

# ***Chem-Impex International Inc.***

Tel: (630) 766-2112  
E-mail: [sales@chemimpex.com](mailto:sales@chemimpex.com)  
**Shipping and Correspondence:**  
935 Dillon Drive  
Wood Dale, IL 60191 USA

Fax: (630) 766-2218  
Web site: [www.chemimpex.com](http://www.chemimpex.com)  
**Manufacturing site:**  
825 Dillon Drive  
Wood Dale, IL 60191 USA

## **SAFETY DATA SHEET**

---

### **SECTION 1. CHEMICAL IDENTIFICATION**

---

|                                 |                                                          |
|---------------------------------|----------------------------------------------------------|
| CATALOG #:                      | 00691                                                    |
| NAME:                           | 1-Thioglycerol                                           |
| SYNONYMS:                       | 3-Mercapto-1,2-propanediol<br>$\alpha$ -Monothioglycerol |
| 24 HOUR EMERGENCY<br>TELEPHONE: | (800) 535-5053(USA)<br>352-323-3500 (INTERNATIONAL)      |
| TO REQUEST AN MSDS:             | (800) 869-9290                                           |
| CUSTOMER<br>SERVICE:            | (630) 766-2112                                           |

---

### **SECTION 2. HAZARDS IDENTIFICATION**

---

#### **CLASSIFICATION OF THE SUBSTANCE OR MIXTURE**

##### **GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)**

ACUTE TOXICITY, ORAL (CATEGORY 4), H302  
ACUTE TOXICITY, DERMAL (CATEGORY 3), H311  
SKIN IRRITATION (CATEGORY 2), H315  
SKIN SENSITISATION (SUB-CATEGORY 1B), H317

SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 3), H402

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS  
PICTOGRAM**



SIGNAL WORD DANGER

**HAZARD STATEMENT(S)**

|      |                                      |
|------|--------------------------------------|
| H302 | HARMFUL IF SWALLOWED.                |
| H311 | TOXIC IN CONTACT WITH SKIN.          |
| H315 | CAUSES SKIN IRRITATION.              |
| H317 | MAY CAUSE AN ALLERGIC SKIN REACTION. |
| H402 | HARMFUL TO AQUATIC LIFE.             |

**PRECAUTIONARY STATEMENT(S)**

|                    |                                                                                          |
|--------------------|------------------------------------------------------------------------------------------|
| P261               | AVOID BREATHING DUST/ FUME/ GAS/ MIST/ VAPOURS/ SPRAY.                                   |
| P264               | WASH SKIN THOROUGHLY AFTER HANDLING.                                                     |
| P270               | DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.                                      |
| P272               | CONTAMINATED WORK CLOTHING SHOULD NOT BE ALLOWED OUT OF THE WORKPLACE.                   |
| P273               | AVOID RELEASE TO THE ENVIRONMENT.                                                        |
| P280               | WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE PROTECTION/ FACE PROTECTION.            |
| P301 + P312 + P330 | IF SWALLOWED: CALL A POISON CENTER OR DOCTOR/ PHYSICIAN IF YOU FEEL UNWELL. RINSE MOUTH. |
| P302 + P352 + P312 | IF ON SKIN: WASH WITH PLENTY OF WATER. CALL A POISON CENTER/DOCTOR IF YOU FEEL UNWELL.   |
| P333 + P313        | IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE/ ATTENTION.                        |
| P362               | TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE REUSE.                                    |
| P405               | STORE LOCKED UP.                                                                         |
| P501               | DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.                      |

**HAZARDS NOT  
OTHERWISE  
CLASSIFIED (HNOC)  
OR NOT COVERED  
BY GHS** NONE

---

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

---

MF:  $C_3H_8O_2S$

MW: 108.16  
CAS-NO. 96-27-5  
PURITY:  $\geq$  99% (GC)

#### HAZARDOUS COMPONENTS

| COMPONENT      | CLASSIFICATION                                                                                                   | CONCENTRATION |
|----------------|------------------------------------------------------------------------------------------------------------------|---------------|
| 1-Thioglycerol | ACUTE TOX. 4; ACUTE TOX. 3;<br>SKIN IRRIT. 2; SKIN SENS. 1B;<br>AQUATIC ACUTE 3; H302,<br>H311, H315, H317, H402 | $\leq$ 100%   |

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

---

## SECTION 4. FIRST-AID MEASURES

---

### DESCRIPTION OF FIRST AID MEASURES

|                                                                                   |                                                                                                                      |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>GENERAL ADVICE</b>                                                             | CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF DANGEROUS AREA.             |
| <b>IF INHALED</b>                                                                 | IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.      |
| <b>IN CASE OF SKIN CONTACT</b>                                                    | WASH OFF WITH SOAP AND PLENTY OF WATER. TAKE VICTIM IMMEDIATELY TO HOSPITAL. CONSULT A PHYSICIAN.                    |
| <b>IN CASE OF EYE CONTACT</b>                                                     | FLUSH EYES WITH WATER AS A PRECAUTION.                                                                               |
| <b>IF SWALLOWED</b>                                                               | NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.                  |
| <b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>                | THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11. |
| <b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b> | NO DATA AVAILABLE                                                                                                    |

---

## **SECTION 5. FIRE AND EXPLOSION DATA**

---

### **EXTINGUISHING MEDIA**

|                                         |                                                                             |
|-----------------------------------------|-----------------------------------------------------------------------------|
| <b>SUITABLE<br/>EXTINGUISHING MEDIA</b> | USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY<br>CHEMICAL OR CARBON DIOXIDE. |
|-----------------------------------------|-----------------------------------------------------------------------------|

|                                                                      |                               |
|----------------------------------------------------------------------|-------------------------------|
| <b>SPECIAL HAZARDS<br/>ARISING FROM THE<br/>SUBSTANCE OR MIXTURE</b> | CARBON OXIDES, SULPHUR OXIDES |
|----------------------------------------------------------------------|-------------------------------|

|                                    |                                                                           |
|------------------------------------|---------------------------------------------------------------------------|
| <b>ADVICE FOR<br/>FIREFIGHTERS</b> | WEAR SELF-CONTAINED BREATHING APPARATUS FOR<br>FIREFIGHTING IF NECESSARY. |
|------------------------------------|---------------------------------------------------------------------------|

|                            |                   |
|----------------------------|-------------------|
| <b>FURTHER INFORMATION</b> | NO DATA AVAILABLE |
|----------------------------|-------------------|

---

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

---

|                                                                                                |                                                                                                                                            |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PERSONAL<br/>PRECAUTIONS,<br/>PROTECTIVE<br/>EQUIPMENT AND<br/>EMERGENCY<br/>PROCEDURES</b> | WEAR RESPIRATORY PROTECTION. AVOID BREATHING<br>VAPOURS, MIST OR GAS. ENSURE ADEQUATE<br>VENTILATION. EVACUATE PERSONNEL TO SAFE<br>AREAS. |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|

FOR PERSONAL PROTECTION SEE SECTION 8.

|                                      |                                                                                                                                                 |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ENVIRONMENTAL<br/>PRECAUTIONS</b> | PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE<br>TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.<br>DISCHARGE INTO THE ENVIRONMENT MUST BE<br>AVOIDED. |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                          |                                                                                                                                  |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>METHODS AND<br/>MATERIALS FOR<br/>CONTAINMENT AND<br/>CLEANING UP</b> | SOAK UP WITH INERT ABSORBENT MATERIAL AND<br>DISPOSE OF AS HAZARDOUS WASTE. KEEP IN<br>SUITABLE, CLOSED CONTAINERS FOR DISPOSAL. |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|

|                                        |                              |
|----------------------------------------|------------------------------|
| <b>REFERENCE TO OTHER<br/>SECTIONS</b> | FOR DISPOSAL SEE SECTION 13. |
|----------------------------------------|------------------------------|

---

## **SECTION 7. HANDLING AND STORAGE**

---

|                                          |                                                                          |
|------------------------------------------|--------------------------------------------------------------------------|
| <b>PRECAUTIONS FOR SAFE<br/>HANDLING</b> | AVOID CONTACT WITH SKIN AND EYES. AVOID<br>INHALATION OF VAPOUR OR MIST. |
|------------------------------------------|--------------------------------------------------------------------------|

FOR PRECAUTIONS SEE SECTION 2.2.

**CONDITIONS FOR SAFE  
STORAGE, INCLUDING  
ANY INCOMPATIBILITIES**

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE.  
HYGROSCOPIC. STORE UNDER INERT GAS. AIR SENSITIVE.

Store at RT

**SPECIFIC END USE(S)**

APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED.

---

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

---

**CONTROL PARAMETERS**

CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES.  
HAZARDOUS COMPONENTS WITHOUT WORKPLACE CONTROL PARAMETERS

**EXPOSURE CONTROLS**

**APPROPRIATE  
ENGINEERING CONTROLS**

AVOID CONTACT WITH SKIN, EYES AND CLOTHING.  
WASH HANDS BEFORE BREAKS AND IMMEDIATELY AFTER HANDLING THE PRODUCT.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYE/FACE PROTECTION**

FACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).

**SKIN PROTECTION**

HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.

**FULL CONTACT**

MATERIAL: NITRILE RUBBER

MINIMUM LAYER THICKNESS: 0.4 MM

BREAK THROUGH TIME: 480 MIN

MATERIAL TESTED: CAMATRIL (KCL 730, SIZE M)

**SPLASH CONTACT**

MATERIAL: NITRILE RUBBER

MINIMUM LAYER THICKNESS: 0.2 MM

BREAK THROUGH TIME: 30 MIN

MATERIAL TESTED: DERMATRIL P (KCL 743, SIZE M)

IF USED IN SOLUTION, OR MIXED WITH OTHER SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER FROM EN 374, CONTACT THE SUPPLIER OF THE CE APPROVED GLOVES. THIS RECOMMENDATION IS ADVISORY ONLY AND MUST BE EVALUATED BY AN INDUSTRIAL HYGIENIST AND SAFETY OFFICER FAMILIAR WITH THE SPECIFIC SITUATION OF ANTICIPATED USE BY OUR CUSTOMERS. IT SHOULD NOT BE CONSTRUED AS OFFERING AN APPROVAL FOR ANY SPECIFIC USE SCENARIO.

**BODY PROTECTION**

COMPLETE SUIT PROTECTING AGAINST CHEMICALS, THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

**RESPIRATORY PROTECTION**

WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULLFACE RESPIRATOR WITH MULTI-PURPOSE COMBINATION (US) OR TYPE ABEK (EN 14387) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

**CONTROL OF ENVIRONMENTAL EXPOSURE**

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

---

## **SECTION 9.      PHYSICAL AND CHEMICAL PROPERTIES**

---

### **INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

|                                              |                                                                                    |
|----------------------------------------------|------------------------------------------------------------------------------------|
| APPEARANCE                                   | Colorless liquid                                                                   |
| ODOUR                                        | STENCH                                                                             |
| ODOUR THRESHOLD                              | NO DATA AVAILABLE                                                                  |
| PH                                           | 4.79 AT 10 G/L AT 20 °C                                                            |
| MELTING POINT/FREEZING POINT                 |                                                                                    |
| INITIAL BOILING POINT AND BOILING RANGE      | 118°C/5mmHg                                                                        |
| FLASH POINT                                  | 113 °C                                                                             |
| EVAPORATION RATE                             | NO DATA AVAILABLE                                                                  |
| FLAMMABILITY (SOLID, GAS)                    | NO DATA AVAILABLE                                                                  |
| UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS | NO DATA AVAILABLE                                                                  |
| VAPOUR PRESSURE                              | 0.01 HPA AT 20 °C - OECD TEST GUIDELINE 104                                        |
| VAPOUR DENSITY                               | NO DATA AVAILABLE                                                                  |
| RELATIVE DENSITY                             | 1.30                                                                               |
| WATER SOLUBILITY                             | 1,000 G/L AT 20 °C - OECD TEST GUIDELINE 105                                       |
| PARTITION COEFFICIENT: N- OCTANOL/WATER      | LOG POW: < 0 AT 20 °C - OECD TEST GUIDELINE 117 - BIOACCUMULATION IS NOT EXPECTED. |
| AUTO-IGNITION TEMPERATURE                    | 300 °C AT 1,013 HPA - DIN 51794                                                    |
| DECOMPOSITION TEMPERATURE                    | 210 - 340 °C, 0.18 KJ/KG                                                           |
| VISCOSITY                                    | NO DATA AVAILABLE                                                                  |
| EXPLOSIVE PROPERTIES                         | NO DATA AVAILABLE                                                                  |
| OXIDIZING PROPERTIES                         | NO DATA AVAILABLE                                                                  |

### **OTHER SAFETY INFORMATION**

NO DATA AVAILABLE

---

## **SECTION 10.      STABILITY AND REACTIVITY**

---

|                                    |                                              |
|------------------------------------|----------------------------------------------|
| REACTIVITY                         | NO DATA AVAILABLE                            |
| CHEMICAL STABILITY                 | STABLE UNDER RECOMMENDED STORAGE CONDITIONS. |
| POSSIBILITY OF HAZARDOUS REACTIONS | NO DATA AVAILABLE                            |

|                                         |                                                                                                                                                                                           |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CONDITIONS TO AVOID</b>              | AIR SENSITIVE.                                                                                                                                                                            |
| <b>INCOMPATIBLE MATERIALS</b>           | BASES, OXIDIZING AGENTS, REDUCING AGENTS, ALKALI METALS                                                                                                                                   |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS</b> | HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS. - CARBON OXIDES, SULPHUR OXIDES<br>OTHER DECOMPOSITION PRODUCTS - NO DATA AVAILABLE<br>IN THE EVENT OF FIRE: SEE SECTION 5 |

---

## SECTION 11. TOXICOLOGICAL INFORMATION

---

### INFORMATION ON TOXICOLOGICAL EFFECTS

|                                          |                                                                                                                                                                                                                                                                 |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ACUTE TOXICITY</b>                    | LD50 ORAL - RAT - MALE AND FEMALE - 648 MG/KG (OECD TEST GUIDELINE 401)<br><br>LC50 INHALATION - RAT - MALE AND FEMALE - 4 H - > 0.51 MG/L (OECD TEST GUIDELINE 403)<br><br>LD50 DERMAL - RABBIT - 673 MG/KG (OECD TEST GUIDELINE 402)<br><br>NO DATA AVAILABLE |
| <b>SKIN CORROSION/IRRITATION</b>         | SKIN - RABBIT<br>RESULT: SKIN IRRITATION (US-EPA)                                                                                                                                                                                                               |
| <b>SERIOUS EYE DAMAGE/EYE IRRITATION</b> | EYES - RABBIT<br>RESULT: SLIGHT IRRITATION (US-EPA)                                                                                                                                                                                                             |
| <b>RESPIRATORY OR SKIN SENSITISATION</b> | LOCAL LYMPH NODE ASSAY (LLNA) - MOUSE<br>RESULT: POSITIVE (OECD TEST GUIDELINE 429)                                                                                                                                                                             |
| <b>GERM CELL MUTAGENICITY</b>            | IN VITRO MAMMALIAN CELL GENE MUTATION TEST<br>MOUSE LYMPHOMA TEST<br>RESULT: NEGATIVE<br>MUTAGENICITY (MAMMAL CELL TEST):<br>CHROMOSOME ABERRATION.<br>HUMAN LYMPHOCYTES<br>RESULT: NEGATIVE                                                                    |
| <b>CARCINOGENICITY</b>                   |                                                                                                                                                                                                                                                                 |



|                                                           |                                                                                                                                                         |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| IARC:                                                     | NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED HUMAN CARCINOGEN BY IARC. |
| NTP:                                                      | NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED CARCINOGEN BY NTP.                 |
| OSHA:                                                     | NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON OSHA S LIST OF REGULATED CARCINOGENS.                                |
| <b>REPRODUCTIVE TOXICITY</b>                              | NO DATA AVAILABLE                                                                                                                                       |
| <b>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE</b>   | ACUTE INHALATION TOXICITY - COUGH, SHORTNESS OF BREATH, MUCOSAL IRRITATIONS, POSSIBLE DAMAGES: DAMAGE OF RESPIRATORY TRACT                              |
| <b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b> | NO DATA AVAILABLE                                                                                                                                       |
| <b>ASPIRATION HAZARD</b>                                  | NO DATA AVAILABLE                                                                                                                                       |
| <b>ADDITIONAL INFORMATION</b>                             | RTECS: TY8140000<br><br>COUGH, SHORTNESS OF BREATH, HEADACHE, NAUSEA, VOMITING                                                                          |

---

## SECTION 12. ECOLOGICAL INFORMATION

---

|                                                     |                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TOXICITY</b>                                     |                                                                                                                                                                                                                                                                                                                            |
| TOXICITY TO FISH                                    | FLOW-THROUGH TEST LC50 - ONCORHYNCHUS MYKISS (RAINBOW TROUT) - 35 MG/L - 96 H (OECD TEST GUIDELINE 203)<br>REMARKS: (IN ANALOGY TO SIMILAR PRODUCTS)                                                                                                                                                                       |
| TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES | FLOW-THROUGH TEST EC50 - DAPHNIA MAGNA (WATER FLEA) - 11 MG/L - 48 H (OECD TEST GUIDELINE 202)<br>REMARKS: (IN ANALOGY TO SIMILAR PRODUCTS)                                                                                                                                                                                |
| TOXICITY TO ALGAE                                   | STATIC TEST ERC50 - PSEUDOKIRCHNERIELLA SUBCAPITATA (GREEN ALGAE) - 11 MG/L - 72 H (OECD TEST GUIDELINE 201)<br>REMARKS: (IN ANALOGY TO SIMILAR PRODUCTS)<br><br>STATIC TEST EC10 - PSEUDOKIRCHNERIELLA SUBCAPITATA (GREEN ALGAE) - 3.4 MG/L - 72 H (OECD TEST GUIDELINE 201)<br>REMARKS: (IN ANALOGY TO SIMILAR PRODUCTS) |

**PERSISTENCE AND DEGRADABILITY**

**BIODEGRADABILITY** AEROBIC - EXPOSURE TIME 28 D  
RESULT: 80.3 % - READILY BIODEGRADABLE.  
(OECD TEST GUIDELINE 301F)

**BIOACCUMULATIVE  
POTENTIAL** NO DATA AVAILABLE

**MOBILITY IN SOIL** NO DATA AVAILABLE

**RESULTS OF PBT AND  
VPVB ASSESSMENT** PBT/VPVB ASSESSMENT NOT AVAILABLE AS  
CHEMICAL SAFETY ASSESSMENT NOT  
REQUIRED/NOT CONDUCTED

**OTHER ADVERSE EFFECTS** AN ENVIRONMENTAL HAZARD CANNOT BE  
EXCLUDED IN THE EVENT OF UNPROFESSIONAL  
HANDLING OR DISPOSAL.  
HARMFUL TO AQUATIC LIFE.

---

**SECTION 13. DISPOSAL CONSIDERATIONS**

---

**WASTE TREATMENT METHODS**

**PRODUCT** OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS  
TO A LICENSED DISPOSAL COMPANY. CONTACT A  
LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE  
TO DISPOSE OF THIS MATERIAL.

**CONTAMINATED  
PACKAGING** DISPOSE OF AS UNUSED PRODUCT.

---

**SECTION 14. TRANSPORT INFORMATION**

---

**DOT (US)**

PROPER SHIPPING NAME: TOXIC, LIQUIDS, ORGANIC, N.O.S. (1-Thioglycerol)  
UN NUMBER: 2810  
CLASS: 6.1  
PACKING GROUP: III  
REPORTABLE QUANTITY  
(RQ):  
POISON INHALATION HAZARD: NO

**IMDG**

PROPER SHIPPING NAME: TOXIC, LIQUIDS, ORGANIC, N.O.S. (1-Thioglycerol)  
UN NUMBER: 2810

CLASS: 6.1  
PACKING GROUP: III  
EMS-NO: F-A, S-A

**IATA**

PROPER SHIPPING NAME: TOXIC, LIQUIDS, ORGANIC, N.O.S. (1-Thioglycerol)  
UN NUMBER: 2810  
CLASS: 6.1  
PACKING GROUP: III

---

**SECTION 15. REGULATORY INFORMATION**

---

**SARA 302 COMPONENTS** NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.

**SARA 313 COMPONENTS** THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

**SARA 311/312 HAZARDS** ACUTE HEALTH HAZARD

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS** NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS**

|                | CAS-NO. | REVISION DATE |
|----------------|---------|---------------|
| 1-Thioglycerol | 96-27-5 |               |

**NEW JERSEY RIGHT TO KNOW COMPONENTS**

|                | CAS-NO. | REVISION DATE |
|----------------|---------|---------------|
| 1-Thioglycerol | 96-27-5 |               |

**CALIFORNIA PROP. 65 COMPONENTS** THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR ANY OTHER REPRODUCTIVE HARM.

---

**SECTION 16. OTHER INFORMATION**

---

**FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.**

|      |                                      |
|------|--------------------------------------|
| H302 | HARMFUL IF SWALLOWED.                |
| H311 | TOXIC IN CONTACT WITH SKIN.          |
| H315 | CAUSES SKIN IRRITATION.              |
| H317 | MAY CAUSE AN ALLERGIC SKIN REACTION. |
| H402 | HARMFUL TO AQUATIC LIFE.             |

MSDS LEGEND

|        |                                                             |
|--------|-------------------------------------------------------------|
| MW:    | MOLECULAR WEIGHT                                            |
| MF:    | MOLECULAR FORMULA                                           |
| VOC:   | VOLATILE ORGANIC COMPOUNDS                                  |
| ACGIH: | AMERICAN CONFERENCE OF GOVERNMENTAL<br>INDUSTRIAL HYGINISTS |
| CAS:   | CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER                   |
| OSHA:  | OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION               |
| PEL:   | PERMISSIBLE EXPOSURE LIMIT (OSHA)                           |
| TLV:   | THRESHOLD LIMIT VALUE (ACGIH)                               |

IMPORTANT:

*THE INFORMATION ABOVE IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, WE MAKE NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION FOR THEIR PARTICULAR PURPOSES. IN NO EVENT SHALL **CII** BE LIABLE FOR ANY CLAIMS, LOSSES, OR DAMAGES OF ANY THIRD PARTY OR FOR LOST PROFITS OR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES, HOWSOEVER ARISING, EVEN IF **CII** HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.*

VERSION: 3.2.

REVISION DATE: 07/01/2020