

**SPARTAN CHEMICAL COMPANY, INC.  
WHMIS MATERIAL SAFETY DATA SHEET**

**SECTION I: PRODUCT INFORMATION**

**PRODUCT IDENTIFIER  
ORANGE TOUGH 40**

**PRODUCT USE:** Water-Dilutable, Water Rinsable, Multipurpose Degreaser

**MANUFACTURER'S NAME & ADDRESS**  
Spartan Chemical Company, Inc.  
1110 Spartan Drive, Maumee, OH 43537 USA

**MEDICAL EMERGENCY TELEPHONE**  
888/314-6171 (24 Hours)  
**PRODUCT INFORMATION**  
800/537-8990

**SECTION II: HAZARDOUS INGREDIENTS**

CAS REGISTRY NO.	% W	CHEMICAL NAME(S)	TLV			LD50	LC50
			TWA mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>	Ceiling mg/m <sup>3</sup>		
5989-27-5	35-45	d-Limonene	----	Not Established	----	Not available	Not available
127087-87-0	10-15	Nonylphenol ethoxylate	----	Not Established	----	Not available	Not available
27323-41-7	5-10	Triethanolamine					
		dodecylbenzenesulfonate	----	Not Established	----	Not available	Not available
102-71-6	5-10	Triethanolamine	5 (ACGIH)	----	----	Not available	Not available
107-41-5	1-5	Hexylene glycol	----	----	121 (ACGIH)	Not available	Not available
66375-37-9	1-5	Dicarboxylic fatty acid, dipotassium salt	----	Not Established	----	Not available	Not available
64-02-8	1-5	Tetrasodium ethylenediaminetetraacetate	----	Not Established	----	Not available	Not available

**SECTION III: PHYSICAL DATA**

<b>BOILING POINT</b> > 100 °C (212°F)	<b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1)</b> 0.96	<b>PERCENT SOLID BY WEIGHT</b> 20-25
<b>VAPOUR PRESSURE</b> Not established	<b>EVAPORATION RATE</b> (butyl acetate = 1) < 1	<b>FREEZING POINT</b> Not available
<b>VAPOUR DENSITY (AIR = 1)</b> Not established	<b>SOLUBILITY IN WATER</b> Complete	<b>ODOUR THRESHOLD</b> Not available
<b>pH</b> 9.0	<b>APPEARANCE AND ODOUR</b> Orange liquid, orange odor	<b>PHYSICAL STATE</b> GAS__ LIQUID_X SOLID_____
<b>COEFFICIENT OF WATER/OIL DISTRIBUTION</b> Not available		

**SECTION IV: FIRE & EXPLOSION DATA**

<b>FLASH POINT</b> 51 °C (124°F)	<b>METHOD USED</b> ASTM - D56	<b>FLAMMABLE LIMITS</b> Not established
<b>EXTINGUISHING MEDIA</b> Foam, dry chemical, CO <sub>2</sub> , water fog or spray.	<b>CONDITIONS OF FLAMMABILITY</b> Not applicable	<b>AUTO-IGNITION TEMPERATURE</b> Not applicable
<b>HAZARDOUS COMBUSTION PRODUCTS</b> Not established		<b>EXPLOSION DATA</b> Not applicable
<b>SPECIAL FIRE FIGHTING PROCEDURES</b> Use self-contained breathing apparatus for maximum respiratory protection. Cool fire-exposed containers with water spray.		
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS</b> Combustible liquid and vapor. Keep away from heat, sparks or flame. Combustion products are toxic.		

## SECTION V: REACTIVITY DATA

**STABILITY:** STABLE X      **CONDITIONS OF INSTABILITY**      **CONDITIONS OF REACTIVITY**  
Not established      Not established

**INCOMPATIBILITY (MATERIALS TO AVOID)** Strong oxidizers

**HAZARDOUS DECOMPOSITION PRODUCTS** Carbon dioxide, carbon monoxide

## SECTION VI: TOXICOLOGICAL PROPERTIES

**PRIMARY ROUTES OF ENTRY:** Eye Contact, Skin Contact, Ingestion, Inhalation

**EXPOSURE LIMIT**

Not established for mixture.

**EFFECTS OF ACUTE EXPOSURE:**

**EYE CONTACT:** Causes eye irritation with symptoms such as pain, redness and swelling of the conjunctiva.

**INGESTION:** Harmful if swallowed. Symptoms may include pain, nausea and diarrhea.

**SKIN CONTACT:** Causes skin irritation with symptoms such as redness, pain and swelling.

**INHALATION:** Breathing vapors or mist may cause respiratory irritation. Symptoms may include nasal discomfort and coughing.

**EFFECTS OF CHRONIC EXPOSURE**

Repeated over exposure to triethanolamine may cause liver and kidney damage.

**IRRITANCY OF PRODUCT**

Causes skin and eye irritation

**SENSITIZATION TO PRODUCT**

Contains d-limonene, hexylene glycol and triethanolamine which may cause skin sensitization with repeated contact.

**CARCINOGENICITY**

No

**REPRODUCTIVE TOXICITY**

Not available

**TERATOGENICITY**

Not available

**MUTAGENICITY**

Not available

**SYNERGISTIC PRODUCTS**

Not available

## SECTION VII: PREVENTIVE MEASURE

**PERSONAL PROTECTIVE EQUIPMENT / ENGINEERING CONTROLS:**

Wear rubber or other impervious gloves and splash goggles. Provide good general ventilation. Local exhaust ventilation may be necessary for some operations. If exposure limits (see Section II) can not be maintained by ventilation, use of a NIOSH approved respirator suitable for the conditions of use and chemicals in Section II should be considered.

**LEAK AND SPILL PROCEDURE:** Dike and contain spill with inert material (sand, earth, commercial absorbent, etc.) and transfer to containers for disposal. Keep spill out of storm sewers and waterways.

**WASTE DISPOSAL METHOD:** Assure conformance with applicable regulations.

**HANDLING PROCEDURES:** Avoid contact with eyes, skin and clothing. Avoid breathing product vapors or mist. Do not swallow. Use with adequate ventilation. Wash thoroughly after handling.

**STORAGE REQUIREMENTS:** Combustible liquid and vapors. Flash point 82 °C (179°F). Keep away from heat, sparks or open flame. Keep container closed when not in use. Do not freeze. Do not store above 49°C (120°F). Keep out of reach of children.

**SPECIAL SHIPPING INFORMATION:** Flammable liquids, n.o.s.,3,UN 1993, III (contains d-limonene)

## SECTION VIII: FIRST AID MEASURES

**EYES:** Flush eyes with water for at least 15 minutes. Remove contact lenses. Get medical attention.

**SKIN:** Remove contaminated clothing. Flush skin with water for at least 15 minutes. Get medical attention if irritation persists. Wash contaminated clothing before reuse.

**INGESTION:** Do not induce vomiting. Drink one or two glasses of water to dilute product. Get medical attention. Do not give anything by mouth to an unconscious person.

**INHALATION:** In case of respiratory irritation move person to fresh air. Get medical attention if irritation persists.

## SECTION IX: PREPARATION INFORMATION

**ORANGE TOUGH 40**

**DATE OF PREPARATION:** June 1, 2015

**SUPERCEDES:** June 8, 2012

**PREPARED BY** Ronald T. Cook / Manager, Regulatory Affairs / Spartan Chemical Company, Inc.

**TELEPHONE NUMBER** 800/537-8990