LIQUID CITRIC ACID SOLUTION 45%
SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product Identifier:

Milky Way CIT Remover

Other means of Identification:

LY-C-2005-0-1000

Recommended Use: Not Available

Manufactured for:

Chemsyn
485 Millway Avenue, Unit 2
CONCORD, ON, L4K 3V4

Emergency Telephone Number:

1-833-888-2436, Mon to Fri, 9:00 a.m. to 5:00 p.m.

SECTION 2: HAZARD(S) IDENTIFICATION

CLASSIFICATION IN ACCORDANCE WITH OSHA 29 CFR 1910.1200

Signal word: **WARNING**

Pictogram:



HAZARD STATEMENTS:

H315 Causes skin irritation
H320 Causes eye irritation

PRECAUTIONARY STATEMENTS:

P262 Do not get in eyes, on skin, or on clothing.
P280 Wear protective gloves/protective clothing/eye protection/face protection

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substance:	Citric Acid	Water
	40-50%	50-60%
CAS number:	77-92-9	7732-18-5
EC number:	-	231-791-2

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration, (<0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION

SECTION 4: FIRST-AID MEASURES

GENERAL ADVICE:

First Aid responders should pay attention to self-protection and must the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists, refer to Section 8 for specific personal protective equipment.

EYE CONTACT: If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. "Roll" eyes to expose more surfaces. Minimum flushing is for 15 minutes. Seek immediate medical attention.

SKIN CONTACT: If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

INHALATION: After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR). Seek immediate medical attention.

SWALLOWING: If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as Gastric lavage after endotracheal intubation).

SECTION 5: FIRE-FIGHTING MEASURES

FIRE & EXPLOSION PREVENTIVE MEASURES

Isolate from strong oxidizers, extreme heat and open flame.

EXTINGUISHING MEDIA

Use appropriate extinguishing media.

SPECIAL FIRE FIGHTING PROCEDURES

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES

Reacts with most metals producing hydrogen which is extremely flammable and may explode. Applying to hot surfaces requires special precautions. Closed containers may explode if exposed to extreme heat.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURE RESPONSE AND ENVIRONMENTAL PRECAUTIONS

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trainer personnel.

PERSONAL PROTECTIVE EQUIPMENT

The proper personal protective equipment for incidental releases (such as: 1 liter of the product released in a well-ventilated area), use impermeable gloves, triple-gloves (rubber gloves and nitrile gloves, over latex gloves), goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, specific for the material handled, chemically resistant suit and boots, and hard hat. Self-contained breathing apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approve based on actual or potential airborne concentrations in accordance with latest OSHA and/or ANSI recommendations.

ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves, and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which led to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

CONTAINMENT AND CLEAN UP MEASURES:

Absorb spilled liquid with polypads or other suitable absorbent materials, If necessary, neutralize using suitable buffering material, (acid with soda ash or base with phosphoric acid), and test area with litmus paper to confirm neutralization. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residues in suitable containers. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal. (see Section 13 – Disposal Considerations)

SECTION 7: HANDLING AND STORAGE

HANDLING:

Use only with adequate ventilation. Do not get in eyes, on skin or clothing. Wear OSHA standard full face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

STORAGE:

Isolate from strong oxidants. Do not store above 49 C/120 F. Keep container tightly closed and upright when not in use to prevent leakage. Reacts with most metals producing hydrogen which is extremely flammable and may explode. Wear full face shield, gloves and full protective clothing when opening or handling. When empty, drain completely, replace bungs securely.

NONBULK CONTAINERS:

Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Post warning and “NO SMOKING” signs in storage and use areas, as appropriate. Empty containers should be handled with care. Never store food, feed, or drinking water in containers which held this product.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged out safely. Always use this product in areas where adequate ventilation is provided. Collect all rinsates and dispose of according to applicable Federal, State, provincial, or local procedures.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Material	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
Water	7732-18-5	231-791-2	None Known	None Known
Citric Acid	77-92-9	-	None Known	None Known

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%

RESPIRATORY EXPOSURE CONTROLS

A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION

LOCAL EXHAUST: Necessary
MECHANICAL (GENERAL): Acceptable
SPECIAL: None
OTHER: None

Please refer to ACGIH document, "Industrial Ventilation", a Manual of Recommended Practices", most recent edition, for details.

PERSONAL PROTECTION:

Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGENIC PRACTICES:

Provide readily accessible eye wash stations and safety showers. Wash at end of each work shift and before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.); liquid, Water-White

Odor; None

Odor threshold; Not available

pH (Neutrality); <2.0

Melting point/freezing point; Not available

Boiling range (IBP, 50%, Dry Point); 100 100 100* C/212 212 212* F(*= End Point)

Flash point (Test Method); Not applicable

Evaporation rate(n-BUTYL ACETATE=1); Not applicable

Flammability Classification; Non-Combustible

Lower/Upper flammable Limit in Air (% by vol); Not applicable/Not Available

Vapor pressure (mm of Hg) @20 C; 17.5

Vapor density (air=1); 0.670

Gravity @68/68F 20/20 C:

Specific Gravity (Water=1); 1.240
Pounds/Gallon; 10.329

Water Solubility; Complete

Partition coefficient: n-octane/water; Not available

Auto-ignition temperature; Not applicable

Decomposition temperature; Not available

VOCs (>0.044 Lbs/Sq In); 0.0 Vol% / 0.0 g/L / 0.000 Lbs Gal

Total VOC'S (TVOC) *: 0.0 Vol% / 0.0 g/L / 0.000 Lbs Gal

Nonexempt VOC'S (CVOC)*: 0.0 Vol% / 0.0 g/L / 0.000 Lbs Gal

Hazardous Air Pollutants (HAPS): 0.0 Wt% / 0.0 g/L / 0.000 Lbs Gal

Non Exempt Partial Pressure (mm of Hg @ 20C): 0.0

*** Using CARD (California Air Resources Board Rules)**

SECTION 10: STABILITY AND REACTIVITY

STABILITY
Stable but reacts with most metals producing hydrogen which is extremely flammable and may explode.

CONDITIONS TO AVOID
Isolate from extreme heat and open flame

MATERIALS TO AVOID
Isolate from alkalis

HAZARDOUS DECOMPOSITION PRODUCTS
Carbon Oxides from heating

HAZARDOUS POLYMERIZATION
Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE HAZARDS

EYE AND SKIN CONTACT:
Severe irritation to skin, defatting
Severe irritation to eyes, redness, tearing, blurred vision
Wash thoroughly after handling

INHALATION:
May be irritating to the respiratory system

SWALLOWING:
May be irritating to the digestive system

SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED:
None Known

CHRONIC HAZARDS

CANCER, REPRODUCTIVE AND OTHER CHRONIC HAZARDS
This product has no carcinogens listed by IARC, NTP, NIOSH OSHA or ACGIH, as of this date, greater or equal to 0.1%.

IRRITANCY OF PRODUCT: This product is irritating to contaminated tissue.
SENSITIZATION TO THE PRODUCT: No component of this product is known to be a sensitizer.
MUTAGENICITY: This product is not reported to produce mutagenic effects in humans.
EMBRYOTOXICITY: This product is not reported to produce embryo toxic effects in humans.
TERATOGENICITY: This product is not reported to produce teratogenic effects in humans.
REPRODUCTIVE TOXICITY: This product is not reported to cause reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical which causes damage to a developing embryo (such as: within the eight weeks of pregnancy in humans) which caused damage

to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with the reproductive process.

MAMMALIAN TOXICITY INFORMATION
No mammalian information is available on this product

SECTION 12: ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

EFECT OF MATERIAL ON PLANTS AND ANIMALS:
This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

EFFECT OF MATERIAL ON AQUATIC LIFE:
No aquatic environmental information is available on this product.

MOBILITY IN SOIL:
Mobility of this material has not been determined.

DEGRADABILITY:
This product is completely biodegradable.

ACCUMULATION:
Bioaccumulation of this product has not been determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal. **ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES. EPA CHARACTERISTIC: D002**

SECTION 14: TRANSPORT INFORMATION

DOT/TDG SHIP NAME: Not regulated
DRUM LABEL: None
IATA/ICAO: Not regulated
IMO/IMDG: Not regulated
EMERGENCY RESPONSE GUIDEBOOK NUMBER: None

SECTION 15: REGULATORY INFORMATION

EPA REGULATION:
SARA SECTION 311/312 HAZARDS: Acute Health



All components of this product are on the TSCA list. This material contains no know products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

STATE REGULATIONS:

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):
This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

INTERNATIONAL REGULATIONS:
The components of this product are listed on the chemical inventories of the following countries:
Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS) Japan (METT/CSCL, MHWL.ISHL), South Korea (KECI), New Zealand, (NZIoC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

D2B: Irritating to skin/eyes
E: Corrosive Material

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

SECTION 16: OTHER INFORMATON

HAZARD RATINGS:
HEALTH (NFPW): 1, HEALTH (HMIS): 1, FLAMMABILITY: 0, PHYSICAL HAZARD: 0

(Personal Protection Rating to be supplied by user based on use conditions.) This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

EMPLOYEE TRAINING:
See section 2 for Risk & Safety Statements. Employees should be aware of all hazards of this material (as stated in this SDS) before handling it.

NOTICE: Manufacturer expressly disclaims all express or implied warranties or merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, manufacturer makes no representations as to its accuracy or sufficiency. Conditions of use are beyond manufacturers control and therefore uses are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.

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