

Release Date: 11/28/12

<b>REF</b>	
ADD List Number	Product Name

<b>09H47-02</b>	<b><i>CELL-DYN Emerald 18 CN-Free Lyse Reagent 960 mL</i></b>
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Components:

<b>09H47</b>	<b>CELL-DYN Emerald CN-Free Lyse</b>
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Abbott Customers:

For additional information, please contact your Abbott Customer Support Center Representative by calling 1-800-527-1869, 1-800-323-9100, or 1-800-235-5396.

Abbott employees:

For additional information relative to the content of the MSDSs, please contact your local Safety Representative.

## Safety Data Sheet


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### 1 Identification of the substance/mixture and of the company/undertaking

- **Product name:** CELL-DYN Emerald CN-Free Lyse
  - **ADD List number:** 09H47
  - **Application of the substance / mixture:** For In Vitro Diagnostic Use
- **Manufacturer / Supplier:**  
Abbott Diagnostics  
100 Abbott Park Road  
Abbott Park, IL 60064-3500
- **Department issuing SDS:** Abbott Diagnostics Safety, Health and Environmental Assurance
- **Emergency telephone number:**  
Contact the CHEMTREC® Emergency Call Center for assistance with transportation or hazardous materials emergencies (24 hours/day, 7 days/week):
  - Telephone (800) 424-9300 (toll-free) if you are calling from within the United States, Canada, Puerto Rico and the Virgin Islands.
  - Telephone +1 (703) 527-3887, the international and maritime number (collect calls accepted), if you are calling from outside the United States or from a ship at sea.

### 2 Hazards identification

- **Classification of the substance or mixture**
  - **Classification system:**  
The classification was made according to U.S. OSHA 29 CFR 1910.1200 and 1910.1030 and applicable European regulations, and is expanded upon from company and/or literature data.
- **Label elements**
  - **Labelling according to EU guidelines:**
    - **Code letter and hazard designation of product:**  
 Xi Irritant
    - **Hazard-determining components of labelling:**  
Dodecyltrimethyl ammonium chloride (quaternary ammonium salt)
    - **Risk phrases:**  
41 Risk of serious damage to eyes.
    - **Safety phrases:**  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
35 This material and its container must be disposed of in a safe way.  
39 Wear eye/face protection.  
46 If swallowed, seek medical advice immediately and show this container or label.
  - **Additional information:** Refer to section 15 for labeling per Directives 67/548/EEC or 1999/45/EC.
  - **Routes of Exposure:** Eye

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## Product name: CELL-DYN Emerald CN-Free Lyse

- **National Fire Protection Association (NFPA) ratings (scale 0-4)**  
 Health = 2  
 Fire = 0  
 Reactivity = 0
- **Hazard Overview**
  - **Health:** May cause irreversible eye damage
  - **Fire:** Noncombustible
  - **Reactivity:** Minimal hazard - Stable, even in a fire. Not reactive with water. Not an oxidizer.

### · Carcinogenicity information

#### · OSHA (Occupational Safety and Health Administration)

None of the ingredients is listed.

#### · IARC (International Agency for Research on Cancer)

##### · Interpretation of the IARC listing

Group 3: The substance or mixture listed above is not classifiable as to carcinogenicity in humans. Evidence of carcinogenicity is inadequate in humans and inadequate or limited in experimental animals.

## 3 Composition/information on ingredients

- **Chemical characterization:** Mixture of chemical and/or biological substances for in vitro diagnostic use.

#### · Hazardous chemical ingredients per U.S. OSHA criteria (29 CFR 1910.1200 Hazard Communication):

112-00-5	Dodecyltrimethyl ammonium chloride (quaternary ammonium salt)	3.2016%
67-63-0	Isopropanol	2.2011%
1119-97-7	Myristyltrimethylammonium bromide	0.4502%

## 4 First aid measures

- **After inhalation:** Remove from source of exposure. If irritation or signs of toxicity occur, seek medical attention.
- **After skin contact:**  
 Take off any clothing that the product touched.  
 Rinse skin with running water for 15 to 20 minutes. Seek medical attention if irritation or signs of toxicity occur.
- **After eye contact:**  
 Rinse open eye(s) cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention and appropriate follow-up. Wash hands after handling.  
 Symptoms (such as pain) may be delayed and lead to underestimating the possible damage. Provide medical observation for at least 48 hours after exposure.
- **After swallowing:** Rinse mouth with water. If irritation or signs of toxicity occur, seek medical attention.
- **Information for Medical Personnel**
  - **Most important symptoms and effects, both acute and delayed:**  
 Headache  
 Disorientation  
 Irreversible eye damage

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**Product name: CELL-DYN Emerald CN-Free Lyse**

Dizziness

- **Medical conditions aggravated by exposure:**
  - Pre-existing eye ailments
  - Pre-existing nervous system ailments

## 5 Firefighting measures

- **Suitable extinguishing agents**

Dry chemical, carbon dioxide (CO<sub>2</sub>), water spray or regular foam.

- Caution: CO<sub>2</sub> will displace air in confined spaces and may cause an oxygen-deficient atmosphere.
- For larger fires: There are no unique chemical or reactivity hazards that would impact firefighting decisions related to this product. Use firefighting measures that suit the environment.

- **Special hazards arising from the substance or mixture**

There are no unique chemical or reactivity hazards that would impact firefighting decisions due to the chemicals in this product.

- **Protective equipment**

For large fires, wear appropriate heat- and flame-resistant personal protective equipment and a NFPA/NIOSH approved positive-pressure, self-contained breathing apparatus.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Minimize exposure by using appropriate personal protective equipment as listed in Section 8. Stop leak if possible. Keep unprotected persons away.

- **Environmental precautions**

Prevent liquid and vapor from entering sewage system, storm drains, surface waters, and soil.

- **Methods and material for containment and cleaning up**

Blot up small volumes of spilled or spattered product with paper towels or similar materials.

Contain larger spills by placing absorbents around the outside edges of the spill. Absorb with any material suitable for water-based liquids - e.g. paper towels, universal sorbents, sand, diatomite, sawdust, etc.

Clean the affected area. Suitable cleaners are:

- warm water and detergent or similar cleansing agent

Dispose of spilled and contaminated material in accordance with Federal, State, and Local regulations. See Section 13 for information that may impact disposal of materials contaminated with this product.

- **Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

- **Precautions for safe handling:** Avoid contact with eyes.

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### Product name: CELL-DYN Emerald CN-Free Lyse

- **Information about protection against explosions and fires:** No special measures required.
- **Requirements to be met by storerooms and receptacles:**  
Store only in the original container.  
Refer to the package insert or product label for additional information on storage conditions for product quality.
- **Information about storage in one common storage facility:** Store in original packaging.
- **Further information about storage conditions:** Protect from heat and direct sunlight.

## 8 Exposure controls/personal protection

### · Components with Occupational Exposure Limits

#### 67-63-0 Isopropanol (2.2011%)

PEL	980 mg/m <sup>3</sup> , 400 ppm
REL	STEL/C: 1225 mg/m <sup>3</sup> , 500 ppm TWA: 980 mg/m <sup>3</sup> , 400 ppm
TLV	STEL/C: 984 mg/m <sup>3</sup> , 400 ppm TWA: 492 mg/m <sup>3</sup> , 200 ppm BEI

### · Ingredients with biological limit values:

#### 67-63-0 Isopropanol (2.2011%)

BEI	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
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- **General protective and hygienic measures:**  
Always maintain good housekeeping and follow general precautionary measures. Do not eat, drink or store food and beverages in areas where chemicals or specimens are used. Wash hands before breaks, after handling reagents and specimens, and at the end of the workshift.  
Avoid contact with the eyes.
- **Breathing equipment:**  
Normal use and storage of product - respiratory protection is not necessary if room is well ventilated.  
  
Small-volume spills (e.g. small enough to clean up with a paper towel or small sorbent pad) - respiratory protection should not be necessary if room is well ventilated.  
  
Other unusual conditions (e.g. volume spilled too big to clean up with materials in arm's reach) - Use appropriate NIOSH-approved air-purifying respirator if airborne chemical concentrations may exceed the exposure limit (if any) listed above.  
  
Hazardous Materials Emergencies or Firefighting - use NIOSH/NFPA-approved respiratory protection.
- **Hand protection:**  
Wear impervious gloves if hand contact with the material is anticipated. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
  - **Material of gloves and breakthrough time of the glove material:**  
The glove material must be suitable for use in a microbiological laboratory and have a measured breakthrough time of at least 30 minutes, such as those with a Class 2 protection index per EN374 (or equivalent standard

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### Product name: CELL-DYN Emerald CN-Free Lyse

applicable in your region). NOTE: This recommendation applies only to the product stated in this Safety Data Sheet. When dissolving in or mixing with other substances, contact the supplier of approved gloves.

- **Eye protection:**

Wear safety glasses or other protective eyewear. If splash potential exists, wear full face shield or goggles.

- **Body protection:**

Normal use: protect personal clothing from splatters and small spills. Wear a laboratory coat (or other protective clothing required by your institution).

Larger spills (e.g. that can saturate cloth): wear appropriate water-repellant covering over clothing.

### 9 Physical and chemical properties

- **Form:** Liquid
- **Color:** Light yellow

- **Odor:** Odorless

- **pH-value at 20°C (68 °F)** 7.4
- **Melting point/Melting range:** Not determined
- **Boiling point/Boiling range:** Not determined

- **Flash point** 58°C (136 °F)
- **Flammability (solid, gaseous)** Not applicable
- **Auto igniting** Product is not self-igniting.

- **Danger of explosion** Product does not present an explosion hazard.
- **Explosion limits**
- **Lower:** Not determined
- **Upper:** Not determined

- **Density at 20°C (68 °F)** 1 g/cm<sup>3</sup> (8.345 lbs/gal)
- **Evaporation rate:** Not determined

- **Solubility in / Miscibility with**
- **Water:** Fully miscible

- **Water:** 93.8 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.

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**Product name: CELL-DYN Emerald CN-Free Lyse**

· **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

· **Acute toxicity**

· **LD50/LC50 values for hazardous ingredients per OSHA criteria:**

· **Ingredients (100% pure substance/s):**

**112-00-5 Dodecyltrimethyl ammonium chloride (quaternary ammonium salt)**

Oral	LD50	536 mg/kg (mouse) by analogy with stearyltrimethylammonium chloride.
Dermal	LD50	1600 mg/kg (mouse) by analogy with stearyltrimethylammonium chloride.

**67-63-0 Isopropanol**

Oral	LD50	3600 - 6410 mg/kg (mammal) In rats, mice, dogs and rabbits 4570 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalation	LC50 2 h	53 mg/l (mouse)
	LC50 4 h	27.2 mg/l (mouse) 72.6 mg/l (rat)
	LC50 7 h	12800 - 16000 ppm (mammal) Vapor concentrations greater than 400 ppm causes eye nose and throat irritation upon exposure for 3 to 5 minutes. 29-55 mg/l (rat)
Irritation of skin	Reported Effect	Mild irritant (rabbit)
Irritation of eyes	Reported Effect	Moderate-Severe (rabbit)
	Target Organ Effects	(rat) Induced central nervous system effects (i.e. drowsiness) at high concentrations in rats. Repeated exposure at high concentrations (at about 2.5% or greater in drinking water) induced a variety of reproductive, fertility and developmental effects in rats.

· **Primary toxicological effects of the final product:**

- **Skin irritation:** No irritant effect.
- **Eye irritation:** Causes severe burns. Effects may be delayed.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:** None

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

67-63-0	Isopropanol	Group 3
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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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- **Target organs/systems:**

Eye  
Nervous system

## 12 Ecological information

- **Aquatic toxicity:**

**67-63-0 Isopropanol**

LC50 96 h	6.12 mg/l (minnow) 31-da-old Pimephales promelas (fathead minnows); water hardness 44.0 mg/l (CaCO <sub>3</sub> ), temperature 24.6 deg C, pH 7.87, dissolved oxygen 6.7 mg/l, alkalinity 39.5 mg/l (CaCO <sub>3</sub> ).
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- **Additional ecological information**

- **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course, or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable
- **vPvB:** Not applicable

## 13 Disposal considerations

- **Recommendation for disposal of unused product:**

Dispose in accordance with federal, state and local regulations.

- **Recommendation for disposal of packaging:**

Non-contaminated packaging may be used for recycling. Refer to applicable local regulations and institutional policies.

For disposal of contaminated packaging, refer to applicable local regulations and institutional policies.

- **Recommended cleansing agent:** Water with cleansing agents, if necessary.

## 14 Transport information

- **UN-Number**

- DOT, ADN, IMDG, IATA none

- **UN proper shipping name**

- DOT, ADR, ADN, IMDG, IATA none

- **Transport hazard class(es)**

- DOT, ADR, ADN, IMDG, IATA

- Class none

- DOT, IMDG, IATA none

- **Environmental hazards**

- **Marine pollutant:** No

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## Additional information

- **DOT**
  - **Remarks:** Not restricted for transportation.
- **ADR**
  - **Remarks:** Not restricted for transportation.
- **IMDG**
  - **Remarks:** Not restricted for transportation.
- **IATA**
  - **Remarks:** Not restricted for transportation.

## 15 Regulatory information

### · SARA (Superfund Amendments and Reauthorization Act of 1986 - USA):

#### · Section 302/304 (40CFR355.30 / 40CFR355.40):

The product does not contain listed substances.

#### · Section 313 (40CFR372.65):

67-63-0 | Isopropanol

### · California Proposition 65 (USA):

#### · Chemicals known to cause cancer:

The product does not contain listed substances.

#### · Chemicals known to cause female reproductive toxicity:

None of the ingredients is listed.

#### · Chemicals known to cause male reproductive toxicity:

None of the ingredients is listed.

#### · Chemicals known to cause developmental reproductive toxicity:

None of the ingredients is listed.

## 16 Other information

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**Product name: CELL-DYN Emerald CN-Free Lyse**

· **Department issuing MSDS**

- Abbott Diagnostics Safety, Health and Environmental Assurance  
Department 0571

· **Contact**

- General information about this product:  
Abbott Diagnostics  
Technical Support  
100 Abbott Park Road  
Abbott Park, IL 60064-3500

Phone: 1-877-4 ABBOTT