Safety Data Sheet: LONG LIFE 3500 PLUS, MM

Supercedes Date 12/12/2011 **Issuing Date** 01/31/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name LONG LIFE 3500 PLUS, MM
Recommended use Lubricant
Information on Manufacturer
CERTIFIED LABS, DIV. OF NCH CORP.
BOX 152170
IRVING, TEXAS 75015

Product Code 553J
Chemical nature Aqueous solution
Emergency Telephone Number
CHEMTREC® 800-424-9300
Telephone inquiry
972-579-2477

2. HAZARD IDENTIFICATION

Color Red - Dark red **Physical State** Liquid **Odor** Amine

GHS
Classification

Physical Hazards

Substances/mixtures corrosive to metal	Category 1

Health Hazard

Acute Inhalation Toxicity - Dusts and Mists	Category 4
Skin Corrosion/Irritation	Category 1
Serious Eye Damage/Eye Irritation	Category 1
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1
Reproductive Toxicity	Category 1B
Specific target organ systemic toxicity (single exposure)	Category 3
Specific target organ systemic toxicity (repeated exposure)	Category 2

Other hazards
None

Labeling
Signal Word
DANGER

Hazard Statements
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H332 - Harmful if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H336 - May cause drowsiness or dizziness
H360 - May damage fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
H290 - May be corrosive to metals

Precautionary Statements
P202 - Do not handle until all safety precautions have been read and understood
P280 - Wear protective gloves, protective clothing, eye protection and face protection.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace
P260 - Do not breathe mist
P285 - In case of inadequate ventilation wear respiratory protection
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P333 - If skin irritation or rash occurs get medical attention.
P363 - Wash contaminated clothing before reuse
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a physician
P304 + P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P342 + P311 - If experiencing respiratory symptoms, call a physician
P301+ P330 + P331 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a physician if unwell.
P406 - Store in a corrosion-resistant container.
P390 - Absorb spillage to prevent damage
P501 - Dispose of contents and container in accordance with applicable regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
2-Amino-2-methyl-1-propanol	124-68-5	10-30
Polyether	Trade Secret	5-10
Sodium borate decahydrate	1303-96-4	1-5
Hexylene glycol	107-41-5	1-5
Ethanolamine	141-43-5	1-5
Triethanolamine	102-71-6	1-5
Polyethylene glycol phenyl ether phosphate	39464-70-5	1-5
Proprietary solvent - NJTSR 100104-1750	TRADE SECRET	1-5

4. FIRST AID MEASURES

General advice Do not get in eyes, on skin or on clothing. Do not breathe mist.

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.

Skin Contact Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.

Inhalation Move to fresh air. In case of shortness of breath, give oxygen. If breathing has stopped, apply artificial respiration. Get medical attention immediately.

Ingestion Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point > 201 °F / > 94 °C **Method** Seta closed cup

Flammability Limits in Air % Mixture. **Upper** 8.5 **Lower** 1.3

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical

Material can create slippery conditions.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA **Health** 3 **Flammability** 1 **Instability** 0

HMIS **Health** 3 **Flammability** 1 **Instability** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.

Environmental Precautions Do not flush into surface water or sanitary sewer system.

Methods for Containment Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Methods for Cleaning Up Pick up and transfer to properly labeled containers.

Neutralizing Agent Not applicable.

7. HANDLING AND STORAGE

Handling Do not get in eyes, on skin or on clothing. Do not breathe mist.

Storage Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.

Storage Temperature **Minimum** 35 °F / 2 °C **Maximum** 120 °F / 49 °C

Storage Conditions **Indoor** X **Outdoor** **Heated** **Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
2-Amino-2-methyl-1-propanol	No data available	No data available	No data available
Polyether	No data available	No data available	No data available
Sodium borate decahydrate	TWA: 2 mg/m^3	No data available	TWA: 5 mg/m^3

	STEL: 6 mg/m^3		
Hexylene glycol	Ceiling: 25 ppm	No data available	Ceiling: 25 ppm Ceiling: 125 mg/m^3
Ethanolamine	TWA: 3 ppm STEL: 6 ppm	TWA: 3 ppm TWA: 6 mg/m^3	IDLH: 30 ppm STEL 6 ppm STEL 15 mg/m^3 TWA: 3 ppm TWA: 8 mg/m^3
Triethanolamine	TWA: 5 mg/m^3	No data available	No data available
Polyethylene glycol phenyl ether phosphate	No data available	No data available	No data available
Proprietary solvent - NJTSR 100104-1750	No data available	No data available	No data available

Engineering Measures Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Personal Protective Equipment

Eye/Face Protection Tightly fitting safety goggles. Face-shield.

Skin Protection Wear suitable protective clothing, Impervious gloves.

Respiratory Protection In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	**Viscosity**	Non viscous
Color	Red - Dark red	**Odor**	Amine
Odor Threshold	Not applicable	**Appearance**	Transparent - Hazy
pH	10.9	**Specific Gravity**	1.05
Evaporation Rate	0.44 (Butyl acetate=1)	**Percent Volatile (Volume)**	93.1
VOC Content (%)	20.6	**VOC Content (g/L)**	217
Vapor Pressure	15.6 mmHg @ 70°F	**Vapor Density**	0.6 (Air = 1.0)
Solubility	Completely soluble	**n-Octanol/Water Partition**	No data available
Melting Point/Range	No data available	**Decomposition Temperature**	No data available
Boiling Point/Range	212 °F / 100 °C	**Flammability (solid, gas)**	No data available
Flash Point	> 201 °F / > 94 °C	**Method**	Seta closed cup
Autoignition Temperature	No information available.		
Flammability Limits in Air %	Mixture.	**Upper** 8.5 **Lower** 1.3	

10. STABILITY AND REACTIVITY

Chemical Stability Stable. Hazardous polymerization does not occur.

Conditions to Avoid None known

Incompatible Products Strong oxidizing agents, Metals, Ketones, Aldehydes, Acids, Bases, Halogenated hydrocarbon.

Hazardous Decomposition Products Carbon oxides, Nitrogen oxides (NOx), Ammonia, Amines, Aldehydes, Ketones, Oxides of phosphorus, Phosphorus compounds.

Possibility of Hazardous Reactions None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

Oral LD50 9,704.77

Dermal LD50 7,521.99

Inhalation LC50

Gas No information available

Mist 1.64

Vapor 1.64

Principle Route of Exposure Skin contact, Eye contact, Inhalation.

Primary Routes of Entry Skin Absorption, Inhalation.

Acute Effects

Eyes Corrosive to the eyes and may cause severe damage including blindness.

Skin Causes skin burns. May cause allergic skin reaction.

Inhalation Harmful by inhalation. Causes burns. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. May cause

allergic respiratory reaction.

Ingestion If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Chronic Toxicity Liver and kidney injuries may occur. May cause sensitization by skin contact. Contains a known or suspected reproductive toxin.

Target Organ Effects Central nervous system, Kidney, Liver, Skin, Eyes, Respiratory system, Immune system, Blood, Testes.

Aggravated Medical Conditions Skin disorders, Liver disorders, Kidney disorders, Neurological disorders, Respiratory disorders, Blood disorders.

Component Information

Acute Toxicity None known

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
2-Amino-2-methyl-1-propanol	= 2900 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	no data available	no data available	no data available
Polyether	no data available	no data available	no data available	no data available	no data available
Sodium borate decahydrate	no data available	no data available	no data available	no data available	no data available
Hexylene glycol	= 3692 mg/kg (Rat)	no data available	> 310 mg/m^3 (Rat) 1 h	no data available	no data available
Ethanolamine	= 1720 mg/kg (Rat)	= 1 mL/kg (Rabbit)	no data available	no data available	no data available
Triethanolamine	= 4190 mg/kg (Rat)	> 20 mL/kg (Rabbit)	no data available	no data available	no data available
Polyethylene glycol phenyl ether phosphate	no data available	no data available	no data available	no data available	no data available
Proprietary solvent - NJTSR 100104-1750	no data available	no data available	no data available	no data available	no data available

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
2-Amino-2-methyl-1-propanol	no data available	no data available	no data available	no data available	liver
Polyether	no data available	no data available	no data available	no data available	no data available
Sodium borate decahydrate	no data available	no data available	no data available	X	eyes, respiratory system, skin, testes
Hexylene glycol	no data available	Skin sensitization	no data available	no data available	eyes, CNS, respiratory system, skin, immune system
Ethanolamine	no data available	Skin sensitization, Respiratory sensitization	no data available	X	eyes, CNS, respiratory system, skin, liver, kidney, reproductive system, immune system
Triethanolamine	no data available	Skin sensitization	no data available	no data available	Immune system, liver, kidney, CNS, blood, testes
Polyethylene glycol phenyl ether phosphate	no data available	no data available	no data available	no data available	no data available
Proprietary solvent - NJTSR 100104-1750	no data available	no data available	no data available	no data available	no data available

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
2-Amino-2-methyl-1-propanol	not applicable	not applicable	not applicable	not applicable	not applicable
Polyether	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium borate decahydrate	not applicable	not applicable	not applicable	not applicable	not applicable
Hexylene glycol	not applicable	not applicable	not applicable	not applicable	not applicable
Ethanolamine	not applicable	not applicable	not applicable	not applicable	not applicable
Triethanolamine	not applicable	not applicable	not applicable	not applicable	not applicable
Polyethylene glycol phenyl ether phosphate	not applicable	not applicable	not applicable	not applicable	not applicable
Proprietary solvent - NJTSR 100104-1750	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
2-Amino-2-methyl-1-propanol	EC50 = 520 mg/L Desmodesmus subspicatus 72 h	LC50 = 190 mg/L Lepomis macrochirus 96 h	no data available	EC50= 193 mg/L 48 h	N/A
Polyether	no data available	no data available	no data available	no data available	N/A
Sodium borate decahydrate	no data available	no data available	no data available	no data available	N/A
Hexylene glycol	no data available	LC50 10500 - 11000 mg/L Pimephales promelas 96 h LC50 = 10000 mg/L Lepomis	EC50 = 3038 mg/L 5 min	EC50 2700 - 3700 mg/L 48 h	<0.14

		macrochirus 96 h LC50 = 8690 mg/L Pimephales promelas 96 h LC50 = 10700 mg/L Pimephales promelas 96 h			
Ethanolamine	EC50 = 15 mg/L Desmodesmus subspicatus 72 h	LC50 = 227 mg/L Pimephales promelas 96 h LC50 = 3684 mg/L Brachydanio rerio 96 h LC50 300 - 1000 mg/L Lepomis macrochirus 96 h LC50 114 - 196 mg/L Oncorhynchus mykiss 96 h LC50 > 200 mg/L Oncorhynchus mykiss 96 h	EC50 = 110 mg/L 17 h EC50 = 12200 mg/L 2 h EC50 = 13.7 mg/L 30 min	EC50= 65 mg/L 48 h	-1.91
Triethanolamine	EC50 = 216 mg/L Desmodesmus subspicatus 72 h EC50 = 169 mg/L Desmodesmus subspicatus 96 h	LC50 10600 - 13000 mg/L Pimephales promelas 96 h LC50 > 1000 mg/L Pimephales promelas 96 h LC50 450 - 1000 mg/L Lepomis macrochirus 96 h	EC50 > 10000 mg/L 30 min	EC50= 1386 mg/L 24 h	-2.53
Polyethylene glycol phenyl ether phosphate	no data available	no data available	no data available	no data available	N/A
Proprietary solvent - NJTSR 100104-1750	no data available	no data available	no data available	no data available	N/A

Persistence and Degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Amines, liquid, corrosive, n.o.s.
Hazard Class 8
UN-No UN2735
Packing Group II
Description UN2735, Amines, liquid, corrosive, n.o.s.,(Ethanolamine), 8, PG II

TDG

Proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Hazard Class 8
UN-No UN2735
Packing Group II
Description Environmentally hazardous substance, liquid, n.o.s

ICAO

UN-No UN2735
Proper Shipping Name Amines, liquid, corrosive, n.o.s.
Hazard Class 8
Packing Group II
Shipping Description UN2735, Amines, liquid, corrosive, n.o.s.,(Ethanolamine), 8, PG II

IATA

UN-No UN2735
Proper Shipping Name Amines, liquid, corrosive, n.o.s.,
Hazard Class 8
Packing Group II
ERG Code 8L
Shipping Description UN2735, Amines, liquid, corrosive, n.o.s.,(Ethanolamine), 8, PG II

IMDG/IMO

Proper Shipping Name Amines, liquid, corrosive, n.o.s.
Hazard Class 8
UN-No UN2735
Packing Group II

EmS No. F-A, S-F
Shipping Description UN2735, Amines, liquid, corrosive, n.o.s.,(Ethanolamine), 8, PG II

15. REGULATORY INFORMATION

Inventories
TSCA Complies
DSL Complies
U.S. Federal Regulations
SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	No	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
2-Amino-2-methyl-1-propanol	Not applicable	Not applicable
Polyether	Not applicable	Not applicable
Sodium borate decahydrate	Not applicable	Not applicable
Hexylene glycol	Not applicable	Not applicable
Ethanolamine	Not applicable	Not applicable
Triethanolamine	Not applicable	Not applicable
Polyethylene glycol phenyl ether phosphate	Not applicable	Not applicable
Proprietary solvent - NJTSR 100104-1750	Not applicable	Not applicable

16. OTHER INFORMATION

Prepared By Angela Hutson
Supercedes Date 12/12/2011
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Reason for Revision No information available.
Glossary No information available.
List of References. No information available.

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