SECTION 1 – IDENTIFICATION

Chemical Name & Symbol: N/A
Classification: Degreaser
Suppliers Name: Lonestar Maintenance Chemicals
Address: 34369 US Hwy. 96 So., Buna, TX 77612

Trade Names and Synonyms: Citro-Blast
Product No: CH061
Emergency Phone: 1-800-721-2448

SECTION 2 – HAZARD(S) IDENTIFICATION

Emergency Overview: Appearance: liquid, water-like

Warning! Combustible liquid and vapor. May cause eye irritation. May cause allergic skin reaction. May cause skin and respiratory tract irritation. Prolonged or repeated contact may dry skin and cause dermatitis and burns.

Potential Health Effects:

Exposure routes	Inhalation, skin absorption, skin contact, eye contact, ingestion.
Eye contact	Can cause eye irritation. Symptoms include stinging, tearing, redness and swelling of eyes.
Skin contact	Can cause skin irritation. Symptoms may include redness and burning of skin and other skin damage. May cause allergic skin reaction. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning and drying and cracking of skin, skin burns and other skin damage.
Ingestion	This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.
Inhalation	Breathing of vapor or mist is possible. It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful.
Aggravated medical conditions	Pre-existing disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin or lungs (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: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), lung irritation, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), lack of coordination, confusion, irregular heartbeat, narcosis (dazed or sluggish feeling, convulsions or coma.
Target organs	Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects.
Carcinogenicity	D-Limonene caused kidney cancer in male rats, but not in female rats or in mice of either sex, when given to the animals through a feeding tube. The relevance of this finding to humans is uncertain. This material is not listed as a carcinogenic by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). This product (or a component) is a petroleum-derived material. Similar materials and certain compounds occurring naturally in petroleum oils have been shown to cause skin cancer in laboratory animals following repeated exposure without washing or removal. Good industrial hygiene practices are recommended to minimize exposure.
Reproductive hazard	This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only as exposure levels that harm the pregnant animal. The relevance of these finding to humans in uncertain.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS-No.	Concentration
Distillates (Petroleum), Hydrotreated Light	64742-47-8	> = 40 - < 50%
D-Limonene	5989-27-5	> = 50 - < 60%

SECTION 4 – FIRST AID MEASURES

Eyes If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart. Seek immediate medical attention.

Skin Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medial attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to Physician:

Hazards Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.

Treatment No information available.

SECTION 5 -- FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, carbon dioxide (CO2), water spray

Hazardous combustion products: Carbon dioxide and carbon monoxide, hydrocarbons

Precautions for fire-fighting: If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

NFPA Flammable and Combustible Liquids Classification: Combustible Liquid Class II

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions: For personal protection see Section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

Environmental precautions: Prevent spreading over a wide are (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods for cleaning up: Contain spillage and then collect with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).

Other information: Comply with all applicable federal, state and local regulations. Suppress (knock down) gases/vapors/mists with a water spray jet.

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.

Storage: Store in a cool, dry, ventilated area.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Distillates (Petroleum), Hydrotreated Light		**64742-47-8**	
ACGIH	Time weighted average	200 mg/m3	Non-aerosol
NIOSH	Recommended exposure limit (REL):	100 mg/m3	
D-Limonene		**5989-27-5**	
WEEL	Time weighted average	30 ppm	
WEEL	Time weighted average	165.5 mg/m3	

General advice: These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection: Wear splash-proof safety goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection: Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use. Wear resistant gloves (consult your safety equipment supplier). Discard gloves that show tears, pinholes, or signs of wear.

Respiratory protection: A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	liquid
Color	water-white
Odor	fresh citrus-like odor
Boiling point/boiling range	347.9º F / 175.5º C @ 1,017.25 hPa Calculated Phase Transition Liquid/Gas
Flash point	(> =) 115º F / 46º C Tag closed cup
Ignition temperature	no data available
Lower explosion limit/Upper explosion limit	0.7% (V) / 6.1% (V) Calculated Explosive Limit
Particle size	0.007 mm
Vapor pressure	0.920 hPa @ 77° F / 25° C Calculated Vapor Pressure
Density	0.830 g/cm3
	6.910 lb/gal @ 68º F / 20º C

SECTION 10 -- STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	Heat, flames and sparks
Incompatible products:	Oxidizing agents, strong reducing agents
Hazardous decomposition products:	Carbon dioxide, carbon monoxide and hydrocarbons
Hazardous reactions:	Product will not undergo hazardous polymerization

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute oral toxicity:

Distillates (Petroleum), Hydrotreated Light:	LD 50: > 8,000 mg/kg Species: Rat`
D-Limonene:	LD 50: > 5 g/kg Species: Rat

Acute inhalation toxicity:

Distillates (Petroleum), Hydrotreated Light:	LC 50: > 2500 ppm: Exposure time: 4h Species: Rat

Acute dermal toxicity:
Distillates (Petroleum), Hydrotreated Light: LD 50: > 4,000 mg/kg Species: Rabbit
D-Limonene: LD 50: > 5 g/kg Species: Rabbit
Acute toxicity (other routes of administration): no data available

SECTION 12 – ECOLOGICAL INFORMATION

Biodegradability : no data available
Bioaccumulation : no data available
Ecotoxicity effects:
Toxicity to fish
Distillates (Petroleum), Hydrotreated Light : no data available
D-Limonene : LC 50: 35 mg/l
Exposure time: 94 h
Species: Oncorhynchus mykiss (Rainbow Trout)
LC 50: 0.619 – 0.796 mg/l
Exposure time: 96 h
Species: Fathead Minnow (Pimephales Promelas)
Test type: flow-through test

Toxicity to daphnia and other aquatic invertebrates
Distillates (Petroleum), Hydrotreated Light : no data available
D-Limonene : EC 50: 69.6 mg/l
Exposure time: 58 h
Species: Water flea (Daphnia Pulex)
Test type: static test

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste disposal methods: Dispose of in accordance with all applicable local, state and federal regulations.

SECTION 14 – TRANSPORT INFORMATION

Mexican Regulation for the Land Transport of Hazardous Materials and Wastes:
ID No.: UN - 1993 Proper Shipping Name: Liquido Inflamable, N.E.P. (D-Limonene) Hazard Class: 3
Packing Group: III Marine Pollutant/Ltd. Qty.: N/A

International Air Transport Association – Passenger:
ID No.: UN - 1993 Proper Shipping Name: Flammable Liquid, N.O.S. (D-Limonene) Hazard Class: 3
Packing Group: III Marine Pollutant/Ltd. Qty.: N/A

International Air Transport Association – Cargo:
ID No.: UN - 1993 Proper Shipping Name: Flammable Liquid, N.O.S. (D-Limonene) Hazard Class: 3
Packing Group: III Marine Pollutant/Ltd. Qty.: N/A

International Maritime Dangerous Goods:
ID No.: UN - 1993 Proper Shipping Name: Flammable Liquid, N.O.S. (D-Limonene) Hazard Class: 3
Packing Group: III Marine Pollutant/Ltd. Qty.: D-Limonene

Transport Canada – Inland Waterways:
ID No.: UN - 1993 Proper Shipping Name: Flammable Liquid, N.O.S. (D-Limonene) Hazard Class: 3
Packing Group: III Marine Pollutant/Ltd. Qty.: D-Limonene

Transport Canada – Rail
ID No.: UN - 1993 Proper Shipping Name: Flammable Liquid, N.O.S. (D-Limonene) Hazard Class: 3
Packing Group: III Marine Pollutant/Ltd. Qty.: N/A

Transport Canada – Road:
ID No.: UN - 1993 Proper Shipping Name: Flammable Liquid, N.O.S. (D-Limonene) Hazard Class: 3
Packing Group: III Marine Pollutant/Ltd. Qty.: N/A

U.S. DOT – Inland Waterways:
ID No.: UN - 1993 Proper Shipping Name: Flammable Liquid, N.O.S. (D-Limonene) Hazard Class: 3
Packing Group: III Marine Pollutant/Ltd. Qty.: D-Limonene

U.S. DOT – Rail:
ID No.: UN - 1993 Proper Shipping Name: Flammable Liquid, N.O.S. (D-Limonene) Hazard Class: 3
Packing Group: III Marine Pollutant/Ltd. Qty.: D-Limonene

U.S. DOT – Road:
ID No.: UN - 1993 Proper Shipping Name: Flammable Liquid, N.O.S. (D-Limonene) Hazard Class: 3
Packing Group: III Marine Pollutant/Ltd. Qty.: D-Limonene

***ORM + ORM-D, CBL = COMBUSTIBLE LIQUID**

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15 – REGULATORY INFORMATION

California Prop. 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

SARA Hazard Classification:

SARA 311/312 Classification: Fire hazard, acute health hazard.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimis) reporting levels established by SARA Title III, Section 313.

New Jersey RTK Label Information:	Distillates (Petroleum), Hydrotreated Light:	64742-47-8
	D-Limonene:	5989-27-5
Pennsylvania RTK Label Information:	Distillates (Petroleum), Hydrotreated Light :	64742-47-8
	D-Limonene:	5989-27-5

Notification status:

U.S. Toxic Substances Control Act	y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act	y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA of New Zealand	y (positive listing)
Japan. Kashin-Hou Law List	y (positive listing)
Korea. Toxic Chemical Control Law (TCCL) List	n (negative listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	n (negative listing)
China. Inventory of Existing Chemical Substances	n (negative listing)

	HMIS	NFPA
Health	2	2
Flammability	2	2
Physical Hazards	0	
Instability		0
Specific Hazards	--	--

SECTION 16 – OTHER INFORMATION

The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the user. No suggestions for use are intended as, and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any federal, state or local laws, rules, regulations or ordinances.