SECTION I: PRODUCT INFORMATION

PRODUCT NAME OR NUMBER (as it appears on label)
ORANGE TOUGH 15

MANUFACTURER'S NAME
Spartan Chemical Co., Inc.

ADDRESS (NUMBER, STREET, CITY, STATE AND ZIP CODE)
110 N. Westwood Ave., Toledo, OH 43607

EMERGENCY TELEPHONE NO.
419/531-5551

MANUFACTURER'S D-U-N-S NO.
00-503-6728

<table>
<thead>
<tr>
<th>NFPA RATINGS:</th>
<th>HMIS RATINGS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH-1 FIRE-2 REACT-0</td>
<td>HEALTH-1 FIRE-2 REACT-0 PERS. PROT.-B</td>
</tr>
</tbody>
</table>

SECTION II: HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>CAS REGISTRY NO.</th>
<th>%W</th>
<th>CHEMICAL NAME(S)</th>
<th>TABLE Z-1-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>5989-27-5</td>
<td>10-15</td>
<td>d-limonene</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mg/M³</td>
</tr>
</tbody>
</table>

No

SECTION III: PHYSICAL DATA

BOILING POINT
212°F

SPECIFIC GRAVITY (H₂O = 1)
0.99

PERCENT SOLID BY WEIGHT
15-20%

VAPOR PRESSURE
Unknown

EVAPORATION RATE (but. aca. = 1)
<1

VAPOR DENSITY (AIR = 1)
Unknown

APPEARANCE AND ODOR
Clear, orangeish liquid
Orange citrus fragrance

SOLUBILITY IN WATER
Complete microemulsion

IS MATERIAL: (LIQUID) SOLID
GAS PASTE POWDER

pH
8.2

SECTION IV: FIRE & EXPLOSION HAZARD DATA

FLASH POINT
126°F Tag Closed Cup

METHOD USED - ASTM - D92

FLAMMABLE LIMITS - Unknown

EXTinguISHING MEDIA - Foam, dry chemical, CO₂, water fog or spray

SPECIAL FIRE FIGHTING PROCEDURES - None

UNUSUAL FIRE AND EXPLOSION HAZARDS - Combustible liquid. Keep away from heat, sparks or flame.
SECTION V: HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE - CONDITIONS TO AVOID
May cause skin or eye irritation. Do not ingest.

THRESHOLD LIMIT VALUE - Not established

PRIMARY ROUTES OF ENTRY  INHALATION  SKIN CONTACT  X  OTHER (SPECIFY)  

CONDITIONS AGGRAVATED BY USE - Unknown

EMERGENCY AND FIRST AID PROCEDURES - EYES: In case of eye contact, flush eyes with water for at least 15 minutes; remove contact lenses. If irritation persists, consult a physician. SKIN: In case of skin contact, wash with soap and water. INGESTION: If swallowed, drink water to dilute. Do not induce vomiting. Contact physician immediately. Never give anything by mouth to an unconscious person.

SECTION VI: REACTIVITY DATA

STABILITY:  UNSTABLE  
STABLE  X  

INCOMPATIBILITY (MATERIALS TO AVOID)
Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS
None known

HAZARDOUS MAY OCCUR  
POLYMERIZATION:  WILL NOT OCCUR  X  

SECTION VII: SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Large amounts should be absorbed or recovered. Small amounts can be flushed to sanitary sewer system.

WASTE DISPOSAL METHOD
Same as above.

SECTION VIII: SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE)
None normally required.

VENTILATION - Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

PROTECTIVE GLOVES (SPECIFY TYPE)
Chemical resistant gloves

OTHER PROTECTIVE GLOVES - None

EYE PROTECTION (SPECIFY TYPE)
Chemical splash goggles

SECTION IX: SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND StORING
Combustible liquid. Keep away from heat, sparks or flame.

OTHER PRECAUTIONS
None

Spartan Chemical Co., Inc.
ORANGE TOUGH 15
Ref: 29 CFR 1910:1200 (OSHA)

NAME  Thomas J. Mitchell
TITLE  Director of Research
DATE  November 23, 1992

©SCC11/92 Copyrighted: Spartan Chemical Co., Inc. - For Use Only by Authorized Spartan Distributors.