SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier
Product Name Organic Acid Sample Vial

Other means of identification
Product Code(s) TNT872SV

Safety data sheet number M00261

Recommended use of the chemical and restrictions on use
Recommended Use Laboratory Use. Water Analysis.
Uses advised against Consumer use.
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 considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Signal word - Danger

Hazard statements

H302 - Harmful if swallowed
H319 - Causes serious eye irritation
H370 - Causes damage to organs
H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements
P270 - Do not eat, drink or smoke when using this product
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330 - Rinse mouth
P501 - Dispose of contents/ container to an approved waste disposal plant
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor
P405 - Store locked up
P314 - Get medical advice/attention if you feel unwell

Other Hazards Known
Causes mild skin irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	Ethylene Glycol
Chemical Family	Alcohols.
Formula	$C_2H_6O_2$
CAS No	107-21-1
Chemical nature	Organic Compound.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No.	Percent Range	HMRIC #
Ethylene glycol	107-21-1	100%	-

4. FIRST AID MEASURES

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. IF exposed or concerned: Get medical advice/attention.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation.

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.

Specific hazards arising from the chemical No information available.

Hazardous combustion products Carbon monoxide, Carbon dioxide.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout 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 Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions 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.

Methods for cleaning up Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

Flammability class Class IIIB

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene glycol CAS#: 107-21-1	STEL: 50 ppm STEL: 10 mg/m³ TWA: 25 ppm	(vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m³	NDF

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hand Protection Wear suitable gloves.

Eye/face protection If splashes are likely to occur, wear safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing.

General Hygiene Considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

Thermal hazards None under normal processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance viscous
Color colorless
Odor sweet
Odor threshold 0.1 ppm

Property	Values	Remarks • Method
Molecular weight	62.07 g/mole	
pH	6	

Melting point/freezing point	-12.78 °C / 9 °F	
Boiling point / boiling range	197.22 °C / 387 °F	
Evaporation rate	0.01 (BuAc = 1)	
Vapor pressure	0.075 mm Hg / 0.01 kPa at 20 °C / 68 °F	
Vapor density (air = 1)	2.14	
Specific gravity (water = 1 / air = 1)	1.11	
Partition Coefficient (n-octanol/water)	log K_{ow} = -1.36	OECD Test No. 107: Partition Coefficient (n-octanol/water): Shake Flask Method
Soil Organic Carbon-Water Partition Coefficient	log K_{oc} = -0.65	Estimation through KOCWIN v2.00 part of the Estimation Programs Interface (EPI) Suite™
Autoignition temperature	397.78 °C / 748 °F	
Decomposition temperature	No data available	
Dynamic viscosity	21 cP (mPa s) at 20 °C / 68 °F	
Kinematic viscosity	18.919 cSt (mm^2/s) at 20 °C / 68 °F	

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	1000000 mg/L	20 °C / 68 °F

Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
Acetic acid	Soluble	> 1000 mg/L	25 °C / 77 °F
Acetone	Soluble	> 1000 mg/L	25 °C / 77 °F
Aldehydes	Soluble	> 1000 mg/L	25 °C / 77 °F
Glycerol	Soluble	> 1000 mg/L	25 °C / 77 °F
Ketones	Soluble	> 1000 mg/L	25 °C / 77 °F

Other Information

Metal Corrosivity

Steel Corrosion Rate	Not applicable /
Aluminum Corrosion Rate	Not applicable /

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

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Ethylene glycol	107-21-1	No data available	X

Explosive properties

Upper explosion limit	15.3%
Lower explosion limit	3.2%

Flammable properties

Flash point	115 °C / 239 °F
Method	CC (closed cup)

Flammability Limit in Air

Upper flammability limit	No data available
Lower flammability limit	No data available

Oxidizing properties	No data available.
Bulk density	No data available
Particle Size	No information available
Particle Size Distribution	No information available

10. STABILITY AND REACTIVITY

Reactivity
Not applicable.

Chemical stability
Stability Stable under normal conditions.

Explosion data
Sensitivity to Mechanical Impact None
Sensitivity to Static Discharge None.

Possibility of Hazardous Reactions
Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization
Hazardous polymerization does not occur.

Conditions to avoid
Conditions to avoid None known based on information supplied.

Incompatible materials
Incompatible materials Strong oxidizing agents, strong acids, and strong bases.

Hazardous Decomposition Products
Carbon monoxide. Carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure
Product Information

Inhalation	May cause irritation of respiratory tract.
Eye contact	Causes serious eye irritation. May cause redness, itching, and pain.
Skin contact	May cause irritation. Prolonged contact may cause redness and irritation.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed.

Symptoms May cause redness and tearing of the eyes.

Aggravated Medical Conditions Skin disorders. Eye disorders. Preexisting eye disorders. Respiratory disorders.

Toxicologically synergistic products None known.

Toxicokinetics, metabolism and distribution This Product is by Weight 100% an Individual Pure Chemical Substance. See ingredients information below.

Chemical name	Toxicokinetics, metabolism and distribution
Ethylene glycol (100%) CAS#: 107-21-1	Ethylene glycol is quickly absorbed through the GI tract, may be absorbed through respiratory tract. It is metabolised by alcohol dehydrogenase. Its by-products are eliminated from the body by CO2 and urine.

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

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

Unknown Acute Toxicity
0% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE) Not applicable

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	No information available
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

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
Ethylene glycol (100%) CAS#: 107-21-1	Rat LD_{50}	1700 mg/kg	None reported	None reported	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)

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 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
Ethylene glycol (100%) CAS#: 107-21-1	Human	1000 mg/kg	None reported	Death	ECHA (The European Chemicals Agency)

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 18.919 cSt (mm^2/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

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Ethylene glycol (100%) CAS#: 107-21-1	Open Irritation Test	Rabbit	555 mg	None reported	Mild skin irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

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

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Ethylene glycol (100%) CAS#: 107-21-1	Standard Draize Test	Rabbit	100000 ppm	None reported	Eye irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

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.

Chemical name	Test method	Species	Results	Key literature references and sources for data
Ethylene glycol (100%) CAS#: 107-21-1	Based on human experience	Human	Not confirmed to be a skin sensitizer	IUCLID (The International Uniform Chemical Information Database)

Respiratory Sensitization Exposure Route If available, see data below.

Chronic Toxicity Information

Product Specific Target Organ Toxicity Repeat Dose 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 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
Ethylene glycol (100%) CAS#: 107-21-1	Human TD_{Lo}	768 mg/kg	None reported	**Gastrointestinal** Diarrhea **Brain and Coverings** Convulsions or effect on seizure threshold Coma	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**
Ethylene glycol (100%) CAS#: 107-21-1	Human TD_{Lo}	1195 mg/kg	None reported	**Peripheral Nerve and Sensation** Renal function tests depressed	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 Carcinogenicity 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 Carcinogenicity Data

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Ethylene glycol	107-21-1	-	-	-	-

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
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 Germ Cell Mutagenicity *invitro* **Data**

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

Ingredient Germ Cell Mutagenicity *invitro* **Data**

If available, see data below

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Ethylene glycol (100%) CAS#: 107-21-1	DNA inhibition	Human lymphocyte	320 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical

						Substances)
Chemical name	**Test**	**Cell Strain**	**Reported dose**	**Exposure time**	**Results**	**Key literature references and sources for data**
Ethylene glycol (100%) CAS#: 107-21-1	Mutation in mammalian somatic cells	Mouse lymphocyte	100 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Product Germ Cell Mutagenicity *invivo* **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 *invivo* **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
Ethylene glycol (100%) CAS#: 107-21-1	Cytogenetic analysis	Rat	1200 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
Ethylene glycol (100%) CAS#: 107-21-1	Mouse TD_{Lo}	1700 mg/kg	None reported	**Effects on Newborn** Growth statistics (e.g. % reduced weight gain) **Specific Developmental Abnormalities** Hepatobiliary system Musculoskeletal system	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**
Ethylene glycol (100%) CAS#: 107-21-1	Mouse TD_{Lo}	850 mg/kg	None reported	**Effects on Newborn** Growth statistics (e.g. % reduced weight gain) **Specific Developmental Abnormalities** Urogenital System	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

Chemical name	Endpoint	Reported	Exposure	Toxicological effects	Key literature references and

	type	dose	time		sources for data
Ethylene glycol (100%) CAS#: 107-21-1	Mouse TC_{Lo}	1 mg/L	6 hours	**Effects on Embryo or Fetus** Fetotoxicity (except death e.g. stunted fetus) **Effects on Fertility** Post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants)	RTECS (Registry of Toxic Effects of Chemical Substances)

Inhalation (Vapor) Exposure Route If available, see data below
Inhalation (Gas) Exposure Route If available, see data below

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Aquatic toxicity

Fish If available, see ingredient data below
Crustacea If available, see ingredient data below
Algae If available, see ingredient data below

Ingredient Ecological Data

Aquatic toxicity

Fish If available, see ingredient data below
Crustacea If available, see ingredient data below
Algae No data available

Other Information

Persistence and degradability

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

Ingredient Biodegradability Data

Chemical name	Test method	Biodegradation	Exposure time	Results
Ethylene glycol (100%) CAS#: 107-21-1	OECD Test No. 301D: Ready Biodegradability: Closed Bottle Test (TG 301 D)	96%	28 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} = -1.36

Ingredient Bioaccumulation Data

Chemical name	Test method	Exposure time	Species	Bioconcentration factor (BCF)	Results
Ethylene glycol	None reported	3 days	None reported	BCF = 10	Does not

(100%) CAS#: 107-21-1					have the potential to bioaccumulate

Mobility

Soil Organic Carbon-Water Partition Coefficient log K_{oc} = -0.65

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	1000000 mg/L	20 °C / 68 °F

Other adverse effects
Endocrine-disrupting potential.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

US EPA Waste Number Not applicable

Special instructions for disposal Eliminate all sources of ignition. Do not breathe the fumes. Dilute to 3 to 5 times the volume with cold water. 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.
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 contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Ethylene glycol (CAS #: 107-21-1)	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
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

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethylene glycol 107-21-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Ethylene glycol (CAS #: 107-21-1)	Developmental

WARNING: This product can expose you to chemicals including Ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm.
For more information, go to http://www.P65Warnings.ca.gov

IMERC: Not applicable

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethylene glycol 107-21-1	X	X	X

U.S. EPA Label Information

Chemical name	FIFRA	FDA
Ethylene glycol	180.0920	-

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** - 2	**Flammability** - 1	**Instability** - 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** - 2	**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	*Immediately Dangerous to Life or Health*
ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
NDF	*no data*

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
Issue Date	16-Aug-2018
Revision Date	17-Aug-2018
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.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

End of Safety Data Sheet