Section 1: Product and Company Identification

Product Name: Glutaraldehyde, 70% EM grade
Synonym: Glutaral, Glutaric Dialdehyde
Chemical Family: Aldehydes

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
Classification according to Regulation (EC) No 1272/2008

GHS Pictograms

GHS08  GHS05  GHS09  GHS07

GHS Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS05</td>
<td>Corrosive</td>
<td>Skin Corr. 1B: Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>GHS08</td>
<td>Health hazard</td>
<td>Resp. Sens. 1: May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
<tr>
<td>GHS09</td>
<td>Environment</td>
<td>Aquatic Acute 1: Very toxic to aquatic life.</td>
</tr>
<tr>
<td>GHS07</td>
<td>Irritant</td>
<td>Acute Tox. 4: Harmful if inhaled.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin Sens. 1: May cause an allergic skin reaction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOT SE 3: May cause respiratory irritation. May cause drowsiness or dizziness.</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labeling according to Regulation (EC) No 1272/2008
This product is classified and labeled according to the CLP regulation.

Hazard pictograms
Signal Word: DANGER

Hazard-determining components of labelling:
Glutaraldehyde

Hazard statements
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.

Precautionary statements
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable

Classification according to Directive 67/548/EEC or Directive 1999/45/EC
C; Corrosive
R35: Causes severe burns.
Xn; Harmful
R20: Harmful by inhalation.
Xn; Sensitizing
R42/43: May cause sensitisation by inhalation and skin contact.
N; Dangerous for the environment
R50: Very toxic to aquatic organisms.

Information concerning particular hazards for human and environment:
The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
Label elements
Labeling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous
Materials.
Code letter and hazard designation of product:
Label: C- Corrosive
Label: N- Dangerous for the environment
Hazard-determining components of labeling:
Glutaraldehyde

**Risk phrases:**
20 Harmful by inhalation.
35 Causes severe burns.
42/43 May cause sensitisation by inhalation and skin contact.
50 Very toxic to aquatic organisms.

**Safety phrases:**
23 Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer).
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
57 Use appropriate container to avoid environmental contamination.

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

**Emergency overview**
Appearance: Transparent Liquid
Immediate effects: Corrosive to skin and eyes

**Potential health effects**
Primary Routes of entry: Inhalation, ingestion, eye and skin contact.
Signs and Symptoms of Overexposure: ND
Eyes: Causes serious eye damage.
Skin: Causes skin irritation and may cause an allergic skin reaction.
Inhalation: May cause sensitisation. Irritating to respiratory system.
Chronic Exposure: ND
Chemical Listed As Carcinogen or Potential Carcinogen: No
See Toxicological Information (Section11)

**Potential environmental effects**
See Ecological Information (Section 12)
Section 4: First Aid Measures
If accidental overexposure is suspected
General information: Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Remove breathing equipment only after contaminated clothing have been completely removed.
Eye(s) Contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
Skin Contact: Immediately wash with water and soap and rinse thoroughly.
Inhalation: Supply fresh air or oxygen; call for doctor. In case of unconsciousness place patient stably in side position for transportation.
Ingestion: Call for a doctor immediately. Drink plenty of water and provide fresh air.
Note to physician
Treatment: ND
Medical Conditions generally Aggravated by Exposure: ND

Section 5: Fire Fighting Measures
Flash Point: 71 °C (160 °F)
Flammable Limits: NE
Auto-ignition point: Product is not self-igniting.
Fire Extinguishing Media: CO2, powder or water spray.
Special Fire Fighting Procedures: Fight larger fires with water spray or alcohol resistant foam. Wear respiratory protective device.
Unusual Fire and Explosion Hazards: Product does not present an explosion hazard.
Hazardous combustion products: No dangerous decomposition products known.
DOT Class: Corrosive.

Section 6: Accidental Release Measures
Steps to be Taken in Case Material is Released or Spilled: Wear protective equipment. Keep unprotected persons away. Do not allow to enter sewers/ surface or ground water. Dilute with plenty of water. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). 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:
No special handling requirements for storage.
Storage Temperature: 0-5ºC recommended for long term storage. Do not freeze.
Storage Pressure: NA

Section 8: Exposure Controls / Personal Protection
Ingredients with limit values that require monitoring in the workplace: Glutaraldehyde (111-30-8)
   WEL Short-term value: 0.2 mg/m³, 0.05 ppm
   Long-term value: 0.2 mg/m³, 0.05 ppm
   Sen
Engineering Controls
Ventilation required: Ensure adequate ventilation.
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 eyes and skin.
Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Protective gloves: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Skin protection: Wear suitable protective clothing.
Eye protection: Tightly sealed goggles.
Additional clothing and/or equipment: Eye wash station or shower.

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

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### Section 9 Physical and Chemical Properties

- **Appearance and Physical State:** Colorless liquid.
- **Odor (threshold):** Fruit like (ND)
- **Specific Gravity (H₂O=1):** 1.18 g/cm³
- **Vapor Pressure (mm Hg):** 23 hPa
- **Vapor Density (air=1):** ND
- **Percent Volatile by volume:** ND
- **Evaporation Rate (butyl acetate=1):** ND
- **Boiling Point:** 101 °C
- **Freezing point / melting point:** ND
- **pH:** ND
- **Solubility in Water:** Fully miscible.
- **Molecular Weight:** ND
- **Organic solvents:** 0.0 %
- **Water:** 30.0 %
- **VOC content:** 0.00 %

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### Section 10: Stability and Reactivity

- **Stability:** Stable under normal storage conditions.
- **Conditions to Avoid:** No decomposition if used according to specifications.
- **Materials to Avoid (Incompatibility):** No further relevant information available.
- **Hazardous Decomposition Products:** No dangerous decomposition products known.
- **Hazardous Polymerization:** No dangerous reactions known.

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### Section 11: Toxicological Information

- **Results of component toxicity test performed:** 111-30-8 Glutaraldehyde
- **Acute toxicity:**
  - LD/LC50 values relevant for classification: 111-30-8 Glutaraldehyde
    - Oral LD50 134 mg/kg (rat)
    - Dermal LD50 2560 mg/kg (rabbit)
- **Primary irritant effect:**
  - On the skin: Caustic effect on skin and mucous membranes
  - On the eye: Strong caustic effect.
- **Sensitization:** Sensitization possible through inhalation. Sensitization possible through skin contact.
- **Human experience:** ND
- **This product does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

**Additional toxicological information:**
This product shows the following danger according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
- **Harmful**
- **Corrosive**
- **Irritant**

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
**Section 12: Ecological Information**

Toxicity:
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.

Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.

Ecotoxical effects:
- Remark: Very toxic for fish

Additional ecological information:
- General notes:
  - Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water.
  - Do not allow product to reach ground water, water course or sewage system, even in small quantities.
  - Must not reach sewage water or drainage ditch undiluted or un-neutralized.
  - Danger to drinking water if even extremely small quantities leak into the ground.
  - Also poisonous for fish and plankton in water bodies.
  - Very toxic for aquatic organisms.

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: Proper shipping name: Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde 70%)
- Hazard Class: 8
- Packaging group: II
- UN Number: UN3265

IATA: Proper shipping name: Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde 70%)
- Hazard Class: 8
- Packaging group: II
- UN Number: UN3265

Marine Pollutant: Not listed in 49CFR tables.

Canadian TDG: Corrosive liquid, acidic, organic, n.o.s. (Glutaraldehyde 70%)

**Section 15: Regulatory Information**

**United States Federal Regulations**


SARA:
- Section 355 (extremely hazardous substances): None of the ingredients is listed.
- Section 313 (Specific toxic chemical listings): None of the ingredients is listed.

SARA Title III: SARA 302 Components.
- No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components.
- This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

RCRA: ND

TSCA: All ingredients are listed.

CERCLA: None of the ingredients listed.

**State Regulations**

California Proposition 65:
Chemicals known to cause cancer:
None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.

Chemicals known to cause developmental toxicity:
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): 111-30-8 Glutaraldehyde A4

NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed.

**International Regulations**

Canada WHMIS: ND

Europe EINECS Numbers: See Section 3.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**Section 16: Other Information**

Label Information: Corrosive.

European Risk and Safety Phrases: Risk phrases: Harmful if swallowed. Toxic by inhalation. Causes burns. Irritating to respiratory system. May cause sensitisation by inhalation and skin contact. Very toxic to aquatic organisms.

Safety phrases: Do not breathe gas/fumes/vapor/spray.

European symbols needed: ND

Canadian WHMIS Symbols:

B3 - Combustible liquid

D2A - Very toxic material causing other toxic effects

E - Corrosive material

**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.

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