



# Safety Data Sheet

## Spartan Chemical Company, Inc.

Revision Date: 07-Aug-2015

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier**

**Product Name:** ORANGE TOUGH 90  
**Product Number:** 2290  
**Recommended Use:** Cleaning agent  
**Uses Advised Against:** For Industrial and Institutional Use Only

**Manufacturer/Supplier:** Spartan Chemical Company, Inc.  
1110 Spartan Drive  
Maumee, Ohio 43537 USA  
800-537-8990 (Business hours)  
[www.spartanchemical.com](http://www.spartanchemical.com)

**24 Hour Emergency Phone Numbers:**

**Medical Emergency/Information:** 888-314-6171  
**Transportation/Spill/Leak:** CHEMTREC 800-424-9300

### 2. HAZARDS IDENTIFICATION

**GHS Classification**

Skin Corrosion/Irritation: Category 2  
Serious Eye Damage/Eye Irritation: Category 1  
Skin Sensitization: Category 1  
Flammable Liquids: Category 3

**GHS Label Elements**

**Signal Word:**

**Symbols:**

**Danger**



**Hazard Statements:**

Causes skin irritation.  
Causes serious eye damage  
May cause an allergic skin reaction  
Flammable liquid and vapor.

**Precautionary Statements:**

**Prevention:**

Wash hands and any exposed skin thoroughly after handling.  
Wear eye / face protection  
Wear protective gloves  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing should not be allowed out of the workplace  
Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
Keep container tightly closed  
Ground container and receiving equipment.  
Use explosion-proof electrical equipment.  
Use only non-sparking tools  
Take precautionary measures against static discharge

**Response:**

<b>-Eyes</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.
<b>-Skin</b>	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse.
<b>-Specific Treatment:</b>	See Safety Data Sheet Section 4: "FIRST AID MEASURES" for additional information.
<b>Fire:</b>	In case of fire: Use Water spray, fog or regular foam for extinction
<b>Storage:</b>	Store in a well-ventilated place. Keep cool
<b>Disposal:</b>	Dispose of contents and container in accordance with local, state and federal regulations. Do not dispose of this product by pouring on the ground, into storm sewers, waterways or other surface waters. Consult with local, federal and state authorities prior to disposal of any d-limonene containing product into the sanitary sewer system.
<b>Hazards Not Otherwise Classified:</b>	Not Applicable
<b>Other Information:</b>	<ul style="list-style-type: none"> <li>• Harmful if swallowed</li> <li>• Inhalation of vapors or mist may cause respiratory irritation.</li> <li>• Mops, towels or rags dampened with this product are combustible and may also be subject to spontaneous combustion. Thoroughly rinse these materials with water to remove product before disposal or discard in special containers designed for this purpose.</li> <li>• Keep out of reach of children.</li> </ul>

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
d-limonene	5989-27-5	60-100
nonylphenol ethoxylate	127087-87-0	7-13
alcohol ethoxylate	68439-46-3	1-5

Specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

<b>-Eye Contact:</b>	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.
<b>-Skin Contact:</b>	Take off immediately all contaminated clothing. Rinse skin with water or shower. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse.
<b>-Inhalation:</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or physician if you feel unwell.
<b>-Ingestion:</b>	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if you feel unwell.
<b>Note to Physicians:</b>	Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media:</b>	Water spray, fog or regular foam, Dry chemical or CO2
<b>Specific Hazards Arising from the Chemical:</b>	Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.
<b>Hazardous Combustion Products:</b>	May include Carbon monoxide Carbon dioxide and other toxic gases or vapors.
<b>Protective Equipment and Precautions for Firefighters:</b>	Wear MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear. Cool fire-exposed containers with water spray.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Use personal protective equipment as required.
<b>Environmental Precautions:</b>	Do not rinse spill onto the ground, into storm sewers or bodies of water. Do not dispose of this product by pouring on the ground, into storm sewers, waterways or other surface waters. Consult with local, federal and state authorities prior to disposal of any d-limonene containing product into the sanitary sewer system.
<b>Methods for Clean-Up:</b>	Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

## 7. HANDLING AND STORAGE

<b>Advice on Safe Handling:</b>	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.
<b>Storage Conditions:</b>	Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Occupational Exposure Limits:</b>	None established.
<b>Engineering Controls:</b>	Provide good general ventilation. If work practices generate dust, fumes, gas, vapors or mists which expose workers to chemicals above the occupational exposure limits, local exhaust ventilation or other engineering controls should be considered.
<b>Personal Protective Equipment</b>	
<b>Eye/Face Protection:</b>	Wear splash goggles.
<b>Skin and Body Protection:</b>	Wear rubber or other chemical-resistant gloves.
<b>Respiratory Protection:</b>	Not required with expected use. If occupational exposure limits are exceeded or respiratory irritation occurs, use of a NIOSH/MSHA approved respirator suitable for the use-conditions and chemicals in Section 3 should be considered.
<b>General Hygiene Considerations:</b>	Wash hands and any exposed skin thoroughly after handling. See 29 CFR 1910.132-138 for further guidance.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance/Physical State:</b>	Liquid
<b>Color:</b>	Orange
<b>Odor:</b>	Orange
<b>pH:</b>	Not applicable
<b>Melting Point / Freezing Point:</b>	No information available.
<b>Boiling Point / Boiling Range:</b>	154 °C / 309 °F
<b>Flash Point:</b>	51 °C / 124 °F ASTM D56
<b>Evaporation Rate:</b>	< 1 (Butyl acetate = 1)
<b>Flammability (solid, gas)</b>	No information available.
<b>Upper Flammability Limit:</b>	No information available.
<b>Lower Flammability Limit:</b>	No information available.
<b>Vapor Pressure:</b>	No information available.
<b>Vapor Density:</b>	No information available.
<b>Specific Gravity:</b>	0.86
<b>Solubility(ies):</b>	Miscible in water
<b>Partition Coefficient:</b>	No information available.
<b>Autoignition Temperature:</b>	No information available.
<b>Decomposition Temperature:</b>	No information available.
<b>Viscosity:</b>	No information available.

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	This material is considered to be non-reactive under normal conditions of use.
<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Possibility of Hazardous Reactions:</b>	Not expected to occur with normal handling and storage.
<b>Conditions to Avoid:</b>	Extremes of temperature and direct sunlight.
<b>Incompatible Materials:</b>	Strong oxidizing agents. Strong acids.
<b>Hazardous Decomposition Products:</b>	May include carbon monoxide, carbon dioxide (CO <sub>2</sub> ) and other toxic gases or vapors.

## 11. TOXICOLOGICAL INFORMATION

<b>Likely Routes of Exposure:</b>	Eyes, Skin, Ingestion, Inhalation.
<b>Symptoms of Exposure:</b>	
<b>-Eye Contact:</b>	Pain, redness, swelling of the conjunctiva and tissue damage. Eye contact may cause permanent damage.
<b>-Skin Contact:</b>	Pain, redness and cracking of the skin.
<b>-Inhalation:</b>	Nasal discomfort and coughing.
<b>-Ingestion:</b>	Pain, nausea, vomiting and diarrhea.
<b>Immediate, Delayed, Chronic Effects</b>	
<b>Product Information:</b>	Data not available or insufficient for classification.

### Numerical Measures of Toxicity

The following acute toxicity estimates (ATE) are calculated based on the GHS document.

ATEmix (oral):	2294 mg/kg
ATEmix (dermal):	2261 mg/kg

### Component Acute Toxicity Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
d-limonene 5989-27-5	= 4400 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	Not Available
alcohol ethoxylate 68439-46-3	= 1378 mg/kg ( Rat )	> 2 g/kg ( Rabbit )	Not Available

**Carcinogenicity:** No components present at 0.1% or greater are listed as to being carcinogens by ACGIH, IARC, NTP or OSHA.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Chemical Name	Algae/Aquatic Plants	Fish	Toxicity to Microorganisms	Crustacea
d-limonene 5989-27-5	Not Available	0.619 - 0.796: 96 h Pimephales promelas mg/L LC50 flow-through 35: 96 h Oncorhynchus mykiss mg/L LC50	Not Available	Not Available

<b>Persistence and Degradability:</b>	No information available.
<b>Bioaccumulation:</b>	No information available.

<b>Other Adverse Effects:</b>	No information available.
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## 13. DISPOSAL CONSIDERATIONS

<b>Disposal of Wastes:</b>	Dispose of in accordance with federal, state and local regulations. Do not dispose of this product by pouring on the ground, into storm sewers, waterways or other surface waters. Consult with local, federal and state authorities prior to disposal of any d-limonene containing product into the sanitary sewer system.
<b>Contaminated Packaging:</b>	Dispose of in accordance with federal, state and local regulations.

## 14. TRANSPORT INFORMATION

**DOT:**

**UN/ID No:** UN1993  
**Proper Shipping Name:** Flammable liquids, n.o.s., (contains d-limonene)  
**Hazard Class:** 3  
**Packing Group:** III  
**Special Provisions:** Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Check with a trained hazardous materials transportation expert for information specific to your situation.

**IMDG:**

**UN/ID No:** UN1993  
**Proper Shipping Name:** Flammable liquids, n.o.s., (contains d-limonene)  
**Hazard Class:** 3  
**Packing Group:** III

## 15. REGULATORY INFORMATION

**TSCA Status:** (Toxic Substance Control Act Section 8(b) Inventory)

All chemical substances in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

**SARA 313**

This product does not contain listed substances above the "de minimus" level

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard:</b>	Yes
<b>Chronic Health Hazard:</b>	No
<b>Fire Hazard:</b>	Yes
<b>Sudden release of pressure hazard:</b>	No
<b>Reactive Hazard:</b>	No

**California Proposition 65**

This product is not subject to warning requirements under California Proposition 65.

## 16. OTHER INFORMATION

<b>NFPA</b>	<b>Health Hazards:</b> 2	<b>Flammability:</b> 2	<b>Instability:</b> 0	<b>Special:</b> N/A
<b>HMIS</b>	<b>Health Hazards:</b> 2	<b>Flammability:</b> 2	<b>Physical Hazards:</b> 0	

**Revision Date:** 07-Aug-2015  
**Reasons for Revision:** Section 14 and 15

**Disclaimer:**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**