

Gear Oils



Elixir Full Synthetic GL-5 75W-90 - Elixir Tri-Vis Plus+ MP Hypoid GL-5 75W-85W-140 - Limited Slip MP Hypoid LS GL-5 Gear Oil Hypoid Gear Multi-Purpose GL-5 Lubricant SMG Lubricant GL-1 - Limited Slip Axle Concentrate















AMALIE® Elixir Full Synthetic GL-5 75W-90 is the ultimate gear oil system providing maximum protection for all gear sets as well as helping to improve fuel economy while promoting longer gear life. This formulation is rated MT-1 and is excellent for manual transmissions requiring a GL-4 rated synchromesh additive system. The special additive system is protective of blonde metals and is friction modified for smooth shifting. AMALIE Elixir Full Synthetic GL-5 75W-90 is a 100% synthetic base oil product coupled with a robust additive system and an improved viscosity modifier. It provides a high viscosity index, low pour-point, reduced friction, fuel savings, better low temperature start-up protection and longer life than most conventional gear oils. AMALIE Elixir Full Synthetic GL-5 75W-90 is formulated with limited slip additives eliminating the need for the addition of aftermarket limited slip additive. This superior gear oil is formulated to meet the requirements of the American Petroleum Institute's (API) Service Classification GL-5 and MT-1; MIL-PRF-2105E; SAE J-2360: Dana Corp. (including Eaton Axles); Eaton 750,000 mile warranty coverage and 500,000 mile oil drain intervals capabilities; General Electric D 50E9C; (P&H) 474; Mack Truck GO-J Plus; Arvin Meritor, and Rockwell Axles including the International 0-76-E.

AMALIE® Elixir Tri-Vis Plus GL-5 75W-85W-140 is a superior, high performance, full synthetic, multi-purpose automotive gear lubricant formulated to excel in severe-duty applications. Because of its robust additive system, the use of 100% synthetic base stocks and its scientifically improved shear-stable viscosity modifier it will give extended-service life protection in a multitude of severe duty applications and operating conditions including cold weather. The advanced engineering of this formula will provide excellent protection against wear, corrosion and thermal oxidative degradation and is formulated with limited slip additives eliminating the need for addition of aftermarket limited slip additive. Its unique EP package provides the best in protection against pitting, scoring and wear and is formulated to meet the requirements of the American Petroleum Institute's (API) Service Classification GL-5 and MT-1; MIL-PRF-2105E; SAE J-2360: Dana Corp. and Mack Truck GO-J.

AMALIE® *Hypoid Gear Multi-Purpose GL-5* is a premium gear lubricant for light and heavy duty axles and heavy duty non-synchronized transmissions. Features include excellent thermal and oxidation stability, compatibility with seal materials, proven heavy duty transmission performance, superior copper corrosion protection, demulsibility and foam suppression, and superior storage stability. In addition these GL-5 gear oils have exceptional EP protection and durability. With all this it is also the most price/performance competitive system used in the industry; it exceeds the performance needs of OEM final drive builders calling out API GL-5, MT-1, Mil-Prf-2105E, PG-2, and Mack GO-J.

AMALIE® *Limited Slip MP Hypoid LS GL-5 Gear Oil* meets the API GL-5 hypoid gear performance classification, and the features listed for hypoid gear multipurpose plus it contains limited-slip (LS) chemistry to prevent/reduce differential chatter as well as being formulated from the highest quality base oils and a new and improved GL-5 additive system.

AMALIE® *SMG Lubricant GL-1* is a high quality straight mineral gear oil formulated to meet the API GL-1 performance classification and to satisfy the basic gear oil demands of many high-performance over-the-road transmissions as well as many older transmission units.

AMALIE® *Limited Slip Axle Concentrate* is a high-performance, highly concentrated gear oil supplement and friction modifier additive package that may be used to help treat limited-slip axles that have chatter problems.

TYPICAL INSPECTION DATA

		Viscosity, cSt.			Brookfield Viscosity, cP.				
	API Gravity	Flash Point,C.	@100°C	@40°C	VI	@-40C	@-26C	@-12C	Pour Point,C
Elixir Full Synthetic GL-5									
75W-90	34.0	210	14.5	80.0	180	<120,000	-	-	-45
Tri-Vis Plus+ MP Hypoid GL-5									
75W-85W-140	34.0	200	27.0	175.0	180	<120,000	-	-	-45
Limited Slip MP Hypoid LS GL-5									
80W-90	27.5	230	14.90	148.0	100	-	<150,000	-	-36
Hypoid Gear Multi-Purpose GL-5									
75W	28.0	190	5.5	32.0	110	<150,000	-	-	-45
75W-90	27.6	200	14.00	120.0	116	<150,000	-	-	-45
80W-90	27.6	230	14.20	142.0	97	-	<150,000	-	-30
85W-140	25.5	250	26.20	352.0	98	-	-	<150,000	-24
SMG Lubricant GL-1									
85W-90	29.0	230	-	-	-	-	-	<150,000	-
140	31.0	250	145.00	300.0	460	-	-	-	-
250	27.0	250	-	-	-	-	-	-	-
Limited Slip Axle Concentrate	22.3	240	6.00	30.0	132	-	-	-	-

PERFORMANCE APPLICATION CHART

SPECIFICATIONS	Elixir Full Synthetic GL-5	Tri-Vis Plus+ MP Hypoid GL-5	Limited Slip MP Hypoid LS GL-5	Hypoid Gear MP GL-5	SMG Lubricant GL-1	Limit Slip Axle Concentrate
API:						
GL-1	$\sqrt{}$	$\sqrt{}$	V	V	V	-
GL-2/3	√	√	V	V	-	-
GL-4	V	V	V	V	-	-
GL-5	\checkmark	\checkmark	$\sqrt{}$	V	-	-
MT-1	\checkmark	$\sqrt{}$	V	V		
Mil-PRF-2105E	√	√	V	V	-	-
Mack GO-J	√	V	V	√	-	-
Mack GO-J Plus	√	-	-	-	-	-
Limited Slip:						
M2C119A	√	-	√	-	-	*See below
M2C154A	√	-	√	-	-	*See below
Outboards and Stern Drives	1	1	V	V	-	-

^{*} Add 2 ounces per quart needed to passenger car LS axle for noise reduction (Add 4 ounces per quart needed for heavy duty truck axles)



AMALIE OIL COMPANY

Safety data sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA GHS

SECTION 1 PRODUCT AND COMPANY INFORMATION

Product Name(s): AMALIE ELIXIR SYN GL-5 75W-90

Product Code(s): 830475981

Uses: A petroleum-based lubricant.

Company: AMALIE OIL COMPANY

This SDS complies with the OSHA Hazard Communication Standard 29CFR1910.1200 as revised in May 2012 (GHS). It may not meet requirements in other countries.

SECTION 2 HAZARDS IDENTIFICATION

GHS Signal Word:

WARNING



GHS Skin Sensitization (Category 1)

Classification:

GHS Hazard M

Statements:

May cause an allergic skin reaction

GHS Precautionary Statements: Prevention:

Avoid breathing mist/vapors/spray.

Wear protective gloves.

Contaminated work clothing must not be

allowed out of the workplace.

Storage:

None.

Response:

If on skin: Wash with plenty of water/soap.

If skin irritation or rash occurs: Get medical

advice/attention.

Wash contaminated clothing before reuse.

Disposal:

Dispose of contents/container in accordance

with local/regional/national/international

regulations.

Hazards Not Otherwise Classified:

None.

SECTION 2 HAZARDS IDENTIFICATION

GHS Assessment: Approximately 13-14% of this mixture consists of ingredient(s) of unknown acute toxicity.

Approximately 13-14% of the mixture consists of ingredient(s) of unknown hazards to the

aquatic environment.

SECTION 3 COMPOSITION / INGREDIENTS

Component	CAS Number	EC Number	Concentration			
Lubricating oils (petroleum), C20-50,	72623-87-1	276-738-4	70.0 - 90.0%			
hydrotreated neutral oil	Classification: Carc. 1B: H350 (*) Carc. 1B; H350: C ≥ 3.0 % DMSO Repr. 2; H361d: C ≥ 3.0 % DMSO Asp. Tox. 1; H304: Viscosity ≤ 20.5 mm2/s (40°C)					
Phosphoric acid esters/amine salt	Proprietary		1.0 - 5.0%			
	Classification: Skin Sens. 1: H317					
Olefin sulfide	Proprietary		1.0 - 5.0%			
	Classification: Skin Sens. 1: H317					

Note (*): Components are highly refined and this hazard does not apply.

Other components are either non-hazardous or do not significantly contribute to the hazards of the product. Trade Secret Claims: Specific chemical identity and/or exact percentage (concentration) of components has been withheld as a trade secret.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4 FIRST AID MEASURES

First Aid - Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15

minutes. Get medical attention, if irritation develops.

First Aid - Skin: In case of contact, flush skin with plenty of soap and water while removing

contaminated clothing and shoes. Get medical attention immediately if irritation

develops and/or persists. Wash contaminated clothing before reuse.

First Aid - Ingestion: If swallowed and feel unwell, immediately call a physician or poison control center.

DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is fully conscious, give a cupful of water. Never give anything by

mouth to an unconscious person.

First Aid - Inhalation: If respiratory symptoms or other symptoms of exposure develop, move victim away

from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin

artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Important Symptoms /

Effects – Acute and

Delayed:

Mild tissue inflammation, rash, nausea.

Advice to Physician: Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing Media: Treat surrounding material. Water spray, dry chemical, carbon dioxide, or

foam is recommended. Carbon dioxide can displace oxygen. Use caution

when applying carbon dioxide in confined spaces.

Specific Hazards: This product is not flammable, but will burn in a fire. This product may give

SECTION 5 FIRE FIGHTING MEASURES

rise to hazardous vapors in a fire. Vapors/fumes may be irritating, corrosive

and/or toxic.

Protective equipment and procedures for fire-fighters.

Wear full protective clothing and self-contained breathing apparatus.

Additional Advice: None.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill Procedures: Small spills: Wipe up spills with an absorbent towel/material and transfer

into suitable containers for recovery or disposal. Finally flush area with water/soap or an appropriate solvent, as this product is not appreciably

soluble in water alone.

Large spills: Contain spilled material if possible. Pump into suitable and

properly labeled containers.

Personal Precautions: Wear suitable protective clothing and equipment.

Environmental Precautions: Prevent the material from entering drains or water courses. Do not

discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

SECTION 7 HANDLING AND STORAGE

Handling: Wear appropriate personal protection (See Section 8) when handling this material.

The work area should be equipped with a safety shower and eye wash station. If exposed to the liquid, avoid contact with skin and eyes. Wash thoroughly after handling. Avoid breathing vapors, mists or sprays. Use in a well-ventilated area.

Storage: Keep container(s) tightly closed. Use and store this material at room temperature

away from sources of ignition, heat, direct sunlight and hot metal surfaces. Keep

away from any incompatible materials (see Section 10).

Additional Advice: Store in original container. Store as directed by the manufacturer.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure

Standards:

Exposure limits are listed below, if they exist.

Lubricating oils (as properties), C20-50, hydrotreated neutral oil: NIOS

(as petroleum distillates – naphtha) NIOSH REL: 350 mg/m3 TWA. NIOSH REL: 1800 mg/m3 STEL.

OSHA PEL: 500 ppm (2000 mg/m3).

(as oil mist)

NIOSH REL: 5 mg/m3 TWA. NIOSH STEL: 10 mg/m3 TWA. OSHA PEL: 5 mg/m3 TWA.

Phosphoric acid esters/amine salt:

None.

Olefin sulfide: None.

Engineering Control

Measures:

Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local

exhaust), and control of process conditions.

Respiratory Protection: A NIOSH certified self-contained breathing apparatus or air purifying

respirator with an organic cartridge may be used under conditions where

airborne concentrations are expected to exceed exposure limits.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Hand Protection: The use of gloves impervious to the specific material handled is advised to

prevent skin contact, possible irritation and skin damage (see glove

manufacturer literature for information on permeability).

Eye Protection: Approved eye protection (safety glasses with side-shields or goggles) to

safeguard against potential eye contact, irritation, or injury is recommended.

Depending on conditions of use, a face shield may be necessary.

Body Protection: Impervious clothing should be worn as needed to prevent skin contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Color: Slight yellow to amber

Odor: Characteristic
Odor Threshold: Not available.
pH: Not available.

Melting Point/Range (°C/°F): -45°C / -49°F (pour point)

Boiling Point/Range (°C/°F): > 200°C / 392°F (based on constituents)

Flash Point (PMCC) (°C/°F): 220°C / 428°F

Evaporation Rate: Not available.

Flammability / Explosivity Limits in Air (%): Not available.

Vapor Pressure: < 0.075 mmHg (20°C) (based on constituents)

Vapor Density (Air = 1):

Relative Density:

Solubility in Water:

Not available.

0.855 (15.6°C)

Insoluble

Partition Coefficient: Not available.

Autoignition Temperature (°C/°F): > 250°C / 482°F (based on constituents)

Decomposition Temperature (°C/°F): Not available.

Viscosity: 92.0 mm2/s (40°C)

Explosive Properties: None.

Oxidizing Properties: None.

Volatile Organic Content (VOC) (g/l): ca. 680 - 725 g/l (as defined by 40CFR51.100)

SECTION 10 STABILITY AND REACTIVITY

Reactivity: Product will not undergo additional reaction.

Stability: Stable under normal storage conditions.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Contact with incompatible materials, excessive heat.

Incompatibilities: Strong oxidizing agents.

Hazardous Decomposition Oxides of carbon, oxides of sulfur, oxides of phosphorus, oxides of

Products: nitrogen, amines, aliphatic compounds, toxic by-products.

SECTION 11 TOXICOLOGICAL INFORMATION

If available, toxicity data for the product is given; otherwise component data is listed.

Acute Toxicity: This product is not expected to be appreciably toxic.

(Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) Oral LD50 (rat) > 5000 mg/kg (similar oil); Dermal LD50 (rat) > 5000 mg/kg (similar oil);

Inhalation LC50 (rat) 2.18 mg/l (4 hr) (aerosol - similar oil)

(Phosphoric acid esters/amine salt) No data.

(Olefin sulfide) No data.

Skin Corrosion / Irritation: The product may be slightly irritating to the skin.

(Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) Slightly

irritating to skin (rabbit - similar oil).

(Phosphoric acid esters/amine salt) No data.

(Olefin sulfide) No data.

Serious Eye Damage /

Irritation:

The product may be slightly irritating to the eyes.

(Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) Slightly

irritating to eye (rabbit – similar oil). (Phosphoric acid esters/amine salt) No data.

(Olefin sulfide) No data.

Respiratory or Skin

Sensitization:

The product may be dermally sensitizing.

(Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) Not dermally

sensitizing (guinea pig – similar oil).

(Phosphoric acid esters/amine salt) May be a dermal sensitizer.

(Olefin sulfide) Skin sensitizer.

Mutagenicity:

This product is not expected to be mutagenic.

(Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) Not mutagenic (Ames test, in vitro mammalian chromosome aberration test, mammalian

cell gene mutation assay and micronucleus assay – similar oils). (Phosphoric acid esters/amine salt) Not mutagenic in laboratory tests.

(Olefin sulfide) No data.

Carcinogenicity:

This product is not expected to be carcinogenic.

(Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) In a 78 week study in mice by dermal application (0.25 ml dose rate applied once or twice a week), it was shown that there was no carcinogenic potential in sufficiently refined oil. Not classified as to carcinogenicity to humans (IARC

- Petroleum solvents).

(Phosphoric acid esters/amine salt) No data.

(Olefin sulfide) No data.

Reproductive /

Developmental Toxicity:

This product is not expected to be reproductively or developmentally harmful. (Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) In dermally-exposed rats at up to 1000 mg/kg/day during gestation, the developmental

NOAEL was determined to be 125 mg/kg/day based on decreased fetal body weights and skeletal anomalies at the highest dose (similar oil).

(Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) No data.

(Phosphoric acid esters/amine salt) No data.

(Phosphoric acid esters/amine salt) No data.

(Olefin sulfide) No data.

Chronic/Subchronic Toxicity: Specific Target

stemic Toxicity - (Olefin sulfide) No data.

Organ/Systemic Toxicity – Single Exposure:

Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Repeated Exposure: (Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) In a 13-week oral study in rats at up to 500 mg/kg/day, the LOAEL was 125 mg/kg/day based on organ weight changes, reddening/discoloration of organs and atrophy in male sex organs (similar oil).

(Phosphoric acid esters/amine salt) In a 28-day oral study in rats, treatment related effects included microscopic changes in the adrenal glands and kidneys at 150 and 500 mg/kg/day.

SECTION 11 TOXICOLOGICAL INFORMATION

(Olefin sulfide) No data.

Aspiration Hazard: This product does not pose an appreciable aspiration hazard.

Additional Information: None.

SECTION 12 ECOLOGICAL INFORMATION

If available, ecological data for the product is given; otherwise component data is listed.

Acute Ecotoxicity: This product is not expected to be appreciably harmful to aquatic species.

(Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) LL50 (fathead minnow) > 100 mg/l/96 hr; EL50 (Daphnia magna) > 10000 mg/l/48 hr;

NOEL (algae) \geq 100 mg/l/72 hr.

(Phosphoric acid esters/amine salt) LC50 (Fathead minnow) 8.5 mg/l/96 hr; EC50 (Daphnia magna) 91.4 mg/l/48 hr; EC50 (green algae) 6.4 mg/l/96

hr.

(Olefin sulfide) EC50 (Daphnia magna) 63 mg/l/48 hr; EC50 (algae) > 100

mg/l/72 hr.

Mobility: (Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) Not expected

to be mobile in soil.

(Phosphoric acid esters/amine salt) No data.

(Olefin sulfide) No data.

Persistence/Degradability: (Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) Not inherently

biodegradable (2-4% in 28 days - similar oil).

(Phosphoric acid esters/amine salt) Not readily biodegradable (3.6% in 28

days).

(Olefin sulfide) Not readily biodegradable (13% in 28 days).

Bioaccumulation: (Lubricating oils (petroleum), C20-50, hydrotreated neutral oil) May contain

constituents with the potential to bioaccumulate. (Phosphoric acid esters/amine salt) No data.

(Olefin sulfide) May bioaccumulate (Log Kow > 4.5).

Other adverse effects: None.

SECTION 13 DISPOSAL CONSIDERATION

Environmental precautions: Prevent the material from entering drains or water courses. Do not

discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

Product Disposal: Dispose in accordance with all local, state (provincial), and federal

regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Container Disposal: Do not remove label until container is thoroughly cleaned. Empty

containers may contain hazardous residues. This material and its

container must be disposed of in a safe way.

SECTION 14 TRANSPORT INFORMATION

DOT (US):

Proper Shipping Name: Not regulated

UN Number: None.
Class: None.

SECTION 14 TRANSPORT INFORMATION

Packaging Group: None.

Reportable Quantity: None.

Marine Pollutant: None.

IATA:

Proper Shipping Name: Not regulated

UN Number: None.

Class: None.

Packing Group: None.

IMDG:

Proper Shipping Name: Not regulated

UN Number: None.

Class: None.

Packing Group: None.

Marine Pollutant: None.

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations.

SECTION 15 REGULATORY INFORMATION

US Toxic Substance Control

Act:

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA)

Chemical Substance Inventory.

Canadian Domestic Substance

List:

All components of this product are listed on the Canadian Domestic

Substance List.

EU REACh: One or more components of this product may not have been pre-listed or

registered under REACh. Limited quantities may be permitted.

TSCA Sec.12(b) Export

Notification:

This product does not contain a chemical at or above de minimis

concentrations which requires reporting.

Canadian WHMIS

Classification:

D.2.B

This product has been classified in accordance with the hazard criteria of

the CPR and the SDS contains all of the information required by the

CPR.

Massachusetts Right-To-Know: This product contains materials subject to disclosure under the

Massachusetts Right-To-Know Law:

- Lubricating oils (petroleum), C20-50, hydrotreated neutral oil (as

petroleum distillates)

New Jersey Right-To-Know: This product contains materials subject to disclosure under the New

Jersey Right-To-Know Law:

- Lubricating oils (petroleum), C20-50, hydrotreated neutral oil (as

petroleum distillates)

Pennsylvania Right-To-Know: This product contains materials subject to disclosure under the

Pennsylvania Right-To-Know Law:

- Lubricating oils (petroleum), C20-50, hydrotreated neutral oil (as

petroleum distillates)

California Proposition 65: This product contains materials which the State of California has found

to cause cancer, birth defects or other reproductive harm:

SECTION 15 REGULATORY INFORMATION

- Cumene (< 3 ppm)

- Methyl isobutyl ketone (< 0.6 ppm)

- Ethyl acrylate (< 0.45 ppm)

- Toluene (< 0.09 ppm)

- Benzene (< 75 ppb)

- Ethyl benzene (< 0.5 ppb)

- Methanol (< 0.002%)

- Cyanide (< 0.3 ppb)

SARA TITLE III-Section 311/312 Categorization (40 Immediate (acute) hazard

CFR 370):

(as of 2018, the EPA has adopted GHS hazard classifications)

SARA TITLE III-Section 313

(40 CFR 372):

This product does not contain materials which are listed in Section 313

at or above de minimis concentrations.

CERCLA Hazardous Substance (40 CFR 302) This product does not contain materials subject to reporting under

CERCLA and Section 304 of EPCRA.

Water Hazard Class (WGK):

This product is slightly water-endangering (WGK=1).

Other Chemical Inventories: Australia (AICS): All components of this product are listed.

> China (IECSC): All components of this product are listed. Japan (ENCS): All components of this product are listed. Korea (KCI): All components of this product are listed. Philippines (PICCS): All components of this product are listed.

> Taiwan (TCSI): All components of this product are listed.

SECTION 16 OTHER INFORMATION

NFPA Rating - HEALTH: 2

NFPA Rating - FIRE: 1

NFPA Rating - REACTIVITY: 0

NFPA Rating - SPECIAL: NONE

Full text of H-Statements referred

to under Section 3:

H304 May be fatal if swallowed and enters airways

H350 May cause cancer

H361 Suspected of damaging fertility or the unborn child

H317 May cause an allergic skin reaction

SDS Date Issued: July 23, 2018

1.0 SDS Current Version: Version Date: July 23, 2018

SDS Revision History: v1.0 Initial version.

Globally Harmonized System of Classification and Labeling of GHS: Abbreviations:

Chemicals

CAS#: Chemical Abstract Services Number

American Conference of Governmental Industrial Hygienists ACGIH:

OSHA: Occupational Safety and Health Administration

NFPA: National Fire Protection Association DOT: US Department of Transportation

RCRA: US Resource Conservation and Recovery Act

Threshold Limit Value TLV:

SECTION 16 OTHER INFORMATION

TWA: Time-Weighted Average
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit

WEEL: Workplace Environmental Exposure Levels AIHA: American Industrial Hygiene Association

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50% NOAEL: No Observed Adverse Effect Level

NOEL: No Observed Effect Level
EC50: Effective Concentration 50%
LL50: Lethal Loading Rate 50%
BCF Bioconcentration Factor
BOD: Biological Oxygen Demand

Koc: Soil Organic Carbon Partition Coefficient.

Tlm: Median Tolerance Limit

Key References: United States National Library of Medicine's TOXNET

Patty's Toxicology, 5th Edition

European Commission's Institute for Health and Consumer Protection

European Chemicals Agency (ECHA)

American Conference of Governmental Industrial Hygienists

International Agency for Research on Cancer United States National Toxicology Program

United States Occupational Safety and Health Administration

United States Department of Transportation Supplier Material Safety Data Sheets

Disclaimer: The data contained herein is based on information that the company

believes to be reliable, but no expressed or implied warranty is made with regard to the accuracy of such data or its suitability for a given situation. Such data relates only to the specific product described and not to such products in combination with any other product and no agent of the company is authorized to vary any of such data. The company and its agents disclaim all liability for any action taken or

foregone on reliance upon such data.

Prepared by: ChemOne Compliance, LLC