Section 1: Product and Company Identification

Product Name: Toluidine Blue O, Certified
Synonym: Tolonium Chloride, Basic Blue 17

Company Name
Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477
   Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)
   Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)
CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day
CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day

Section 2: Hazard Identification

2.1 Classification of the substance or mixture

GHS Pictograms

![GHS07]

GHS Categories
GHS07 - Irritant
   Acute Tox. 4  H332: Harmful if inhaled.
   Skin Irrit. 2  H315: Causes skin irritation.

2.2 Label elements

Hazard Pictograms

![GHS07]

Signal Word: WARNING

Hazard statements
H332  Harmful if inhaled.
H315  Causes skin irritation.

Precautionary statements
P261  Avoid breathing dust/fume/gas/mist/vapors/spray.
P280  Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Take off contaminated clothing and wash before reuse.

2.3 Other Hazards

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Label: Xn; Harmful
Label: Xi; Irritant

Risk phrases:
20 - Harmful by inhalation.
36/38 - Irritating to eyes and skin.

Safety phrases:
9 - Keep container in a well-ventilated place.
26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37 - Wear suitable protective clothing and gloves.
60 - This material and its container must be disposed of as hazardous waste.

Health Effects:

NFPA Hazard Rating: Health: 1; Fire: 0; Reactivity: 0
HMIS® Hazard Rating: Health: 1; Fire: 0; Reactivity: 0
(0=least, 1=Sligh, 2=Moderate, 3=High, 4=Extreme)

Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.

Emergency overview:
Appearance: Powder, Dark Green
Immediate effects: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Potential health effects

Primary Routes of entry: Ingestion, inhalation, eye and skin contact.
Signs and Symptoms of Overexposure: ND
Eyes: Irritating to eyes.
Skin: Irritating to skin.
Ingestion: Harmful if swallowed.
Inhalation: Harmful by inhalation.
Chronic Exposure: ND
Chemical Listed As Carcinogen Or Potential Carcinogen: None.
See Toxicological Information (Section 11)

Potential environmental effects

See Ecological Information (Section 12)

Section 3: Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Principle Component(s)</th>
<th>%</th>
<th>OSHA PEL mg/m3</th>
<th>ACGIH TLV mg/m3</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluidine Blue O (92-31-9) EC-No. : 202-146-2</td>
<td>≤100</td>
<td>NE</td>
<td>NE</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
</tbody>
</table>
Chemical Name: 3-Amino-70(dimethylamino)-2-Methylphenothiazin-5-ium Chloride
Chemical Family: Thiazin Dye
Chemical Formula: C_{15}H_{16}N_{3}S.Cl

**Section 4: First Aid Measures**

*If accidental overexposure is suspected*

**Eye(s) Contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**Skin Contact:** Generally the product does not irritate the skin.

**Inhalation:** Supply fresh air. Consult doctor in case of complaints.

**Ingestion:** If symptoms persist consult doctor.

**Note to physician**

Treatment: No further relevant information available.

Medical Conditions generally Aggravated by Exposure: No further relevant information available.

**Section 5: Fire Fighting Measures**

**Flash Point:** NA

**Flammable Limits:** ND

**Auto-ignition point:** ND

**Fire Extinguishing Media:** CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special Fire Fighting Procedures:** Mouth respiratory protective device.

**Unusual Fire and Explosion Hazards:** ND

**Hazardous combustion products:** ND

**DOT Class:** None

**Section 6: Accidental Release Measures**

**Steps to be Taken in Case Material is Released or Spilled:** Ensure adequate ventilation.

**Waste Disposal Methods:** Dispose of waste according to Federal, State and Local Regulations.

**Section 7: Handling and Storage**

**Precautions to be taken in Handling and Storage:** Thorough de-dusting. Ensure good ventilation/exhaustion at the workplace. Keep container tightly sealed.

**Storage temperature:** NA

**Storage Pressure:** NA

**Section 8: Exposure Controls / Personal Protection**

**Engineering Controls**

Ventilation required: Ensure good ventilation/exhaustion at the workplace.

**Personal Protection Equipment**

**General protective and hygienic measures:** Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes. Avoid contact with the skin.

**Respiratory protection:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Protective gloves:** Wear protective gloves.

**Skin protection:** ND

**Eye protection:** Tightly-sealed goggles

**Additional clothing and/or equipment:** ND

**Exposure Guidelines**

See Composition/Information on Ingredients (Section 3)
Section 9 Physical and Chemical Properties
Appearance and Physical State: Powder, Dark Green
Odor (threshold): Odorless (ND)
Specific Gravity (H_2O=1): ND
Vapor Pressure at 20 °C: 23 hPa
Vapor Density (air=1): ND
Percent Volatile by volume: ND
Evaporation Rate (butyl acetate=1): MA
Boiling Point: 100 °C
Freezing point / melting point: ND
pH: NA
Solubility in Water: Insoluble
Molecular Weight: 305.83 g/mol

Section 10: Stability and Reactivity
Stability: ND
Conditions to Avoid: ND
Materials to Avoid (Incompatibility): ND
Hazardous Decomposition Products: None known.
Hazardous Polymerization: ND

Section 11: Toxicological Information
Results of component toxicity test performed: ND
Human experience: ND
Primary irritant effect:
  On the skin: Irritant to skin and mucous membranes.
  On the eye: Irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information: ND
This product does not contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information
Aquatic toxicity: ND
Persistence and degradability: ND
Bioaccumulative potential: ND
Mobility in soil: ND
Additional ecological information: Generally not hazardous for water.
Chemical Fate Information: ND

Section 13 Disposal Considerations
RCRA 40 CFR 261 Classification: ND
Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

Section 14: Transportation Information
US DOT Information: Not regulated
IATA: Not regulated
Marine Pollutant: No
Canadian TDG: Not regulated
Section 15: Regulatory Information
United States Federal Regulations
SARA: Section 355 (extremely hazardous substances): None of the ingredients is listed.
SARA Title III: Section 313 (Specific toxic chemical listings): None of the ingredients is listed.
RCRA: ND
TSCA (Toxic Substances Control Act): All ingredients are listed.
CERCLA: No

State Regulations
California Proposition 65: None of the ingredients is listed.

Carcinogenic categories:
EPA (Environmental Protection Agency): None of the ingredients is listed.
TLV (Threshold Limit Value established by ACGIH): None of the ingredients is listed.
NIOSH-Ca (National Institute for Occupational Safety and Health): None of the ingredients is listed.

International Regulations
Canada WHMIS:
Canadian substance listings: Canadian Domestic Substances List (DSL): All ingredients are listed.
Canadian Ingredient Disclosure list (limit 0.1%): None of the ingredients is listed.
Canadian Ingredient Disclosure list (limit 1%): None of the ingredients is listed.
Europe EINECS Numbers: 202-146-2

Section 16: Other Information
Label Information: Irritant
European Risk and Safety Phrases: See Section 2.
European symbols needed: X harmful, Irritant.
Canadian WHMIS Symbols: D2B - Toxic material causing other toxic effects

Abbreviations used in this document
NE= Not established
NA= Not applicable
NIF= No Information Found
ND= No Data

Disclaimer
Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.

SDS Form 0013F1V4