

# SAFETY DATA SHEET

Date Prepared : 1/28/2015

SDS No : OTH

## Orange Thunder

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Orange Thunder  
**GENERAL USE:** Cleaner/degreaser for heavy industrial soils.  
**PRODUCT DESCRIPTION:** Citrus Solvent Cleaner  
**PRODUCT CODE:** OTH  
**CHEMICAL FAMILY:** Solvent/detergent blend

#### MANUFACTURER

MISCO Products Corporation  
1048 Stinson Drive  
Reading, PA 19605

**Emergency Phone:** 610-926-4106

**Customer Service:** 800-548-4568

**Transportation:** 800-548-4568

#### 24 HR. EMERGENCY TELEPHONE NUMBERS

**CHEM-TEL (Medical and Transportation):** 800-255-3924

**POISON CONTROL CENTER (Medical):** 800-222-1222

### 2. HAZARDS IDENTIFICATION

#### GHS CLASSIFICATIONS

##### Health:

Eye Irritation, Category 1  
Skin Irritation, Category 2  
Skin Sensitization, Category 1

##### Environmental:

Aquatic Toxicity, Category 1

##### Physical:

Flammable Liquids, Category 3

#### GHS LABEL



Exclamation  
mark



Corrosion



Flame



Environment

**SIGNAL WORD:** DANGER

#### HAZARD STATEMENTS

H318: Causes serious eye damage.  
H315: Causes skin irritation.  
H303: May be harmful if swallowed.  
H317: May cause an allergic skin reaction.  
H226: Flammable liquid and vapour.  
H400: Very toxic to aquatic life.

#### PRECAUTIONARY STATEMENT(S)

##### Prevention:

P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
P240: Ground/bond container and receiving equipment.  
P242: Use only non-sparking tools.

P261: Avoid breathing mist/vapours/spray.  
P262: Do not get in eyes, on skin, or on clothing.  
P270: Do not eat, drink or smoke when using this product.  
P264: Wash thoroughly after handling.  
P233: Keep container tightly closed.  
P273: Avoid release to the environment.  
P102: Keep out of reach of children.

**Response:**

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310: Immediately call a POISON CENTER or doctor/physician.  
P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
P362: Take off contaminated clothing and wash before reuse.  
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.  
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P304+P312: IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P370+P378: In case of fire: Use dry chemical, alcohol-resistant foam for extinction.  
P391: Collect spillage.

**Storage:**

P403+P233: Store in a well-ventilated place. Keep container tightly closed.  
P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

**Disposal:**

P501: Dispose of contents/container in accordance with local, state and federal regulations.

**EMERGENCY OVERVIEW**

**PHYSICAL APPEARANCE:** Orange Liquid

**IMMEDIATE CONCERNS:** Severe eye irritant and may cause permanent eye damage. Skin irritant.

**POTENTIAL HEALTH EFFECTS**

**EYES:** Irritating, and may injure eye tissue if not removed promptly.

**SKIN:** Contact may cause moderate to severe irritation.

**SKIN ABSORPTION:** Not Established

**INGESTION:** Harmful if swallowed.

**INHALATION:** High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches)

**REPRODUCTIVE TOXICITY**

**TERATOGENIC EFFECTS:** None known.

**CARCINOGENICITY:** Contains an ingredient listed under IARC Group 3 status.

**MUTAGENICITY:** None known.

**ROUTES OF ENTRY:** Eye, skin, ingestion.

**IRRITANCY:** Yes

**SENSITIZATION:** May cause skin sensitisation with contact.

**PHYSICAL HAZARDS:** Combustible material.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	Wt.%	CAS
d-Limonene	30 - 40	5989-27-5
Ethylene glycol butyl ether	20 - 25	111-76-2
Fatty acids, tall-oil, potassium salts	0 - 5	61790-44-1
Nonylphenol Ethoxylate	1 - 5	9016-45-9
Monoethanolamine	0 - 5	141-43-5
Dye	0 - 0.1	N/A
Water	30 - 35	7732-18-5

#### 4. FIRST AID MEASURES

**EYES:** Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention immediately.

**SKIN:** Remove contaminated clothing. Immediately flush with water followed by washing with mild soap. Seek medical attention.

**INGESTION:** Get immediate medical attention. Do not induce vomiting unless instructed to do so by poison center or physician.

**INHALATION:** Remove victim to fresh air and monitor. Seek medical advise if irritation persists.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**EYES:** Severe burning sensation, tearing, redness, swelling.

**SKIN:** Burning sensation, redness.

**SKIN ABSORPTION:** Not Established

**INGESTION:** Irritation of mouth, throat, along with stomach upset, vomiting.

**INHALATION:** Headache, dizziness, nausea.

**ACUTE TOXICITY:** Corrosive to eyes. Causes moderate to severe skin irritation. Harmful if swallowed.

**CHRONIC EFFECTS:** Not Established

#### 5. FIRE FIGHTING MEASURES

**FLAMMABLE CLASS:** II (100-140F)

**GENERAL HAZARD:** Combustible Liquid

**EXTINGUISHING MEDIA:** Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide from combustion

**EXPLOSION HAZARDS:** Fire exposed containers may burst due to increased pressure from heat.

**FIRE FIGHTING PROCEDURES:** Keep fire exposed containers cool with water stream or mist.

**FIRE FIGHTING EQUIPMENT:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face-piece operated in positive pressure mode.

**SENSITIVE TO STATIC DISCHARGE:** Not Established

#### 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Avoid walking in product. Wipe up or otherwise flush small spills to sanitary sewer.

**LARGE SPILL:** Avoid walking in material. Prevent product from entering into stream, soil, storm sewer or other bodies of water.

#### ENVIRONMENTAL PRECAUTIONS

**WATER SPILL:** Avoid discharges into open waterways.

**LAND SPILL:** Avoid discharge to soil.

**AIR SPILL:** No data available. Contact Env. Dept.

**GENERAL PROCEDURES:** Isolate spill or leak area immediately. Keep unauthorized personnel away. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, or confined areas. Absorb with dry earth, sand or other non-combustible material and transfer to containers.

**RELEASE NOTES:** Eliminate all ignition sources. Ventilate area well.

**SPECIAL PROTECTIVE EQUIPMENT:** Eye protection, rubber gloves, rubber boots to protect feet.

## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Store away from excessive heat, spark or open flame. Store at temperatures below 140F. Keep container closed until used. Do not contaminate water, food, or feed by storage or disposal.

**HANDLING:** Wear chemical resistant rubber or neoprene gloves and eye safety goggles/full face shield when handling.

**STORAGE:** Store in closed container in an area inaccessible to children.

**STORAGE TEMPERATURE:** Store at ambient temperatures.

**STORAGE PRESSURE:** Store at ambient atmospheric pressure.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		Supplier OEL	
Chemical Name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
d-Limonene	TWA	[1]	[1]	[1]	[1]	30	
Ethylene glycol butyl ether	TWA	50	240	20	97	NL	NL
	STEL					NL	NL
Monoethanolamine	TWA	3	6	3	7.5	NL	NL
	STEL			6	15	NL	NL

**Footnotes:**  
1. Not Established

**ENGINEERING CONTROLS:** Provide mechanical ventilation when used in confined areas, or areas with poor ventilation.

### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Chemical splash goggles.

**SKIN:** Rubber or other chemical resistant gloves.

**RESPIRATORY:** A respirator is not needed under normal and intended conditions of product use.

**PROTECTIVE CLOTHING:** Chemical resistant outerwear (tyvek) if contact with spray or mist is anticipated.

**WORK HYGIENIC PRACTICES:** Wash with soap and water after handling. Do not eat, drink or smoke while using product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**ODOR:** Citrus

**ODOR THRESHOLD:** Not Established

**COLOR:** Orange

**pH:** NA = Not Applicable

**PERCENT VOLATILE:** >90

**FLASH POINT AND METHOD:** 48°C (118°F) Tag Closed Cup (TCC)

**FLAMMABLE LIMITS:** 0.7 to 6.0

**AUTOIGNITION TEMPERATURE:** Not Established

**VAPOR PRESSURE:** < 2 mm Hg at 20°C (68°F)

**VAPOR DENSITY:** ~ 4.7 Air = 1

**BOILING POINT:** 212° F; 100° C  
**FREEZING POINT:** Not Available  
**THERMAL DECOMPOSITION:** Not Available  
**SOLUBILITY IN WATER:** dispersable  
**EVAPORATION RATE:** (Water =1) <1.0  
**DENSITY:** 7.69 at 20°C (68°F)  
**SPECIFIC GRAVITY:** 0.922 grams/ml. at 20°C (68°F)  
**VISCOSITY:** Water thin.  
**(VOC):** 54.880 % by weight

## 10. STABILITY AND REACTIVITY

**REACTIVITY:** Stable  
**HAZARDOUS POLYMERIZATION:** None known.  
**STABILITY:** Stable under normal storage and use conditions.  
**CONDITIONS TO AVOID:** Heat, flames and sparks.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Not Established  
**INCOMPATIBLE MATERIALS:** Strong oxidizers

## 11. TOXICOLOGICAL INFORMATION

### ACUTE

Chemical Name	ORAL LD <sub>50</sub> (rat)	DERMAL LD <sub>50</sub> (rabbit)	INHALATION LC <sub>50</sub> (rat)
d-Limonene	4400 mg/kg (rat)	5000 mg/kg (rabbit)	
Ethylene glycol butyl ether	1300 mg/kg (rat)	> 2000 mg/kg (rabbit)	> 3.1 mg/l
Nonylphenol Ethoxylate	16000 mg/kg (rat)	4490 mg/kg (rabbit)	
Monoethanolamine	1089 mg/kg (rat)	2504 mg/kg (rabbit)	~ 1.48 mg/l

**EYES:** Not Established

**DERMAL LD<sub>50</sub>:** Not Established

**SKIN ABSORPTION:** Not Established

**ORAL LD<sub>50</sub>:** Not Established

**INHALATION LC<sub>50</sub>:** Not Established

**EYE EFFECTS:** Moderate to severe eye irritant.

**SKIN EFFECTS:** Moderate skin irritant.

**CHRONIC:** Not Established

**CARCINOGENICITY**

Chemical Name	NTP Status	IARC Status	OSHA Status
d-Limonene	No listed substance	Group 3 - Not classifiable as to its carcinogenicity to Humans	No listed substance
Ethylene glycol butyl ether	No listed substance	Group 3 - Not classifiable as to its carcinogenicity to Humans	No listed substance

**IARC:**

The International Agency for Research on Cancer (IARC) has concluded that there is inadequate evidence for carcinogenicity of d-Limonene in humans, but limited evidence in experimental animals (Group 3 - not classifiable as to its carcinogenicity to humans).

**IRRITATION:** Irritant

**SENSITIZATION:** May cause sensitisation by skin contact.

**NEUROTOXICITY:** Central nervous system effects marked by dizziness, headache, nausea.

**GENETIC EFFECTS:** No known significant effects or critical hazards.

**REPRODUCTIVE EFFECTS:** No known significant effects or critical hazards.

**TARGET ORGANS:** Not Established

**TERATOGENIC EFFECTS:** No known significant effects or critical hazards.

**MUTAGENICITY:** No known significant effects or critical hazards.

**12. ECOLOGICAL INFORMATION**

**ENVIRONMENTAL DATA:** Toxic to aquatic life.

**ECOTOXICOLOGICAL INFORMATION:** Not Established

**BIOACCUMULATION/ACCUMULATION:** Not Established

**AQUATIC TOXICITY (ACUTE):** Not Established

**CHEMICAL FATE INFORMATION:** Not Established

**13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:** Any method in accordance with local, state and federal laws. Best method is to recycle or reuse for intended purpose. If discarded, this material and its containers should be treated as hazardous waste based on the characteristics of ignitability as defined under federal RCRA regulations (40 CFR 261). Consult local authorities for disposal into public sewer.

**FOR LARGE SPILLS:** Consult with local and state authorities for large volume disposal.

**PRODUCT DISPOSAL:** Any method in accordance with local, state, and federal laws. Best method is to recycle or reuse for intended purpose.

**EMPTY CONTAINER:** Rinse container with clear water. Offer container for recycling, or dispose of in trash.

**RCRA/EPA WASTE INFORMATION:** Ignitability

**14. TRANSPORT INFORMATION**

**DOT (DEPARTMENT OF TRANSPORTATION)**

**PROPER SHIPPING NAME:** Cleaning Compound, not regulated (for US domestic shipment only)

**OTHER SHIPPING INFORMATION:** Certain shipping modes and packaging sizes may have exceptions from the transport regulations. The classifications/information provided above may not reflect applicable exceptions. Contact the manufacturer for more specific information on the proper shipping of this material.

**AIR (ICAO/IATA)**

**SHIPPING NAME:** Not Approved

**VESSEL (IMO/IMDG)**

**SHIPPING NAME:**

Flammable Liquid, n.o.s.

**TECHNICAL NAME:** Terpene Hydrocarbon Solution

**UN/NA NUMBER:** 1993

**PRIMARY HAZARD CLASS/DIVISION:** 3

**PACKING GROUP:** III

**EmS:** 3-07

**MARINE POLLUTANT #1:** Yes

**PLACARDS:** Flammable

**LABEL:** Flammable, Marine Pollutant

**NOTE:** Above information for containers greater than 5 gallons. Consult manufacturer for container shipping information of less than 5 gallons.

**15. REGULATORY INFORMATION**

**UNITED STATES**

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

**311/312 HAZARD CATEGORIES:** Health Hazard - Acute; Fire Hazard

**FIRE:** Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No

**313 REPORTABLE INGREDIENTS:** 2-butoxyethanol 111-76-2 (Category: N230 Certain Glycol Ethers)

**EPCRA SECTION 313 SUPPLIER NOTIFICATION**

Chemical Name	Wt.%	CAS
Ethylene glycol butyl ether	20 - 25	111-76-2

**302/304 EMERGENCY PLANNING**

**EMERGENCY PLAN:** No listed substance

**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**

**CERCLA REGULATORY:** No products were found.

**CERCLA RQ:** Not Established

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

**TSCA REGULATORY:** All ingredients are listed on the TSCA Chemical Inventory.

**STATES WITH SPECIAL REQUIREMENTS**

Chemical Name	Requirements
d-Limonene	Pennsylvania Right to Know Substance New Jersey Right To Know Substance
Ethylene glycol butyl ether	Massachusetts Right to Know Substance Pennsylvania Right to Know Substance New Jersey Right To Know Substance
Nonylphenol Ethoxylate	Massachusetts Right to Know Substance New Jersey Right To Know Substance Pennsylvania Right to Know Substance
Monoethanolamine	Massachusetts Right to Know Substance New Jersey Right To Know Substance New York Right to Know Substance Pennsylvania Right to Know Substance

**CALIFORNIA PROPOSITION 65:** No listed substance

**CARCINOGEN:**

The International Agency for Research on Cancer (IARC) has concluded that there is inadequate evidence for carcinogenicity of d-Limonene in humans, but limited evidence in experimental animals (Group 3 - not classifiable as to its carcinogenicity to humans).

**16. OTHER INFORMATION**

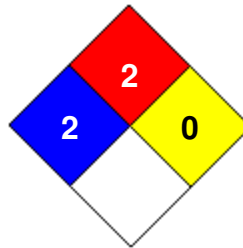
**PREPARED BY:** Regulatory Affairs Department

**Date Prepared:** 1/28/2015

**HMIS RATING**

<b>HEALTH</b>	*	<b>2</b>
<b>FLAMMABILITY</b>		<b>2</b>
<b>PHYSICAL HAZARD</b>		<b>0</b>
<b>PERSONAL PROTECTION</b>		<b>D</b>

**NFPA CODES**



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