

Material Safety Data Sheet

Product: Hartland Citrus Cleaner

Phone: 800-658-9051

Date of Preparation: 04-21-06

Section 1 – Chemical Product and Company Identification

Synonyms: Not applicable – mixture
Form: Liquid
CAS No: Not applicable - mixture
Distributor: Hartland Lubricants & Chemicals | 914 Commercial Court | Onalaska WI 54650

Section 2 – Composition / Information on Ingredients

Ingredient	CAS No	%	Exposure limits
Glycol ether EB	111-76-2	1-5	PEL: 50 ppm skin TLV: 20ppm (TWA)
Dimethyl Glutarate	1119-40-0	1-5	TWA: 10mg/m ³
Dimethyl Succinate	106-65-0	1-5	TWA: 10mg/m ³
Dimethyl Adipate	627-93-0	1-5	TWA: 10mg/m ³
Nonoxynol-9	26027-38-3	1-5	None established
Proprietary detergents	Proprietary	5-10	None established
Monoethanolamine	141-43-5	1-5	TWA: 3ppm
D-limonene	59-89-275	1-2	NDA
Balance of ingredients are not hazardous as defined by OSHA			

Section 3 – Hazard Identification

Emergency Overview 24 Hour Professional Emergency Resource Services (PERS) 800-633-8253

Primary routes of entry: skin contact or eye contact.

Acute exposure: irritant

HMIS Rating: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe
Health = 1 Reactivity = 0 Fire = 1 Personal protection: B gloves and glasses

Possible Health Effects Harmful if swallowed, inhaled or absorbed through skin. Eye, skin, and respiratory irritant. Affects central nervous system. See section 11.

Inhalation: Overexposure by inhalation of product may lead to irritation of respiratory tract, producing shortness of breath. May be absorbed into the bloodstream with symptoms similar to ingestion. Caution should be taken to prevent atomizing or misting of this product without proper respiratory protection.

Ingestion: Ingestion is not expected to be a primary route of exposure. Do not ingest. Material will cause severe irritation in mouth, throat and stomach. Note: Aspiration is a secondary hazard and should be expected. Product will attack lining of esophagus and stomach.

Skin Contact: This product contains materials that can cause skin irritation. Prolonged or repeated contact may result in severe irritation. Prolonged exposure to diluted product can cause irritation. May be absorbed through the skin with symptoms paralleling ingestion.

Eye Contact: Direct contact will cause severe irritation if not properly treated. Effects may range from mild to severe damage depending upon length of exposure, solution concentration and first aid measures

Chronic Exposure: Chronic exposure may cause skin effects.

Aggravation of Pre-existing Conditions: No information found

Section 4 – First Aid Measures

Inhalation:	If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty breathing or is cyanotic, seek a health care professional immediately. Administer CPR if necessary.
Ingestion:	Drink 1-2 large glasses of milk or water. Obtain immediate medical aid or call poison control. Do not induce vomiting unless directed by a physician. During vomiting there is a danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Gastric lavage should be performed only by qualified medical personnel. Keep affected person warm and at rest. Seek immediate medical attention or call 911.
Skin Contact:	Remove contaminated clothing. Immediately wash exposed area with copious amounts of water. Repeat washing. If redness or irritation occurs, seek immediate medical attention. Launder contaminated clothing before reuse.
Eye Contact:	Check for and remove contact lenses. Flush immediately with copious amounts of water for 15 minutes while holding eyelids apart to ensure complete irrigation of eye and eyelid tissues. If irritation develops, take exposed individual immediately to a health care professional, preferably an ophthalmologist, for emergency first aid and further evaluation

Section 5 – Fire Fighting Measures

Fire: Flash point	>141°F CC High heat or direct flame is necessary to cause ignition.
Unusual Fire and Explosion Hazards:	High temperatures may create heavy flammable vapors that may settle along ground level and low spots to create an invisible fire hazard. Above the flash point, explosive vapor-air mixtures may be formed. The heat of a fire may cause containers to build interior pressure and burst.
Fire Extinguishing Media:	Foam, carbon dioxide, dry chemical. Do not use a solid stream of water, since the stream will scatter and spread the fire. Water spray may be used to keep fire exposed containers cool.
Special Information:	Evacuate area and fight fire from a safe distance. Use water spray to cool adjacent structures and to protect personnel. Shut off source of flow if possible. Stay away from storage tank ends. Fire fighters must wear MSHA/NIOSH approved positive pressure breathing apparatus with full face mask and full protective equipment.

Section 6 – Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate protective equipment as specified in Section 8.

Spills: Procedures for Cleanup: Wear protective gear. Small spills: Mop thoroughly and rinse with water. Large Spills: Evacuate area. Wear protective equipment. Eliminate ignition sources. Ventilate area of leak. Block potential routes to water systems (sewers, streams, etc.) with inert material such as sand or dirt. Salvage for reuse if possible. Place into disposal containers. Wash down affected areas with clear water. RCRA regulated. Call local Emergency Response agency to report spill.

Waste Disposal: Contact the proper county, state or federal authorities. RCRA regulated.

Section 7 – Handling and Storage

Product should be stored between 40 and 100°F. Store out of direct sunlight. Keep out of reach of children. Keep container closed when not in use. Mix only with water. Thoroughly rinse empty containers before disposal. Use only in well ventilated area. Do not breathe vapors. Wash hands thoroughly after handling. Keep away from ignition sources. No smoking. Containers of this material may be hazardous when empty since they can retain product residues – observe all warnings and precautions.

Section 8 – Exposure controls / Personal Protection

Airborne Exposure Limits: See section 2

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Ventilation System:	Use adequate ventilation when working with material in an enclosed area. Mechanical methods such as fume hoods or area fans may be used to reduce localized vapor/mist areas. If vapor or mist is generated when the material handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specified exposure.
Personal Respirators:	Not needed under normal use conditions. Where mist is generated and ventilation is not adequate, wear a NIOSH particulate respirator for mists.
Skin Protection:	Impervious gloves such as neoprene or nitrile rubber to avoid skin sensitization and absorption. Clean body-covering clothing. Maintain quick-drench facility in the work area.
Eye Protection:	Eye protection must be worn. Wear safety glasses with side shields or vented splash proof goggles
Other Equipment:	Eyewash stations and showers should be available in areas where this material is used and stored. Rubber apron and boots.

Section 9 – Physical and Chemical Properties

Appearance: Blue liquid, slight haze	Boiling Point: Greater than 212°F
Odor: Orange	Melting Point: Not applicable
Solubility: Complete	Vapor Density (Air = 1) >1
Specific Gravity: 1.017 – 1.022	Vapor Pressure (mm Hg) 0.5 @ 25C (77F)
pH: 9.5 – 10.5	Evaporation Rate (BuAc=1) Slower than 1

Section 10 – Stability and Reactivity

Stability:	Stable at room temperature.
Hazardous Decomposition Products:	Carbon dioxide or carbon monoxide, smoke
Hazardous Polymerizations:	Will not occur.
Incompatibilities:	Avoid contact with acids and oxidizing materials. May attack some plastics.
Conditions to Avoid:	Heat, flames, ignition sources, and incompatibles.

Section 11 – Toxicological Information

Ingredient	-----NTP Carcinogen-----		IARC Category
	Known	Anticipated	
Glycol ether EB	No	No	A3
Dimethyl Glutarate	No	No	None
Dimethyl Succinate	No	No	None
Dimethyl Adipate	No	No	None
Nonoxynol-9	No	No	None
Proprietary detergents	No	No	None
Monoethanolamine	No	No	None
D-limonene	No	No	None

Glycol ether EB – inhalation exposure to pregnant rabbits caused some toxicity to mother and fetus at 200 ppm, but no effects at 100 ppm. Rat studies indicate the rat kidneys may be the target organs for over exposure, but rat liver changes may also be evident. There is no evidence that this occurs in humans.

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Section 12 – Ecological Information

Ecological Fate: Glycol ether EB: Estimated bioconcentration factor is less than 100. When released into the air, it has a half-life of less than 1 day.
Detergents: Readily biodegradable

Ecological Toxicity: Glycol ether EB: LC50/96-hour values for fish are over 100 mg/l

Section 13 – Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14 – Transport Information

Domestic (Land, D.O.T.)

Proper shipping Name: Not regulated. Cleaning compound (class 55)
In less than bulk packaging

Bulk Packaging: Regulated. Combustible liquid

Section 15 – Regulatory Information

• Chemical Inventory Status - part 1 •

Ingredient	TSCA	EC	Japan	Australia
Glycol Ether EB	Yes	Yes	Yes	Yes
Dimethyl Glutarate	Yes	Yes	Yes	Yes
Dimethyl Succinate	Yes	Yes	Yes	Yes
Dimethyl Adipate	Yes	Yes	Yes	Yes
Nonoxynol-9	Yes	No	Yes	Yes
Proprietary detergents	Yes	ND	ND	ND
Monoethanolamine	Yes	Yes	Yes	Yes
D-limonene	Yes	Yes	Yes	Yes

• Chemical Inventory Status – part 2 •

Ingredient	Korea	-----Canada-----		Philippines
		DSL	NDSL	
N-methyl pyrrolidone	Yes	Yes	No	Yes
Dimethyl Glutarate	Yes	Yes	No	Yes
Dimethyl Succinate	Yes	Yes	No	Yes
Dimethyl Adipate	Yes	Yes	No	Yes
Nonoxynol-9	Yes	Yes	No	Yes
Proprietary detergents	ND	ND	ND	ND
Monoethanolamine	ND	Yes	No	Yes
D-limonene	Yes	Yes	ND	ND

• Federal, State & International Regulations – part 1 •

Ingredient	--- SARA 302 ---		----- SARA 313 -----	
	RQ	TPQ	List	Chemical Catg.
Glycol ether EB	No	No	Yes	Glycol ethers
Dimethyl Glutarate	No	No	No	No
Dimethyl Succinate	No	No	No	No
Dimethyl Adipate	No	No	No	No
Nonoxynol-9	No	No	No	No
Proprietary detergents	No	No	No	No

