Section 1: Product and Company Identification
Product Name: Cutting Fluid, Soluble Oil
Synonym: SO Soluble Oil
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
OSHA/HCS status: This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). Not classified.

GHS Pictograms: Void
GHS Categories: Void

2.2 Label elements
Hazard Pictograms: None
Signal Word: None
Hazard Statements: No known significant effects or critical hazards.
Precautionary Statements: NA

2.3 Other hazards
Defatting to the skin.

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

Results of PBT and vPvB assessment:
PBT: ND
vPvB: ND

Emergency overview
Appearance: Clear Blue Liquid.
Immediate effects: Warning! Causes eye irritation.

Potential health effects
Primary Routes of entry: Skin, ingestion.
Signs and Symptoms of Overexposure: ND
Eyes: Causes eye irritation.
Skin: May cause skin irritation. Defatting to the skin.
Ingestion: Toxic if swallowed
Inhalation: May cause respiratory tract irritation.
Chronic Exposure: ND
Chemical Listed as Carcinogen or Potential Carcinogen: See section 15. Trace amounts of Ethylene oxide, Propylene oxide, Dioxane. No components of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH, IARC, NPT or OSHA.
See Toxicological Information (Section 11)

Potential environmental effects
See Ecological Information (Section 12)

### Section 3: Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Principle Components (chemical and common names) (Cas. No)</th>
<th>%</th>
<th>OSHA PEL mg/m³</th>
<th>ACGIH TLV mg/m³</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA regulated Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borates, tetra, sodium salts-anyhdrous (1330-43-4)</td>
<td>1-5</td>
<td>ND</td>
<td>ND</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

ACGIH TLV (United States).
STEL: 6 mg/m³ 15 minutes. Issued/Revised: 1/2005
Form: Inhalable fraction
TWA: 2 mg/m³ 8 hours. Issued/Revised: 1/2005
Form: Inhalable fraction
NIOSH REL (United States).
TWA: 1 mg/m³ 10 hours. Issued/Revised: 6/1994
While specific OELs for certain components may be shown in this section, other components may be present in any mist, vapor or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

### Section 4: First Aid Measures

If accidental overexposure is suspected

Eye(s) Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

Skin Contact: Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

Inhalation: In case of inhalation of decomposition products in a fire, symptoms may be delayed. If inhaled, remove to fresh air. The exposed person may need to be kept under medical surveillance for 48 hours. Get medical attention if symptoms occur.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Wash out mouth with water if person is conscious. Get medical attention if symptoms occur.

Note to physician

Treatment: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Treatment should in general be symptomatic and directed to relieving any effects.

Medical Conditions generally Aggravated by Exposure: ND

### Section 5: Fire Fighting Measures

Flash Point: >100ºC
Flammable Limits: ND
Auto-ignition point: ND

Fire Extinguishing Media: Water fog, alcohol-resistant foam, dry chemical or carbon dioxide extinguisher or spray.

Unsuitable Extinguishing Media: Water jet.

Special Fire Fighting Procedures: Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Unusual Fire and Explosion Hazards: Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products: Carbon dioxide, carbon monoxide, nitrogen oxides, metal oxides.

DOT Class: None.

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Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled:

**Personal precautions, protective equipment, and emergency procedures:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

**Environmental precautions:** Avoid dispersal of spilled material, runoff, and contact with soil, waterways, drains and sewers. Inform relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water-polluting material; may be harmful to the environment if released in large quantities.

**Methods and materials for containment and clean-up:**

- **Small spill:** Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- **Large spill:** Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

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

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Section 7: Handling and Storage

Precautions to be taken in Handling and Storage:

**Handling:**

- Put on appropriate personal protective equipment (see Section 8). Avoid breathing vapor or mist. Avoid contact of spilled material and runoff with soil and surface waterways. Avoid prolonged or repeated contact with skin. During metal-working, solid particles from work-pieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasions result in penetration of the skin, first aid treatment should be applied as soon as reasonably possible. The presence of certain metals in the work-piece or tool—such as chromium, cobalt and nickel—can contaminate the metal-working fluid and may induce allergic skin reactions as a result. Evaporation of water from soluble cutting fluids during use may lead to an increase in concentration which may result in the development of skin conditions due to irritation and defatting. It is important to monitor fluid strength on a regular basis with a refractometer and maintain it at the recommended concentration. Lubricants from other sources and other contaminants should be minimized. Swarf and other debris should be removed. To maintain optimum performance and minimize bacterial spoilage, machine tool coolant systems should be cleaned on a regular basis.

**Storage:**

- Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready.
for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. DO NOT ADD NITRITES TO THIS FLUID.

Storage temperature: Ambient  
Storage Pressure: NA  

**Section 8: Exposure Controls / Personal Protection**  
**Ingredients with occupational exposure limits**  
Borates, tetra, sodium salts (anhydrous)  
ACGIH TLV (U.S.)  
STEL: 3 mg/m³ (15 min, inhalable fraction)  
TWA: 2 mg/m³ (8 hrs, inhalable fraction)  
NIOSH REL (U.S.)  
TWA: 1 mg/m³ (10 hrs)  

**Engineering Controls**  
Ventilation required: Local exhaust.  
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.  

**Personal Protection Equipment**  
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, smoking and using the lavatory and at the end of the working period.  
Respiratory protection: Use NIOSH approve respirator where spray mist occurs.  
Protective gloves: Nitrile gloves.  
Skin protection: Protective clothing. When risk of skin exposure is high, chemical resistant aprons and/or impervious chemical suits and boots are required.  
Eye protection: Undiluted fluid: chemical goggles; diluted fluid: safety goggles with side shields.  
Additional clothing and/or equipment: None.  

**Exposure Guidelines**  
See Composition/Information on Ingredients (Section 3)  

**Section 9 Physical and Chemical Properties**  
Appearance and Physical State: Clear yellow-to-amber liquid.  
Odor (threshold): ND  
Specific Gravity (H₂O=1): ND  
Vapor Pressure (mm Hg): ND  
Vapor Density (air=1): ND  
Percent Volatile by volume: ND  
Evaporation Rate (butyl acetate=1): ND  
Boiling Point: ND  
Freezing point / melting point: ND  
pH: ND  
Solubility in Water: Soluble: >1000 kg/m³ (>1 g/cm³) at 15°C  
Molecular Weight: ND  

**Section 10: Stability and Reactivity**  
Stability: Stable  
Conditions to Avoid: High temperatures  
Materials to Avoid (Incompatibility): Oxidizing materials, acids. Slightly reactive with reducing agents, organic materials and metals.
Section 11: Toxicological Information
Results of component toxicity test performed: ND
This product contains an alkanolamine, based on animal studies which may cause damage to the liver and kidneys. In all metalworking fluids containing amines, there is a potential for forming nitrosamines which are animal carcinogens. Therefore, no nitrites or related nitrosating agents should be added to such compositions.
Human experience: No known significant effects or critical hazards
This product does not contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.
IARC: 3 - Not classifiable as a human carcinogen.

Section 12: Ecological Information
Ecological Information: ND
Chemical Fate Information: ND

Section 13 Disposal Considerations
RCRA 40 CFR 261 Classification: ND
The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Diluted Fluid The spent diluted fluid comprises a relatively stable emulsion. Dispose of via an authorized person/licensed waste disposal contractor or by other suitable waste treatment techniques (e.g. emulsion splitting, coagulation and filtration) approved by the local authority. Spent fluid should never be disposed of down the drain. The aqueous phase should not be discharged into sewage systems unless provided for by local regulations; the non-aqueous phase should be disposed of as undiluted fluid. Note that separated aqueous solutions or effluents may contain metal salts as well as traces of oil and must be checked for conformity in these respects against consents given by the authorities before disposal. Further treatment may be required. 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: Proper shipping name: Not regulated.
IATA: Proper shipping name: Not regulated when quantity is ≤5 L/≤5 kg.
When >5 L/5kg:
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Poly quaternary ammonium chloride)
UN number: UN3082
Hazard class: 9
Packing group: III
IMO: Proper shipping name: Not regulated.
Marine Pollutant: No
Canadian TDG: Not regulated.

Section 15: Regulatory Information
United States Federal Regulations
SARA: None
SARA Title III: Section 302, Extremely Hazardous Substances: No. Section 311/312,
Hazardous Categories: No. Section 313, Toxic Chemicals: No.
RCRA: No
TSCA: In compliance.
CERCLA: None
State Regulations
Massachusetts: The following components are listed: TRIETHANOLAMINE; BORON SODIUM OXIDE
New Jersey: The following components are listed: TRIETHANOLAMINE; ETHANOL, 2,2’,2”NITRILOTRIS-;
BORATE COMPOUNDS, Inorganic
Pennsylvania: The following components are listed: ETHANOL, 2,2’,2”-NITRILOTRIS-; BORON SODIUM
OXIDE (B4NA2O7)
California Proposition 65:
WARNING: This product contains a chemical known to the State of California to cause cancer.
Diethanolamine; 2,2’-Iminodiethanol; Propylene oxide; 1,4-dioxane
WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. Ethylene oxide.

International Regulations
Australia inventory (AICS) All components are listed or exempted
Canada inventory All components are listed or exempted
China inventory (IECSC) All components are listed or exempted
Japan inventory (ENCS) All components are listed or exempted
Korea inventory (KECI) All components are listed or exempted
Philippines inventory (PICCS)
Canada WHMIS: ND
Europe EINECS Numbers: ND

Section 16: Other Information
European Risk and Safety Phrases: ND
European symbols needed: ND
Canadian WHMIS Symbols: ND

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