



Be Right™

SAFETY DATA SHEET

Issue Date 06-Oct-2017

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1. IDENTIFICATION

Product identifier

Product Name Glycerin (Glycerol)

Other means of identification

Product Code(s) 243134

Safety data sheet number M00317

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory Use.

Uses advised against None.

Restrictions on use None.

Details of the supplier of the safety data sheet

Manufacturer Address

Hach Company P.O.Box 389 Loveland,
CO 80539 USA +1(970) 669-3050

Emergency telephone number

+1(303) 623-5716 - 24 Hour Service +1(515)232-2533 - 8am - 4pm CST

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Hazard statements

The product contains no substances which at their given concentration, are considered to be hazardous to health

Other Information

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

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Substance

Chemical Name Glycerin
Chemical Family Alcohols.
Formula C₃H₈O₃
CAS No 56-81-5

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No.	Percent Range	HMRIC #
Glycerin	56-81-5	100%	-

4. FIRST AID MEASURES

Description of first aid measures

General advice In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, call a physician.

Skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If symptoms persist, call a physician.

Inhalation IF INHALED: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician.

Ingestion IF SWALLOWED: Rinse Mouth. If symptoms persist, call a physician.

Self-protection of the first aider Use personal protective equipment as required. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11: TOXICOLOGICAL INFORMATION.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Flammable properties

Combustion generates toxic fumes.

Specific hazards arising from the chemical

May explode on contact with: chlorine / chlorine compounds. hydrogen peroxide. perchlorates. perchloric acid. Strong acids. acetic anhydride. fluorine. chromate salts.

Hazardous combustion products

Acrolein. Carbon monoxide, Carbon dioxide.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full

protective gear.

6. ACCIDENTAL RELEASE MEASURES

U.S. Notice

Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Personal precautions

Evacuate personnel to safe areas. Do not touch or walk through spilled material. Ventilate affected area. Use personal protective equipment as required.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions

Remove all ignition and spark-creating sources from the spill area. Remove all combustible material from spill area. Stop spilled material from being released to the environment. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Neutralize spill if necessary. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Dispose of in accordance with local, state and federal regulations or laws.

Emergency Response Guide Number

Not applicable

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Flammability class

Class IIIB

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glycerin 100%	NDF	TWA: 15 mg/m ³ TWA: 5 mg/m ³ (vacated) TWA: 10 mg/m ³ (vacated) TWA: 5 mg/m ³	NDF

Chemical name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick OEL	New Foundland & Labrador OEL
Glycerin 100%	TWA: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 3 mg/m ³	NDF	TWA: 10 mg/m ³	NDF

Chemical name	Northwest Territories OEL	Nova Scotia OEL	Nunavut OEL	Ontario TWA	Prince Edward Island OEL
Glycerin 100%	TWA: 10 mg/m ³ STEL: 20 mg/m ³	NDF	TWA: 10 mg/m ³ STEL: 20 mg/m ³	NDF	NDF

Chemical name	Quebec OEL	Saskatchewan OEL	Yukon OEL
Glycerin 100%	TWA: 10 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³	TWA: 30 mppcf TWA: 10 mg/m ³

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Legend See section 16 for terms and abbreviations

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off all contaminated clothing and wash it before reuse. Wash hands thoroughly after handling. Regular cleaning of equipment, work area and clothing is recommended.

Environmental exposure controls

Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid

Gas Under Pressure Not classified according to GHS criteria

Appearance viscous **Color** colorless

Odor Odorless **Odor threshold** No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Molecular weight	92.09 g/mole	

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pH 7

Melting point/freezing point 18 °C / 64 °F

Boiling point / boiling range No data available

Evaporation rate 0.00000312 (water = 1) Estimation based on theoretical calculation

Vapor pressure 0 mm Hg / 0 kPa at 20 °C / 68 °F

Vapor density (air = 1) 3.17

Specific gravity (water = 1 / air = 1) 1.262

Partition Coefficient (n-octanol/water) log K_{ow} = -1.76

Soil Organic Carbon-Water Partition Coefficient log K_{oc} = -0.087

Autoignition temperature 393 °C / 739 °F

Decomposition temperature 290 °C / 554 °F

Dynamic viscosity 954 cP (mPa s) at 25 °C / 77 °F

Kinematic viscosity 755.943 cSt (mm²/s) at 25 °C / 77 °F

Estimation through KOCWIN
v2.00 part of the Estimation
Programs Interface (EPI)
Suite™

Solubility(ies)

Water solubility

<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water Solubility Temperature</u>
Completely soluble	> 1000000 mg/L	25 °C / 77 °F

Solubility in other solvents

<u>Chemical Name</u>	<u>Solubility classification</u>	<u>Solubility</u>	<u>Solubility Temperature</u>
Acids	Soluble	> 1000 mg/L	25 °C / 77 °F
Ethyl alcohol	Soluble	> 1000 mg/L	25 °C / 77 °F
Ether	Slightly soluble	> 0.1 mg/L	25 °C / 77 °F
Benzene	Insoluble	< 0.1 mg/L	25 °C / 77 °F
Carbon disulfide	Insoluble	< 0.1 mg/L	25 °C / 77 °F
Carbon tetrachloride	Insoluble	< 0.1 mg/L	25 °C / 77 °F
Chloroform	Insoluble	< 0.1 mg/L	25 °C / 77 °F
Petroleum Ether	Insoluble	< 0.1 mg/L	25 °C / 77 °F
Volatile Oils	Insoluble	< 0.1 mg/L	25 °C / 77 °F
Acetone	66670 mg/L	20 °C / 68 °F	

Other Information

Metal Corrosivity Not classified as corrosive to metal according to GHS criteria

Steel Corrosion Rate No data available

Aluminum Corrosion Rate No data available

Volatile Organic Compounds (VOC) Content This Product is by Weight 100% an Individual Pure Chemical Substance

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Bulk density	Not applicable
Explosive properties	Not classified according to GHS criteria.
Explosion data	Can burn in fire, releasing toxic vapors.
Upper explosion limit	11.3%
Lower explosion limit	2.6%
Flammable properties	Combustion generates toxic fumes.
Flammability Limit in Air	
Upper flammability limit:	No data available
Lower flammability limit:	No data available
Flash point	199 °C / 390 °F
Method	CC (closed cup)
Oxidizing properties	Not classified according to GHS criteria.
Reactivity properties	Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

10. STABILITY AND REACTIVITY

Reactivity properties

Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria

Chemical stability

Stable under recommended storage conditions.

Special dangers of the product

None reported

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Extremes of temperature and direct sunlight. Incompatible materials.

Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products

Acrolein. Carbon dioxide. Carbon monoxide.

Explosive properties

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Not classified according to GHS criteria. Can burn in fire, releasing toxic vapors.

Upper explosion limit 11.3%

Lower explosion limit 2.6%

Autoignition temperature

393 °C / 739 °F

Sensitivity to Static Discharge

None reported

Sensitivity to Mechanical Impact

None reported

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information.
Inhalation	No known effect based on information supplied.
Eye contact	No known effect based on information supplied.
Skin contact	No known effect based on information supplied.
Ingestion	No known effect based on information supplied.
Aggravated Medical Conditions	None known.
Toxicologically synergistic products	None known.
Toxicokinetics, metabolism and distribution	This Product is by Weight 100% an Individual Pure Chemical Substance.

Product Acute Toxicity Data

Oral Exposure Route
Dermal Exposure Route
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
Inhalation (Gas) Exposure Route

This Product is by Weight 100% an Individual Pure Chemical Substance
If available, see ingredient data below
If available, see ingredient data below
If available, see ingredient data below
If available, see ingredient data below
If available, see ingredient data below

Acute Toxicity Estimations (ATE)

Not applicable

Ingredient Acute Toxicity Data

Oral Exposure Route

If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	Rat LD ₅₀	12600 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	Mouse LD ₅₀	4090 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route

If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	Rabbit LD ₅₀	> 10000 mg/kg	None reported	None reported	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)

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Inhalation (Dust/Mist) Exposure Route

If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	Rat LC ₅₀	> 2.28 mg/L	4 hours	None reported	IUCLID (The International Uniform Chemical Information Database)

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

If available, see data below

Product Specific Target Organ Toxicity Single Exposure Data

Oral Exposure Route

If available, see ingredient data below

Dermal Exposure Route

If available, see ingredient data below

Inhalation (Dust/Mist) Exposure Route

If available, see ingredient data below

Inhalation (Vapor) Exposure Route

If available, see ingredient data below

Inhalation (Gas) Exposure Route

If available, see ingredient data below

Ingredient Specific Target Organ Toxicity Single Exposure Data

Oral Exposure Route

If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	Human LD ₅₀	1428 mg/kg	None reported	Kidney, Ureter, or Bladder Changes in tubules (including acute renal failure, acute tubular necrosis)	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route

If available, see data below

Inhalation (Dust/Mist) Exposure Route

If available, see data below

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

If available, see data below

Aspiration toxicity

If available, see data below

Kinematic viscosity

755.943 cSt (mm²/s)

Product Skin Corrosion/Irritation Data

This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Skin Corrosion/Irritation Data

If available, see data below

Product Serious Eye Damage/Eye Irritation Data

This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Eye Damage/Eye Irritation Data

If available, see data below

Sensitization Information

Product Sensitization Data

Skin Sensitization Exposure Route

This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Respiratory Sensitization Exposure Route

This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Sensitization Data

Skin Sensitization Exposure Route

If available, see data below.

Respiratory Sensitization Exposure Route

If available, see data below.

Chronic Toxicity Information

Product Specific Target Organ Toxicity Repeat Dose Data

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Oral Exposure Route
Dermal Exposure Route
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
Inhalation (Gas) Exposure Route

If available, see ingredient data below.
If available, see ingredient data below.
If available, see ingredient data below.
If available, see ingredient data below.
If available, see ingredient data below.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

Oral Exposure Route

If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	Rat TD _{Lo}	96000 mg/kg	30 days	Biochemical Enzyme inhibition, induction, or change in blood or tissue levels (true cholinesterase) Blood	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	Mouse TD _{Lo}	2800 mg/kg	25 weeks	Skin and Appendages Skin tumors	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
Inhalation (Gas) Exposure Route

If available, see data below
If available, see data below
If available, see data below
If available, see data below

Product Carcinogenicity Data

Oral Exposure Route
Dermal Exposure Route
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
Inhalation (Gas) Exposure Route

If available, see ingredient data below
If available, see ingredient data below
If available, see ingredient data below
If available, see ingredient data below
If available, see ingredient data below

Ingredient Carcinogenicity Data

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Glycerin	56-81-5	-	-	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA (Occupational Safety and Health Administration of the US Department of Labor)	Does not apply

Oral Exposure Route

If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	Mouse	87500 mg/kg	25 weeks	Lungs, Thorax, or Respiration Tumors	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
Inhalation (Gas) Exposure Route

If available, see data below
If available, see data below
If available, see data below
If available, see data below

Product Germ Cell Mutagenicity *in vitro* Data

This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Germ Cell Mutagenicity *in vitro* Data

If available, see data below

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	DNA inhibition	Human lymphocyte	200 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Product Germ Cell Mutagenicity *in vivo* Data

Oral Exposure Route

If available, see ingredient data below

Dermal Exposure Route

If available, see ingredient data below

Inhalation (Dust/Mist) Exposure Route

If available, see ingredient data below

Inhalation (Vapor) Exposure Route

If available, see ingredient data below

Inhalation (Gas) Exposure Route

If available, see ingredient data below

Ingredient Germ Cell Mutagenicity *in vivo* Data

Oral Exposure Route

If available, see data below

Chemical name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	Cytogenetic analysis	Rat	1000 mg/kg	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route

If available, see data below

Inhalation (Dust/Mist) Exposure Route

If available, see data below

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

If available, see data below

Product Reproductive Toxicity Data

Oral Exposure Route

If available, see ingredient data below

Dermal Exposure Route

If available, see ingredient data below

Inhalation (Dust/Mist) Exposure Route

If available, see ingredient data below

Inhalation (Vapor) Exposure Route

If available, see ingredient data below

Inhalation (Gas) Exposure Route

If available, see ingredient data below

Ingredient Reproductive Toxicity Data

Oral Exposure Route

If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	Rat TD _{Lo}	100 mg/kg	None reported	Effects on Fertility Litter size (e.g. # fetuses per litter; measured before birth) Post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants)	RTECS (Registry of Toxic Effects of Chemical Substances)

Inhalation (Dust/Mist) Exposure Route

If available, see data below

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

If available, see data below

12. ECOLOGICAL INFORMATION

Ecotoxicity

Based on the classification principles, not classified as hazardous to the environment.

Product Ecological Data

This Product is by Weight 100% an Individual Pure Chemical Substance

Aquatic toxicity

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Fish
Crustacea
Algae

If available, see ingredient data below
If available, see ingredient data below
If available, see ingredient data below

Ingredient Ecological Data

Aquatic toxicity

Fish

If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	96 hours	<i>Oncorhynchus mykiss</i>	LC ₁₀₀	51000 mg/L	IUCLID (The International Uniform Chemical Information Database)

Crustacea

If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Glycerin (100%) CAS#: 56-81-5	48 Hours	<i>Daphnia magna</i>	LC ₅₀	1955 mg/L	IUCLID (The International Uniform Chemical Information Database)

Algae

No data available

Other Information

Persistence and degradability

Product Biodegradability Data

This Product is by Weight 100% an Individual Pure Chemical Substance. If available, see ingredient data below.

Ingredient Biodegradability Data

Test data reported below

Chemical name	Test method	Biodegradation	Exposure time	Results
Glycerin (100%) CAS#: 56-81-5	None reported	92%	30 days	Readily biodegradable

Bioaccumulation

Product Bioaccumulation Data

This Product is by Weight 100% an Individual Pure Chemical Substance.

Partition Coefficient (n-octanol/water)

log K_{ow} = -1.76

Ingredient Bioaccumulation Data

No data available

Chemical name	Partition Coefficient (n-octanol/water)	Method
Glycerin (100%) CAS#: 56-81-5	log K _{ow} = -1.76	No information available

Mobility

Product Information

Soil Organic Carbon-Water Partition Coefficient

log K_{oc} = -0.087

Water solubility

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<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water Solubility Temperature</u>
Completely soluble	> 1000000 mg/L	25 °C / 77 °F

Ingredient Information

Chemical name	Soil Organic Carbon-Water Partition Coefficient	Method
Glycerin (100%) CAS#: 56-81-5	log K _{oc} = -0.087	Estimation through KOCWIN v2.00 part of the Estimation Programs Interface (EPI) Suite™

Chemical name	Water solubility classification	Water solubility	Water solubility temperature °C	Water solubility temperature °F
Glycerin CAS#: 56-81-5	Completely soluble	> 1000000 mg/L	25 °C	77 °F

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Contaminated packaging

Working in a well-ventilated area. Rinse three times with an appropriate solvent. Collect rinsate and dispose of according to local, state, or federal regulations. Dispose of empty container as normal trash. In the US, rinsate from empty containers is classified as hazardous waste and should be disposed of at an E.P.A. approved facility. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste in countries other than the US. Improper disposal or reuse of this container may be dangerous and illegal. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Special instructions for disposal

Dilute to 3 to 5 times the volume with cold water. If permitted by regulation. Open cold water tap completely, slowly pour the material to the drain. Allow cold water to run for 5 minutes to completely flush the system. Check with local municipal and state authorities and waste contractors for pertinent local information regarding the proper disposal of chemicals.

14. TRANSPORT INFORMATION

U.S. DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG Not regulated

Note: No special precautions necessary.

Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods.

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If the item is not in a reagent set or kit, the classification given above applies.
If the item is part of a reagent set or kit the classification would change to the following:
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.
If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

National Inventories

TSCA	Complies
DSL/NDSL	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
TCSI	Complies
AICS	Complies
NZIoC	Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substances Inventory
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

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US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Glycerin 56-81-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Special Comments

None

Additional information

Global Automotive Declarable Substance List (GADSL)

Not applicable

NFPA and HMIS Classifications

NFPA	Health hazards - 0	Flammability - 1	Instability - 0	Physical and Chemical Properties -
HMIS	Health hazards - 0	Flammability - 1	Physical Hazards - 0	Personal protection - X - See section 8 for more information

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH	<i>Immediately Dangerous to Life or Health</i>
ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
NDF	<i>no data</i>

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

Prepared By Hach Product Compliance Department

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Revision Date 06-Oct-2017

Revision Note None

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

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End of Safety Data Sheet