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# SAFETY DATA SHEET

## CLEAN AIR CITRUS MASTIC REMOVER

Revision: 03/14/2017  
Supersedes Revision: 10/24/2016

### 1. Product and Company Identification

**Product Code:** 00007R03142017  
**Product Name:** CLEAN AIR CITRUS MASTIC REMOVER  
**Company Name:** TWIN-CHEMICALS, INC  
6175 Hickory Flat Highway  
Suite 100-244  
Canton, GA 30115  
**Phone Number:** (800)442-4958

**Web site address:** www.twinchemicals.com  
**Email address:** sales@twinchemicals.com

**Emergency Contact:** CERTS (emergency only) (800)552-3787  
**Information:** Sales & Information (800)442-4958

### 2. Hazards Identification

Aspiration Toxicity, Category 1  
Acute Toxicity: Oral, Category 4  
Acute Toxicity: Skin, Category 4  
Skin Corrosion/Irritation, Category 2  
Serious Eye Damage/Eye Irritation, Category 2A  
Acute Toxicity: Inhalation, Category 4  
Flammable Liquids, Category 4  
Skin Sensitization, Category 1  
Aquatic Toxicity (Acute), Category 1  
Aquatic Toxicity (Chronic), Category 1



**GHS Signal Word:** Danger

**GHS Hazard Phrases:** H227 - Combustible liquid.  
H302+312+332 - Harmful if swallowed, in contact with skin or if inhaled.  
H304 - May be fatal if swallowed and enters airways.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H319 - Causes serious eye irritation.  
H410 - Very toxic to aquatic life with long lasting effects.

**GHS Precaution Phrases:** P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

**GHS Response Phrases:** P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.  
P302+352 - IF ON SKIN: Wash with plenty of soap and water.  
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison control center or physician for treatment advice. Have product container or label with you when calling

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poison control center or physician.

P330 - Rinse mouth.

P331 - Do NOT induce vomiting.

P332+313 - If skin irritation occurs, get medical advice/attention.

P333+313 - If skin irritation or rash occurs, seek medical advice/attention.

P337+313 - If eye irritation persists, get medical advice/attention.

P362 - Take off contaminated clothing and wash before re-use.

P363 - Wash contaminated clothing before reuse.

P391 - Collect spillage.

P370+378 - In case of fire, use water fog, dry chemical, carbon dioxide or foam to extinguish.

### GHS Storage and Disposal Phrases:

P403+235 - Store in cool/well-ventilated place.

P405 - Store locked up.

P501 - Dispose of contents/container to licensed waste disposal facility.

### Potential Health Effects (Acute and Chronic):

Prolonged or repeated skin contact may cause defatting and dermatitis.

Chronic: May cause liver and kidney damage. Sophisticated modeling has clearly proven that 2-butoxyethanol does not build up in the body under any kinds of normal use. In 2-year gavage studies, there was clear evidence of carcinogenic activity of d-limonene for male rats, as shown by increased incidences of tubular cell hyperplasia, adenomas, and adenocarcinomas of the kidney. There was NO evidence of carcinogenic activity of d-limonene for female rats, for male mice, or for female mice.

### Inhalation:

Harmful if inhaled. May cause narcotic effects in high concentration. May cause lung damage. May cause anemia. May cause central nervous system effects such as nausea and headache. Material is irritating to mucous membranes and upper respiratory tract.

### Skin Contact:

Causes skin irritation. Substance is rapidly absorbed through the skin. Causes symptoms similar to those of inhalation. Skin sensitization testing with human volunteers produced negative results. A skin notation is not recommended by ACGIH, based on estimates from physiologically based pharmacokinetic models which indicate that, even in worst-case dermal-exposure scenarios, 2-butoxyethanol is not absorbed in amounts sufficient to cause red blood cell hemolysis in humans. Skin Absorption: May be harmful if absorbed through the skin. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis.

### Eye Contact:

Causes redness and pain. Causes severe eye irritation.

### Ingestion:

Aspiration hazard. Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals. May cause digestive tract disturbances.

## 3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
64742-47-8	Hydrotreated light distillate (petroleum)	<90.0 %
111-76-2	Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, Glycol Ether EB}	< 5.0 %
9016-45-9	Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydr {Nonylphenol Ethoxylate}	< 5.0 %
5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene {(R)-(+)-Limonene}	< 4.0 %

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**4. First Aid Measures**

**Emergency and First Aid Procedures:**

- In Case of Inhalation:** If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical aid immediately. Remove from exposure and move to fresh air immediately. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
- In Case of Skin Contact:** Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. In case of contact, immediately flush skin with soap and plenty of water. Get medical aid if symptoms occur.
- In Case of Eye Contact:** Get medical aid. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
- In Case of Ingestion:** Potential for aspiration if swallowed. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have victim lean forward. Call a poison control center. If swallowed, wash out mouth with water provided person is conscious. Call a physician. Get medical aid.
- Signs and Symptoms Of Exposure:** Exposure can cause: Nausea, headache, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
- Note to Physician:** None known.

**5. Fire Fighting Measures**

- Flash Pt:** > 48.00 C Method Used: Estimate
- Explosive Limits:** LEL: No data. UEL: No data.
- Autoignition Pt:** No data.
- Suitable Extinguishing Media:** Suitable: Water spray. Use water fog, dry chemical, carbon dioxide or alcohol type foam.
- Fire Fighting Instructions:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Will burn if involved in a fire. Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Containers may explode in the heat of a fire. Flammable liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. This liquid floats on water and may travel to a source of ignition and spread fire.
- Flammable Properties and Hazards:** No data available.
- Hazardous Combustion Products:** No data available.

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### 6. Accidental Release Measures

#### Steps To Be Taken In Case Material Is Released Or Spilled:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section.

Remove all sources of ignition. Provide ventilation. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Use a spark-proof tool. Do not let this chemical enter the environment. PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for cleaning up.

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete. Forms smooth, slippery surfaces on floors, posing an accident risk.

### 7. Handling and Storage

#### Precautions To Be Taken in Handling:

Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use spark-proof tools and explosion proof equipment. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood.

User Exposure: Do not breathe vapor. Ground and bond containers when transferring material. Avoid breathing dust, mist, or vapor.

#### Precautions To Be Taken in Storing:

Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store in a cool, dry place.

Suitable: Keep away from heat, sparks and flame. Flammables-area. Separate from oxidizing materials. Partially filled containers should be blanketed with nitrogen.

### 8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
64742-47-8	Hydrotreated light distillate (petroleum)	No data.	TLV: 200 mg/m3	No data.
111-76-2	Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, Glycol Ether EB}	PEL: 50 ppm	TLV: 20 ppm	No data.
9016-45-9	Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydr {Nonylphenol Ethoxylate}	No data.	No data.	No data.
5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene {(R)-(+)-Limonene}	No data.	No data.	No data.

#### Personal Protective Equipment Symbols:

#### Respiratory Equipment (Specify Type):

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Hand: Compatible chemical-resistant gloves. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

#### Eye Protection:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Chemical safety goggles. Wear chemical splash goggles.

#### Protective Gloves:

Wear appropriate protective gloves to prevent skin exposure.

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<b>Other Protective Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Engineering Controls (Ventilation etc.):</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. Use explosion-proof ventilation equipment. Use only under a chemical fume hood. Safety shower and eye bath.
<b>Work/Hygienic/Maintenance Practices:</b>	Wash thoroughly after handling.

### 9. Physical and Chemical Properties

<b>Physical States:</b>	[ ] Gas    [ X ] Liquid    [ ] Solid	
<b>Appearance and Odor:</b>	Clear liquid. citrus-like odor.	
<b>pH:</b>	No data.	
<b>Melting Point:</b>	NA -74.00 - 58.00 C	
<b>Boiling Point:</b>	171.00 C - 288.00 C	
<b>Flash Pt:</b>	> 48.00 C    Method Used: Estimate	
<b>Evaporation Rate:</b>	No data.	
<b>Flammability (solid, gas):</b>	No data available.	
<b>Explosive Limits:</b>	LEL: No data.	UEL: No data.
<b>Vapor Pressure (vs. Air or mm Hg):</b>	No data.	
<b>Vapor Density (vs. Air = 1):</b>	No data.	
<b>Specific Gravity (Water = 1):</b>	No data.	
<b>Solubility in Water:</b>	No data.	
<b>Octanol/Water Partition Coefficient:</b>	No data.	
<b>Autoignition Pt:</b>	No data.	
<b>Decomposition Temperature:</b>	No data.	
<b>Viscosity:</b>	No data.	

### 10. Stability and Reactivity

<b>Stability:</b>	Unstable [ ]    Stable [ X ]
<b>Conditions To Avoid - Instability:</b>	ignition sources, Incompatible materials, Excess heat.
<b>Incompatibility - Materials To Avoid:</b>	Strong acids. Strong bases, Aluminum.
<b>Hazardous Decomposition or Byproducts:</b>	Nitrogen oxides, Carbon monoxide, oxides of sulfur, irritating and toxic fumes and gases.
<b>Possibility of Hazardous Reactions:</b>	Will occur [ ]    Will not occur [ X ]
<b>Conditions To Avoid - Hazardous Reactions:</b>	No data available.

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### 11. Toxicological Information

**Toxicological Information:** Epidemiology: No information found.  
Teratogenicity: No information available. Reproductive Effects: Mutagenicity:  
Neurotoxicity:

**Carcinogenicity/Other Information:** CAS# 64742-47-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 111-76-2: ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans.  
California: Not listed.  
NTP: Not listed.  
IARC: Not listed. CAS# 5989-27-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
64742-47-8	Hydrotreated light distillate (petroleum)	n.a.	n.a.	A4	n.a.
111-76-2	Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, Glycol Ether EB}	n.a.	3	A3	n.a.
9016-45-9	Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydr {Nonylphenol Ethoxylate}	n.a.	n.a.	n.a.	n.a.
5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene {(R)-(+)-Limonene}	n.a.	3	n.a.	n.a.

### 12. Ecological Information

**General Ecological Information:** Environmental: TERRESTRIAL FATE: Based on a recommended classification scheme, an estimated Koc value of 67,, determined from an experimental log Kow and a recommended regression-derived equation, indicates that ethylene glycol mono-n-butyl ether is expected to have high mobility in soil. An estimated BCF value of 2.5 was calculated for ethylene glycol mono-n-butyl ether, using an experimental log Kow of 0.83 and a recommended regression-derived equation. According to a recommended classification scheme, this BCF value suggests that bioconcentration in aquatic organisms is low.  
Physical: No information found.  
Other: An estimated BCF value of 2.5,, from an experimental log Kow, suggests that ethylene glycol mono-n-butyl ether bioconcentration in aquatic organisms will be low, according to a recommended classification scheme. ELIMINATION.  
May bioconcentrate in aquatic organisms and fish. Has low mobility in soil and may rapidly volatilize in the atmosphere. Limonene can be readily degraded in soil.  
Physical: No information available.

### 13. Disposal Considerations

**Waste Disposal Method:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.  
RCRA P-Series: None listed.  
RCRA U-Series: None listed. Empty container may be recycled or disposed of as solid sanitary waste. Do not reuse container. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

### 14. Transport Information



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### LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s  
(applies to single containers of more than 119 gallons -  
smaller containers are not regulated)

**DOT Hazard Class:**

**UN/NA Number:**

### LAND TRANSPORT (Canadian TDG):

**TDG Shipping Name:** Environmentally hazardous substance, liquid, n.o.s  
(applies to single containers of more than 119 gallons -  
smaller containers are not regulated)  
DIPENTENE.

### AIR TRANSPORT (ICAO/IATA):

**ICAO/IATA Shipping Name:** Non-Hazardous for Air Transport: Non-hazardous for air transport.

## 15. Regulatory Information

### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
64742-47-8	Hydrotreated light distillate (petroleum)	No	No	No
111-76-2	Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, Glycol Ether EB}	No	No	Yes-Cat. N230
9016-45-9	Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydr {Nonylphenol Ethoxylate}	No	No	No
5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene {{(R)-(+)-Limonene}	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
64742-47-8	Hydrotreated light distillate (petroleum)	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
111-76-2	Ethanol, 2-Butoxy- {Ethylene glycol n-butyl ether, Glycol Ether EB}	CAA HAP,ODC: Yes - Cat.; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
9016-45-9	Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydr {Nonylphenol Ethoxylate}	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 8A PAIR, 12(b); CA PROP.65: No
5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene {{(R)-(+)-Limonene}	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

## 16. Other Information

**Revision Date:** 03/14/2017

**Additional Information About** No data available.

**This Product:**

**Company Policy or Disclaimer:**

THE INFORMATION CONTAINED HEREIN is based upon available information at the time of preparation and is believed to be accurate but is not warranted to be so. Users are advised to confirm in advance of need that the information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or any other user proximately caused by the material if misused or if reasonable safety procedures are not adhered to as stipulated in the data sheet and on the product label. Furthermore, vendor assumes no responsibility for injury or damage caused by abnormal use of this material even if reasonable safety measures are followed.