



TM

**Canada Colors  
and Chemicals Limited**

**152 Kennedy Road South  
Brampton, Ontario  
Canada  
L6W 3G4**

**General Inquiry Number: (905) 459-1232**

**Material Safety Data Sheet  
Attached**

## Material Safety Data Sheet

### Geogard 221

Version 31

Revision Date 2009.09.15

Print Date 2009.09.15

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Geogard 221  
Product Use Description : Preservative for cosmetics

Company : Lonza Inc.  
90 Boroline Road  
Allendale, NJ 07401

Telephone : 1-201-316-9200

Emergency telephone : CHEMTREC 1-800-424-9300



This product is distributed by **Canada Colors and Chemicals Limited**  
General Inquiry Phone Number: (905) 459-1232  
24 Hour Emergency Phone Number (416) 444-2112

CCC Product Code: 465702

CCC Product Name: GEOGARD 221

#### SECTION 2. HAZARDS IDENTIFICATION

##### Emergency Overview

##### Caution

Colour: yellow,

Hazard Summary : May cause eye and skin irritation.  
Handle in accordance with good industrial hygiene and safety practice.

OSHA Hazards : IRRITANT

##### Potential Health Effects

Primary Routes of Entry : Inhalation  
Eyes  
Skin  
Ingestion

Skin : Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering.

Eyes : May cause eye irritation.

Ingestion : May be harmful if swallowed.

## Material Safety Data Sheet

### Geogard 221

Version 31

Revision Date 2009.09.15

Print Date 2009.09.15

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

Component	CAS-No.	Weight percent
3-Acetyl-6-methyl-2H-pyran-2,4(3H)-dione	520-45-6	1 - 10
Benzyl alcohol	100-51-6	50 - 90
Water	7732-18-5	1 - 10

#### SECTION 4. FIRST AID MEASURES

##### First aid procedures

- Inhalation : Remove to fresh air.  
If breathing is irregular or stopped, administer artificial respiration.  
If symptoms persist, call a physician.
- Skin contact : After contact with skin, wash immediately with plenty of soap and water.  
Consult a physician.
- Eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Call a physician immediately.
- Ingestion : Call a physician immediately.  
Clean mouth with water and drink afterwards plenty of water.  
Do not induce vomiting without medical advice.  
Never give anything by mouth to an unconscious person.

#### SECTION 5. FIRE-FIGHTING MEASURES

##### Flammable properties

Flash point : > 205 °F (96 °C)

##### Fire fighting

Suitable extinguishing media : Water spray  
Dry powder  
Foam

Further information : Use water spray to cool unopened containers.

## Material Safety Data Sheet

### Geogard 221

Version 31

Revision Date 2009.09.15

Print Date 2009.09.15

#### Protective equipment and precautions for firefighters

Specific hazards during fire fighting : Heating or fire can release toxic gas.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Use respirator when performing operations involving potential exposure to vapour of the product.

Environmental precautions : Prevent product from entering drains.

Methods for containment /  
Methods for cleaning up : Do not flush into surface water or sanitary sewer system.  
Sweep up or vacuum up spillage and collect in suitable container for disposal.

#### SECTION 7. HANDLING AND STORAGE

##### Handling

Handling : Avoid contact with skin and eyes.  
Provide sufficient air exchange and/or exhaust in work rooms.

Advice on protection against fire and explosion : Take precautionary measures against static discharges.

##### Storage

Requirements for storage areas and containers : To maintain product quality, do not store in heat or direct sunlight.  
Keep container tightly closed.  
Keep in a dry, cool and well-ventilated place.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Exposure Guidelines

Contains no substances with occupational exposure limit values.

##### Engineering measures

##### Personal protective equipment

Eye protection : Tightly fitting safety goggles

## Material Safety Data Sheet

### Geogard 221

Version 31

Revision Date 2009.09.15

Print Date 2009.09.15

- |                          |   |
|--------------------------|---|
| Hand protection          | : Suitable material : Nitrile rubber<br>Break through time : > 480 min  |
|                          | Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). |
| Skin and body protection | : Choose body protection according to the amount and concentration of the dangerous substance at the work place.<br>No special protective equipment required.                     |
| Respiratory protection   | : In the case of vapour formation use a respirator with an approved filter.   |
| Hygiene measures         | : Wash hands before breaks and immediately after handling the product.<br>Avoid contact with skin, eyes and clothing.   |

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

##### Appearance

- |                |          |
|----------------|----------|
| Physical state | : liquid |
| Colour         | : yellow |

##### Safety data

- |                             |                           |
|-----------------------------|---------------------------|
| Flash point                 | : > 205 °F (96 °C)        |
| pH                          | : Note: no data available |
| Melting point/range         | : Note: no data available |
| Boiling point/boiling range | : Note: no data available |
| Water solubility            | : Note: slightly soluble  |

#### SECTION 10. STABILITY AND REACTIVITY

- |                                  |  |
|----------------------------------|--|
| Conditions to avoid              | : Remarks: no data available                   |
| Materials to avoid               | : Remarks: None.                               |
| Hazardous decomposition products | : Note: nitrogen oxides (NOx)<br>Carbon oxides |

## Material Safety Data Sheet

### Geogard 221

Version 31

Revision Date 2009.09.15

Print Date 2009.09.15

#### SECTION 11. TOXICOLOGICAL INFORMATION

The following toxicological data refer to:

##### Dehydroacetic acid (CAS-No.: 520-45-6)

- Acute oral toxicity : LD50 rat  
Dose: 1 480 mg/kg  
Method: DOT
- Skin irritation : rabbit  
Result: non irritant  
Method: DOT  
Exposure time: 4 h
- Sensitisation : Local Lymph Node Assay mouse  
Result: not sensitizing  
Method: OECD 429

##### Benzyl alcohol (CAS-No.: 100-51-6)

- Acute oral toxicity : LD50 rat  
Dose: 1 610 mg/kg  
Remarks: Literary reference
- Acute dermal toxicity : LD50 rabbit  
Dose: 2 000 mg/kg  
Remarks: Literary reference
- Acute inhalation toxicity : LC50 rat  
Exposure time: 4 h  
Dose: > 4,178 mg/l  
Remarks: Literary reference
- Skin irritation : rabbit  
Result: non irritant  
Method: OECD Test Guideline 404  
Exposure time: 4 h  
Remarks: Literary reference
- Eye irritation : rabbit  
Result: moderate irritant  
Method: OECD Test Guideline 405

## Material Safety Data Sheet

### Geogard 221

Version 31

Revision Date 2009.09.15

Print Date 2009.09.15

Remarks: Literary reference

Sensitisation : Magnusson & Kligman guinea pig  
Result: not sensitizing  
Remarks: Literary reference

Repeated dose toxicity : Oralrat  
Remarks: Literary reference

Further information : May cause sensitization of susceptible persons by skin contact.

Dermal absorption possible

High concentration of vapours may induce unconsciousness.

## SECTION 12. ECOLOGICAL INFORMATION

The following ecotoxicological data refer to:

**Dehydroacetic acid** (CAS-No.: 520-45-6)

Biodegradability : OECD Coupled Units  
Concentration: 12 mg/l  
Result: biologically well degradable  
99 %  
Method: OECD 303 A

Zahn-Wellens Test  
Concentration: 400 mg/l  
Exposure time: 14 d  
Result: biologically well degradable  
96 %  
Method: OECD 302 B

Closed Bottle test  
Concentration: 2 mg/l  
Theoretical oxygen demand  
Exposure time: 30 d  
Result: Readily biodegradable.  
81 %  
Method: OECD 301 D

Acute Fish toxicity : Acute toxicity NOEC

## Material Safety Data Sheet

### Geogard 221

Version 31

Revision Date 2009.09.15

Print Date 2009.09.15

Species: *Cyprinus carpio* (Carp)  
 Concentration: 218,00 - 415,00 mg/l  
 Exposure time: 72 h  
 Analytical monitoring: no

#### **Benzyl alcohol** (CAS-No.: 100-51-6)

- Biodegradability** : Closed Bottle test  
 Exposure time: 30 d  
 Result: Readily biodegradable.  
 >90,0 %  
 Method: OECD 301 D  
 Remarks:  
 Literary reference
- Bioaccumulation** : Bioconcentration factor (BCF): 4  
 Remarks:  
 Literary reference
- Acute Fish toxicity** : Acute toxicity LC50  
 Species: *Leuciscus idus* (Golden orfe)  
 Concentration: 646,00 mg/l  
 Exposure time: 48 h  
 Method: DIN 38412 Part 15  
 Remarks:  
 Literary reference
- Toxicity to daphnia and other aquatic invertebrates.** : Immobilization EC50  
 Species: *Daphnia magna* (Water flea)  
 Concentration: 400,00 mg/l  
 Exposure time: 24 h  
 Method: DIN 38412 L11  
 Remarks:  
 Literary reference
- Toxicity to algae** : EC50  
 Species: *Desmodesmus subspicatus* (green algae)  
 Dose: 79,00 mg/l  
 Exposure time: 3 h  
 Remarks:  
 Literary reference
- Toxicity to bacteria** : EC50  
 Species: *Pseudomonas putida*  
 Dose: 658,00 mg/l  
 Exposure time: 16 h  
 Remarks:

## Material Safety Data Sheet

### Geogard 221

Version 31

Revision Date 2009.09.15

Print Date 2009.09.15

Literary reference

EC50

Species: Photobacterium phosphoreum

Dose: 71,00 mg/l

Exposure time: 30 min

Remarks:

Literary reference

#### SECTION 13. DISPOSAL CONSIDERATIONS

Further information : Dispose of in accordance with local regulations.  
Contact waste disposal services.

Contaminated packaging : Where possible recycling is preferred to disposal or  
incineration.

#### SECTION 14. TRANSPORT INFORMATION

##### DOT

Not dangerous goods

##### TDG

Not dangerous goods

##### IATA

Not dangerous goods

##### IMDG-CODE

Not dangerous goods

##### RID

Not dangerous goods

#### SECTION 15. REGULATORY INFORMATION

**OSHA Hazards** : Irritant

**TSCA Status** : All components of this product are listed on the EPA TSCA  
8(b) inventory list.

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

**EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO - KNOW**

## Material Safety Data Sheet

### Geogard 221

Version 31

Revision Date 2009.09.15

Print Date 2009.09.15

- SARA 302 Components** : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- SARA 313 Components** : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- US State Regulations**
- Massachusetts Right To Know Components** : Benzyl alcohol Listed 100-51-6
- Pennsylvania Right To Know Components** : Benzyl alcohol Listed 100-51-6
- New Jersey Right To Know Components** : Benzyl alcohol Listed 100-51-6
- California Prop. 65 Components** : WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

### SECTION 16. OTHER INFORMATION

#### Further information

**HMIS Classification** : Health hazard: 1  
 Flammability: 1  
 Reactivity: 0

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Prepared by: : Product Safety Americas  
 Email: regcomamer@lonza.com