





# Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

|                                                                                                         |                                                                |                                         |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------|
| <br>WHMIS (Pictograms) | Not controlled under WHMIS (Canada).<br>WHMIS (Classification) | HCS Class: Irritating substance.<br>HCS |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------|

## Section 1. Chemical Product and Company Identification

|                          |                                                                                |                                                                                                            |                         |
|--------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------|
| Product Name/ Trade name | <b>Betco Lemon</b>                                                             | Code                                                                                                       | 313                     |
| Synonym                  | Neutral pH Disinfectant/Deodorant/Detergent                                    | CAS #                                                                                                      | Not applicable.         |
| Chemical Family          | Not available.                                                                 | Validation Date                                                                                            | 3/22/2004               |
| Chemical Formula         | Not applicable.                                                                | Print Date                                                                                                 | 3/27/2004               |
| Manufacturer/ Supplier   | Betco Corporation<br>1001 Brown Avenue<br>Toledo, Ohio 43607<br>(419) 241-2156 | In Case of Emergency                                                                                       | Chemtrec (800) 424-9300 |
| TSCA                     | TSCA Inventory: All components listed or are exempt from listing.              |                                                                                                            |                         |
| DSL/ NDSL                | All components listed unless noted elsewhere on this MSDS                      |                                                                                                            |                         |
|                          |                                                                                | Protective Clothing<br> |                         |

## Section 2. Composition and Information on Ingredients

| Name                            | CAS #      | % by Weight | Exposure Limits                                                                     | LC <sub>50</sub> /LD <sub>50</sub>     |
|---------------------------------|------------|-------------|-------------------------------------------------------------------------------------|----------------------------------------|
| 1) Quaternary Ammonium Chloride | 68424-85-1 | 2           | Not available.                                                                      | Not available.                         |
| 2) Isopropyl Alcohol            | 67-63-0    | 1-5         | TWA: 400 (ppm)<br>TWA: 400 (ppm) from OSHA (PEL) [United States]<br>STEL: 500 (ppm) | ORAL (LD50): Acute: 16971 mg/kg [Rat]. |
| 3) Nonionic Surfactant          | 9016-45-9  | 1-5         | Not available.                                                                      | Not available.                         |

## Section 3. Hazards Identification

|                                  |                                                                                                                                                                                                                                                           |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Potential Acute Health Effects   | No specific information is available in our database regarding the acute toxic effects of this material for humans. Irritating to mouth, throat and stomach. This product is a severe eye irritant. This product may irritate eyes and skin upon contact. |
| Potential Chronic Health Effects | Over-exposure by inhalation may cause respiratory irritation. Repeated skin exposure can produce local skin destruction, or dermatitis.                                                                                                                   |
| Carcinogenic Effects             | Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.                                                                                                                                                                                                |

## Section 4. First Aid Measures

|              |                                                                                                                                         |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Eye Contact  | Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek immediate medical attention. |
| Skin Contact | Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Seek medical attention.                      |
| Inhalation   | Allow the victim to rest in a well ventilated area.                                                                                     |
| Ingestion    | Dilute with two glasses of water. Seek medical attention.                                                                               |

### Section 5. Fire Fighting Measures

|                                      |                |
|--------------------------------------|----------------|
| Products of Combustion               | Not available. |
| Fire Fighting Media and Instructions | N/A            |
| Special Remarks on Fire Hazards      | N/A            |
| Special Remarks on Explosion Hazards | N/A            |

### Section 6. Accidental Release Measures

|                                              |                                                                                                                                                     |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Small Spill and Leak                         | Safety glasses recommended.                                                                                                                         |
| Large Spill and Leak                         | Absorb with an inert material and put the spilled material in an appropriate waste disposal.                                                        |
| Personal Protection in Case of a Large Spill | Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. |

### Section 7. Handling and Storage

|                 |                                                                                  |
|-----------------|----------------------------------------------------------------------------------|
| Precautions     | After handling, always wash hands thoroughly with soap and water.                |
| Incompatibility | None known.                                                                      |
| Storage         | Keep out of the reach of children. Not for use or storage in or around the home. |

### Section 8. Exposure Controls/Personal Protection

Engineering Controls Good general ventilation should be sufficient to control airborne levels.

#### Personal Protection

*Eyes* Safety glasses.

*Body* No special recommendations.

*Respiratory* Not applicable.

*Hands* Gloves.

#### Protective Clothing (Pictograms)



Exposure Limits **Isopropyl Alcohol**  
TWA: 400 (ppm)  
TWA: 400 (ppm) from OSHA (PEL)  
STEL: 500 (ppm)

Consult local authorities for acceptable exposure limits.

### Section 9. Physical and Chemical Properties

|                               |                     |       |                  |
|-------------------------------|---------------------|-------|------------------|
| Physical State and Appearance | Liquid.             | Odor  | Lemon like.      |
| Molecular Weight              | Not applicable.     | Taste | Not available.   |
| pH                            | 6.5 to 8.5 [Basic.] | Color | Yellow. (Light.) |
| Boiling/Condensation Point    | 212°F initial       |       |                  |
| Melting/Freezing Point        | Not available.      |       |                  |

|                                                            |                                                                                                                                   |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Critical Temperature</b>                                | Not available.                                                                                                                    |
| <b>Instability Temperature</b>                             | Not available.                                                                                                                    |
| <b>Specific Gravity</b>                                    | 1 (Water = 1)                                                                                                                     |
| <b>Vapor Pressure</b>                                      | 20mm Hg @ 68°F                                                                                                                    |
| <b>Vapor Density</b>                                       | >1 (Air = 1)                                                                                                                      |
| <b>Volatility</b>                                          | 90                                                                                                                                |
| <b>VOC</b>                                                 | Not available.                                                                                                                    |
| <b>Evaporation Rate</b>                                    | <1                                                                                                                                |
|                                                            |                                                                                                                                   |
|                                                            |                                                                                                                                   |
| <b>Dispersion Properties</b>                               | See solubility in water.                                                                                                          |
| <b>Solubility</b>                                          | Easily soluble in cold water.                                                                                                     |
| <b>The Product is:</b>                                     | May be combustible at high temperature.                                                                                           |
| <b>Auto-ignition Temperature</b>                           | Not available.                                                                                                                    |
| <b>Flash Points</b>                                        | Not available.                                                                                                                    |
| <b>Flammable Limits</b>                                    | Not available.                                                                                                                    |
| <b>Fire Hazards in Presence of Various Substances</b>      | No specific information is available in our database regarding the flammability of this product in presence of various materials. |
| <b>Explosion Hazards in Presence of Various Substances</b> | Not applicable                                                                                                                    |

### **Section 10. Stability and Reactivity Data**

**Stability** The product is stable.

**Incompatibility with Various Substances** None known.

**Hazardous Decomposition Products** Will not occur.

### **Section 11. Toxicological Information**

**Routes of Entry** Not available.

**Toxicity to Animals** Acute oral toxicity (LD50): 4610 mg/kg [Rat]. (Nonionic Surfactant).

**Acute Effects on Humans**

*Eyes* Eye irritant. May cause redness and swelling of the conjunctiva.

*Skin* Defatting to skin on repeated contact.

*Inhalation* Slightly irritating to the respiratory system.

*Ingestion* May be irritating to the gastrointestinal system. Vomiting and diarrhea expected with large doses.

**Chronic Effects on Humans** Over-exposure by inhalation may cause respiratory irritation. Repeated skin exposure can produce local skin destruction, or dermatitis.

**Special Remarks on Toxicity to Animals** No additional remark.

**Special Remarks on Chronic Effects on Humans** No additional remark.

**Section 12. Ecological Information**

|                                                   |                                                                                                                       |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Ecotoxicity                                       | Not available.                                                                                                        |
| BOD5 and COD                                      | Not available.                                                                                                        |
| Products of Biodegradation                        | Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. |
| Toxicity of the Products of Biodegradation        | Not available.                                                                                                        |
| Special Remarks on the Products of Biodegradation | No additional remark.                                                                                                 |

**Section 13. Disposal Considerations**

|                   |                                                                                                          |
|-------------------|----------------------------------------------------------------------------------------------------------|
| Waste Information | Waste must be disposed of in accordance with federal, state and local environmental control regulations. |
| Waste Stream      | Not available.                                                                                           |

**Section 14. Transport Information**

DOT (U.S.A)  
(Pictograms)



TDG Classification Not controlled under TDG (Canada).



PIN UN, Proper Shipping Name, PG Not applicable.

Maritime Transportation Not available.

Special Provisions for Transport Not applicable.

**Section 15. Other Regulatory Information and Pictograms**

WHMIS (Classification) Not controlled under WHMIS (Canada).



Regulatory Lists No products were found.

Other Regulations Not available. or of its ingredients

Other Classifications

HCS (U.S.A.)

HCS Class: Irritating substance.

USA Regulatory Lists

California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: Ethylene Oxide < 1 ppm  
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Ethylene Oxide < 1 ppm  
 Massachusetts RTK: Ethylene Oxide  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification:  
 Isopropyl Alcohol: fire

DSD (EEC)

This product is not classified according to the EU regulations.

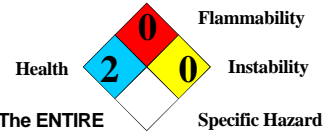
International Regulations Lists

No products were found.

**Hazardous Material Information System (U.S.A.)**

|                 |   |
|-----------------|---|
| Health          | 2 |
| Flammability    | 0 |
| Physical Hazard | 0 |

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



The Hazard Ranking systems presented on this MSDS provide only a quick reference for hazard information. The ENTIRE MSDS must be consulted to determine any specific hazards, First Aid measures, and PPE associated with this product.

**Section 16. Other Information**

Validated by CRushton on 3/22/2004.

Verified by CRushton.

Printed 3/27/2004.

**Information Contact**    **Betco Corporation**  
1001 Brown Avenue  
Toledo, Ohio 43607

Notice to Reader

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

*Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

Validated on 3/22/2004.

**Betco Lemon**

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