
SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Name: MA-77 Citrus-Pro

Product Code: B2542

MSDS Date: November 7, 2014

Mast-Away Division
2101 Clifton Ave
St. Louis, MO 63139

General Information: 314-644-1300

CHEMTREC: 800-424-9300

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

GHS Classification:

Flammable Liquids, Category 3

Skin Irritation, Category 2

Eye irritation, Category 2A

Skin Sensitizer, Category 1B

GHS Labeling



Symbol:

Signal Word: Warning

Hazard Statements:

Flammable liquid and vapor

Causes skin and serious eye irritation

May cause an allergic skin reaction

Precautionary Statements:

Wear protective gloves/eye protection/ face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Potential Health Effects: See Section 11 for more information

This product does not contain carcinogens or potential carcinogens as listed by IARC, NTP, or ACGIH.

This material contains components that are considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Environmental Effects: See Section 12 for more information.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

No.	Component CAS REG. NO.	Amount %	OSHA		ACGIH	
			TWA	STEL	TWA	STEL
1	Ethoxylated Nonylphenol CAS #9016-45-9	1-10	Not avail	Not avail	Not avail	Not avail
2	Limonene, D- CAS#5989-27-5	60-100	Not avail	Not avail	30 ppm	Not avail

Section 4: FIRST AID MEASURES

Emergency first aid procedures by route of exposure:

- Inhalation:** If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain medical attention if breathing difficulty persists.
- Ingestion:** Do not induce vomiting. Obtain medical attention.
- Skin:** Remove contaminated clothing as needed. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. Seek medical attention if ill effect or irritation develops.
- Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Section 5: FIRE FIGHTING MEASURES

Flash Point (Limonene, D) 48.88°C (120°F) Pensky Martens closed cup
LEL (Limonene, D): 0.7% (V)
UEL (Limonene, D): 6.1% (V)
Auto Ignition Temperature: 458°F / 237°C
NFPA Classification: Combustible Liquid Class II

Suitable Extinguishing Media:

Alcohol-resistant foam, dry chemical, carbon dioxide (CO2), Water spray

Products of Combustion:

Upon decomposition this product may emit carbon dioxide, carbon monoxide, and/or low molecular weight hydrocarbons.

Fire Fighting Equipment/Instructions:

Above flash point, vapor-air mixtures are explosive within flammable limits noted above.

HAZARD	HMIS	NFPA
Toxicity	1	1
Fire	2	2

Reactivity	0	0
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Section 6: ACCIDENTAL RELEASE MEASURES

Personal Protection: Use personal protective equipment. Ensure adequate ventilation. Eliminate all sources of ignition.

Environmental Precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Method for Containment: Absorb spilled liquid in suitable non-flammable inert material such as clay, vermiculite or diatomaceous earth.

Methods for Clean-up: Use clean non-sparking tools to collect absorbed material. Dike large spills and place materials in salvage containers.

Section 7: HANDLING AND STORAGE

Handling:

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating conditions.

Storage:

Store in a cool, dry, ventilated area away from sources of heat, moisture, and incompatible substances.

Section 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protective Equipment (PPE)

Respiratory Protection: A respiratory protection program that meets OSHA's 29CFR 1910.134 or ANSI Z88.2 requirements must be followed whenever workplace conditions warrant respirator use.

Eye/Face Protection: Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid or vapor.

Hand Protection: Wear chemical resistant gloves such as Butyl rubber or Viton.

Body: When skin contact is possible, protective clothing including apron, sleeves, boots, head and face protection should be worn.

Other Protective Equipment:

Facilities storing or utilizing this material should be equipped with eyewash and/or shower facilities.

See section 3 for exposure limits.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance, State: Clear Liquid
Color: Colorless
Odor: Citrus-like odor
pH: Not Available
Vapor Density: Not available
Boiling Point: (Limonene, D) 347.9 - 349°C @ 101.72kPa
Vapor Pressure: (Limonene, D) 0.192 kPa @ 77°F/25°C
Melting Point/freezing point: (Limonene, D) -101.83°F / -74.35°C
Flash Point (See Section 5)
Flammability Properties (See section 5)
Solubility (in water) Insoluble
Density (Limonene, D): (+/- 0.01) 0.8405 g/cm³ @ 77.00°F / 25.00°C
Evaporation Rate: (Limonene, D) (>) 1 Ethyl Ether
Octanol/Water partition coefficient (Kow) Not Available
Auto-ignition temperature (See Section 5)
Decomposition temperature: Not Available

Section 10: STABILITY AND REACTIVITY

Stability: This material is considered stable at ambient temperatures 70°C (21°C).

Condition to Avoid: Strong oxidizing agents, heat, flames, and sparks.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition: Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Reactions: This product will not undergo polymerization.

Section 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:

Component Analysis LD50

Limonene-D (5989-27-5)
Oral LD50 Rat 4400 mg/kg;
Dermal LD50 Rabbit >2000 mg/kg

Ethoxylated Nonylphenol (CAS# 9016-45-9)
LD50 Dermal Rabbit >2000 mg/kg
LD50 Oral Rat 3310 mg/kg

CHRONIC EFFECTS:

Component

Limonene-D (5989-27-5)

Carcinogenic Effects NTP: Not listed as a carcinogen by IARC, NTP, or OSHA.

Mutagenic Effects: Not Available.

Teratogenic Effects: Not Available

Developmental Toxicity: This component has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Target Organs: Exposure to this component has been found to cause kidney damage in male rats. The

mechanism by which this toxicity occurs specific to the male rat and the kidney effects are not expected to occur in humans. Overexposure to this component has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects, mild, reversible, kidney effects. **Eye contact:** May cause mild eye irritation. Symptoms include stinging, tearing, and redness. **Skin contact:** May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns. Additional symptoms of skin contact may include: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling, and other skin effects.) Passage of this material into the body through the skin is possible, but it unlikely that this would result in harmful effects during safe handling and use. **Ingestion:** Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. **Inhalation:** Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable. **Aggravated Medical Condition:** Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions). **Symptoms:** Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways).

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Limonene-D (CAS#5989-27-5)
96 Hr LC50 Pimephales promelas: 0.619-0.796 mg/L [flow-through];
96 Hr LC50 Oncorhynchus mykiss: 35 mg/L

Ecotoxicity: Ethoxylated Nonylphenol (9016-45-9)
96 hours LC50 Fish 10 mg/L

Section 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations.

Section 14: TRANSPORT INFORMATION

Proper Shipping Name: Terpene hydrocarbons, n.o.s.
Hazard Class: 3
Identification No.: UN2319
Packing Group: III
Placard: Flammable

Section 15: REGULATORY INFORMATION

TSCA Inventory: This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

SARA 302/304: The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.

SARA 313: No components were identified.

CERCLA: The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances"

equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product or refinery stream that may be subject to this statute are: No components were identified.

SARA 311/312 Hazard: The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: Acute, Chronic, Fire

Section 16: OTHER SUPPLEMENTAL INFORMATION

Prepared by: Chemisphere Corp. on 3/28/14

Disclaimer:

The information and recommendations contained in the Safety Data Sheet (SDS) are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. The information and recommendations set forth herein are presented in good faith and believed to be correct as of this date hereof.

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