

# Material Safety Data Sheet

## 1. Product and company identification

**Product name** : N-2000 ANTIMICROBIAL  
**Supplier/Manufacturer** : LANXESS Corporation  
Product Safety & Regulatory Affairs  
111 RIDC Park West Drive  
Pittsburgh, PA 15275-1112  
USA  
  
For information: US/Canada (800) LANXESS  
International +1 412 809 1000  
  
**In case of emergency** : Chemtrec (800) 424-9300  
International (703) 527-3887  
Lanxess Emergency Phone (800) 410-3063.  
  
**EPA Registration Number:** : 39967-107  
**Material Number** : 57068932  
**Chemical family** : Amine mixture

## 2. Hazards identification

**Physical state** : Liquid.  
**Odor** : Glycol.  
**Color** : Colorless to light yellow.  
**Emergency overview** : DANGER!  
MAY BE FATAL IF INHALED. CAUSES EYE AND SKIN BURNS. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED.  
  
**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.  
**Medical conditions aggravated by over-exposure** : Pre-existing respiratory, skin and eye disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.  
  
**Potential acute health effects / Over-exposure signs/symptoms**  
**Inhalation** : Very toxic by inhalation. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.  
**Ingestion** : Harmful if swallowed. May cause burns to mouth, throat and stomach.  
**Skin** : Corrosive to the skin. Causes burns. Harmful in contact with skin.  
**Eyes** : Corrosive to eyes. Causes burns.  
  
**Potential chronic health effects**  
**Chronic effects** : No known significant effects or critical hazards.  
**Carcinogenicity** : No carcinogenic substances as defined by IARC, NTP and/or OSHA.

## 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

<u>Name</u>	<u>CAS number</u>	<u>%</u>
GUANIDINE, DODECYL-, MONOHYDROCHLORIDE	13590-97-1	30 - 40

## 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Call physician immediately. In case of contact, flush eyes with plenty of water for at least 30 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated.
- Skin contact** : In case of contact, flush skin with plenty of water for at least 30 minutes. Call physician immediately. Immediately remove contaminated clothing and shoes. Wash clothing and shoes before reuse.
- Inhalation** : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration using a pocket mask type resuscitator. Call physician immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting. If conscious, drink two glasses of water. Call physician immediately.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## 5. Fire-fighting measures

### Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
halogenated compounds
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Do not breathe vapor or mist.
- Spill and Leak Procedures.** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contaminated absorbent material may pose the same hazard as the spilled product. Cover spill with inert material (e.g. dry sand or earth) and collect for proper disposal.

## 7. Handling and storage

- Handling** : Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

No exposure limit value known.

**Consult local authorities for acceptable exposure limits.**

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Hygiene measures** : General dilution and local exhaust as necessary to control airborne vapors, mists, dusts, and thermal decomposition products below appropriate airborne concentration standards/guidelines.
- Personal protection**
- Respiratory** : When high levels of vapors or aerosols are not controlled by local ventilation, respiratory protection is recommended. Recommended: NIOSH approved, air-purifying organic vapor respirator.
- Hands** : Chemical-resistant gloves. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations
- Eyes** : Chemical splash goggles or face shield.
- Skin** : Permeation resistant clothing and foot protection.

## 9. Physical and chemical properties

- Physical state** : Liquid.
- Flash point** : Closed cup: 109°C (228.2°F)
- Color** : Colorless to light yellow.
- Odor** : Glycol.
- pH** : 2 to 4
- Boiling/condensation point** : 108°C (226.4°F)
- Specific gravity** : 0.96 to 1
- Volatility** : 53% (w/w)
- Solubility** : Easily soluble in the following materials: cold water.

## 10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : Avoid extreme heat.
- Materials to avoid** : strong oxidizing agents, strong alkalis
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

## 11. Toxicological information

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
N-2000 ANTIMICROBIAL	LC50 Inhalation Dusts and mists	Rat - Female	0.2 mg/l	4 hours
N-2000 ANTIMICROBIAL	LD50 Dermal	Rabbit	>2000 mg/kg	-
N-2000 ANTIMICROBIAL	LD50 Oral	Rat	1400 mg/kg	-

## 11. Toxicological information

### Irritation/Corrosion

**Skin** : Rabbit; corrosive  
**Eyes** : Rabbit; corrosive  
**Sensitizer**  
**Skin** : Non-sensitizer.

## 12. Ecological information

### Aquatic ecotoxicity

<u>Product/ingredient name</u>	<u>Result</u>	<u>Species</u>	<u>Exposure</u>
N-2000 ANTIMICROBIAL	LC50 2 mg/l	Fish	96 hours
	LC50 0.088 mg/l	Daphnia	48 hours




## 13. Disposal considerations

**Waste disposal** : Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls. The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.



**Empty Container Precautions.** : Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse container. Observe label precautions.

**RCRA classification** : : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

## 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (DODECYLGUANIDINE HYDROCHLORIDE)	8	III		IB3, T7, TP1, TP28
IMDG Class	UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (DODECYLGUANIDINE HYDROCHLORIDE)	8	III	 	<b>Emergency schedules (EmS)</b> F-A, S-B

## 14. Transport information

<b>IATA-DGR Class</b>	UN3265	CORROSIVE LIQUID, 8 ACIDIC, ORGANIC, N.O.S. (DODECYLGUANIDINE HYDROCHLORIDE)	III	 	<b>Passenger aircraft</b> 852: 5 L  <b>Cargo aircraft</b> 856: 60 L
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PG\* : Packing group

RQ : 0 lbs

## 15. Regulatory information

**HAZCOM Standard Status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**SARA Section 311/312 Hazard Categories** : Immediate (Acute) Health Hazard

	<u>Ingredient name</u>	<u>CAS number</u>	<u>Concentration (%)</u>
<b>SARA Title III Section 302 Extremely Hazardous Substances</b>	: None		

	<u>Ingredient name</u>	<u>CAS number</u>	<u>Concentration (%)</u>
<b>SARA Title III Section 313 Toxic Chemicals</b>	: None		

	<u>Ingredient name</u>	<u>CAS number</u>	<u>RQ</u>
<b>US EPA CERCLA Hazardous Substances (40 CFR 302.4)</b>	: None		

### State regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

<u>Ingredient name</u>	<u>CAS number</u>	<u>State Code</u>	<u>Concentration (%)</u>
Propylene glycol	57-55-6	NJ - HS, PA - RTK HS	60 - 100
GUANIDINE, DODECYL-, MONOHYDROCHLORIDE	13590-97-1		30 - 40

Massachusetts Substances: MA - S

Massachusetts Extraordinary Hazardous Substances: MA - Extra HS

New Jersey Hazardous Substances: NJ - HS

Pennsylvania RTK Hazardous Substances: PA - RTK HS

Pennsylvania Special Hazardous Substances: PA - Special HS

### California Prop. 65

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

**U.S. Toxic Substances Control Act** : Not available.

## 16. Other information

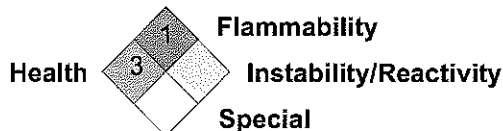
Hazardous Material  
Information System

Health	3
Flammability	1
Physical hazards	0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme  
\*=Chronic

The customer is responsible for determining the PPE code for this material.

National Fire Protection  
Association (U.S.A.)



0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

LANXESS' method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by LANXESS as a customer service.

Contact person : Product Safety and Regulatory Affairs  
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☑ Indicates information that has changed from previously issued version.

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