

# Safety Data Sheet



Renewable Energy Group

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Glycerin Bottoms

**Product Use:** Chemical Feedstock

**Synonyms:** 1,2,3-Propanetriol; Glycerin; Glycerine; Glycerol; SDS 220

#### Company Identification

REG Marketing & Logistics Group, LLC

416 South Bell Avenue

Ames, IA 50010

United States of America

#### Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

#### Health Emergency

Chevron Emergency & Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

#### Product Information

Product Information: Phone: 1 888.734.8686 / Email: REG-SDSDistribution@chevron.com

## SECTION 2 HAZARDS IDENTIFICATION

#### CLASSIFICATION:

Not classified as hazardous according to 29 CFR 1910.1200 (2012).

**HAZARDS NOT OTHERWISE CLASSIFIED:** Not Applicable

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

| COMPONENTS  | CAS NUMBER | AMOUNT           |
|---|------------|------------------|
| Glycerol  | 56-81-5    | 35 - 80 %weight  |
| Potassium Acetate                                     | 127-08-2   | 15 - 40 %weight  |
| Fatty acids, C14-18 and C16-18-unsatd., Methyl esters | 67762-26-9 | 1 - 15 %weight   |
| Potassium carboxylate salt                            | Mixture    | 0.1 - 15 %weight |

## SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

**Most important symptoms and effects, both acute and delayed**

**IMMEDIATE HEALTH EFFECTS**

**Eye:** Contact with the eyes may cause irritation. Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin may cause irritation. Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. If this material is heated, fumes may be unpleasant and produce nausea and irritation of the eye and upper respiratory tract.

**DELAYED OR OTHER HEALTH EFFECTS:** Not classified

**Indication of any immediate medical attention and special treatment needed** Not Applicable

**SECTION 5 FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames. Do not use water spray or a direct stream of water.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Hydrocarbons, Nitrogen Oxides.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:** Do not breathe vapor or fumes from heated material.

**Unusual Handling Hazards:** Materials saturated with this product, such as oily rags, used oil dri, soaked insulation pads, etc., may spontaneously combust due to product decomposition in the presence of oxygen. Place all such materials into appropriate oily waste containers (such as metal cans with metal lids or oily waste dumpsters with lids), and dispose of according to local, state, and federal regulations

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by

themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment (PPE). If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, refer to PPE information below.

Factors that affect PPE include, but are not limited to: properties of the chemical, other chemicals which may contact the same PPE, physical requirements (fit & sizing, cut/puncture protection, dexterity, thermal protection, etc.), and potential allergic reactions to the PPE material. It is the responsibility of the user to read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances. Refer to appropriate CEN standards.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** Wear protective equipment to prevent eye contact. Selection of protective equipment may include safety glasses, chemical goggles, face shields, or a combination depending on the work operations conducted.

**Skin Protection:** Wear chemical personal protective equipment (PPE) to prevent skin contact. Selection of chemical protective clothing should be performed by an Occupational Hygienist or Safety Professional and be based upon applicable standards (ASTM F739 or EN 374). Using chemical PPE depends upon operations conducted and may include chemical gloves, boots, chemical apron, chemical suit, and complete facial protection. **Refer to PPE manufacturers to obtain breakthrough time information to determine how long PPE can be used before it needs to be replaced.** Unless specific glove manufacturer data indicates otherwise, the below table is based upon available industry data to assist in the glove selection process and is intended to be used as reference only.

| Chemical Glove Material | Thickness (mm) | Typical Breakthrough Time (minutes) |
|-------------------------|----------------|-------------------------------------|
| Butyl                   | 0.5            | 240                                 |
| Neoprene                | 0.75           | 240                                 |
| Nitrile                 | 0.5            | 240                                 |
| Nitrile                 | 0.2            | 240                                 |
| Viton Butyl             | 0.3            | 240                                 |

|                          |                                |
|--------------------------|--------------------------------|
| Polyvinyl Chloride (PVC) | <b>Not recommended for use</b> |
|--------------------------|--------------------------------|

**Respiratory Protection:** No respiratory protection is normally required. Determine if airborne concentrations are below the recommended occupational exposure limits for jurisdiction of use. If

airborne concentrations are above the acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: Air-Purifying Respirator for Organic Vapors.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

#### Occupational Exposure Limits:

| Component | Agency   | Form                 | TWA                  | STEL | Ceiling | Notation |
|-----------|----------|----------------------|----------------------|------|---------|----------|
| Glycerol  | ACGIH    | Inhalable particles  | 10 mg/m <sup>3</sup> | --   | --      | --       |
| Glycerol  | ACGIH    | Respirable particles | 3 mg/m <sup>3</sup>  | --   | --      | --       |
| Glycerol  | OSHA Z-1 | --                   | 15 mg/m <sup>3</sup> | --   | --      | --       |
| Glycerol  | OSHA Z-1 | Respirable fraction  | 5 mg/m <sup>3</sup>  | --   | --      | --       |
| Glycerol  | OSHA Z-1 | Total dust           | 15 mg/m <sup>3</sup> | --   | --      | --       |

Consult local authorities for appropriate values.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Brown to yellow

**Physical State:** Liquid

**Odor:** Mild to pungent sulfurous odor

**Odor Threshold:** No data available

**pH:** 10 - 12 (Approximate)

**Vapor Pressure:** No data available

**Relative Vapor Density:** No data available

**Initial Boiling Point:** No data available

**Solubility:** Slightly soluble.

**Freezing Point:** 0°C (32°F)

**Melting Point:** No data available

**Specific Gravity:** 1.10 @ 20°C (68°F)

**Particle Characteristics:** Not applicable

**Density:** No data available

**Kinematic Viscosity:** No data available

**Coefficient of Therm. Expansion / °F:** No data available

**Evaporation Rate:** No data available

**Decomposition temperature:** No data available

**Partition coefficient n-octanol/water (logarithmic value):** -1.76

#### FLAMMABLE PROPERTIES:

**Flammability (solid, gas):** No Data Available

**Flashpoint:** > 150 °C (> 302 °F)

**Autoignition:** No data available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

### SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Conditions to Avoid:** Do not store near sources of ignition. Avoid contact with heat, sparks, fire and oxidizing agents. Avoid contact with mineral acid/alkali.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Serious Eye Damage/Irritation:** The material is not considered an eye irritant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Skin Corrosion/Irritation:** The material is not considered a skin irritant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Skin Sensitization:** The material is not considered a skin sensitizer. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Dermal Toxicity:** The material is not considered a dermal toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Oral Toxicity:** LD50: 12,6000 mg/kg (rat).

**Acute Inhalation Toxicity:** The material is not considered an inhalation toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The material is not considered a mutagen. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Carcinogenicity:** The material is not considered a carcinogen. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Reproductive Toxicity:** The material is not considered a reproductive toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Specific Target Organ Toxicity - Single Exposure:** The material is not considered a target organ toxicant (single exposure). The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Specific Target Organ Toxicity - Repeated Exposure:** The material is not considered a target organ toxicant (repeated exposure). The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Aspiration Hazard:** The material is not considered an aspiration hazard.

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**

No data available.

**PERSISTENCE AND DEGRADABILITY**

This material is expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.

Partition coefficient n-octanol/water (logarithmic value): -1.76

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by international, country, or local laws and regulations.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** NOT REGULATED AS HAZARDOUS MATERIAL UNDER 49 CFR

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**

Not applicable

**SECTION 15 REGULATORY INFORMATION**

**EPCRA 311/312 CATEGORIES:** Not applicable

**REGULATORY LISTS SEARCHED:**

|                      |                 |
|----------------------|-----------------|
| 01-1=IARC Group 1    | 05=MA RTK       |
| 01-2A=IARC Group 2A  | 06=NJ RTK       |
| 01-2B=IARC Group 2B  | 07=PA RTK       |
| 02=NTP Carcinogen    | 08-1=TSCA 5(e)  |
| 03=EPCRA 313         | 08-2=TSCA 12(b) |
| 04=CA Proposition 65 |                 |

The following components of this material are found on the regulatory lists indicated.

Glycerol 05, 06, 07

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: AIIIC (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan).

## SECTION 16 OTHER INFORMATION

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 0 Flammability: 1 Reactivity: 0  
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**REVISION STATEMENT:** This is a new Safety Data Sheet.  
No revision information

**Revision Date:** November 20, 2023

### ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

|   |  |
|---|--|
| TLV - Threshold Limit Value                                       | TWA - Time Weighted Average                            |
| STEL - Short-term Exposure Limit                                  | PEL - Permissible Exposure Limit                       |
| GHS - Globally Harmonized System                                  | CAS - Chemical Abstract Service Number                 |
| ACGIH - American Conference of Governmental Industrial Hygienists | IMO/IMDG - International Maritime Dangerous Goods Code |
| API - American Petroleum Institute                                | SDS - Safety Data Sheet                                |
| HMIS - Hazardous Materials Information System                     | NFPA - National Fire Protection Association (USA)      |
| DOT - Department of Transportation (USA)                          | NTP - National Toxicology Program (USA)                |
| IARC - International Agency for Research on Cancer                | OSHA - Occupational Safety and Health Administration   |
| NCEL - New Chemical Exposure Limit                                | EPA - Environmental Protection Agency                  |
| SCBA - Self-Contained Breathing Apparatus                         | PNOS - Particles Not Otherwise Specified               |

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Technical Center, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**