

SPARTAN CHEMICAL CO., INC.
MATERIAL SAFETY DATA SHEET

SECTION I: PRODUCT INFORMATION

PRODUCT NAME OR NUMBER (as it appears on label)

ORANGE TOUGH 15

MANUFACTURER'S NAME

Spartan Chemical Co., Inc.

EMERGENCY TELEPHONE NO.

419/531-5551

ADDRESS (NUMBER, STREET, CITY, STATE AND ZIP CODE)

110 N. Westwood Ave., Toledo, OH 43607

MANUFACTURER'S D-U-N-S NO.

00-503-6728

NFPA RATINGS:	HMIS RATINGS:
HEALTH-1 FIRE-2 REACT-0	HEALTH-1 FIRE-2 REACT-0 PERS. PROT.-B

SECTION II: HAZARDOUS INGREDIENTS

CAS REGISTRY NO.	%W	CHEMICAL NAME(S)	TABLE Z-1-A			CARCINOGEN
			TWA mg/M ³	STEL mg/M ³	CEILING mg/M ³	
5989-27-5	10-15	d-limonene	-	-	-	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. ace. = 1)

<1

VAPOR DENSITY (AIR = 1)

Unknown

SOLUBILITY IN WATER

Complete microemulsion

APPEARANCE AND ODOR

Clear, orangeish liquid

IS MATERIAL: (LIQUID) SOLID

GAS PASTE POWDER

pH

8.2

Orange citrus fragrance

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 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

INCOMPATIBILITY (MATERIALS TO AVOID)

Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS

None known

HAZARDOUS POLYMERIZATION: MAY OCCUR
WILL NOT OCCUR

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

EYE PROTECTION (SPECIFY TYPE)

Chemical splash goggles

OTHER PROTECTIVE EQUIPMENT - None

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)

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TITLE Director of Research
DATE November 23, 1992