SECTION 1 - PRODUCT & COMPANY INFORMATION

Product Name: ENGINE ENAMEL SILVER 17178    Product Code: PT-355-SILVER
MANUFACTURER:
Products/Techniques, Inc.
3271 S. Riverside Ave.
Bloomington, CA 92316
In an emergency, call:
CHEMTREC: 1.800.424.9300
OPERATING HOURS: 8:00 am - 4:30 pm PDT

SECTION 2 - HAZARDS IDENTIFICATION

HMIS:230X

GHS Ratings:

<table>
<thead>
<tr>
<th>Property</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquid</td>
<td>2</td>
<td>Flash point &lt; 23°C and initial boiling point &gt; 35°C (95°F)</td>
</tr>
<tr>
<td>Oral Toxicity</td>
<td>Acute 4</td>
<td>Oral&gt;300+&lt;=2000mg/kg</td>
</tr>
<tr>
<td>Dermal Toxicity</td>
<td>Acute 4</td>
<td>Dermal&gt;1000+&lt;=2000mg/kg</td>
</tr>
<tr>
<td>Inhalation Toxicity</td>
<td>Acute 4</td>
<td>Gases&gt;2500+&lt;=5000ppm, Vapors&gt;10+&lt;=20mg/l, Dusts&amp;mists&gt;1+&lt;=5mg/l</td>
</tr>
<tr>
<td>Skin corrosive</td>
<td>3</td>
<td>Reversible adverse effects in dermal tissue, Draize score: &gt;= 1.5 &lt; 2.3</td>
</tr>
<tr>
<td>Eye corrosive</td>
<td>2B</td>
<td>Mild eye irritant: Subcategory 2B, Reversible in 7 days</td>
</tr>
<tr>
<td>Respiratory sensitizer</td>
<td>1</td>
<td>Respiratory sensitizer</td>
</tr>
<tr>
<td>Skin sensitizer</td>
<td>1</td>
<td>Skin sensitizer</td>
</tr>
</tbody>
</table>

GHS Hazards

- H225 Highly flammable liquid and vapour
- H302 Harmful if swallowed
- H305 May be harmful if swallowed and enters airways
- H313 May be harmful in contact with skin
- H317 May cause an allergic skin reaction
- H320 Causes eye irritation
- H332 Harmful if inhaled
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

GHS Precautions

- P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking
- P233 Keep container tightly closed
- P240 Ground/bond container and receiving equipment
- P241 Use explosion-proof electrical/ventilating/light/…/equipment
- P242 Use only non-sparking tools
- P243 Take precautionary measures against static discharge
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray
SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS number</th>
<th>Weight Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALKYD RESIN - NOT HAZARDOUS</td>
<td></td>
<td>56.54%</td>
</tr>
<tr>
<td>ACETONE</td>
<td>67-64-1</td>
<td>16.71%</td>
</tr>
<tr>
<td>HEPTAN-2-ONE</td>
<td>110-43-0</td>
<td>10.60%</td>
</tr>
<tr>
<td>ALUMINUM PIGMENT</td>
<td>7429-90-5</td>
<td>7.78%</td>
</tr>
<tr>
<td>MINERAL SPIRITS</td>
<td>8052-41-3</td>
<td>3.95%</td>
</tr>
<tr>
<td>N-BUTYL ACETATE NORMAL</td>
<td>123-86-4</td>
<td>3.53%</td>
</tr>
<tr>
<td>ADDITIVE</td>
<td>96-29-7</td>
<td>0.38%</td>
</tr>
<tr>
<td>ZIRCONIUM ADDITIVE</td>
<td>22464-99-9</td>
<td>0.30%</td>
</tr>
<tr>
<td>COBALT ADDITIVE</td>
<td>61789-51-3</td>
<td>0.21%</td>
</tr>
</tbody>
</table>

SECTION 4 - FIRST AID MEASURES

INHALATION: If breathing problems occur during use, LEAVE AREA IMMEDIATELY and get fresh air. If breathing problems remain, SEEK IMMEDIATE MEDICAL ATTENTION.

EYE CONTACT: Flush eyes with large amounts of clean water for at least 20 minutes. Seek immediate medical attention.

SKIN CONTACT: Wash affected area thoroughly with soap and water. Get medical attention if irritation.
develops or persists. Remove contaminated clothing and launder before re-use.

INGESTION: Do not induce vomiting. Get immediate medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: -20 C (-4 F)
LEL: UEL: 13.00

All flashpoints: TCC

EXTINGUISHING MEDIA: Alcohol foam, carbon dioxide (CO2), dry chemical, water spray/water fog extinguishing systems

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors can travel to a source of ignition and flash back. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures at or above the flashpoint. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner, or properly disposed of.

SPECIAL FIREFIGHTING PROCEDURES: Containers can build up pressure if exposed to heat (fire). As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways.

SECTION 7 - HANDLING & STORAGE

HANDLING: Wear all appropriate Personal Protective Equipment (PPE). Wear appropriate respiratory protection and ensure adequate ventilation at all times as vapors can accumulate over time in enclosed spaces and poorly ventilated areas. Use product in a way that minimizes splashes and/or creation of dust. Wash with soap and water thoroughly after each use.

STORAGE: Keep away from heat, sparks and flame. Keep container closed when not in use. Store in a cool dry area at a temperature between 50 and 95 degrees F. Do not store outside in direct sunlight.

SECTION 8 - EXPOSURE CONTROL AND PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Chemical Name / CAS No.</th>
<th>OSHA Exposure Limits</th>
<th>ACGIH Exposure Limits</th>
<th>Other Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALKYD RESIN - NOT HAZARDOUS</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>ALKYD RESIN-CAS: PROPRIETARY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACETONE 67-64-1</td>
<td>1000 ppm TWA; 2400 mg/m3</td>
<td>750 ppm STEL</td>
<td>NIOSH: 250 ppm TWA; 590 mg/m3</td>
</tr>
</tbody>
</table>

SDS for: PT-355-SILVER
ENGINEERING CONTROLS: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

VENTILATION & RESPIRATORY PROTECTION: Always follow all local, state, and federal laws and regulations regarding the use of respirators. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator’s use. Wear a MSHA/NIOSH approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

ADMINISTRATIVE CONTROLS: All individual company safety policies should be reviewed to determine compliance with applicable Federal, State and local safety regulations. If a company determines that threshold limit values and air quality contaminant level have not been exceeded, then that company should set it's own policies regarding the use of respirators and other Personal Protective Equipment.

SKIN PROTECTION: Where contact is likely, wear chemical resistant gloves, such as neoprene or solvent resistant nitrile. To prevent repeated or prolonged skin contact, wear impervious clothing such as a chemical suit, rubber boots, and/or chemical safety goggles plus a face shield if such should be necessary. If the equipment to be worn is not available or the type of equipment for a specific job is not known, consult a reputable safety equipment supply company. Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

EYE PROTECTION: Wear safety glasses with side shields (or goggles) and a face shield.

OTHER PROTECTIVE EQUIPMENT: Where splashing is possible, full chemically resistant protective clothing (e.g. acid suit) and boots are required.
HYGIENIC PRACTICES: Wash hands before eating. Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid prolonged or repeated contact with skin. Avoid breathing vapors from heated material. Avoid contact with eyes, skin, and clothing.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES
This product exhibits the following properties under normal conditions:

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Pigmented liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>85.3 mmHg</td>
</tr>
<tr>
<td>Wt% Solids</td>
<td>64.83</td>
</tr>
<tr>
<td>VOC(g/l) Less H2O and Exempt Compounds</td>
<td>240.82</td>
</tr>
<tr>
<td>VOC (g/L) Material</td>
<td>188.74</td>
</tr>
<tr>
<td>% VOC (C.A.R.B)</td>
<td>18.47</td>
</tr>
<tr>
<td>Odor</td>
<td>Solvent like</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>3.09</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>56 to 360 °C, 133 to 680 °F</td>
</tr>
<tr>
<td>Weight/Gallon</td>
<td>8.53</td>
</tr>
<tr>
<td>VOC(lbs/gal) Less H2O and Exempt Compounds</td>
<td>2.01</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.02</td>
</tr>
</tbody>
</table>

SECTION 10 - REACTIVITY & STABILITY
STABILITY:

STABLE

INCOMPATIBILITY (Materials to avoid): strong acids and bases, oxidizers, and selected amines.

CONDITIONS TO AVOID: Avoid all possible sources of ignition.

No Data

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide (CO) and carbon dioxide (CO2). Other unknown hazardous products are possible.

No Data
Hazardous polymerization will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION
Mixture Toxicity
Dermal Toxicity LD50: 121mg/kg

Component Toxicity
110-43-0 HEPTAN-2-ONE
Oral LD50: 1,670 mg/kg (Rat)

96-29-7 ADDITIVE
Oral LD50: 930 mg/kg (Rat) Inhalation LC50: 20 mg/L (Rat)

61789-51-3 COBALT ADDITIVE
Oral LD50: 3,900 mg/kg (Rat)

INHALATION: Headaches, dizziness, nausea, decreased blood pressure, change in heart rate, and cyanosis may result from overexposure to vapor. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

INGESTION: This material may be harmful or fatal if swallowed.

SKIN CONTACT: May cause sensitization or allergic reaction.

EYE CONTACT: Direct contact with liquid, exposure to vapors or mist may cause stinging, tearing,
redness, swelling and eye damage.

Routes of Entry:

Inhalation  Skin Contact  Eye Contact  Ingestion

Exposure to this material may affect the following organs:

Effects of Overexposure

CARCINOGENICITY:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>% Weight</th>
<th>Carcinogen Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>61789-51-3</td>
<td>COBALT ADDITIVE</td>
<td>0.207</td>
<td>COBALT ADDITIVE: IARC: Possible human carcinogen OSHA: listed</td>
</tr>
</tbody>
</table>

ACUTE TOXICITY:

INHALATION: Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

CONDITIONS AGGRAVATED: Unknown.

CHRONIC EFFECTS: Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage.

SECTION 12 - ECOLOGICAL INFORMATION

No information available.

Component Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>96 Hr LC50 Pimephales promelas: 6210-8120 mg/L [static]</th>
<th>48 Hr EC50 water flea: 0.0039 mg/L; 48 Hr EC50 water flea: 12700 mg/L [Static]; 48 Hr EC50 Daphnia magna: 12600 mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>96 Hr LC50 Pimephales promelas: 131.0 mg/L [flow-through]</td>
<td></td>
</tr>
<tr>
<td>HEPTAN-2-ONE</td>
<td>96 Hr LC50 Leuciscus idus: 62 mg/L [static]</td>
<td>48 Hr EC50 water flea: 44 mg/L</td>
</tr>
<tr>
<td>N-BUTYL ACETATE NORMAL</td>
<td>96 Hr LC50 Scenedesmus subspicatus: 320 mg/L; 72 Hr EC50 Scenedesmus subspicatus: 674.7 mg/L</td>
<td>72 Hr EC50 Scenedesmus subspicatus: 83 mg/L</td>
</tr>
<tr>
<td>ADDITIVE</td>
<td>96 Hr LC50 Leuciscus idus: 320-1000 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 760 mg/L [ static ]</td>
<td>48 Hr EC50 Daphnia magna: 750 mg/L</td>
</tr>
<tr>
<td></td>
<td>72 Hr EC50 Scenedesmus subspicatus: 83 mg/L</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13 - DISPOSAL CONSIDERATIONS

It is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition. Maximize material recovery for reuse or recycling.

It is the responsibility of the user to determine if the material is a RCRA "hazardous waste" at the time of disposal. Transportation, treatment, storage, and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive. Contact your regional US EPA office for guidance concerning case specific disposal issues.

Non-usable product is regulated by US EPA as hazardous material under the following codes:
SECTION 14 - TRANSPORTATION / SHIPPING INFORMATION

Hazardous Material! Ship according to all applicable local, state, and federal regulations regarding labeling and packaging requirements.

<table>
<thead>
<tr>
<th>Agency</th>
<th>Proper Shipping Name</th>
<th>UN Number</th>
<th>Packing Group</th>
<th>Hazard Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.O.T.</td>
<td>PAINT</td>
<td>UN 1263</td>
<td>II</td>
<td>3</td>
</tr>
</tbody>
</table>

SECTION 15 - REGULATORY INFORMATION

Additional regulatory listings, where applicable.

The following chemicals are listed under California Proposition 65:

61789-51-3  COBALT ADDITIVE  0.21 %  Mutagen

The following chemicals appear on the New Jersey Right-To-Know Chemicals list:

110-43-0    HEPTAN-2-ONE
8052-41-3   MINERAL SPIRITS
123-86-4    N-BUTYL ACETATE NORMAL

The following chemicals appear on the Pennsylvania Right-To-Know list:

110-43-0    HEPTAN-2-ONE  10.60 %
8052-41-3   MINERAL SPIRITS  3.95 %
123-86-4    N-BUTYL ACETATE NORMAL  3.53 %

SARA HAZARD CATEGORY: The product has been reviewed according to the EPA 'Hazard Categories' promulgated under sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

67-64-1    ACETONE  Fire Hazard, Acute Health Hazard
110-43-0    HEPTAN-2-ONE  Fire Hazard
8052-41-3   MINERAL SPIRITS  Fire Hazard
123-86-4    N-BUTYL ACETATE NORMAL  Fire Hazard, Acute Health Hazard
61789-51-3  COBALT ADDITIVE  Fire Hazard, Acute Health Hazard, Chronic Health Hazard

TOXIC SUBSTANCES CONTROL ACT:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

- None

<table>
<thead>
<tr>
<th>Country</th>
<th>Regulation</th>
<th>All Components Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU Risk Phrases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety Phrase</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The chemical substances listed below are not on the TSCA Section 8 Inventory:

- None

SARA Section 313: The product contains the following substances subject to the reporting requirements of section 313 and Title II of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

61789-51-3  COBALT ADDITIVE  0.21%

SECTION 16 - OTHER INFORMATION

The information in this document is believed to be correct as of the date printed.
NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT OR THE HAZARDS RELATED TO ITS USE.

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**Hazardous Material Information System (HMIS)**

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

**HMIS & NFPA Hazard Rating Legend**
- $^*$ = Chronic Health Hazard
- 0 = INSIGNIFICANT
- 1 = SLIGHT
- 2 = MODERATE
- 3 = HIGH

**National Fire Protection Association (NFPA)**

- Health: 3
- Flammability: 2
- Instability: X
- Special:

Date Prepared: 4/23/2018

Reviewer Revision