1. Product Identification

Product name: Spar Urethane Varnish Satin
SDS Number: 1855500
Product type: Urethane mixture.

Recommended use of the chemical and restrictions on use:
Directed at, but not limited to, the finishing and coating of wood.

Restrictions: None known.

Manufacturer/Supplier information

Company name: SYSTEM THREE RESINS, INC.
Address: 3500 W. Valley Hwy North
Suite 105
Auburn, WA 98001-2436
United States

Telephone: 1-253-333-8118
Website: www.systemthree.com
Email: support-08@systemthree.com

Emergency Contact: CHEMTREC (U.S. and CANADA) 1-800-424-9300
CHEMTREC (Outside the U.S.) 1-703-527-0585

2. Hazard(s) Identification

Classification of substance or mixture/Signal word:
DANGEROUS Flammable liquid Category 3
Eye Corrosive Category 2B

GHS Label Elements:

Hazard Pictograms

Hazard statements:
H225 Highly flammable liquid and vapor
H304 May be fatal if swallowed and enter airways
H315 Causes skin irritation
H332 Harmful if inhaled
H413 May cause long lasting harmful effects to aquatic life

Precautionary Statements:

Prevention:
P280 Wear protective gloves. Wear eye or face protection.
P241 Use explosion-proof electrical/ventilating/light/.../equipment.
P260 Do not breathe dust/fume/gas/mist/vapors/spray
P271 Use only outdoors or in a well-ventilated area.

Response:
P308 + P313 If exposed or concerned: Get medical attention.

Storage:
P401 Store above 32 °F / 0 °C

Disposal:
P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified (HNOC):
None Available.
3. Composition/Information On Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Content (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Spirits</td>
<td>8052-41-3</td>
<td>20 – 30</td>
</tr>
<tr>
<td>Solvent Naphtha (Petroleum), Light aromatic</td>
<td>64742-95-6</td>
<td>5 – 10</td>
</tr>
</tbody>
</table>

4. First-Aid Measures

**Inhalation**
Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

**Skin contact**
Remove contaminated clothing and shoes and wipe excess off skin. Flush skin with water for at least 15 minutes. Follow by washing in soap and water. If irritation occurs, seek medical attention. Do not reuse clothing until cleaned.

**Eye contact**
Flush with water for 15 minutes holding eye lids open. Get medical attention, if irritation occurs or persists.

**Ingestion**
Do not give anything if victim is unconscious or very drowsy. DO NOT INDUCE VOMITING. Seek medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

**Most important symptoms/effects, acute and delayed**
Irritation. Pre-existing skin conditions may be aggravated by prolonged or repeated contact. Persons with sensitive airways (e.g., asthmatics) may be sensitive to vapors.

**Indication of immediate medical attention and special treatment needed**
Treat symptoms as they appear.

5. Fire-Fighting Measures

**Suitable extinguishing media**
Foam, carbon dioxide, dry chemical, water fog.

**Unsuitable extinguishing media**
None known

**Specific hazards arising from the chemical**
Carbon monoxide and unidentified organic compounds may be formed during combustion.

**Special protective equipment and precautions for fire-fighters**
When fighting chemical fires wear full bunker gear, including a positive pressure NIOSH approved self-contained breathing apparatus (SCBA). Water spray may be used to cool fire-exposed containers. When heated above the flash point, this material emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

**Fire-fighting equipment/instructions**
Full fire suit and self-contained breathing apparatus.

**Specific methods**
Water spray may be used to cool fire-exposed containers. Toxic fumes may be evolved when this substance is burned.

**General fire hazards**
Warning! Flammable liquid. Clear fire area of unprotected personnel.

6. Accidental Release Measures

**Personal precautions**
Wear proper personal protective equipment (PPE). Avoid direct contact with material.

**Protective equipment**
Proper PPE includes: disposable gloves, eye protection and skin protection.
Emergency procedures

If material is spilled, avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete.

Methods and materials for containment/cleanup

Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency. Take up the spilled liquid with sand, earth, or other noncombustible absorbent material and place in a plastic container where applicable.

7. Handling And Storage

Precautions for safe handling
Read carefully all cautions and directions on product label before use.

Precautions/Recommendations for safe/proper storage
Keep away from heat, sparks, and open flame, and out of the reach of pets or children. Surfaces that are hot may ignite even liquid products in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone. 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. Store in cool, dry place.

Chemical incompatibilities
None known.

8. Exposure Controls/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>Mineral Spirits 8052-41-3</td>
<td>TWA: 2900 mg/m3 8 hours</td>
<td>TWA: 525 mg/m3 8 hours</td>
<td>Not Established</td>
</tr>
<tr>
<td>Solvent Naphtha (Petroleum), Light Aromatic 64742-95-6</td>
<td>TWA: 500 ppm 8 hours Not Established</td>
<td>TWA: 100 ppm 8 hours Not Established</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination. General mechanical ventilation or local exhaust should be suitable to keep vapor concentrations below TLV. Ventilation equipment must be explosion proof.

Eye/face protection
Chemical splash goggles and face shield in compliance with OSHA regulations are advised; however, OSHA regulations also permit other types of safety glasses. (Consult your industrial hygienist).

Skin protection
Wear chemical resistant gloves such as: Poly Vinyl Alcohol (PVA), Viton, or Teflon gloves or consult your safety equipment supplier. Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn. The equipment must be cleaned thoroughly after each use.

Respiratory protection
Use a NIOSH-approved respiratory device or air-supplied respirator if exposure exceeds any occupational limits. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

General hygiene during/after use
Use good personal hygiene when handling this product. Wash hands after use before eating, drinking, smoking or using the toilet.
Other use precautions

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. If clothing is contaminated, discard or launder.

9. Physical And Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Translucent liquid</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Form</td>
<td>Satin Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Amber</td>
</tr>
<tr>
<td>Odor</td>
<td>Pungent odor</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Density (Specific gravity)</td>
<td>0.913</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Data not available</td>
</tr>
<tr>
<td>pH</td>
<td>Data not available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Data not available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>157 to 196°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>38°C (100°F)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Slower than ether</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Data not available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit (by volume)</td>
<td>12.8</td>
</tr>
<tr>
<td>Lower flammability limit (by volume)</td>
<td>0.01</td>
</tr>
<tr>
<td>Material VOC</td>
<td>440-450 g/l (3.75 lb/gal)</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Heavier than air</td>
</tr>
<tr>
<td>Relative density</td>
<td>Data not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not determined</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Data not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Data not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Data not available</td>
</tr>
</tbody>
</table>

10. Stability And Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>None</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>Stable</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Hazardous polymerization will not occur</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Epoxy resins and epoxy resin hardeners react with each other producing heat. They should not be mixed with each other under uncontrolled conditions or in large mass as the ensuing exotherm may result in heat and smoke, resulting in hazardous decomposition products.</td>
</tr>
</tbody>
</table>
Incompatible materials
Strong oxidizing agents, Lewis and mineral acids. Will dissolve or soften some plastics and rubber.

Hazardous decomposition products
Carbon monoxide and unidentified organic compounds may be formed during combustion. There should be no decomposition if stored and applied as directed.

11. Toxicological Information

Mixture Toxicity
Inhalation Toxicity LC50: 3,866 mg/kg

Component Toxicity

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mineral Spirits</td>
<td>Dermal LD50: 3,160 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Solvent Naphtha (Petroleum), Light Aromatic</td>
<td>Oral LD50: &gt;14,000 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dermal LD50: &gt;2,000 mg/kg</td>
</tr>
<tr>
<td>8052-41-3</td>
<td>Rabbit</td>
<td>Inhalation LC50: 6,000 – 10,000 mg/m3</td>
</tr>
</tbody>
</table>
| 64742-95-6 | Sprague-Dawley Rabbit Rat – 4h

Potential Health Effects

Ingestion
Liquid is moderately toxic and may be harmful if swallowed; may produce CNS depression. Ingestion of product may result in vomiting; aspiration (breathing) of vomitus into the lungs must be avoided as even small quantities may result in aspiration pneumonitis.

Inhalation
High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness).

Skin contact
Liquid is mildly irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Eye contact
Liquid is moderately irritating to the eyes. High vapor concentrations may also be irritating. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness.

Information on carcinogenicity
No comprehensive data available showing potential carcinogenicity by OSHA, NTP, or IARC.

Immediate concerns
WARNING! Flammable liquid and vapor. Harmful or fatal if swallowed. Vapor harmful. May cause central nervous system depression. May be irritating to eyes and skin.

Medical conditions aggravated
Persons with pre-existing skin, eye, or central nervous system disorders, or impaired liver, kidney, or pulmonary function may be susceptible to the effects of this substance.

Comments
Reports have associated repeated and prolonged occupational overexposure to solvents with irreversible brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

12. Ecological Information

Ecotoxicity
Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

Component

<table>
<thead>
<tr>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>
13. Disposal Considerations

If Material is Spilled
Avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete. Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank or drum. Remaining liquid may be taken up on clay, diatomaceous earth, sawdust, or other absorbent, and shoveled into disposal containers.

Waste Disposal Method
The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

RCRA/EPA Waste Information
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. Transport Information

Regulatory information

<table>
<thead>
<tr>
<th>DOT</th>
<th>UN/NA number</th>
<th>Proper Shipping Name</th>
<th>Class or Division</th>
<th>Packing Group</th>
<th>Label(s)</th>
<th>Marine Pollutant</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1263</td>
<td>Paint</td>
<td>3</td>
<td>III</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TDG</th>
<th>UN/NA number</th>
<th>Proper Shipping Name</th>
<th>Class or Division</th>
<th>Packing Group</th>
<th>Label(s)</th>
<th>Marine Pollutant</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1263</td>
<td>Paint</td>
<td>3</td>
<td>III</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMO/IMDG</th>
<th>UN/NA number</th>
<th>Proper Shipping Name</th>
<th>Class or Division</th>
<th>Packing Group</th>
<th>Label(s)</th>
<th>Marine Pollutant</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1263</td>
<td>Paint</td>
<td>3</td>
<td>III</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IATA (Cargo)</th>
<th>UN/NA number</th>
<th>Proper Shipping Name</th>
<th>Class or Division</th>
<th>Packing Group</th>
<th>Label(s)</th>
<th>Marine Pollutant</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1263</td>
<td>Paint</td>
<td>3</td>
<td>III</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Regulatory Information

UNITED STATES

U.S. Federal Regulations | SARA TITLE III (Superfund Amendments and Reauthorization Act)
SARA 311/312 Hazard Categories: This product should be reported as immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

SARA 302/304 Emergency Planning: To the best of our knowledge, this product is not listed as an extremely hazardous substance.

California Prop. 65: This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

United States inventory (TSCA 8b): All components are listed or exempted.

CANADA: All components are listed in the DSL.

WHMIS (Canada): Class B-2: Flammable liquid.
Class D-2B: Material causing other toxic effects (Toxic).

Canadian NPRI: None Required
CEPA Toxic substances: None Required

INTERNATIONAL REGULATIONS

International Lists
Australia inventory (AICS): All components are listed or exempted.
Canada inventory: All components are listed or exempted.
Japan inventory: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.

16. Other Information, Including Date Of Preparation Or Last Revision

HMIS Rating

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
</tr>
<tr>
<td>Flammability</td>
<td>2</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
</tbody>
</table>

Date of Preparation: August 9, 2016
Prepared By: N. Kim

The information contained herein is based on the data available to us and is believed to be correct. However, System Three Resins, Inc. makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. System Three assumes no responsibility for injury from the use of the product described herein.