SAFETY DATA SHEET

Glypure™ L 70

SECTION 1. IDENTIFICATION

Product name : Glypure™ L 70
SDS-Identcode : 130000028775

Manufacturer or supplier’s details
Company name of supplier : The Chemours Company FC, LLC
Address : 1007 Market Street
           Wilmington, DE 19899 United States of America (USA)
Telephone : 1-844-773-CHEM (outside the U.S. 1-302-773-1000)


Recommended use of the chemical and restrictions on use
Recommended use : Personal care
                   Cosmetics
Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Skin corrosion : Category 1
Serious eye damage : Category 1

GHS label elements
Hazard pictograms :

Signal Word : Danger
Hazard Statements : H314 Causes severe skin burns and eye damage.
Precautionary Statements :
  Prevention:
  P264 Wash skin thoroughly after handling.
  P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
  Response:
  P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth.
  Do NOT induce vomiting. Immediately call a POISON
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P303 + P361 + P353 + P310 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P363 Wash contaminated clothing before reuse.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards
Corrosive to the respiratory tract.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycolic acid</td>
<td>79-14-1</td>
<td>&gt;= 70 - &lt; 90</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn.
Get medical attention immediately.

**If swallowed**
- If swallowed, DO NOT induce vomiting.
- If vomiting occurs have person lean forward.
- Call a physician or poison control center immediately.
- Rinse mouth thoroughly with water.
- Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed**
- Inhalation may provoke the following symptoms:
  - Cough
  - Shortness of breath
  - Pain
  - Irritation
- Skin contact may provoke the following symptoms:
  - Irritation
  - Rash
  - Necrosis
  - Discomfort
- Eye contact may provoke the following symptoms:
  - Corrosion
  - Ulceration
  - Severe irritation
- Ingestion may provoke the following symptoms:
  - Gastrointestinal discomfort
  - Nausea
  - Vomiting
  - Diarrhea
  - Causes digestive tract burns.
  - Causes serious eye damage.
  - Causes severe burns.
  - Corrosive to respiratory system.

**Protection of first-aiders**
- First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

**Notes to physician**
- Treat symptomatically and supportively.

### SECTION 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
- Water spray
- Alcohol-resistant foam
- Carbon dioxide (CO2)
- Dry chemical

**Unsuitable extinguishing media**
- None known.

**Specific hazards during fire fighting**
- Exposure to combustion products may be a hazard to health.

**Hazardous combustion products**
- Carbon oxides
Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions: Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g., by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up: Soak up with inert absorbent material. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation: Use with local exhaust ventilation.

Advice on safe handling: Do not get on skin or clothing. Do not breathe vapors or spray mist. Do not swallow. Do not get in eyes. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment. Keep container tightly closed.
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Date of first issue: 02/27/2017

Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage:
- Keep in properly labeled containers.
- Store locked up.
- Keep tightly closed.
- Store in accordance with the particular national regulations.
- Reacts with many metals to liberate hydrogen gas which can form explosive mixtures with air. Hydrogen, a highly flammable gas, can accumulate to explosive concentrations inside drums, or any types of steel containers or tanks upon storage.

Materials to avoid:
- Do not store with the following product types:
  - Strong oxidizing agents
  - Organic peroxides
  - Explosives

Recommended storage temperature: > 10 °C

Section 8. Exposure Controls/Personal Protection

Ingredients with workplace control parameters
Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>79-14-1</td>
</tr>
</tbody>
</table>

Occupational exposure limits of decomposition products

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
<td>TWA</td>
<td>5,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>30,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>5,000 ppm</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>9,000 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>5,000 ppm 9,000 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST</td>
<td>30,000 ppm 54,000 mg/m³</td>
<td>NIOSH REL</td>
</tr>
</tbody>
</table>

Engineering measures:
- Processing may form hazardous compounds (see section 10).
- Minimize workplace exposure concentrations.
- Use with local exhaust ventilation.

Personal protective equipment
Respiratory protection:
- General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where
concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection
- Material: Chloroprene
- Break through time: > 480 min
- Glove thickness: 0.6 mm

Remarks: Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection: Wear the following personal protective equipment:
- Chemical resistant goggles must be worn.
- If splashes are likely to occur, wear: Face-shield

Skin and body protection: Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
- Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures: Ensure that eye flushing systems and safety showers are located close to the working place.
- When using do not eat, drink or smoke.
- Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: liquid
- Color: colorless
- Odor: not significant
- Odor Threshold: No data available
- pH: 0.1 (25 °C)
- Melting point/freezing point: No data available
SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Can react with strong oxidizing agents. Hazardous decomposition products will be formed at elevated temperatures.
temperatures.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents
                        Bases

**Hazardous decomposition products**
Thermal decomposition : Carbon dioxide

### SECTION 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Inhalation**

**Skin contact**

**Ingestion**

**Eye contact**

**Acute toxicity**
Not classified based on available information.

**Product:**

Acute oral toxicity : Acute toxicity estimate: 2,854 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 5.04 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

**Ingredients:**

**Glycolic acid:**

Acute oral toxicity : LD50 (Rat): 2,040 mg/kg
Method: US EPA Test Guideline OPP 81-1

Acute inhalation toxicity : LC50 (Rat): 3.6 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Assessment: Corrosive to the respiratory tract.

**Skin corrosion/irritation**
Causes severe burns.

**Ingredients:**

**Glycolic acid:**
Species: Rabbit
Method: OECD Test Guideline 404
Result: Corrosive after 3 minutes to 1 hour of exposure
Serious eye damage/eye irritation
Causes serious eye damage.

Ingredients:
Glycolic acid:
Species: Rabbit
Result: Irreversible effects on the eye
Method: OECD Test Guideline 405

Respiratory or skin sensitization

Skin sensitization
Not classified based on available information.

Respiratory sensitization
Not classified based on available information.

Ingredients:
Glycolic acid:
Routes of exposure: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Germ cell mutagenicity
Not classified based on available information.

Ingredients:
Glycolic acid:
Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity
Not classified based on available information.

Ingredients:
Glycolic acid:
Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Reproductive toxicity
Not classified based on available information.

Ingredients:
Glycolic acid:
Reproductive toxicity - Assessment: Weight of evidence does not support classification for reproductive toxicity

STOT-single exposure
Not classified based on available information.

STOT-repeated exposure
Not classified based on available information.

Ingredients:
Glycolic acid:
Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Repeated dose toxicity

Ingredients:
Glycolic acid:
Species: Rat
NOAEL: 150 mg/kg
LOAEL: 300 mg/kg
Application Route: Ingestion
Exposure time: 90 d
Method: OECD Test Guideline 408
Remarks: No significant adverse effects were reported

Aspiration toxicity
Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:
Glycolic acid:
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 164 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 141 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae: ErC50 (Pseudokirchneriella subcapitata (green algae)): 44 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 20 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Persistence and degradability

**Ingredients:**

**Glycolic acid:**

Biodegradability: Result: Readily biodegradable.
Biodegradation: 78%
Exposure time: 11 d
Method: OECD Test Guideline 301

Bioaccumulative potential

**Ingredients:**

**Glycolic acid:**

Bioaccumulation: Remarks: Bioaccumulation is unlikely.

Mobility in soil

No data available

Other adverse effects

**Product:**

Results of PBT and vPvB assessment: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bio-accumulating (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

Waste from residues: Dispose of in accordance with local regulations.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

**International Regulations**

**UNRTDG**

UN number: UN 3265
Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
SAFETY DATA SHEET

Glypure™ L 70

Class : 8
Packing group : II
Labels : 8

IATA-DGR
UN/ID No. : UN 3265
Proper shipping name : Corrosive liquid, acidic, organic, n.o.s. (Glycolic acid)
Class : 8
Packing group : II
Labels : Corrosive
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851

IMDG-Code
UN number : UN 3265
Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycolic acid)
Class : 8
Packing group : II
Labels : 8
EmS Code : F-A, S-B
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR
UN/ID/NA number : UN 3265
Proper shipping name : Corrosive liquid, acidic, organic, n.o.s. (Glycolic acid)
Class : 8
Packing group : II
Labels : CORROSIVE
ERG Code : 153
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>100</td>
<td>*</td>
</tr>
<tr>
<td>Formic acid</td>
<td>64-18-6</td>
<td>5000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>100</td>
<td>*</td>
</tr>
</tbody>
</table>
SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards:
- Skin corrosion or irritation
- Serious eye damage or eye irritation

SARA 313:
- 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.

US State Regulations

Pennsylvania Right To Know
Glycolic acid 79-14-1
Water 7732-18-5

California Prop. 65
WARNING: This product can expose you to chemicals including Formaldehyde, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16. OTHER INFORMATION

Further information

NFPA:  

Flammability
0
1
Health
3

Health
0
1
Flammability

HMIS® IV:

HEALTH 3
FLAMMABILITY 1
PHYSICAL HAZARD 0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

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Chemours™ and the Chemours Logo are trademarks of The Chemours Company.
Before use read Chemours safety information.
For further information contact the local Chemours office or nominated distributors.
All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

Full text of other abbreviations
## SAFETY DATA SHEET

### Glypure™ L 70

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<tr>
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</tbody>
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### Definitions

- **ACGIH**: USA. ACGIH Threshold Limit Values (TLV)
- **NIOSH REL**: USA. NIOSH Recommended Exposure Limits
- **OSHA Z-1**: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
- **ACGIH / TWA**: 8-hour, time-weighted average
- **ACGIH / STEL**: Short-term exposure limit
- **NIOSH REL / TWA**: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
- **NIOSH REL / ST**: STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
- **OSHA Z-1 / TWA**: 8-hour time weighted average

### Sources of Key Data

- AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECS - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s.: - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Internal Technical Data


### Revision Date

- 10/30/2017

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user’s end product, if applicable.

US / Z8