

# Safety Data Sheet (SDS)

## 1. PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER/DISTRIBUTOR ..... Rainbow Technology Corporation (800)637-6047  
 CONTACT PERSON ..... Larry Joe Steeley, Jr.  
**EMERGENCY PHONE (24 HRS.)..... Chem-Tel Inc. (800) 255-3924**  
 TRADE NAME/SYNONYMS ..... "Knuckles" Hand Cleaner (without Scrubbers)  
 PRODUCT NUMBER ..... 4742  
 CHEMICAL NAME..... Hand Cleaner  
 ISSUE DATE ..... December 1, 2022  
 REPLACES SDS DATED ..... October 14, 2022

## 2. HAZARDS IDENTIFICATION

**Storage and Disposal Phrases:** P403+235 - Store in cool/well-ventilated place. P501 - Dispose of contents and containers in accordance with local, regional, national, and international regulations.

**Additional Hazards Information** This material is an over-the-counter consumer product that is safe for consumers with intended and reasonably foreseeable use. Please follow label instructions. NOTE: The GHS Signal Word and warnings are for exposure to large quantities of the product. Normal usage should not create a hazardous condition.

**Hazard Rating System:**



**Potential Health Effects (Acute and Chronic):** Chronic: 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:** Slight nasal irritation may occur. May cause respiratory tract irritation.  
**Skin Contact:** May cause irritation to extra-sensitive skin.  
**Eye Contact:** Moderately irritating to the eyes.  
**Ingestion:** Harmful if swallowed. May cause gastrointestinal irritation.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
5989-27-5	Limonene	1.00 - 5.00 %

## Safety Data Sheet (SDS)

### 4. FIRST AID MEASURES

**Emergency and First Aid Procedures:**

<b>In Case of Inhalation:</b>	Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask. Get medical attention immediately.
<b>In Case of Skin Contact:</b>	In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.
<b>In Case of Eye Contact:</b>	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do after 5 minutes and continue rinsing for an additional 15 minutes. Get medical aid if irritation develops or persists.
<b>In Case of Ingestion:</b>	Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical attention immediately.
<b>Note to Physician:</b>	Treat symptomatically and supportively. Show this safety data sheet to the doctor in attendance.

### 5. FIRE FIGHTING MEASURES

<b>Flash Pt:</b>	NA	<b>Method Used:</b>	Not Applicable
<b>Explosive Limits:</b>	LEL: No data.	<b>UEL:</b>	No data.
<b>Autoignition Pt:</b>	NA		
<b>Suitable Extinguishing Media:</b>	Foam, CO2, water fog, sand/earth.		
<b>Fire Fighting Instructions:</b>	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH approved (or equivalent), and full protective gear.		
<b>Flammable Properties and Hazards:</b>	High temperatures and fire conditions can result in the formation of carbon monoxide and carbon dioxide.		

### 6. ACCIDENTAL RELEASE MEASURES

<b>Protective Precautions, Protective Equipment and Emergency Procedures:</b>	Use proper personal protective equipment as indicated in Section 8.
<b>Environmental Precautions:</b>	Do not let product enter drains, sewers, watersheds or water systems.
<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Spills/Leaks: Provide ventilation. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Contain spill using an inert diking material. Transfer material into an approved container for possible recovery and reuse or for disposal.

## Safety Data Sheet (SDS)

### 7. HANDLING AND STORAGE

<b>Precautions To Be Taken in Handling:</b>	Use as directed. Use with adequate ventilation. Avoid ingestion and inhalation. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Use non-sparking tools.
	Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
<b>Precautions To Be Taken in Storing:</b>	Store in cool place. Do not store in direct sunlight. Keep away from heat, sparks and flame. Store in a tightly closed container. Keep container closed when not in use. Protect containers against damage.
<b>Other Precautions:</b>	Handle in accordance with good industrial hygiene and safety practices. Keep out of reach of children.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
5989-27-5	Limonene	No data.	No data.	No data.

<b>Respiratory Equipment (Specify Type):</b>	No special respiratory protection is needed under normal conditions of use.
<b>Eye Protection:</b>	Safety glasses with side shields.
<b>Protective Gloves:</b>	Not required under normal use conditions.
<b>Other Protective Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Engineering Controls (Ventilation etc.):</b>	Ensure adequate ventilation. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
<b>Work/Hygienic/Maintenance Practices:</b>	Handle in accordance with good industrial hygiene and safety practice.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical States:</b>	[ ] Gas    [X] Liquid    [ ] Solid	
<b>Appearance and Odor:</b>	Appearance: Thick. Gel. Odor: citrus-like odor.	
<b>Melting Point:</b>	NA	
<b>Boiling Point:</b>	NA	
<b>Decomposition Temperature:</b>	NA	
<b>Autoignition Pt:</b>	NA	
<b>Flash Pt:</b>	NA    Method Used: Not Applicable	
<b>Explosive Limits:</b>	LEL: No data.	UEL: No data.
<b>Specific Gravity (Water = 1):</b>	0.99 - 1.01	
<b>Density:</b>	NA	
<b>Bulk density:</b>	NA	
<b>Vapor Pressure (vs. Air or mm Hg):</b>	NA	
<b>Vapor Density (vs. Air = 1):</b>	NA	
<b>Evaporation Rate:</b>	NA	



## Safety Data Sheet (SDS)

<b>Solubility in Water:</b>	see notes
<b>Solubility Notes:</b>	Complete except pumice.
<b>Saturated Vapor Concentration:</b>	NA
<b>Viscosity:</b>	NA
<b>pH:</b>	8.1 - 9.1
<b>Percent Volatile:</b>	NA
<b>VOC / Volume:</b>	NA
<b>Particle Size:</b>	NA
<b>Heat Value:</b>	NA
<b>Corrosion Rate:</b>	NA

### 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	High temperatures and fire conditions can result in the formation of carbon monoxide and carbon dioxide.
<b>Stability:</b>	Unstable [ <input type="checkbox"/> ]    Stable [ <input checked="" type="checkbox"/> ]
<b>Conditions To Avoid - Instability:</b>	High temperatures, Ignition sources, Incompatible materials, Direct sunlight.
<b>Incompatibility - Materials To Avoid:</b>	Strong oxidizing agents.
<b>Hazardous Decomposition or Byproducts:</b>	High temperatures and fire conditions can result in the formation of carbon monoxide and carbon dioxide.
<b>Possibility of Hazardous Reactions:</b>	Will occur [ <input type="checkbox"/> ]    Will not occur [ <input checked="" type="checkbox"/> ]
<b>Conditions To Avoid - Hazardous Reactions:</b>	No data available.

### 11. TOXICOLOGICAL INFORMATION

<b>Toxicological Information:</b>	<p>Epidemiology: No information available.          Teratogenicity: No information available.          Reproductive Effects: No information available.          Mutagenicity: No information available.          Neurotoxicity: No information available.</p> <p>Other Studies: CAS# 5989-27-5:          Acute toxicity, LD50, Oral, Rat, 4400 mg/kg          Acute toxicity, LD50, Skin, Rabbit, 5gm/kg.</p>
<b>Irritation or Corrosion:</b>	No data available.
<b>Carcinogenicity/Other Information:</b>	CAS# 5989-27-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
<b>Carcinogenicity:</b>	NTP? No      IARC Monographs? No      OSHA Regulated? No

## Safety Data Sheet (SDS)

### 12. ECOLOGICAL INFORMATION

<b>General Ecological Information:</b>	Other: Dipentene, which is optically inactive limonene, is a marine pollutant.
<b>Results of PBT and vPvB assessment:</b>	Other Studies: CAS# 5989-27-5: LC50, Water Flea (Daphnia magna), 577 ug/L, 48H, Mortality LC50, Fathead Minnow (Pimephales promelas), 600 - 800 ug/L, 24H, Mortality
<b>Persistence and Degradability:</b>	Limonene can be readily degraded in soil.
<b>Bioaccumulative Potential:</b>	May bioconcentrate in aquatic organisms and fish.
<b>Mobility in Soil:</b>	Has low mobility in soil and may rapidly volatilize in the atmosphere.

### 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method:</b>	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. Observe all federal, state, and local environmental regulations.
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### 14. TRANSPORT INFORMATION

**LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Not Regulated.  
**DOT Hazard Class:**  
**UN/NA Number:**

### 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)
5989-27-5	Limonene	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
5989-27-5	Limonene	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: No

### 16. OTHER INFORMATION

<b>Revision Date:</b>	December 1, 2022
<b>Preparer Name:</b>	Crystal Maira
<b>Additional Information:</b>	No data available.
<b>Company Policy or Disclaimer:</b>	Information presented herein is believed to be accurate and reliable to the best of our knowledge. However, we make no warranty or merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process. Users should make their own investigations to determine the suitability of the information for their particular purposes.