1. Chemical Product and Company Identification

Product Name ................................................. Coco Diamine
Chemical Name ............................................. Cocopropylenediamine

Chem International, Inc.
P.O. Box 5501
Greenville, SC 29606

Emergency Telephone Numbers
Transportation: CHEMTREC 1-800-424-9300
(703-527-3387 Outside United States)
Information: Chem International, Inc. – 864-458-7868

2. Hazards Identification

Emergency Overview:

Physical Appearance and Odor:
Pale yellow slurry liquid, ammonia-like odor

Warning Statements:
DANGER! Corrosive to skin and eyes. Causes burns. Risk of serious damage to eyes. Harmful or fatal if swallowed. Can cause lung damage, may cause chronic health effects.

Potential Health Effects:

Acute Eye: Corrosive. Can cause burns, tissue destruction, irreversible eye damage.
Acute Skin: Corrosive. Can cause inflammation, blisters, burns.
Acute Inhalation: May be harmful if inhaled. May cause serious damage to lung tissue and respiratory tract.
Acute Ingestion: May be fatal if swallowed. May cause nausea, vomiting, irritation, corrosion, burns to mouth and esophagus. Aspiration of the swallowed or vomited product can cause severe pulmonary complications, death.

Chronic Effects: This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens. Repeated, prolonged contact may cause gastrointestinal damage, liver damage, respiratory tract damage.

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS#</th>
<th>OSHA Hazard</th>
<th>% Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-coco-1,3-propylenediamine</td>
<td>61797-63-7</td>
<td>Yes</td>
<td>90-100</td>
</tr>
<tr>
<td>Amines, coco alkyl</td>
<td>61788-46-3</td>
<td>Yes</td>
<td>1-5</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Eye Exposure:
Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek immediate medical attention.
**Skin Exposure:**
In case of contact, immediately wash with water for 30 minutes. Seek medical attention. Remove contaminated clothing and shoes while washing. Do no re-use. Dispose of contaminated clothing properly.

**Inhalation:**
Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR. Seek medical attention.

**Ingestion:**
Do not induce vomiting, unless directed to do so by a physician. If victim is conscious and alert, wash out mouth with water and keep at rest. Do not leave victim unattended. Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side. Seek medical attention.

**Medical Conditions Possibly Aggravated by Exposure:**
Skin contact may aggravate existing skin disease. Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis.

**Note to Physician:**
All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically. No specific antidote available.

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### 5. Fire Fighting Measures

**Flash Point:** > 100 C (212 F). Flammability class: Will Burn.

**Method Used:** Closed Cup

**Flammability Limits** (vol/vol%):
- Lower: No data
- Upper: No data

**Extinguishing Media:**
Recommended (small fires): dry chemical, carbon dioxide.
Recommended (large fire): alcohol foam, universal foam, water spray.
Not recommended: water jet (frothing possible)

**Special Fire Fighting Procedures:**
Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

**Unusual Fire and Explosion Hazards:**
Product will burn under fire conditions. Under fire conditions, toxic, corrosive fumes are emitted. Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat.

**Hazardous Decomposition Materials (Under Fire Conditions):**
Oxides of nitrogen; oxides of carbon

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### 6. Accidental Release Measures

**Evacuation Procedures and Safety:**
Wear appropriate protective gear for the situation. See Personal Protection information in section 8.
**Containment of Spill:**
Stop leak if it can be done without risk. Dike spill using absorbent or impervious materials such as earth, sand or clay. Follow procedure described below under Cleanup and Disposal of Spill.

**Cleanup and Disposal of Spill:**
Absorb with an inert absorbent. Sweep up and place in an appropriate closed container (see Section 7: Handling and Storage). DO NOT RETURN MATERIAL TO ITS ORIGINAL CONTAINER. Clean up residual material by washing areas with water. Collect washings for disposal. Decontaminate tools and equipment following cleanup.

**Environmental and Regulatory Reporting:**
Do not flush to drain. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies. Prevent material from entering public sewer system or any waterways.

### 7. Handling and Storage

**Minimum/Maximum Storage Temperatures:**
4 to 40 C (39 to 104 F)

**Handling:**
Personnel handling this product should be thoroughly trained as to its hazards. Do not get on skin or in eyes. Do not breathe vapors and mists. Do not ingest.

**Storage:**
Store in an area that is dry, well-ventilated, away from ignition sources, away from incompatible materials (see Section 10: Stability and Reactivity). Store in tightly closed containers.

### 8. Exposure Controls/Personal Protection

**Introductory Remarks:**
These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

**Exposure Guidelines:**
No exposure limits were found for this product or any of its ingredients.

**Engineering Controls:**
Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: general area dilution/exhaust ventilation.

**Respiratory Protection:**
When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

**Eye/Face Protection:**
Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An
emergency eye wash must be readily accessible to the work area. Face contact should be prevented through use of a face shield.

**Skin Protection:**
Skin contact must be prevented through the use of permeation resistant clothing, gloves and footwear, selected with regard for use conditions and exposure potential. An emergency shower must be readily accessible to the work area. Consideration must be given both to durability as well as permeation resistance.

**Work Practice Controls:**
Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:
1. Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
2. Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
3. Wash exposed skin promptly to remove accidental splashes or contact with this material.

9. **Physical and Chemical Properties**

Physical and chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specification.

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical appearance</td>
<td>Pale yellow slurry liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Ammonia-like odor</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.85 at 25°C (77°F)</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Melting Point Range</td>
<td>15 to 30°C (59 to 86°F)</td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>&gt; 300°C (572°F) at 760 mmHg</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&lt; 1 (Butyl Acetate = 1)</td>
</tr>
<tr>
<td>Octanol/Water Partition Coefficient</td>
<td>Not available</td>
</tr>
</tbody>
</table>

10. **Stability and Reactivity**

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Stability</td>
<td>Stable under normal handling &amp; storage conditions</td>
</tr>
<tr>
<td>Conditions to be Avoided</td>
<td>Extreme heat, open flame, ignition sources</td>
</tr>
<tr>
<td>Materials/Chemicals to be Avoided</td>
<td>Strong acids, strong oxidizing agents</td>
</tr>
<tr>
<td>Decomposition Temperature Range</td>
<td>&gt; 300°C (572°F)</td>
</tr>
</tbody>
</table>

The following hazardous decomposition products might be expected:

Decomposition Type: thermal
- Oxides of nitrogen
- Oxides of carbon

Hazardous Polymerization Will not occur.

Avoid the following to inhibit hazardous polymerization: Not applicable
11. Toxicological Information

**Acute Eye Irritation:**
The following data is for similar or related products.

*Toxicological Information and Interpretation:*
Eye – eye irritation, **
Corrosive

**Acute Skin Irritation:**
The following data is for similar or related products.

*Toxicological Information and Interpretation:*
Skin – skin irritation, **
Corrosive

**Acute Dermal Toxicity:**
No test data found for the product.

**Acute Respiratory Irritation:**
No test data found for the product.

**Acute Inhalation Toxicity:**
No test data found for the product.

**Acute Oral Toxicity:**
No test data found for product. The following data is for similar or related products.

*Toxicological Information and Interpretation:*
LD50 – lethal dose 50% of test species, 272 mg/kg, rat.

**Chronic Toxicity:**
This product does not contain any substances that are considered by OHSA, NTP, IARC, or ACGIH to be “probable” or “suspected” human carcinogens. The following data is for similar or related products.

*Toxicological Information and Interpretation:*
- MUTAGENICITY, **
- Ames Test: Negative

12. Ecological Information

**Ecotoxicological Information:**
May cause adverse environmental impact if material reaches waterways. No data found for product.

**Chemical Fate Information:**
No data found for product.

13. Disposal Considerations

**Waste Disposal Method:**
Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local
requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

**Container Handling and Disposal:**
Any containers or equipment used should be decontaminated immediately after use. Consult state and local regulations regarding the proper disposal of container.

EPA Hazardous Waste – YES

**EPA RCRA Hazardous Waste Codes:**
“C” Corrosive

### 14. Transport Information

**Transportation Status:** IMPORTANT! Statements below provide additional data on listed transport classification. The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptions.

**US DOT:**

<table>
<thead>
<tr>
<th>Hazard Class:</th>
<th>8 (6.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Name:</td>
<td>Corrosive Liquid, Toxic, n.o.s.</td>
</tr>
<tr>
<td>Technical Shipping Name:</td>
<td>(n-coco-1,3-propylenediamine, coco alkyl amines)</td>
</tr>
<tr>
<td>ID Number:</td>
<td>UN 2922</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>II</td>
</tr>
<tr>
<td>Emergency Guide #:</td>
<td>154</td>
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</table>

DOT Marine Pollutant

**TDG:**

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**IMO:**

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IMO Marine Pollutant

**IATA:**

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</tbody>
</table>
15. Regulatory Information

**Inventory Status:**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States (TSCA)</td>
<td>Y</td>
</tr>
<tr>
<td>Canada (DSL)</td>
<td>Y</td>
</tr>
<tr>
<td>Europe (EINECS/ELINCS)</td>
<td>Y</td>
</tr>
<tr>
<td>Australia (AICS)</td>
<td>Y</td>
</tr>
<tr>
<td>Japan (MITI)</td>
<td>Y</td>
</tr>
<tr>
<td>South Korea (KECL)</td>
<td>Y</td>
</tr>
</tbody>
</table>

Y = All ingredients are on the inventory

**Federal Regulations:**

**Inventory Issues:**

All functional components of this product are listed on the TSCA Inventory.

**SARA Title III Hazard Classes:**

- Fire Hazard: NO
- Reactive Hazard: NO
- Release of Pressure: NO
- Acute Health Hazard: YES
- Chronic Health Hazard: YES

**State Regulations:**

This product does not contain any components that are regulated under California Proposition 65.

16. Other Information

**National Fire Protection Association Hazard Ratings – NFPA (R):**

- 3: Health Hazard Rating (Serious)
- 1: Flammability Rating (Slight)
- 0: Instability Rating (Minimal)

**National Paint & Coating Hazardous Materials Identification System – HMIS (R):**

- 3: Health Hazard Rating (Serious)
- 1: Flammability Rating (Slight)
- 0: Reactivity Rating (Minimal)

**MSDS Revision Status:**

- MSDS Date: July 22, 2013
- Reason for Revision: New product MSDS