Section 1: Product and Company Identification
Product Name: Chromium Products, Pieces, Targets
Synonym: Chromium
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
The substance is not classified as hazardous 29 CFR 1910 (OSHA HCS)

GHS Label Elements: Not applicable
Signal Word: Not applicable
Hazard pictograms: Not applicable
Hazard statements: Not applicable
WHMIS classification: Not controlled

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

Results of PBT and vPvB assessment: A chemical safety assessment has not been carried out.
PBT: NA
vPvB: NA

Emergency overview:
Appearance: Solid gray pellets, various sizes. Disc (Targets)
Immediate effects: ND
Other Potential health effects
**Fumes if generated:**
Primary Routes of entry: Inhalation, ingestion, eye and skin contact. Chromium may form metal fumes, which present different hazards than the substance itself.

**Signs and Symptoms of Overexposure fumes:**
Eyes: May cause eye irritation.
Skin: May cause skin irritation.
Ingestion: Harmful if swallowed.
Inhalation: Harmful if inhaled. May cause injury to the respiratory system and lungs.
Chronic Exposure: Prolonged exposure can cause damage to the liver and kidneys, and cause stomach pains, vomiting and diarrhea.

Chemical Listed As Carcinogen or Potential Carcinogen: No
See Toxicological Information (Section 11)

**Potential environmental effects**
See Ecological Information (Section 12)

### Section 3: Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Principle Hazardous Component(s)</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>Chromium (7440-47-3) EC-No: 231-157-5</td>
<td>≤ 100</td>
<td>1</td>
<td>0.5</td>
<td>No</td>
<td>3</td>
<td>No</td>
</tr>
</tbody>
</table>

### Section 4: First Aid Measures

**If accidental overexposure is suspected**
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. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.
Ingestion: Seek medical treatment. Wash out mouth with water. Give large quantities of water and induce vomiting. Do not cause an unconscious person to vomit.

**Note to physician**
Treatment: ND
Medical Conditions generally Aggravated by Exposure: Not further relevant information.

### Section 5: Fire Fighting Measures

Flash Point: ND
Flammable Limits: ND
Auto-ignition point: ND
Fire Extinguishing Media: In Fire Conditions, Dry chemical, CO2, earth, sand.
Unsuitable extinguishing agent: Water
Special Fire Fighting Procedures: No special measures required.
Unusual Fire and Explosion Hazards: Fine sized powder when suspended in the air could be ignited but could not be exploded.
Hazardous combustion products: Chromium Oxide, Toxic metal oxide fume.
DOT Class: Not regulated.

Section 6: Accidental Release Measures
Steps to be taken in Case Material is Released or Spilled:
Sweep or scoop up and remove. Evacuate area. Shut off all sources of ignition. Avoid raising dust. Wear SCBA. Wear disposable coveralls and discard them after use.
Ventilate area and wash spill site after material is picked up.
Environmental precautions: Do not allow material to be released to the environment without proper governmental permits. Do not allow product to reach sewage system or any water course. Do not allow to penetrate the ground/soil.
Methods and material for containment and cleaning up: Pick up mechanically.
Waste Disposal Methods: Dispose of waste according to Federal, State and Local Regulations.
Product Name: Chromium, in various manufactured forms.
PAC-1: 1.5 mg/m3
PAC-2: 17 mg/m3
PAC-3: 99 mg/m3

Section 7: Handling and Storage
Precautions to be taken in Handling and Storage: Keep container tightly sealed. Store in a cool, dry place in tightly closed containers.
No special measures enforced, regulated and/or are required in accordance to OSHA HCS but Chromium should be stored to avoid contact with strong oxidizers (such as chlorine, Bromine, and fluorine) since violent reactions occur. Sources of ignition such as smoking and open flames are prohibited where chromium is used, handled or stored in a manner that could create a potential fire or explosion hazard.
Storage temperature: Room temperatures.
Storage Pressure: ND

Section 8: Exposure Controls / Personal Protection
Engineering Controls
Ventilation required: Always maintain exposure below permissible exposure limits. Use chemical fume hood.

Personal Protection Equipment
The usual precautionary measures for handling chemicals should be followed.
Respiratory protection: Filter – dust, fume, and mist.
Protective gloves: Nitrile Rubber, NBR
Skin protection: Protective work clothing as required.
Eye protection: Safety glasses as required.
Additional clothing and/or equipment: The usual precautionary measure for handling chemicals should be followed.

Exposure Guidelines
Section 9 Physical and Chemical Properties
Appearance and Physical State: Silver/gray solid in various sizes.
Odor (threshold): Odorless.
Specific Gravity (H₂O=1): 7.19 g/cc
Vapor Pressure at 20 °C (mm Hg): 0 hPa
Vapor Density (air=1): NA
Percent Volatile by volume: ND
Evaporation Rate (butyl acetate=1): NA
Boiling Point: 2671 °C (4840 °F)
Melting point: 1907 °C (3465 °F)
pH: NA
Solubility in Water: Insoluble
Molecular Weight: ~52

Section 10: Stability and Reactivity
Stability: Stable under normal conditions.
Conditions to Avoid: Incompatible materials.
Materials to Avoid (Incompatibility): Strong acids, oxidizers, carbon dioxide, ammonium nitrate, chlorine, bromine pentafluoride, nitrogen oxide, sulfur dioxide.
Hazardous Decomposition Products: Chromium oxidizes.
Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information
Results of component toxicity test performed:
Acute Toxicity: No effects known.
LD/LC50 values that are relevant for classification: ND
Skin irritation: May irritate the skin.
Eye irritation: May cause irritation.
Sensitization: No sensitizing effects known.
Germ cell mutagenicity: No effects known.
Carcinogenicity: No effects known.
Reproductive toxicity: No effects known.
Aspiration hazard: No effects known.
Human experience: ND
Carcinogenicity:
IARC-3: Not classifiable as to carcinogenicity to humans.
ACGIH A4: Not classifiable as a human carcinogen.
Inhalation: EPA-A: human carcinogen: sufficient evidence from epidemiologic studies to support a causal association between exposure and cancer.
Inhalation: EPA-K: known human carcinogen
Oral: EPA-D: Not classifiable as a human carcinogen.
Oral: EPA-CBD: Carcinogenic potential cannot be determined.
This product does not contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information
Ecological Information: Do not allow material to be released to the environment without proper governmental permits. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Avoid transfer into the environment.

Chemical Fate Information: ND

Section 13 Disposal Considerations
RCRA 40 CFR 261 Classification: None

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.

Marine Pollutant: No

Canadian TDG: Not regulated.

Section 15: Regulatory Information
United States Federal Regulations

SARA Section 313: Substance is listed: Chromium (7440-47-3)

RCRA: Not listed.

TSCA: Substance is listed on the TSCA public inventory.

CERCLA: Substance is not listed.

State Regulations
California Proposition 65: Substance is not listed.

International Regulations
Canada WHMIS: Listed on the Canadian Domestic Substances List (DSL)

Europe EINECS Numbers: Chromium (7440-47-3): 231-157-5

Chemical Safety Assessment: Has not been carried out.

REACH (EC) No. 1907/2006 Substance of Very High Concern (SVHC): Substance not listed

Annex XIV of the REACH Regulations (requiring Authorization for use: Substance not listed

Section 16: Other Information
Label Information: ND

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
Disclaimer
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SDS Form 0013F1V4