1. PRODUCT AND COMPANY IDENTIFICATION

Product name: BUTRALIN SUCKER CONTROL          EPA Reg. No. 33688-4-400

Chemical name: [(4-(1,1-dimethylethyl)-n-(1-methylpropyl)-2,6-dinitrobenzamine]

Use of substance/preparation: Plant Growth Regulator

Supplier: Chemtura Corporation
199 Benson Road
Middlebury, CT 06749 USA

Emergency telephone number:
CHEMTREC (24 hours) 800-424-9300, 703-527-3887
Chemtura Corporation Emergency Response (24 hours) 800-292-5898

Environmental, Health and Safety Department: 866-430-2775
Prepared by:
Product Safety Department Date of Issue: 12/22/2008
(US) +1 866-430-2775
(EU) +44 (0) 1753.603.000
Email: MSDSRequest@chemtura.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
DANGER!
CAUSES SEVERE EYE IRRITATION.
MAY CAUSE PERMANENT EYE DAMAGE.
MAY BE HARMFUL IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN.
MAY BE IRRITATING TO SKIN.
MAY CAUSE AN ALLERGIC SKIN REACTION.
FUMES OR VAPOR FROM HEATED MATERIAL MAY BE TOXIC AND/OR IRRITATING TO EYES, SKIN, MUCOUS MEMBRANE AND RESPIRATORY TRACT.
VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.
HEADACHE

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>% BY WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-sec-Butyl-4-tert-butyl-2,6-dinitroaniline</td>
<td>37.3</td>
</tr>
<tr>
<td>CAS# 33629-47-9</td>
<td></td>
</tr>
<tr>
<td>Naphthalene</td>
<td>&lt; 6</td>
</tr>
<tr>
<td>CAS# 91-20-3</td>
<td></td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

Swallowing
Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Inhalation
Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Skin contact
Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact
Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

5. FIRE-FIGHTING MEASURES

Flash point: 149 °F 65 °C
Autoignition temperature: Not available

NFPA CLASSIFICATION

<table>
<thead>
<tr>
<th>Health:</th>
<th>Flammability:</th>
<th>Reactivity:</th>
<th>Special provisions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Special fire fighting procedures
Do not discharge extinguishing waters into streams, rivers and lakes.

Special protective equipment for firefighters
Body covering protective clothing, full "turn-out" gear.
Self-contained breathing apparatus.

Extinguishing media
Suitable:
- Large fires:
  - alcohol-type foam or universal-type foams
- Small fires:
  - CO2
  - dry chemical
  - water spray

Unsuitable:
- water jets

Unusual fire and explosion hazards
This material may produce a floating fire hazard.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear suitable protective equipment. Avoid contact with eyes and skin.
Environmental precautions
Prevent from entering sewer system, surface water or soil.

Methods for cleaning up
Observe government regulations.
Small spills: Absorb on inert material such as sand, earth, vermiculite.
Collect for disposal.

Large spills
Dike to contain spill.
Pump excess material into suitable container (metal drums, metal tank, or such).

7. HANDLING AND STORAGE

HANDLING
Handling precautions
Do not eat, drink or smoke when handling., Avoid contact with eyes, skin and clothing., Avoid breathing vapor, aerosol and mist., Use with adequate ventilation., Wash thoroughly after handling.

Other precautions
NOTE TO END-USERS: The employee protection recommendations on this MSDS may differ from those on the product label. For normal use of this product, always refer to the personal protective equipment requirements on the product label.

STORAGE
Storage requirements
Store in a cool, dry place.

Storage materials:
Unsuitable: Avoid standard polyethylene, tin and varnished tin because slight to strong corrosion may occur in relation with moisture, chloride and temperature.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

<table>
<thead>
<tr>
<th>Component</th>
<th>Country</th>
<th>Type</th>
<th>Value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>USA</td>
<td>TWA, OSHA</td>
<td>50 mg/m³</td>
<td>IARC 2B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>STEL, OSHA</td>
<td>75 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL, ACGIH</td>
<td>15 ppm</td>
<td></td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>TWA, OSHA</td>
<td></td>
<td>125 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA, ACGIH</td>
<td></td>
<td>25 ppm</td>
<td></td>
</tr>
</tbody>
</table>
PERSONAL PROTECTION

Respiratory protection
In the absence of engineering controls sufficient to maintain airborne concentrations below recommended occupational exposure limit values, appropriate respiratory protection should be utilized. The determination of appropriate respiratory protection is best performed, on a case by case basis, taking into consideration the exposure conditions of the particular operation. The respirator manufacturer should be consulted to ensure that the air-purifying cartridges utilized will provide adequate protection for the exposure conditions and period of wear concerned. For emergency conditions where the exposure limit may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus.

Hand protection / protective gloves
Chemical resistant protective gloves

Eye protection
Safety glasses with side shields.

Skin protection
Chemical protective clothing.

Other protective equipment
Eye bath, Safety shower

Industrial hygiene measures
Before eating, drinking or smoking, wash hands and face thoroughly with soap and water.

ENGINEERING CONTROLS

Ventilation
General (mechanical) room ventilation is expected to be satisfactory. Special, local ventilation is needed at points where vapors can be expected to escape to the workplace air.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical state Liquid
Color Yellow/light orange
Odor Aromatic
Odor threshold Not available

OTHER PROPERTIES

Boiling point 265 °C  Decomposes
Melting point Not applicable
pH 6.7
Density 0.975 g/cm³

Solubility in water Not available
Solubility in organic solvents No data available.
Partitioning coefficient Not available
Flash point 149 °F  65 °C  Method: Tag Closed Cup
Autoignition temperature Not available
10. STABILITY AND REACTIVITY

**Stability:** This product is stable under normal storage and handling conditions.

**Hazardous reactions:** Avoid standard polyethylene, tin and varnished tin because slight to strong corrosion may occur in relation with moisture, chloride and temperature.

11. TOXICOLOGICAL INFORMATION

**GENERAL**
The following information is based on analogy with a similar material.

**SWALLOWING**
Test results
- **Acute toxicity:** LD50 Rat
  - Result: > 2,000 mg/kg

**SKIN ABSORPTION**
Test results
- **Acute toxicity:** LD50 - Rabbit
  - Result: > 2,000 mg/kg

**INHALATION**
Test results
- **Acute toxicity:** LC50 - Rat
  - Result: > 7.28 mg/l
  - Exposure time: 4 h

**SKIN CONTACT**
Test results
- **Skin irritation:** Species: Rabbit
  - Result: Slight

**EYE CONTACT**
Test results
- **Eye irritation:** Species: Rabbit
  - Result: Irritant

**SENSITIZATION**
Test results: Remark: Non sensitizing.

**MUTAGENICITY**
Assessment: Ames-test: no mutagenic effect

12. ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Component ecotoxicology</th>
<th>LC50 - Bluegill (Lepomis macrochirus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-sec-Butyl-4-tert-butyl-2,6-dinitroanilin</td>
<td>Result: 1.0 mg/l</td>
</tr>
<tr>
<td>Acute toxicity fish:</td>
<td>Exposure time: 96 h</td>
</tr>
</tbody>
</table>
**BUTRALIN SUCKER CONTROL**

**Component ecotoxicology**

<table>
<thead>
<tr>
<th>Component ecotoxicology</th>
<th>LC50 - Rainbow trout (Oncorhynchus mykiss)</th>
<th>N-sec-Butyl-4-tert-butyl-2,6-dinitroanilin</th>
<th>Result: 0.37 mg/l</th>
<th>Exposure time: 96 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-sec-Butyl-4-tert-butyl-2,6-dinitroanilin</td>
<td>- Water flea (Daphnia magna)</td>
<td>Result: 0.12 mg/l</td>
<td>Exposure time: 48 h</td>
<td></td>
</tr>
</tbody>
</table>

**13. DISPOSAL CONSIDERATIONS**

General: Dispose of in accordance with appropriate Federal, State, and local regulations. Do not discharge to sewers and natural waters.

**14. TRANSPORT INFORMATION**

**DOT Classification**

If shipped in containers >=450 l (119 US gal), this product is regulated as: COMBUSTIBLE LIQUID, N.O.S., NA 1993, PGIII, ERG 128

<table>
<thead>
<tr>
<th>Proper shipping name:</th>
<th>COMBUSTIBLE LIQUID, N.O.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class:</td>
<td>COMBUSTIBLE LIQUID</td>
</tr>
<tr>
<td>UN ID #:</td>
<td>NA1993</td>
</tr>
<tr>
<td>Packing group:</td>
<td>III</td>
</tr>
<tr>
<td>RQ:</td>
<td></td>
</tr>
</tbody>
</table>

**IMDG Classification**

<table>
<thead>
<tr>
<th>Proper shipping name:</th>
<th>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class:</td>
<td>9</td>
</tr>
<tr>
<td>UN ID #:</td>
<td>UN 3082</td>
</tr>
<tr>
<td>Packing group:</td>
<td>III</td>
</tr>
<tr>
<td>Marpol:</td>
<td>MARINE POLLUTANT</td>
</tr>
</tbody>
</table>

**ICAO/IATA Classification**

<table>
<thead>
<tr>
<th>Proper shipping name:</th>
<th>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class:</td>
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<td>UN 3082</td>
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<td>Packing group:</td>
<td>III</td>
</tr>
</tbody>
</table>

**15. REGULATORY INFORMATION**

Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of hazardous substances equal to or greater than the reportable quantities (RQ's) in 40CFR302.4.

Components present in this product at a level which could require reporting under the statute are:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS#</th>
<th>Max weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>&lt; 6.00</td>
</tr>
</tbody>
</table>

**** NONE ****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40CFR372 (for SARA 313). This information must be included in MSDS's that are copied and distributed for this material.
Components present in this product at a level which could require reporting under the statute are:

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<tr>
<th>Chemical name</th>
<th>CAS#</th>
<th>Max weight %</th>
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</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>&lt; 6.00</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>&lt; 2.00</td>
</tr>
<tr>
<td>Aromatic hydrocarbon</td>
<td>TRADE SECRET</td>
<td>CHEM462</td>
</tr>
<tr>
<td>N-sec-Butyl-4-tert-butyl-2,6-dinitroaniline</td>
<td>33629-47-9</td>
<td></td>
</tr>
<tr>
<td>Surfactant blend</td>
<td>TRADE SECRET</td>
<td>CROM406</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td></td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td></td>
</tr>
</tbody>
</table>

**EPA Hazard Categories (SARA 311, 312):** Immediate Health Hazard, Delayed Health Hazard, Fire Hazard

**California Proposition 65**
This product contains Naphthalene which the State of California has found to cause cancer.

**CHEMICAL INVENTORY**
United States: This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from TSCA Inventory listing requirements.

16. OTHER INFORMATION

RECOMMENDED USES AND RESTRICTIONS: NOTE TO END-USERS: This MSDS is being provided to all interested persons in accordance with federal and state right-to-know laws. Precautionary Statements, First Aid Statements and Directions for Use of this product by end-users are contained on the product label and must be followed at all times.

**HMIS RATING**

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>PPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

**HMIS**

- **STP**
  - Standard temperature and pressure
- **W/W**
  - Weight/Weight
- **(HMIS)**
  - 0: Slight hazard
  - 1: Moderate hazard
  - 2: Serious hazard
  - 3: Severe hazard
- **PPI**
  - X: Personal protection rating to be supplied by user depending on use conditions

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