

Glycerol Oleate

MSDS (Material Safety Data Sheet)

November 7, 2012

CHEMICAL NAME: GLYCEROL MONOOLEATE; GLYCEROL OLEATE
 CAS NO: MIXTURE
 FORMULA: MIXTURE
 DOT HAZARD CLASSIFICATION: NON-HAZARDOUS
 DOT SHIPPING NAME: NOT REGULATED
 DOT LABEL: NONE

1-INGREDIENTS

	APPROXIMATE WEIGHT %	TWA/TLV
GLYCERIDES, C14 - 18 AND C16 - 18 UNSATURATED, MONO- AND DI- (CAS NO. 67701-32-0)	88	NONE ESTABLISHED
GLYCERIDES, C14 - 18 AND C16 - 18 UNSATURATED, TRI (CAS NO. 67701-29-5)	10	NONE ESTABLISHED
GLYCERINE (CAS NO. 56-81-5)	1	10 MG/M3 -GLYCERIN MIST (TOTAL PARTICULATE OSHA. 5 MG/M3 - GLYCERIN MIST RESPIRABLE FRACTION (OSHA) 10 MG/M3 -TOTAL PARTICULATE ACGIH-TWA
FATTY ACID, C14 - 18 AND C16 - 18 UNSATURATED (CAS NO. 67701-06-8)	1	NONE ESTABLISHED

2-PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: PALE YELLOW SOFT SOLID OR LIQUID
 VISCOSITY: NOT KNOWN
 BOILING POINT: NOT KNOWN
 VAPOR DENSITY (AIR=1): NOT APPLICABLE
 PERCENT VOLATILE (BY WEIGHT): NIL
 EVAPORATION RATE (BUTYL ACETATE -1): NOT APPLICABLE
 pH: NOT KNOWN
 ODOR: MILD FATTY
 MELTING OR FREEZING POINT: 15 - 20 DEG C.
 VAPOR PRESSURE (MM HG): NOT APPLICABLE
 SOLUBILITY IN WATER: DISPERSIBLE
 SPECIFIC GRAVITY (WATER=1): 0.95 @ 25 DEG C.

3-FIRE AND EXPLOSION INFORMATION

FLASH POINT: >200 DEG F.
 LOWER EXPLOSION LIMIT (%): NOT APPLICABLE
 EXTINGUISHING MEDIA: FOAM (X) ALCOHOL FOAM CO2 (X) DRY CHEMICAL (X) WATER (X) OTHER
 SPECIAL FIRE FIGHTING PROCEDURES: MUST WEAR NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. COOL FIRE-EXPOSED CONTAINERS WITH WATER SPRAY.
 UNUSUAL FIRE AND EXPLOSION HAZARDS: PRODUCTS OF COMBUSTION ARE TOXIC. TREAT AS HOT OIL OR FAT. IF WATER MUST BE USED, USE A FOG NOZZLE TO AVOID SPATTERING OF HOT MATERIAL AND SPREAD OF BURNING LIQUID.

4-FIRST AID MEASURES

PRIMARY ROUTES OF ENTRY: SKIN CONTACT, EYE CONTACT
 EFFECTS OF OVEREXPOSURE: BASED UPON THE AVAILABLE ANIMAL TOXICITY INFORMATION FOR THIS PRODUCT, IT IS ANTICIPATED THAT THIS MATERIAL WILL NOT BE TOXIC UPON INGESTION AND DIRECT CONTACT WILL PRODUCE NO EYE IRRITATION AND MILD SKIN IRRITATION. NO INFORMATION FOUND FOR HUMAN OVEREXPOSURE.

OVEREXPOSURE MAY AGGRAVATE EXISTING CONDITIONS: NO EFFECTS INDICATED

EMERGENCY AND FIRST AID PROCEDURES:

EYES: FLUSH EYES WITH WATER. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS AND PERSISTS.
 SKIN: WASH AFFECTED AREAS WITH PLENTY OF WATER, AND SOAP IF AVAILABLE, FOR SEVERAL MINUTES. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS.

INGESTION: IF SWALLOWED, RINSE OUT MOUTH AND DRINK 2-3 GLASSES OF WATER. SEEK MEDICAL ATTENTION IF DISCOMFORT OR OTHER SYMPTOMS DEVELOP.

INHALATION: IF SIGNIFICANT QUANTITIES ARE INHALED, REMOVE FROM AREA TO FRESH AIR. SEEK MEDICAL ATTENTION IF DISCOMFORT OR OTHER SYMPTOMS DEVELOP.

CHEMICAL LISTED AS CARCINOGEN BY:

NATIONAL TOXICOLOGY PROGRAM: NO I.A.R.C. MONOGRAPHS: NO OSHA: NO

5-REACTIVITY INFORMATION

STABILITY: STABLE
 CONDITIONS TO AVOID: NONE KNOWN
 HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION MAY PRODUCE TOXIC ORGANIC VAPORS/FUMES AND OXIDES OF CARBON.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
 CONDITIONS TO AVOID: NONE KNOWN
 INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZING AGENTS, ACIDS OR BASES.

6-SPILL AND DISPOSAL INFORMATION

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: CAUTION! FLOORS MAY BECOME SLIPPERY. WEAR APPROPRIATE PROTECTIVE GEAR AND NIOSH/MSHA APPROVED RESPIRATOR WHERE MISTS, VAPORS, DUSTS OR AIRBORNE PARTICULATES OF UNKNOWN CONCENTRATIONS MAY BE GENERATED (SELF-CONTAINED BREATHING APPARATUS PREFERRED).
 IF SOLID, SCRAPE SPILLED MATERIAL OFF FLOOR. IF LIQUID, DIKE AND CONTAIN SPILL WITH INERT MATERIAL (SAND, EARTH, ETC). TRANSFER THE SOLID AND/OR LIQUID SEPARATELY TO CONTAINERS FOR RECOVERY OR DISPOSAL. KEEP SPILL OUT OF SEWERS AND OPEN BODIES OF WATER.
 WASTE DISPOSAL METHODS: DISPOSE OF IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. INCINERATION IS THE PREFERRED METHOD.

7-PERSONAL PROTECTION INFORMATION

VENTILATION TYPE: IN PROCESSES WHERE MISTS, VAPORS, DUSTS OR AIRBORNE PARTICULATES MAY BE GENERATED, PROPER VENTILATION MUST BE PROVIDED IN ACCORDANCE WITH GOOD VENTILATION PRACTICES.

RESPIRATORY PROTECTION: IN PROCESSES WHERE MISTS, VAPORS, DUSTS OR AIRBORNE PARTICULATES MAY BE GENERATED, A NIOSH/MSHA JOINTLY APPROVED RESPIRATOR IS ADVISED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROLS.

PROTECTIVE GLOVES: RUBBER OR NEOPRENE, WHEN NEEDED, TO PREVENT SKIN CONTACT.

EYE PROTECTION: NONE REQUIRED PROVIDED THAT NORMAL INDUSTRIAL HYGIENE PRACTICES ARE OBSERVED.

OTHER PROTECTIVE EQUIPMENT: EYE WASH; SAFETY SHOWER; PROTECTIVE CLOTHING (LONG SLEEVES, COVERALLS OR OTHER, AS APPROPRIATE), WHEN NEEDED, TO PREVENT SKIN CONTACT.

8-STORAGE AND HANDLING

PRECAUTIONS FOR STORAGE AND HANDLING: TO MAINTAIN PRODUCT QUALITY, DO NOT STORE IN HEAT OR DIRECT SUNLIGHT. KEEP CONTAINERS CLOSED UNTIL USED.

9-TOXICOLOGY INFORMATION

NO INFORMATION FOUND FOR THIS MATERIAL. THE INFORMATION BELOW IS FOR THE CLOSELY RELATED MATERIAL,

- ORAL LD50 (RAT): GREATER THAN 5000 MG/KG
 - SKIN IRRITATION (RABBIT): MILD IRRITANT
 - EYE IRRITATION (RABBIT): NON-IRRITANT
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10-MISCELLANEOUS AND REGULATORY INFORMATION

FEDERAL LEVEL REGULATIONS: THIS PRODUCT IS REGULATED UNDER THE FOLLOWING SECTION(S) OF THE CODE OF FEDERAL REGULATIONS (CFR) WHEN USED IN PERMITTED FOOD ADDITIVE AND FOOD CONTACT APPLICATIONS: 21 CFR 175.105, 21 CFR 175.300, 21 CFR 176.210, 21 CFR 177.2800, 21 CFR 181.22, 21 CFR 181.27, 21 CFR 184.1323.

TOXIC SUBSTANCES CONTROL ACT (TSCA INVENTORY) STATUS: FOUND ON U.S. EPA TSCA INVENTORY.

CERCLA (COMPREHENSIVE, ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT OF 1980 REQUIRES NOTIFICATION OF THE NATIONAL RESPONSE CENTER (TELEPHONE 800-424-8802) IN THE EVENT OF A RELEASE OF QUANTITIES OF THE FOLLOWING HAZARDOUS MATERIALS CONTAINED IN THIS PRODUCT. IF THE RELEASE IS EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITIES (RQs). LISTED IN

CHEMICAL NAME:
NONE KNOWN

CAS NUMBER

TYPICAL MAXIMUM CONCENTRATIONS

SARA TITLE III, SECTION 302/304 (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986), THIS ACT REQUIRES EMERGENCY PLANNING, INCLUDING AGENCY NOTIFICATION, FOR POSSIBLE RELEASE OF THE FOLLOWING COMPONENTS OF THIS MATERIAL, BASED UPON THE THRESHOLD PLANNING QUANTITIES (TPQs) AND RELEASE REPORTABLE QUANTITIES (RQs)

CHEMICAL NAME:
NONE KNOWN

CAS NUMBER

TYPICAL MAXIMUM CONCENTRATIONS

SARA TITLE III SECTION 311/312 - THIS ACT REQUIRES REPORTING UNDER THE COMMUNITY RIGHT-TO-KNOW PROVISIONS DUE TO THE INCLUSION OF THE FOLLOWING COMPONENTS OF THIS MATERIAL IN ONE OR MORE OF THE FIVE HAZARD CATEGORIES LISTED IN 40 CFR 370:

10-MISCELLANEOUS AND REGULATORY INFORMATION Continued...

<u>CHEMICAL NAME:</u>	<u>CAS NUMBER</u>	<u>HAZARD CATEGORIES</u>
NONE KNOWN		

*) THE FIVE HAZARD CATEGORIES ARE AS FOLLOWS: F-FIRE HAZARD; S- SUDDEN RELEASE OF PRESSURE; R-REACTIVE; A-IMMEDIATE (ACUTE) HEALTH HAZARD; C-DELAYED (CHRONIC) HEALTH HAZARD

SARA TITLE III SECTION 313 - THIS ACT REQUIRES SUBMISSION OF ANNUAL REPORTS OFF THE RELEASES OF THE FOLLOWING COMPONENTS OF THIS MATERIAL IF THE THRESHOLD REPORTING QUANTITIES AS LISTED IN 40 CFR 372, ARE MET OR EXCEEDED:

<u>CHEMICAL NAME:</u>	<u>CAS NUMBER</u>	<u>TYPICAL MAXIMUM CONCENTRATIONS</u>
NONE KNOWN		

STATE RIGHT-TO-KNOW REGULATIONS:

CALIFORNIA PROPOSITION 54 - COMPONENTS PRESENT IN THIS MATERIAL WHICH THE STATE OF CALIFORNIA HAS FOUND TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM ARE AS FOLLOWS:

<u>CHEMICAL NAME:</u>	<u>CAS NUMBER</u>	<u>TYPICAL MAXIMUM CONCENTRATIONS</u>
NONE KNOWN		

MASSACHUSETTS RIGHT-TO-KNOW: THE FOLLOWING COMPONENTS OF THIS MATERIAL ARE INCLUDED IN THE MASSACHUSETTS SUBSTANCE LIST AND ARE PRESENT AT OR ABOVE REPORTABLE.

<u>CHEMICAL NAME:</u>	<u>CAS NUMBER</u>	<u>TYPICAL MAXIMUM CONCENTRATIONS</u>
NONE KNOWN		

MICHIGAN CRITICAL MATERIALS: THE FOLLOWING COMPONENTS OF THIS MATERIAL ARE INCLUDED IN THE MICHIGAN CRITICAL MATERIALS LIST:

<u>CHEMICAL NAME:</u>	<u>CAS NUMBER</u>	<u>TYPICAL MAXIMUM CONCENTRATIONS</u>
NONE KNOWN		

NEW JERSEY RIGHT-TO-KNOW: THE FOLLOWING COMPONENTS OF THIS MATERIAL ARE INCLUDED IN THE NEW JERSEY HAZARDOUS SUBSTANCE LIST AND ARE PRESENT AT OR ABOVE REPORTABLE

<u>CHEMICAL NAME:</u>	<u>CAS NUMBER</u>	<u>TYPICAL MAXIMUM CONCENTRATIONS</u>
NONE KNOWN		

PENNSYLVANIA RIGHT-TO-KNOW - THE FOLLOWING COMPONENTS OF THIS MATERIAL ARE INCLUDED IN THE PENNSYLVANIA HAZARDOUS SUBSTANCE LIST AND ARE PRESENT AT OR ABOVE REPORTABLE LEVELS:

<u>CHEMICAL NAME:</u>	<u>CAS NUMBER</u>	<u>TYPICAL MAXIMUM CONCENTRATIONS</u>
NONE KNOWN		

11-HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
CLEAR LIQUID. AMBER COLOR.
MAY CAUSE IRRITATION TO THE EYES AND RESPIRATORY SYSTEM. MAY CAUSE MILD SKIN IRRITATION.

HEALTH EFFECTS: EYES:
THIS PRODUCT MAY CAUSE IRRITATION TO THE EYES.

HEALTH EFFECTS: SKIN
NOT EXPECTED TO BE A PRIMARY SKIN IRRITANT. PROLONGED OR EXCESSIVE SKIN CONTACT WITH THIS PRODUCT MAY CAUSE MILD



SKIN IRRITATION.

HEALTH EFFECTS: INHALATION
INHALATION OF VAPORS OR MISTS OF THIS PRODUCT MAY BE IRRITATING TO THE RESPIRATORY SYSTEM

HEALTH EFFECTS: INGESTION
INGESTION OF LARGE AMOUNTS MAY PRODUCE GASTROINTESTINAL DISTURBANCES INCLUDING IRRITATION, NAUSEA, AND DIARRHEA.

12-ECOLOGICAL INFORMATION

ECOTOXICITY
NO DATA AVAILABLE ON FINISHED PRODUCT

ENVIRONMENTAL FATE
THIS PRODUCT IS BIODEGRADABLE

13-DISPOSAL CONSIDERATIONS

DISPOSAL INSTRUCTIONS
TREATMENT, STORAGE, TRANSPORTATION AND DISPOSAL MUST BE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE/PROVINCIAL AND LOCAL REGULATIONS. REGULATIONS MAY VARY IN DIFFERENT LOCATIONS. CHARACTERIZATION AND COMPLIANCE WITH APPLICABLE LAWS ARE THE RESPONSIBILITY SOLELY OF THE GENERATOR.

14-TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: REFER TO BILL OF LADING OR CONTAINER LABEL FOR DOT OR OTHER TRANSPORTATION HAZARD CLASSIFICATION, IF ANY.

15-HAZARD RATINGS

HAZARD RATINGS	HMIS	NFPA
HEALTH	0	0
FLAMMABILITY	1	1
REACTIVITY	0	0
PPE	X	

16-OTHER INFORMATION

Disclaimer: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.