

MATERIAL SAFETY DATA SHEET: LEMONIZE

Section I - General Information

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Date of Issue:

2/12/2003 12:00:00 AM

Supersedes:

2/12/2003 12:00:00 AM

Chemical Name & Synonyms:

N/A

Trade Name & Synonyms:

LEMONIZE

Chemical Family:

QUATERNARY AMMONIUM CHLORIDE SOLUTION

Formula is a mixture: [✓]

Manufacturer Name:

CERTIFIED LABS, DIV. OF NCH CORP.

Manufacturer Address:

114, Sidco Industrial Estate
Ambattur, Chennai - 600 098

Prepared By:

L Boynton/Chemist

Product Code Number:

0328

Emergency Phone Number:

+91-44-26350176

Section II - Hazardous Ingredients

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

<u>Chemical Name (Ingredients)</u>	<u>Hazard</u>	<u>TLV</u>	<u>PEL</u>	<u>STEL</u>	<u>CAS #</u>
ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE	CORROSIVE	N/E 1.	N/E 2.	N/E	68391-01-5
ALKYL DIMETHYL ETHYL BENZYL AMMONIUM CHLORIDE	CORROSIVE	N/E 1.	N/E 2.	N/E	68956-79-6
ETHANOL	CARCINOGEN	1000 PPM 1	N/E 2.	N/E	64-17-5
SODIUM CARBONATE	IRRITANT	N/E 1.	N/E 2.	N/E	497-19-8
SODIUM TRIPOLYPHOSPHATE	IRRITANT	N/E 1.	N/E 2.	N/E	7758-29-4
NONYLPHENOL POLYETHOXYLATE	IRRITANT	N/E 1.	N/E 2.	N/E	9016-45-9

Section III - Physical Data

Boiling Point (°F): 212°	Specific Gravity (H₂O=1): 1.043
Vapor Pressure (mm Hg): 16.61	Color: YELLOW
Vapor Density (Air=1): 0.6	Odor: LEMON
pH @ 100%: 11.5	Clarity: TRANSPARENT
% Volatile by Volume: 88.8	Evaporation Rate (BuAc=1): 0.53
H₂O Solubility: COMPLETE	Viscosity: NON-VISCOUS

Section IV - Fire and Explosion Hazard

Flash Point: >200°F	Method Used: SETAFLASH
Flammable Limits: N/A	UEL: N/A
LEL: N/A	Aerosol Level (NFPA 30B): N/A

Extinguishing Media:

[✓] Foam	[✓] Alcohol Foam	[✓] CO ₂
[✓] Dry Chemical	[✓] Water Spray	[] Other

NFPA 704 Hazard Rating:

4-Extreme	Health: 2
3-High	Flammability: 1
2-Moderate	Instability: 0
1-Slight	Special:
0-Insignificant	

Special Fire Fighting Procedures:

FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. EXTINGUISHING MEDIA SHOULD BE CHOSEN BASED ON THE NATURE OF THE SURROUNDING FIRE.

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Unusual Fire and Explosion Hazards:

USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS TO PREVENT BURSTING. USE CARE AS SPILLS MAY BE SLIPPERY.

Section V - Health and Hazard Data

Threshold Limit Value:

1000 PPM AS ETHANOL 1.

Effects of Overexposure:

Acute: (Short Term Exposure)

SKIN CONTACT: CAUSES SEVERE IRRITATION SEEN AS ITCHING, REDNESS AND A BURNING SENSATION. EYE CONTACT: CORROSIVE. CAUSES BURNS, CORNEAL DAMAGE AND POSSIBLE BLINDNESS. INHALATION: MIST CAUSES CHEST PAIN AND RESPIRATORY IRRITATION SEEN AS COUGHING AND SNEEZING. INGESTION: CORROSIVE. CAUSES BURNS TO THE MOUTH, THROAT, ESOPHAGUS AND STOMACH. CAUSES SEVERE SWELLING OF THE LARYNX. MAY CAUSE SKELETAL MUSCLE PARALYSIS, CIRCULATORY SHOCK AND CONVULSIONS. MAY BE FATAL.

Chronic: (Long Term Exposure)

PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE DERMATITIS. LONG-TERM ORAL EXPOSURE TO ETHANOL MAY RESULT IN THE DEVELOPMENT OF PROGRESSIVE LIVER INJURY WITH FIBROSIS. ADDITIONALLY, REPEATED INGESTION OF ETHANOL BY PREGNANT WOMEN HAS BEEN SHOWN TO ADVERSELY AFFECT THE CENTRAL NERVOUS SYSTEM OF THE FETUS KNOWN AS FETAL ALCOHOL SYNDROM. IARC HAS DETERMINED THAT LONG-TERM INGESTION OF ETHANOL CAN CAUSE CANCER OF THE LIVER. HOWEVER, GIVEN THE USE PATTERN OF THIS PRODUCT AND ITS CORROSIVE NATURE, THIS MAKES THE EFFECTS NOTED ABOVE VIRTUALLY IMPOSSIBLE TO OCCUR. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA AND DERMATITIS. TARGET ORGANS: NONE KNOWN. THERE IS NO PRIMARY ROUTE OF ENTRY INTO THE BODY. THE PRIMARY ROUTES OF EXPOSURE ARE SKIN AND EYE CONTACT.

Primary Routes of Entry

Inhalation Ingestion Absorption

Emergency First Aid Procedures:

Inhalation:

REMOVE FROM THE AREA TO FRESH AIR. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION DEVELOPS OR IF BREATHING BECOMES DIFFICULT.

Eye Contact:

HOLD EYE OPEN AND RINSE SLOWLY AND GENTLY FOR 15-20 MINUTES. REMOVE CONTACT LENSES, IF PRESENT, AFTER THE FIRST 5 MINUTES, THEN CONTINUE RINSING THE EYE. CALL A POISON CONTROL CENTER OR DOCTOR FOR TREATMENT ADVICE.

Skin Contact:

TAKE OFF CONTAMINATED CLOTHING. RINSE THE SKIN IMMEDIATELY WITH PLENTY OF WATER FOR 15-20 MINUTES. CALL A POISON CONTROL CENTER OR A DOCTOR FOR TREATMENT ADVICE.

Ingestion:

CALL A POISON CONTROL CENTER OR DOCTOR IMMEDIATELY FOR TREATMENT ADVICE. HAVE THE PERSON SIP A GLASS OF WATER IF ABLE TO SWALLOW. DO NOT INDUCE VOMITING UNLESS TOLD TO DO SO BY A POISON CONTROL CENTER OR DOCTOR. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Notes to Physician:

PROBABLE MUCOSAL DAMAGE CONTRAINDICATES THE USE OF GASTRIC LAVAGE.

Section VI - Toxicity Information

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:

IARC NTP OSHA ACGIH Other

VOC CONTENT: 0.4% BY WEIGHT; 0.5% BY VOLUME; 4.1 G/L

ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE

EYE-HMN SDT: 50 UG SEVERE 3.

SKN-HMN SDT: 150 UG/3D (INTERMITTENT) MILD 3.

ORL-HMN (WOMAN) TDLo: 266 MG/KG 3.

ORL-RAT LD50: 240 MG/KG 3.

ALKYL DIMETHYL ETHYL BENZYL AMMONIUM CHLORIDE

NO TOXICITY DATA AVAILABLE

ETHANOL

EYE-RBT-SDT: 500 MG SEVERE 3.

SKN-RBT-SDT: 20 MG/24H MODERATE 3.

SKN-RBT LDLo: 20 GM/KG 3.

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ORL-HMN LDLo: 1400 MG/KG 3.
ORL-RAT LD50: 7060 MG/KG 3.
IHL-RAT LC50: 20,000 PPM/10H 3.

IARC HAS DETERMINED THAT ETHYL ALCOHOL IS A CARCINOGEN EFFECTING THE LIVER BASED ON CHRONIC EXPOSURE THROUGH HUMAN CONSUMPTION VIA THE DRINKING OF ALCOHOLIC BEVERAGES OVER AN EXTENDED PERIOD OF TIME. 4. ADDITIONALLY, ORAL CONSUMPTION OF ETHYL ALCOHOL BY PREGNANT WOMEN HAS CAUSED DEFORMITIES IN THE FETUS KNOWN AS FETAL ALCOHOL SYNDROME. THE USE OF THIS PRODUCT FOR ITS INTENDED PURPOSE SHOULD NOT POSE ANY HAZARDS OF THIS KIND. 3.

SODIUM CARBONATE
EYE-RBT SDT: 100 MG/24H MODERATE 3.
SKN-RBT SDT: 500 MG/24H MILD 3.
ORL-RAT LD50: 4090 MG/KG 3.
IHL-RAT LC50: 2300 MG/M3/2H 3.

SODIUM TRIPOLYPHOSPHATE
SKN-RBT SDT: 500 MG/24H MODERATE 3.
ORL-RAT LD50: 3120 MG/KG 3.
ORL-RAT LDLo: 2730 MG/KG/13W-I CHANGES TO SPLEEN WEIGHT 5.

NONYLPHENOL POLYETHOXYLATE
ORL-RAT LD50: 4 GM/KG 3.

Section VII - Reactivity Data

Stability

Stable Unstable

Conditions to Avoid:
NONE KNOWN.

Hazardous Polymerization

Will not occur May occur

Conditions to Avoid:
N/A

Incompatibility (Materials to Avoid):

STRONG OXIDIZING AGENTS SUCH AS CHLORINE BLEACH AND CONCENTRATED HYDROGEN PEROXIDE; REDUCING AGENTS SUCH AS SODIUM THIOSULFATE, ACIDS, BASES, ALUMINUM POWDER, FLUORINE, MOLTEN LITHIUM AND HYDROXYL COMPOUNDS.

Hazardous Decomposition Products:

OXIDES OF CARBON, NITROGEN AND PHOSPHORUS; FUMES OF SODIUM; HYDROGEN CHLORIDE.

Section VIII - Spill Or Leak Procedures

Steps to be Taken if Material is Released or Spilled:

WEAR APPROPRIATE PROTECTIVE CLOTHING. USE CARE AS SPILLS MAY BE SLIPPERY. DIKE AND CONTAIN SPILL. ABSORB WITH AN INERT MATERIAL AND TRANSFER ALL MATERIAL INTO A PROPERLY LABELED CONTAINER FOR DISPOSAL. PREVENT PRODUCT FROM CONTAMINATING SOIL OR FROM ENTERING SEWAGE AND DRAINAGE SYSTEMS AND BODIES OF WATER. FLUSH AREA WITH WATER.

Waste Disposal Method(s):

DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

Neutralizing Agent:

N/A

Section IX - Special Protection Information

Required Ventilation:

LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM OPERATIONS THAT CAN GENERATE EXCESSIVE LEVELS OF MISTS. LOCAL VENTILATION IS PREFERRED, BECAUSE IT PREVENTS DISPERSION INTO WORK AREAS BY CONTROLLING IT AT ITS SOURCE.

Respiratory Protection:

RESPIRATORS SHOULD BE SELECTED BY AND USED UNDER THE DIRECTION OF A TRAINED HEALTH AND SAFETY PROFESSIONAL FOLLOWING REQUIREMENTS FOUND IN OSHA'S RESPIRATOR STANDARD (29 CFR 1910.134) AND ANSI'S STANDARD FOR RESPIRATORY PROTECTION (Z88.2-1992). FOR CONCENTRATIONS ABOVE THE TLV AND/OR PEL BUT LESS THAN 10 TIMES THESE LIMITS, A NIOSH APPROVED HALF-FACEPIECE RESPIRATOR EQUIPPED WITH APPROPRIATE CHEMICAL CARTRIDGES MAY BE USED. FOR CONCENTRATIONS GREATER THAN 10 TIMES THE TLV AND/OR PEL, CONSULT THE NIOSH RESPIRATOR DECISION LOGIC FOUND IN PUBLICATION NO. 87-116 OR ANSI Z88.2-1992.

Glove Protection:

NEOPRENE OR NITRILE RUBBER GLOVES SHOULD BE WORN. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR HAND PROTECTION, 29 CFR 1910.138.

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Eye Protection:

CHEMICAL GOGGLES OR A FACE SHIELD SHOULD BE WORN. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR EYE AND FACE PROTECTION, 29 CFR 1910.133.

Other Protection:

WEAR PROTECTIVE CLOTHING WHEN HANDLING.

Section X - Storage and Handling Information

Storage Temperature Max: 120°F Min: 35°F	Storage Conditions <input checked="" type="checkbox"/> Indoors <input checked="" type="checkbox"/> Outdoors <input type="checkbox"/> Heated <input type="checkbox"/> Refrigerated
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Precautions to be Taken in Handling and Storing:

DO NOT ALLOW PESTICIDE TO CONTAMINATE FOOD, FEED OR NATURAL BODIES OF WATER. ALWAYS STORE MATERIAL IN ITS ORIGINAL CONTAINER IN A COOL, DRY AREA. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE.

Other Precautions:

KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE LABEL BEFORE USING THE PRODUCT. FOLLOW THE LABEL DIRECTIONS. TRACES OF FREE ETHYLENE OXIDE MAY BE PRESENT IN THIS PRODUCT AND COULD ACCUMULATE IN THE HEADSPACE OF STORAGE AND TRANSPORT VESSELS.

Section XI - Regulatory Information

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Upper % Limit</u>
None.		

Those Ingredients listed above are subject to the reporting requirements of 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

Please call 1-800-527-9919 for additional information if you are a California customer. This MSDS is not intended for users in the state of California.

Section XII - References

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, ACGIH, 2002.
2. OSHA PEL.
3. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, CCINFOWeb, 2003.
4. IARC.
5. VENDOR'S MSDS.

ALL THE COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (TSCA) AND ARE EITHER LISTED ON THE TSCA INVENTORY OR OTHERWISE EXEMPTED FROM LISTING.

IRR:IRRITANT, FLAM/FLAMM:FLAMMABLE, COMB:COMBUSTIBLE, CORR:CORROSIVE CARC:CARCINOGENIC, TOX:TOXIC, N/A:NOT APPLICABLE, N/E:NOT ESTABLISHED, COC:CLEVELAND OPEN CUP, PMCC:PENSKY-MARTIN CLOSED CUP, TCC:TAGLIABUE CLOSED CUP,

LEL:LOWER EXPLOSION LIMIT, UEL:UPPER EXPLOSION LIMIT, NFPA:NATIONAL FIRE PROTECTION ASSOCIATION, IARC:INTERNATIONAL AGENCY FOR THE RESEARCH ON CANCER, NTP:NATIONAL TOXICOLOGY PROGRAM, OSHA:OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION, ACGIH:AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS, TLV:THRESHOLD LIMIT VALUE, PEL:PERMISSIBLE EXPOSURE LIMIT, STEL:SHORT-TERM EXPOSURE LIMIT, MLD:MILD, MOD:MODERATE, SEV:SEVERE, MUT:MUTAGENIC, ASPHYX:ASPHYXIAN, PNOS:PARTICULATES (INSOLUBLE) NOT OTHERWISE SPECIFIED, SDT:STANDARD DRAIZE TEST, ORL:ORAL, IHL:INHALATION, HMN:HUMAN

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