

# Dodecylguanadine hydrochloride

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This document provides a brief description of Dodecylguanadine hydrochloride (DGH), its uses, and the potential hazards associated with short and long term exposure. Environmental impact information for accidental releases is included. This information is general in nature and is not intended as a replacement for the safety data sheet (SDS), product label, and other safe handling literature. For additional information consult the respective LANXESS Corporation safety data sheet.

## Identification

<b>Chemical Name:</b>	Dodecylguanidine monohydrochloride
<b>Synonym(s):</b>	Guanidine, N-dodecyl-, hydrochloride Guanidine, dodecyl-, monohydrochloride Dodecylguanidine hydrochloride (DGH)
<b>CAS Number:</b>	13590-97-1

## Description

<b>Overview:</b>	Dodecylguanidine hydrochloride (DGH) is a colorless to light yellow liquid, at ambient temperatures, possessing a glycol odor.
<b>Uses:</b>	Dodecylguanidine monohydrochloride is the “active” ingredient in several Environmental Protection Agency (EPA) Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) registered LANXESS products. These EPA registered products may be used in fracking fluids, pulp and paper water process, and food packaging.

<b>Properties:</b>	<b>Solubility in Water:</b>	Soluble
	<b>Boiling Point:</b>	108°C (226.4°F)
	<b>Flash Point:</b>	109°C (228.2°F) Closed Cup

## Potential Human Health Effects

### Occupational Exposure

Potential for occupational exposure exists during manufacture and in unloading, storage, staging and transfer operations at facilities using DGH as an additive. A much lower potential for exposure exists in facilities using the product in closed manufacturing processes by trained personnel.

### Employee Training

Workers handling DGH should be trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. Process enclosures, local exhaust ventilation or other engineering controls should be used to keep workers exposure to airborne DGH below any recommended or statutory limits. When high levels of vapors are not controlled by local ventilation, use a NIOSH approved powered air-purifying organic vapor respirator. In addition, it is recommended that workers wear chemical splash goggles or a face shield, chemical resistant gloves, suitable work clothing, and foot protection when handling DGH and products containing this chemical.

### Consumer Exposure

LANXESS Corporation does not sell DGH, nor materials containing the component, to the general public. The general population may only be exposed to DGH through dermal contact with materials containing the substance.

### Short-Term Health Effects

DGH corrosive to the eyes, skin, and mucus membranes. Symptoms of inhalation may include adverse respiratory effects including cough, tightness of chest, and shortness of breath. The component is harmful if swallowed or inhaled. Corrosive symptoms of ingestion may include coughing, burning, ulceration, and pain. Burns to the mouth, throat and stomach may also occur with symptoms of abdominal pain, nausea, vomiting, and diarrhea. Skin contact may cause corrosion and severe burns with symptoms of redness, itching, swelling, burning, and possible permanent damage. Contact with the eyes can cause serious damage with adverse symptoms of pain, watering, and redness.

### Long-Term Health Effects

Prolonged or repeated exposure to DGH is not expected to cause adverse chronic health effects.

## Physical Hazards

DGH is stable under normal conditions of use. Heating to decomposition may release carbon dioxide, carbon monoxide, and nitrogen oxides. Avoid heat, open flames and other potential sources of ignition. Avoid contact with strong oxidizing agents and strong alkalis.

## Potential Environmental Impact

An accidental release of DGH to the environment may pose a chronic danger to fish, invertebrates and aquatic plants prior to degradation.

## Federal Insecticide, Fungicide, Rodenticide Act (FIFRA) Label

FIFRA products are registered by the United States Environmental Protection Agency (EPA) and are subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for Occupational Safety and Health Administration (OSHA) workplace labels of industrial chemicals. The pesticide label also includes other important information, including directions for use.

## Conclusion

Under normal conditions of anticipated use as described in this Product Safety Assessment, and if the recommended safe use and handling procedures are followed, N-2014 PG MU is not expected to pose a significant risk to human health or the environment.

## References

*NCI Global, CAS, 13590-97-1, American Chemical Society, 2018*  
*Safety Data Sheet (SDS), N-2014 PG MU, LANXESS Corporation*

## Contact Information

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## Notices

### Use and Application Information

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.