SAFETY DATA SHEET

Texas Correctional Industries
Texas Department of Criminal Justice

Date Issued: September 2016
Supersedes: May 2015

SECTION 1 - IDENTIFICATION

Product Name: Sunbrite
General Use: Liquid Laundry Detergent
Manufacturer Name: Texas Correctional Industries
Roach Soap & Detergent Plant
15845 Fm 164
Childress, TX 79201

Emergency Telephone Numbers
Galveston Texas Poison Control: 1-800-764-7661
Roach Soap & Detergent Plant Lab: 940-937-6364 EXT. 7392
SDS available at: www.tci.tdcj.texas.gov
Monday thru Thursday: 5:30 AM – 3:30 PM

SECTION 2 - HAZARD IDENTIFICATION

Primary Route of Exposure: Eyes, skin, mouth (oral)
Signs and Symptoms of Over Exposure (acute):
   - Eyes: May cause eye irritation
   - Skin: May cause redness or rash
   - Ingestion: May cause gastrointestinal irritation
   - Inhalation: N/A

Signs and Symptoms of Over Exposure (chronic): Eye, skin irritation
Medical condition aggravated by over exposure: Not known
Carcinogen or suspect of carcinogen ingredients: None

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical/Common Name</th>
<th>CAS No.</th>
<th>PERCENT</th>
<th>ACGIH/OSHA (TWA)</th>
<th>WHMIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene sulfonic acid, linear alkyl, sodium salt</td>
<td>68411-30-3</td>
<td>19 – 20</td>
<td>N/D</td>
<td>N/D</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>5 - 6</td>
<td>2 mg/m³</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>111-42-2</td>
<td>&lt;4.0</td>
<td>2 mg/m³</td>
<td>None</td>
</tr>
</tbody>
</table>

N/A= Not Applicable  N/D = Not Determined

SECTION 4 - FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 min. If irritation persists, get medical attention.
Skin: Flush with copious amounts of water. Remove contaminated clothing and seek medical attention if irritation persists.
Ingestion: Rinse mouth thoroughly. Drink plenty of water. Do not induce vomiting unless directed by physician.
Inhalation: Move person to fresh air if irritation, headache, drowsiness, or nausea occurs. Seek medical attention if breathing becomes difficult or if any irritation should persist.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable Limit: N/A
Physical Hazard: None
Extinguishing Media: Water, foam, dry chemicals, or carbon dioxide
Fire Extinguishing Procedure: Use of respiratory equipment is recommended in enclosed areas
SECTION 6 - ACCIDENTAL RELEASE MEASURES
Steps to be taken if released or spilled: Adequately ventilate the area. Contain liquid and absorb with commercial absorbent materials. Avoid the release of large quantities into water outfalls or water treatment facilities.

SECTION 7 - HANDLING AND STORAGE
Store in a cool dry area above 60°F. Protect this product from freezing. Keep out of the reach of children.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION
Respiratory Protection: This is not required with normal use.
Ventilation Requirement: Local exhaust or air movement is good
Protective Gloves: None
Eye Protection: Chemical goggles plus face shield if splashing will occur

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
Vapor Pressure: N/D
Specific Gravity (water = 1): 1.04
Solubility in Water: Complete
pH: 10 – 11.5
Boiling Point: N/D
Appearance and Odor: Clear blue liquid, “Softener oil” fragrance

SECTION 10 - STABILITY AND REACTIVITY
Hazardous Decomposition: Oxides of Carbon, Nitrogen, and Sulfur
Stability: Stable
Incompatibility: None

NOTE: The C### notation below refers to a principal component based on the amount present in the product which may involve trade secret chemicals. In the event of an accident, notify the Poison Control Center for more information.

SECTION 11 - TOXICOLOGICAL INFORMATION

C500
Information on likely routes of exposure:

Product Information: Product does not present an acute toxicity hazard based on known information.
Inhalation: None under normal use conditions.
Eye Contact: Causes serious eye irritation.
Skin Contact: May cause allergic skin reaction.
Ingestion: None under normal use conditions.

C062
Mutagenicity: not mutagenic in AMES Test.

C097
The following information is applicable to diethanolamine.

ACUTE TOXICITY
Peroral Rat;
Sunbrite, Date Issued: September 2016

**Males:** LD50 = 1.58 (1.34 - 1.85) ml/kg; not available

**Time to Death:** 3.5 hr to 6 days.

**Peroral Rat:**
- Females; LD50 = 0.62 (0.45 - 0.85) ml/kg; not available
- **Time to Death:** 3.5 hr to 6 days.

**Peroral Combined effects for males and females:**
- Major Signs: sluggishness, lacrimation, piloerection, tremor, prostration, red discharge on fur, depressed body temperature.

**Gross Pathology:** lungs, kidneys, stomachs, and intestines discolored, stomachs gas or liquid- filled.

**Percutaneous Rabbit; males:**
- LD50 = 7.46 (5.05 - 11.0) ml/kg; not available; 24 h occluded.
- **Time to Death:** 2 to 10 days.

**Percutaneous Rabbit; females:**
- LD50 = 9.85 (7.15 - 13.6) ml/kg; not available; 24 h occluded.
- **Time to Death:** 2 to 10 days.

**Percutaneous Combined effects for males and females:**
- Major Signs: sluggishness, unsteady gait (in one), prostration (in one), emaciation, red discharge on perioral or perinasal fur
- **Irritation:** erythema, edema, ecchymosis, necrosis, ulceration, desquamation, alopecia, scabs and fissuring (on one)
- **Gross Pathology:** kidneys, thymus, lungs and trachea discolored, bladder filled with blood, hemorrhaged and/or liquid-filled intestines, liquid-filled abdominal cavity. Inhalation Substantially saturated vapor studies, 6 hour exposure static generation method

**Rat Mortality:** 0/5

**Gross Pathology:** Nothing remarkable.

**Inhalation**

**Mist/vapor study, at 170°C,**
8 hour Rat; males and females:

**Mortality:** 0/6

**IRRITATION**

**Skin:**
- Rabbit; 4-hour occluded contact; 0.5 ml
- Results: minor transient erythema in one; healed by one
Eye:
Rabbit; 0.005 ml Results: iritis, minor to moderate conjunctival irritation with significant discharge, minor corneal injury, by 72 hours, all eyes were healed except for minor conjunctival redness in one. All eyes were healed by 7 days.

REPEATED EXPOSURE:
In a 90-day dietary study with rats, the rats that received 4.0, 2.0, 1.0, and 0.5% of diethanolamine died within 4 to 30 days. The major signs were cloudy swelling and degeneration of the kidney tubules and early fatty degeneration of the liver. A second study was conducted with doses of 0.5, 0.125, 0.03, and 0.0075% diethanolamine. The NOEL was between 0.03% (0.02 gm/kg/day) and 0.125% (0.09 gm/kg/day) with 0.5 and 0.125% producing slight increases in liver and kidney weights.

SENSITIZATION (ANIMAL AND HUMAN STUDIES):
Human; Repeated-insult skin patch testing has produced negative results. There have been no animal studies assessing the skin sensitization potential of diethanolamine; however, numerous studies with the guinea pig with triethanolamine failed to induce sensitization.

DEVELOPMENTAL TOXICITY:
In a developmental study with rats presented in literature, doses of up to 1200 mg/kg were administered by gavage. All animals at 500 mg/kg or higher died or were moribund. The NOEL was 50 mg/kg/day for maternal toxicity and greater than 200 mg/kg/day for embryofetal toxicity and teratogenicity. In a cutaneous study with rats, doses of up to 1500 mg/kg were administered. Doses of 500 and 1500 mg/kg produced moderate and severe skin irritation, respectively. The NOEL was less than 150 mg/kg/day for maternal toxicity, 500 mg/kg/day for embryofetal toxicity, and greater than 1500 mg/kg/day for teratogenicity. In the fetuses, increased incidences of six skeletal variations involving the axial skeleton and distal appendages were observed in the 1500 mg/kg group. In a cutaneous study with rabbits, doses of up to 350 mg/kg were administered. 350 mg/kg produced marked skin irritation. There was no evidence of developmental toxicity in rabbit fetuses at any level, and there were no apparent effects of treatment on the incidences of external, visceral, or skeletal abnormalities. The NOEL was 100 mg/kg/day for maternal toxicity and greater than 350 mg/kg/day for embryofetal toxicity and teratogenicity.

GENETIC TOXICOLOGY:
In Vitro: This material as presented in literature has not shown genotoxic activity in a series of in vitro tests (Ames, CHO forward gene mutation, CHO sister chromatid exchange and CHO cytogenics).

In Vivo: This material as presented in literature has not shown genotoxic activity in an in vivo mouse micronucleus test.

PHARMACOKINETICS AND METABOLISM:
In Vivo:

As presented in literature, the principal route of exposure is through skin, with some exposure occurring by inhalation of vapor and aerosols. Diethanolamine is not metabolized or readily eliminated from the liver or kidneys. At high tissue concentrations, diethanolamine substitutes for monoethanolamine in phospholipids and is methylated to form phospholipids composed of N-methyl and N,N-dimethyl diethanolamine.

SIGNIFICANT DATA WITH POSSIBLE RELEVANCE TO HUMANS:

There are reports that ingestion of diethanolamine (DEA) produced nervous system injury in dogs and rats. Heart and salivary gland lesions have also been observed in mice treated with DEA cutaneously and in drinking water. Rats given high doses of DEA developed anemia and testicular lesions. An increased incidence of some skeletal variations suggestive of a slight developmental delay was seen only in the fetuses of rats given 1500 mg/kg/day cutaneously which also caused significant maternal toxicity. However, no fetal malformations were observed in either rats or rabbits similarly treated. Preliminary findings from the National Toxicology Program suggest an increased incidence of liver tumors in both sexes of mice and an increased incidence of kidney tumors in male mice dermally exposed for their lifetime to DEA. The significance of these findings and their relevance to humans are not clear as DEA was not genotoxic (neither mutagenic nor clastogenic), and did not induce tumors in rats or in transgenic mice similarly treated. Additional research which is designed to provide a better understanding of the significance of these observations to humans, if any, is underway.

SECTION 12 - ECOLOGICAL INFORMATION

C500

Information on likely routes of exposure:

Product Information: Product does not present an acute toxicity hazard based on known information.

Inhalation: None under normal use conditions.

Eye Contact: Causes serious eye irritation.

Skin Contact: May cause allergic skin reaction

Ingestion: None under normal use conditions.

C062

Product: Sodium Xylene Sulfonate SXS

Test Results
EC50 Algae: > 230 mg/kg
E050 Daphnia: > 1000 mg/L
L050 Rainbow Trout: > 1000 mg/L

* Estimates for product may be based on
Ecotoxicity

C097

12.1 ENVIRONMENTAL FATE:

The following information is applicable to diethanolamine.

BOD (% Oxygen consumption):

<table>
<thead>
<tr>
<th>Day</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>28/30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>11%</td>
<td>35%</td>
<td>-</td>
<td>100%</td>
<td>-</td>
</tr>
</tbody>
</table>

12.2 ECOTOXICITY:

Toxicity to Micro-organisms:

Bacterial Inhibition;

IC50 Result value: > 5000 mg/L

Toxicity to Aquatic Invertebrates:

Daphnia; 48 h; LC50

Result value: 187 mg/L

Toxicity to Fish:

Fathead Minnow; 96 h; LC50

Result value: 837 mg/L

12.3 FURTHER INFORMATION:

Chemical Oxygen Demand (COD) - measured: 1.68 mg/mg

Theoretical Oxygen Demand (THOD): calculated: 1.53 mg/mg

Octanol/Water Partition Coefficient: Measured: -1.43

SECTION 13 - DISPOSAL CONSIDERATIONS

C500

Waste Disposal Methods:

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging:

Do not re-use empty containers.

US EPA Waste Number:

U203

C062

Dispose in accordance with all applicable regulations. All wastes must be handled in accordance with local, state and federal regulations.

C097

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations.
SECTION 14 - TRANSPORT INFORMATION

C500

DOT: Not regulated
TDG: Not regulated
MEX: Not regulated

C062

Refer to bill of lading ox container label for DOT or other transportation hazard classification, if any.

C097

14.1 U.S. D.O.T.

NON-BULK:

Proper Shipping Name: OTHER REGULATED SUBSTANCES, LIQUID, NOS
Technical Name: CONTAINS DIETHANOLAMINE
Hazard Class: 9
ID Number: NA3082
Packing Group: PG III

BULK

Proper Shipping Name: OTHER REGULATED SUBSTANCES, LIQUID, NOS
Technical Name: CONTAINS DIETHANOLAMINE
Hazard Class: 9
ID Number: NA3082
Packing Group: PG III
Reportable Quantity: 119 LB

SECTION 15 - REGULATORY INFORMATION

C500

International Inventories*

TSCA: Exempt

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

C062

There is no calculable reportable quantity (RQ) for this product.

CERCLA (Superfund) reportable quantity None

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Section 302 extremely No hazardous substance
Section 311 hazardous No chemical
C097

15.1 FEDERAL/NATIONAL:

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT) SECTION 313: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act 1986 and 40 CFR Part 372.

Component CAS # Amount: N,N-Diethanolamine 111-42-2 <= 97.0%

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT) SECTIONS 311 AND 312:

Delayed (Chronic) Health Hazard: Yes

Fire Hazard: No

Immediate (Acute) Health Hazard: Yes

Reactive Hazard: No

Sudden Release of Pressure Hazard: No

TOXIC SUBSTANCES CONTROL ACT (TSCA): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

SECTION 16 – OTHER INFORMATION


*SDS updated by: Timothy Sharpe, TCI Chemist, Childress, TX

Note: Product should be used as directed on the label and no other use is permitted. No warranty is implied expressly or otherwise regarding the accuracy of the information in the product's suitability for the consumer's use and the outcome of its use. The technical accuracy of the information submitted herein is based on the data submitted to TCI by the manufacturers for the materials used in this finished product.