respirator in accordance with OSHA respiratory protection requirements under 29 CFR 1910.134
- Hand protection  
Remarks : Butyl Rubber, PVC Or Neoprene.
- Eye protection : Tightly fitting safety goggles  
Face-shield
- Skin and body protection : Wear suitable protective equipment.
- Protective measures : Avoid contact with skin and eyes.

## NIPAGUARD DMDMH

Page 5

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

Do not inhale vapours

Hygiene measures : Use only in well-ventilated areas.  
Remove/Take off immediately all contaminated clothing.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : Liquid

Particle size : Not applicable

Colour : clear

Odour : characteristic

Odour Threshold : not determined

pH : 6.5 - 7.5

Melting point : approx. 0 °C

Boiling point : not determined

Flash point : > 100 °C

Evaporation rate : not determined

Flammability (solid, gas) : Not applicable

Upper explosion limit : not determined

Lower explosion limit : not determined

Combustion number : Not applicable

Vapour pressure : 23 hPa (20 °C)  
Corresp. to vapour pressure of water

Relative vapour density : not determined

Density : approx. 1.16 g/cm<sup>3</sup>

Bulk density : Not applicable

Solubility(ies)  
Water solubility : miscible (20 °C)

Solubility in other solvents : not determined  
Solvent: fat

## NIPAGUARD DMDMH

Page 6

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

Partition coefficient: n-octanol/water	:	not determined
Auto-ignition temperature	:	not determined
Decomposition temperature	:	200 °C Heating rate : 3 K/min No decomposition if used as directed.
Viscosity		
Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	not determined
Explosive properties	:	Not explosive Method: Expert judgement
Oxidizing properties	:	The substance or mixture is not classified as oxidizing. Method: Expert judgement

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable
Possibility of hazardous reactions	:	Reactions with oxidising agents. Stable
Conditions to avoid	:	Acids, alkalis, strong oxidizing agents  not known
Incompatible materials	:	Strong oxidizing agents Strong acids
Hazardous decomposition products	:	When handled and stored appropriately, no dangerous decomposition products are known

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

Eye contact  
Skin contact  
Ingestion  
Inhalation

**Acute toxicity****Product:**

Acute oral toxicity : LD50 (Rat): &gt; 2,000 - 5,000 mg/kg

## NIPAGUARD DMDMH

Page 7

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

Acute dermal toxicity : LD50 Dermal (Rabbit): &gt; 2,000 mg/kg

**Components:****Formaldehyde:**Acute oral toxicity : LD50 (Rat, male): 800 mg/kg  
Method: OECD Test Guideline 401  
GLP: noAcute inhalation toxicity : LC50 (Rat, male and female): > 17 mg/l  
Exposure time: 7 h  
Method: OECD Test Guideline 403  
GLP: no

Acute dermal toxicity : Remarks: not reasonable

**Skin corrosion/irritation****Product:**Species: Rabbit  
Result: No skin irritation**Components:****Formaldehyde:**Species: Rabbit  
Exposure time: 20 h  
Method: OECD Test Guideline 404  
Result: corrosive  
GLP: no**Serious eye damage/eye irritation****Product:**Species: Rabbit  
Result: No eye irritation**Components:****Formaldehyde:**

Remarks: Extremely corrosive and destructive to tissue.

**Respiratory or skin sensitisation****Product:**

Remarks: no data available

**Components:****Formaldehyde:**Test Type: Guinea pig maximization test  
Exposure routes: Dermal  
Species: Guinea pig

## NIPAGUARD DMDMH

Page 8

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

Method: OECD Test Guideline 406

Result: Causes sensitisation.

GLP: yes

Exposure routes: Inhalation

Result: Does not cause respiratory sensitisation.

**Germ cell mutagenicity****Product:**

Genotoxicity in vivo : Species: Rat  
Strain: Sprague-Dawley  
Application Route: oral (gavage)  
Result: negative

Germ cell mutagenicity - Assessment : In vivo tests did not show mutagenic effects

**Components:****Formaldehyde:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Species: Human lymphocytes  
Concentration: 0,5 - 8 µg/ml  
Metabolic activation: without  
Method: OECD Test Guideline 473  
Result: positive  
GLP: yes

: Test Type: Ames test  
Species: Salmonella typhimurium  
Concentration: 3,3 - 300 µg/plate  
Metabolic activation: with and without  
Method: OECD Test Guideline 471  
Result: positive  
GLP: No information available.

: Test Type: DNA damage and repair assay  
Species: Erythrocyten  
Concentration: 0,75 - 6 µg/ml  
Metabolic activation: without  
Method: OECD Test Guideline 479  
Result: positive  
GLP: No information available.

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Rat (male)  
Strain: Fischer F344  
Cell type: Erythrocyten  
Application Route: Inhalation  
Exposure time: 28 d  
Dose: 0,06 - 18 mg/m<sup>3</sup>  
Method: OECD Test Guideline 474



## NIPAGUARD DMDMH

Page 9

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

Result: negative

GLP: yes

Test Type: sister chromatid exchange assay

Species: Rat (male)

Strain: Fischer F344

Cell type: Erythrocyten

Application Route: Inhalation

Exposure time: 28 d

Dose: 0,06 - 18 mg/m3

Method: Other

Result: negative

GLP: yes

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

**Carcinogenicity****Product:**

Carcinogenicity - Assessment : No information available.

**Components:****Formaldehyde:**

Carcinogenicity - Assessment : Possible human carcinogen

**IARC**

Listed

**OSHA**

Listed

**NTP**

Listed

**Reproductive toxicity****Product:**

Reproductive toxicity - Assessment : No information available.

No information available.

**Components:****Formaldehyde:**

Effects on fertility :

Remarks: Based on available data, the classification criteria are not met.

Effects on foetal development : Species: Rat  
Application Route: Inhalation

## NIPAGUARD DMDMH

Page 10

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

Exposure time: day 6 to day 15 of gestation

Dose: 2 - 5 - 10 ppm

Group: yes

10 ppm

5 ppm

Number of exposures: 6 h/day

Method: OECD Test Guideline 414

GLP: yes

Reproductive toxicity -  
Assessment: Classification as "toxic for reproduction" is not justifiable.  
Classification as "teratogenic" is not justifiable.**STOT - single exposure****Product:**

Remarks: no data available

**Components:****Formaldehyde:**

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

**STOT - repeated exposure****Product:**

Remarks: no data available

**Components:****Formaldehyde:**

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Repeated dose toxicity****Product:**

Species: Rat

NOAEL: &gt; 400 mg/kg

Application Route: oral (gavage)

Exposure time: 90

Method: OECD Test Guideline 408

Species: Rabbit

NOAEL: &gt; 800 mg/kg

Application Route: Dermal

Exposure time: 28

Method: Repeated Dose Toxicity (subacute study)

**Components:****Formaldehyde:**

Species: Rat, male and female

## NIPAGUARD DMDMH

Page 11

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

NOAEL: 15 - 21 mg/kg  
LOAEL: 82 - 109 mg/kg  
Application Route: Drinking water  
Exposure time: 12 - 18 - 24 m  
Number of exposures: daily  
Dose: 1,2-1,8-15-21-82-109 mg/kg  
Group: yes  
Method: OECD Test Guideline 453  
GLP: yes

Species: Rat, male and female  
NOAEL:  $\geq$  0.00125 mg/l  
LOAEL:  $\geq$  0.0125 mg/l  
Application Route: Inhalation  
Exposure time: 13 w  
Number of exposures: 6 h per day; 5 d per week  
Dose: 1 - 10 - 20 ppm  
Group: yes  
Method: OECD Test Guideline 413  
GLP: yes

**Aspiration toxicity****Components:****Formaldehyde:**

No aspiration toxicity classification

**Experience with human exposure****Product:**

General Information : The possible symptoms known are those derived from the labelling (see section 2).

**Further information****Product:**

Remarks: Inhalation of vapours leads to irritation of respiratory tract and mucous membranes, headache, nausea, dizziness, vomiting

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**

Toxicity to fish : LC50 (Fish): > 100 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 10 - 100 mg/l  
Exposure time: 96 h

Toxicity to algae :

## NIPAGUARD DMDMH

Page 12

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

Remarks: no data available

Toxicity to bacteria : Remarks: no data available

**Components:****Formaldehyde:**

Toxicity to fish : LC50 (Morone saxatilis): 6.7 mg/l  
Exposure time: 96 h  
Test Type: static test  
Analytical monitoring: no  
Method: Other  
GLP: no  
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): 5.8 mg/l  
Exposure time: 48 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD Test Guideline 202  
GLP: no  
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to algae : EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): 4.89 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD Test Guideline 201  
GLP: no  
Remarks: The details of the toxic effect relate to the nominal concentration.

EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): 3.48 mg/l  
End point: Biomass  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD Test Guideline 201  
GLP: no  
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to fish (Chronic toxicity) : Remarks: not required

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: not required

## NIPAGUARD DMDMH

Page 13

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

Toxicity to bacteria : EC50 (activated sludge, domestic): 19 - 20.4 mg/l  
End point: Bacteria toxicity (respiration inhibition)  
Exposure time: 3 h  
Test Type: static test  
Analytical monitoring: no  
Method: OECD Test Guideline 209  
GLP: no  
Remarks: The details of the toxic effect relate to the nominal concentration.

Plant toxicity : Remarks: Not applicable

Sediment toxicity : Remarks: Not applicable

Toxicity to terrestrial organisms : Remarks: Not applicable

**Persistence and degradability****Product:**

Biodegradability : Biodegradation: > 70 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301A

**Components:****Formaldehyde:**

Biodegradability : aerobic  
Inoculum: activated sludge  
Concentration: 100 mg/l  
BOD in % of theoretical OD  
Result: rapidly biodegradable  
Biodegradation: 91 %  
Exposure time: 14 d  
Method: OECD Test Guideline 301C  
GLP: no

**Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: no data available

**Components:****Formaldehyde:**

Bioaccumulation : Species: Fish  
Bioconcentration factor (BCF): < 1  
Method: Other  
GLP: no

**Mobility in soil****Product:**

## NIPAGUARD DMDMH

Page 14

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

Distribution among environmental compartments : Remarks: no data available

**Components:****Formaldehyde:**

Distribution among environmental compartments : Adsorption/Soil  
Medium: water - soil  
log Koc: 1.202  
Method: other (calculated)

**Other adverse effects****Product:**

Environmental fate and pathways : Remarks: no data available

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.  
Biologically degradable, when diluted may be degraded in biological purification plants

**Components:****Formaldehyde:**

Environmental fate and pathways : not available

Results of PBT and vPvB assessment : The substance is not identified as a PBT or as a vPvB substance.

Additional ecological information : Do not allow to enter ground water, waterways or waste water.

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

RCRA - Resource Conservation and Recovery Act

Waste Code : NONE

Waste from residues : Dispose of spilled or waste product, contaminated soil and other contaminated materials in licensed landfill or treatment facility in accordance with all local, state, and federal regulations.

Contaminated packaging : Regulations concerning reuse or disposal of used packaging materials must be observed.

**SECTION 14. TRANSPORT INFORMATION**

## NIPAGUARD DMDMH

Page 15

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

DOT not restricted  
 IATA not restricted  
 IMDG not restricted

## SECTION 15. REGULATORY INFORMATION

## EPCRA - Emergency Planning and Community Right-to-Know Act

## CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Formaldehyde	50-00-0	100	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

## SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Formaldehyde	50-00-0	100	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 311/312 Hazards** : Acute Health Hazard  
 Chronic Health Hazard

**SARA 302** :

Formaldehyde	50-00-0	1 %
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**SARA 313** : This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Formaldehyde	50-00-0	1 %
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## Clean Water Act

Contains no known priority pollutants at concentrations greater than 0.1%.

## The components of this product are reported in the following inventories:

TSCA : All components of this product are listed on the TSCA Inventory. However, the primary use of this product is NOT subject to TSCA but rather to FDA and must comply with the FDA regulations.

## NIPAGUARD DMDMH

Page 16

---

Substance key: 000000055751

Revision Date: 12/22/2015

Version : 2 - 6 / USA

Date of printing :02/10/2016

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**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

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**SECTION 16. OTHER INFORMATION****Further information**

Observe national and local legal requirements

Revision Date : 12/22/2015

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.

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