

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
 Trade name : GLYCEROL, ANHYDROUS "SUPER GLYCEROL"  
 CAS No : 56-81-5  
 Product code : AB00751  
 Formula : C3H8O3

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Laboratory use/Manufacturing component/ Research  
 Use of the substance/mixture : Solvent

#### 1.3. Details of the supplier of the safety data sheet

AmericanBio, Inc.  
 15 Erie Dr.  
 Natick, MA 01760 - USA  
 T 800.443.0600 - F 508.655.2754  
[info@americanbio.com](mailto:info@americanbio.com) - [www.americanbio.com](http://www.americanbio.com)

#### 1.4. Emergency telephone number

Emergency number : 855.835.2572 (U.S.) :: 760.602.8703 (Outside U.S.)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-US)

Not classified

#### 2.2. Label elements

##### GHS-US labeling

No labeling applicable

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS-US)

No data available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Name	Product identifier	%	Classification (GHS-US)
GLYCEROL, ANHYDROUS "SUPER GLYCEROL" (Main constituent)	(CAS No) 56-81-5	100	Not classified

Full text of H-phrases: see section 16

#### 3.2. Mixture

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Assure fresh air breathing. Allow the victim to rest.

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First-aid measures after skin contact	: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Call Poison Information Centre ( <a href="http://www.big.be/antigif.htm">www.big.be/antigif.htm</a> ). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after inhalation	: ON HEATING: Irritation of the respiratory tract. Irritation of the nasal mucous membranes.
Symptoms/injuries after skin contact	: Unlikely to cause harmful effects.
Symptoms/injuries after eye contact	: Redness of the eye tissue. Slight irritation.
Symptoms/injuries after ingestion	: Nausea. Vomiting. Diarrhoea. AFTER ABSORPTION OF HIGH QUANTITIES: Headache. Dehydration. Disturbances of heart rate. Change in the haemogramme/blood composition. Decreased renal function.
Chronic symptoms	: No effects known.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

suitable extinguishing media	: Water spray. Alcohol-resistant foam. Dry chemical powder. Carbon dioxide. Dry sand. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Container may slop over if solid jet (water/foam) is applied. Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD. Combustible. INDIRECT FIRE HAZARD. Temperature above flashpoint: higher fire/explosion hazard. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: INDIRECT EXPLOSION HAZARD. Reactions with explosion hazards: see "Reactivity Hazard".
Reactivity	: May polymerize on exposure to temperature rise. Decomposes on exposure to temperature rise: release of toxic/corrosive/combustible gases/vapours (acrolein). Upon combustion: CO and CO <sub>2</sub> are formed. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts with (some) acids: (increased) risk of fire/explosion.

### 5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Protective clothing. See "Material-Handling" to select protective clothing.
Emergency procedures	: Mark the danger area. No naked flames. Wash contaminated clothes. In case of reactivity hazard: consider evacuation. Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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### 6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply.
- Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite or kieselguhr, powdered limestone. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Keep away from naked flames/heat. Finely divided: spark- and explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight. Keep container closed when not in use.
- Incompatible products : Strong bases. strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight.
- Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.
- Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids. (strong) bases.
- Storage area : Store in a dry area. Ventilation at floor level. Fireproof storeroom. May be stored under nitrogen. Meet the legal requirements.
- Special rules on packaging : SPECIAL REQUIREMENTS: closing. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- Packaging materials : SUITABLE MATERIAL: steel. aluminium. iron. synthetic material. glass.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

- Personal protective equipment : Avoid all unnecessary exposure.
- Materials for protective clothing : GIVE GOOD RESISTANCE: natural rubber. neoprene. PVC. viton. GIVE LESS RESISTANCE: styrene-butadiene rubber. GIVE POOR RESISTANCE: polyurethane.
- Hand protection : Gloves. Wear protective gloves.
- Eye protection : Safety glasses. Chemical goggles or safety glasses.
- Skin and body protection : Protective clothing.
- Respiratory protection : Mist formation: aerosol mask with filter type P1. On heating: gas mask with filter type A. Wear approved mask.
- Other information : When using, do not eat, drink or smoke.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Liquid.
- Molecular mass : 92.09 g/mol
- Color : Colourless to light yellow.
- Odor : Odourless.

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Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: 18 °C
Freezing point	: No data available
Boiling point	: 290 °C
Flash point	: 160 °C
Critical temperature	: 452 °C
Self ignition temperature	: 370 °C
Decomposition temperature	: 290 °C
Flammability (solid, gas)	: No data available
Vapor pressure	: < 0.001 hPa
Vapor pressure at 50 °C	: 0.0033 hPa
Relative vapor density at 20 °C	: 3.17
Relative density	: 1.3
Relative density of saturated gas/air mixture	: 1.0
Density	: 1260 kg/m <sup>3</sup>
Solubility	: Soluble in water. Soluble in ethanol. Soluble in acetone. Soluble in ethylacetate. Insoluble in oils/fats. Water: Complete Ethanol: Complete Ether: 0.2 g/100ml
Log Pow	: -1.76 - 2.6
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 1.5 Pa.s
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: 2.6 - 11.3 vol % 99 - 435 g/m <sup>3</sup>

### 9.2. Other information

Specific conductivity	: 6.4 µS/m
VOC content	: 0 %
Other properties	: Gas/vapour heavier than air at 20°C. Clear. Hygroscopic. Slightly volatile. Substance has neutral reaction.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

May polymerize on exposure to temperature rise. Decomposes on exposure to temperature rise: release of toxic/corrosive/combustible gases/vapours (acrolein). Upon combustion: CO and CO<sub>2</sub> are formed. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts with (some) acids: (increased) risk of fire/explosion.

### 10.2. Chemical stability

Hygroscopic. Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

strong acids. Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

GLYCEROL, ANHYDROUS "SUPER GLYCEROL" ( V )56-81-5	
LD50 oral rat	12600 mg/kg (Rat)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit)

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation : ON HEATING: Irritation of the respiratory tract. Irritation of the nasal mucous membranes.

Symptoms/injuries after skin contact : Unlikely to cause harmful effects.

Symptoms/injuries after eye contact : Redness of the eye tissue. Slight irritation.

Symptoms/injuries after ingestion : Nausea. Vomiting. Diarrhoea. AFTER ABSORPTION OF HIGH QUANTITIES: Headache. Dehydration. Disturbances of heart rate. Change in the haemogramme/blood composition. Decreased renal function.

Chronic symptoms : No effects known.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Classification concerning the environment: not applicable.

Ecology - air : TA-Luft Klasse 5.2.5.

Ecology - water : Mild water pollutant (surface water). Not harmful to fishes (LC50(96h) >1000 mg/l). Not harmful to algae. Not harmful to bacteria. Not harmful to aquatic organisms (EC50 >1000 mg/l). Inhibition of activated sludge.

GLYCEROL, ANHYDROUS "SUPER GLYCEROL" (56-81-5)	
LC50 fish 1	54000 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)
EC50 Daphnia 1	> 10000 mg/l (24 h; Daphnia magna; Locomotor effect)
LC50 fish 2	> 1000 mg/l (96 h; Pisces)
TLM fish 1	> 1000 ppm (96 h; Pisces)
TLM other aquatic organisms 1	> 1000 ppm (96 h)
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)
Threshold limit algae 1	> 10000 mg/l (168 h; Scenedesmus quadricauda; Toxicity test)

#### 12.2. Persistence and degradability

GLYCEROL, ANHYDROUS "SUPER GLYCEROL" (56-81-5)	
Persistence and degradability	Readily biodegradable in water. Not established.
Biochemical oxygen demand (BOD)	0.87 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.16 g O <sub>2</sub> /g substance
ThOD	1.217 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.71 % ThOD

#### 12.3. Bioaccumulative potential

GLYCEROL, ANHYDROUS "SUPER GLYCEROL" (56-81-5)	
Log Pow	-1.76 - 2.6

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Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
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#### 12.4. Mobility in soil

### GLYCEROL, ANHYDROUS "SUPER GLYCEROL" (56-81-5)

Surface tension	0.063 N/m
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#### 12.5. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Recycle by distillation. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Do not discharge into surface water. Dispose in a safe manner in accordance with local/national regulations.

Additional information : LWCA (the Netherlands): KGA category 03. Can be considered as non hazardous waste according to Directive 2008/98/EC.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with DOT

No dangerous good in sense of transport regulations

### Additional information

Other information : No supplementary information available.

### ADR

Transport document description : UN N/A

Packing group (ADR) : N/A

Hazard identification number (Kemler No.) : N/A

Classification code (ADR) : N/A

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

### GLYCEROL, ANHYDROUS "SUPER GLYCEROL" (56-81-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
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### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

#### Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

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### 15.2.2. National regulations

No additional information available

### 15.3. US State regulations

#### GLYCEROL, ANHYDROUS "SUPER GLYCEROL"(56-81-5)

State or local regulations

U.S. - New Jersey - Right to Know Hazardous Substance List

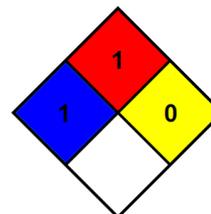
## SECTION 16: Other information

Other information : None.

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



SDS US (GHS HazCom 2012)

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