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## SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY INFORMATION

Product Name(s): Amalie Water/Glycol Fire Resistant Fluid  
 Product Code(s): Not available  
 Uses: A hydraulic fluid.  
 Company: Amalie Oil Company  
 Address: 1601 McCloskey Blvd; Tampa FL 33605; USA  
 Telephone Number: (813) 248-1988 Fax Number: (813) 248-1488  
 Emergency Telephone Number: For Hazardous Materials [or Dangerous Goods] Incident (24 hours/day)  
 ChemTel Inc. (800) 255-3924; +1 (813) 248-0585  
 Date Issued: May 8, 2019 Date Revised: May 8, 2020

This SDS complies with the OSHA Hazard Communication Standard 29CFR1910.1200 as revised in May 2012 (GHS). It may not meet requirements in other countries.

### SECTION 2 HAZARDS IDENTIFICATION

GHS Signal Word: **DANGER**



GHS Classification: Acute Toxicity – Oral (Category 4)  
 Eye Irritation (Category 1)  
 Skin Irritation (Category 2)  
 Repeated Exposure (Category 2)

GHS Hazard Statements: Harmful if swallowed  
 Causes serious eye damage  
 Causes skin irritation  
 May cause damage to organs through prolonged or repeated exposure

GHS Precautionary Statements: Prevention:  
 Wash hands/skin thoroughly after handling.  
 Wear protective gloves/eye protection/face protection.  
 Do not breathe mist/vapors/spray.  
 Do not eat, drink or smoke when using this product.

Response:  
 Immediately call a poison center/doctor/hospital.  
 If swallowed: Rinse mouth.  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If on skin: Wash with plenty of water/soap.  
 Take off contaminated clothing and wash it

**SECTION 2 HAZARDS IDENTIFICATION**

		before reuse.
	<u>Storage:</u>	<u>Disposal:</u>
	None.	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazards Not Otherwise Classified:	None.	
GHS Assessment:	Approximately < 5% of this mixture consists of ingredient(s) of unknown acute toxicity.	
	Approximately < 5% of the mixture consists of ingredient(s) of unknown hazards to the aquatic environment.	

**SECTION 3 COMPOSITION / INGREDIENTS**

Component	CAS Number	EC Number	Concentration
Diethylene glycol	111-46-6	203-872-2	40.0 - 50.0%
	<i>Classification: Acute Tox. 4: H302; STOT RE 3: H373</i>		
Polymer	Proprietary	---	10.0 - 15.0%
	<i>Classification: Not classified as hazardous</i>		
Ethanol, 2-(dimethylamino)-	108-01-0	203-542-8	1.0 - 2.0%
	<i>Classification: Flam. Liq. 3: H226; Acute Tox. 3: H331; Acute Tox. 4: H312; Acute Tox. 4: H302; Skin Corr. 1B: H314; STOT SE 3: H335; Aquatic Acute 3: H402 STOT SE 3; H335: C ≥ 5%</i>		
Decanoic acid	334-48-5	206-376-4	1.0 - 2.0%
	<i>Classification: Skin Irrit. 2: 315; Eye Irrit. 2A: H319; Aquatic Chronic 3: H412</i>		

Note (\*): Components are highly refined and this hazard does not apply.

Other components are either non-hazardous or do not significantly contribute to the hazards of the product.

Trade Secret Claims: Specific chemical identity and/or exact percentage (concentration) of components has been withheld as a trade secret.

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4 FIRST AID MEASURES**

First Aid - Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention, if irritation develops.
First Aid - Skin:	In case of contact, flush skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention immediately if irritation develops and/or persists. Wash contaminated clothing before reuse.
First Aid - Ingestion:	If swallowed and feel unwell, immediately call a physician or poison control center. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.
First Aid - Inhalation:	If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered

**SECTION 4 FIRST AID MEASURES**

by qualified personnel. Seek immediate medical attention.

Important Symptoms / Tissue inflammation, tissue ulceration or burns, nausea.  
 Effects – Acute and  
 Delayed:

Advice to Physician: Treat symptomatically.

**SECTION 5 FIRE FIGHTING MEASURES**

Extinguishing Media: Treat surrounding material. Water spray, dry chemical, carbon dioxide, or foam is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Specific Hazards: This product is combustible. This product may give rise to hazardous vapors in a fire. Vapors/fumes may be irritating, corrosive and/or toxic.

Protective equipment and procedures for fire-fighters. Wear full protective clothing and self-contained breathing apparatus.

Additional Advice: None.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Spill Procedures: Small spills: Wipe up spills with an absorbent towel/material and transfer into suitable containers for recovery or disposal. Finally flush area with water.

Large spills: Contain spilled material if possible. Pump into suitable and properly labeled containers.

Personal Precautions: Wear suitable protective clothing and equipment.

Environmental Precautions: Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

**SECTION 7 HANDLING AND STORAGE**

Handling: Wear appropriate personal protection (See Section 8) when handling this material. The work area should be equipped with a safety shower and eye wash station. If exposed to the liquid, avoid contact with skin and eyes. Wash thoroughly after handling. Avoid breathing vapors, mists or sprays. Use in a well-ventilated area.

Storage: Keep container(s) tightly closed. Use and store this material at room temperature away from heat, direct sunlight and hot metal surfaces. Keep away from any incompatible materials (see Section 10).

Additional Advice: Store in original container. Store as directed by the manufacturer.

**SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Occupational Exposure Standards: Exposure limits are listed below, if they exist.

Diethylene glycol: German MAK: 10 ppm TWA.  
 German MAK: 40 ppm STEL.  
 UK: 23 ppm TWA.  
 AIHA WEEL: 10 mg/m3 TWA.

Polymer: None.

Ethanol, 2- None.

**SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION**

(dimethylamino)-:	
Decanoic acid:	None.
Engineering Control Measures:	Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.
Respiratory Protection:	A NIOSH certified self-contained breathing apparatus or air purifying respirator with an organic cartridge may be used under conditions where airborne concentrations are expected to exceed exposure limits.
Hand Protection:	The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation and skin damage (see glove manufacturer literature for information on permeability).
Eye Protection:	Approved eye protection (safety glasses with side-shields or goggles) to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.
Body Protection:	Impervious clothing should be worn as needed to prevent skin contact.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Physical State:	Liquid
Color:	Red-orange
Odor:	Amine-like
Odor Threshold:	Not available.
pH:	9 - 10
Melting Point/Range (°C/°F):	< -40°C / -40°F
Boiling Point/Range (°C/°F):	> 90°C / 194°F (based on constituents) May foam upon significant heating.
Flash Point (PMCC) (°C/°F):	> 135°C / 275°F (based on constituents)
Evaporation Rate:	Not available.
Flammability / Explosivity Limits in Air (%):	(Diethylene glycol) Lower flammable limit: 1.6 vol% Upper flammable limit: 10.8 vol%
Vapor Pressure:	< 24 mmHg (20°C)
Vapor Density (Air = 1):	Not available.
Relative Density:	1.0874
Solubility in Water:	Soluble
Partition Coefficient:	Not available.
Autoignition Temperature (°C/°F):	260°C / 500°F
Decomposition Temperature (°C/°F):	Not available.
Viscosity:	Not available.
Explosive Properties:	None.
Oxidizing Properties:	None.
Volatile Organic Content (VOC) (g/l):	ca. 456 - 566 g/l (as defined by 40CFR51.100)

**SECTION 10 STABILITY AND REACTIVITY**

Reactivity:	Product will not undergo additional reaction.
Stability:	Stable under normal storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Contact with incompatible materials, excessive heat.
Incompatibilities:	Strong oxidizing agents, strong acids, strong bases.
Hazardous Decomposition Products:	Oxides of carbon, oxides of nitrogen, amines, aliphatic compounds, toxic by-products.

**SECTION 11 TOXICOLOGICAL INFORMATION**

*If available, toxicity data for the product is given; otherwise component data is listed.*

Acute Toxicity:	This product may be harmful, if swallowed. (Diethylene glycol) Oral LD50 (rat) 1600-7400 mg/kg; Oral LD50 (human) 1000 mg/kg; Dermal LD50 (rabbit) 11890 mg/kg; Inhalation LC50 (rat) > 4.6 mg/l (4 hr) (Polymer) Oral LD50 (rat) > 2000 mg/kg (Ethanol, 2-(dimethylamino)-) Oral LD50 (rat) 1182.7 mg/kg; Dermal LD50 (rabbit) 1219 mg/kg; Inhalation LC50 (rat) 1641 ppm (4 day). (Decanoic acid) Oral LD50 (rat) > 2000 mg/kg; Dermal LD50 (rat) > 2000 mg/kg
Skin Corrosion / Irritation:	The product may be irritating to the skin. (Diethylene glycol) Non-irritating to skin (rabbit). (Polymer) No data. (Ethanol, 2-(dimethylamino)-) Corrosive to skin (rabbit). (Decanoic acid) Irritating to skin (rabbit).
Serious Eye Damage / Irritation:	The product may be severely irritating to the eyes with possible damage. (Diethylene glycol) Non-irritating to eye (rabbit). (Polymer) No data. (Ethanol, 2-(dimethylamino)-) Severely irritating to eye with corneal injury (rabbit). (Decanoic acid) Irritating to eye (rabbit).
Respiratory or Skin Sensitization:	The product is not expected to be dermally sensitizing. (Diethylene glycol) Not dermally sensitizing (guinea pig). (Polymer) No data. (Ethanol, 2-(dimethylamino)-) Not dermally sensitizing (guinea pig). (Decanoic acid) Not dermally sensitizing (guinea pig).
Mutagenicity:	This product is not expected to be mutagenic. (Diethylene glycol) Not mutagenic (Ames test and micronucleus assay). (Polymer) No data. (Ethanol, 2-(dimethylamino)-) Not mutagenic (Ames test, mammalian cell gene mutation assay, sister chromatid exchange assay in mammalian cells and micronucleus assay). (Decanoic acid) Not mutagenic (Ames test, mammalian cell gene mutation assay, and in vitro mammalian chromosome aberration test).
Carcinogenicity:	This product is not expected to be carcinogenic. (Diethylene glycol) In a 2 -year carcinogenicity study (rat, oral), there was no evidence of carcinogenic activity. The NOAEL was established at 1160 mg/kg/day. (Polymer) No data. (Ethanol, 2-(dimethylamino)-) In a 2 -year carcinogenicity study in orally-dosed mice, there was a lack of carcinogenicity. (Decanoic acid) No data.

**SECTION 11 TOXICOLOGICAL INFORMATION**

Reproductive / Developmental Toxicity:	This product is not expected to be reproductively or developmentally harmful. (Diethylene glycol) In an oral study with mice, there was no significant changes to reproduction. Up to 1000-kg/day in an oral study (rabbits), produces no evidence of embryotoxicity or teratogenicity. (Polymer) No data. (Ethanol, 2-(dimethylamino)-) Corrosivity to the ulcer/stomachs was the main finding in reproductive study in rats. There was no evidence of embryonic or fetal toxicity, including teratogenicity exposed by inhalation at concentration of up to 100 ppm during gestation (rat). (Decanoic acid) In orally-dosed rats at up to 1000 mg/kg/day, no significant developmental toxicity was noted.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Single Exposure:	(Diethylene glycol) Central nervous system depression and kidney injury was observed in rats (oral). (Polymer) No data. (Ethanol, 2-(dimethylamino)-) No data. (Decanoic acid) No data.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Repeated Exposure:	(Diethylene glycol) In a 2 year feeding study with rats, there was minimal kidney damage at 1% and severe kidney damage and moderate liver damage at 4%. In a separate study, the NOAEL was 125 mg/kg/day. (Polymer) No data. (Ethanol, 2-(dimethylamino)-) No adverse effects have been observed in rats (4-day oral study). (Decanoic acid) In an 84-day oral study with rats at up to 12.5 g/kg/day, there were no significant effects noted.
Aspiration Hazard:	This product is not expected to pose an appreciable aspiration hazard.
Additional Information:	None.

**SECTION 12 ECOLOGICAL INFORMATION**

*If available, ecological data for the product is given; otherwise component data is listed.*

Acute Ecotoxicity:	This product is not expected to be appreciably harmful to aquatic species. (Diethylene glycol) LC50 (Fathead minnow) 75200 mg/l/96 hr; EC50 (Daphnia magna) > 10000 mg/l/24 hr. (Polymer) LC50 (Guppy) > 100 mg/l/96 hr. (Ethanol, 2-(dimethylamino)-) LC50 (Golden orfe) 146.63 mg/l/96 hr; EC50 (Daphnia magna) 98.37 mg/l/48 hr; EC50 (algae) 66.08 mg/l/72 hr. (Decanoic acid) LC50 (Red Killifish) 20 mg/l/48 hr; LC50 (Golden orfe) 95 mg/l/48 hr; EC50 (Daphnia magna) > 20 mg/l/48 hr; EC50 (algae) 15 mg/l/72 hr.
Mobility:	(Diethylene glycol) Expected to have very high mobility based upon an estimated Koc of 1. (Polymer) No data. (Ethanol, 2-(dimethylamino)-) Expected to have very high mobility based upon an estimated Koc of 1. (Decanoic acid) Expected to have slight mobility based upon an estimated Koc of 4,000 for the free acid.
Persistence/Degradability:	(Diethylene glycol) Readily biodegradable (> 90% in 28 days). (Polymer) No data. (Ethanol, 2-(dimethylamino)-) Readily biodegradable (60.5% in 14 days). (Decanoic acid) No data.
Bioaccumulation:	(Diethylene glycol) An estimated BCF of 3 suggests the potential for bioconcentration in aquatic organisms is low. (Polymer) No bioconcentration is expected due to the relatively high

**SECTION 12 ECOLOGICAL INFORMATION**

molecular weight.  
 (Ethanol, 2-(dimethylamino)-) An estimated BCF of 3 suggests the potential for bioconcentration in aquatic organisms is low.  
 (Decanoic acid) An estimated BCF of 3 suggests the potential for bioconcentration in aquatic organisms is low.

Other adverse effects: None.

**SECTION 13 DISPOSAL CONSIDERATION**

Environmental precautions: Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

Product Disposal: Dispose in accordance with all local, state (provincial), and federal regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Container Disposal: Do not remove label until container is thoroughly cleaned. Empty containers may contain hazardous residues. This material and its container must be disposed of in a safe way.

**SECTION 14 TRANSPORT INFORMATION**

DOT (US):

Proper Shipping Name:	Not regulated
UN Number:	None.
Class:	None.
Packaging Group:	None.
Reportable Quantity:	None.
Marine Pollutant:	None.

IATA:

Proper Shipping Name:	Not regulated
UN Number:	None.
Class:	None.
Packing Group:	None.

IMDG:

Proper Shipping Name:	Not regulated
UN Number:	None.
Class:	None.
Packing Group:	None.
Marine Pollutant:	None.

*Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations.*

**SECTION 15 REGULATORY INFORMATION**

US Toxic Substance Control Act:	All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.	
Canadian Domestic Substance List:	All components of this product are listed on the Canadian Domestic Substance List.	
EU REACH:	All components of this product have been pre-listed or registered under REACH.	
TSCA Sec.12(b) Export Notification:	This product does not contain a chemical at or above de minimis concentrations which requires reporting.	
Canadian WHMIS Classification:	D.2.A, D.2.B  This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.	
Massachusetts Right-To-Know:	This product contains materials subject to disclosure under the Massachusetts Right-To-Know Law: - Ethanol, 2-(dimethylamino)-	
New Jersey Right-To-Know:	This product contains materials subject to disclosure under the New Jersey Right-To-Know Law: - Ethanol, 2-(dimethylamino)- (3111)	
Pennsylvania Right-To-Know:	This product contains materials subject to disclosure under the Pennsylvania Right-To-Know Law: - Ethanol, 2-(dimethylamino)-	
California Proposition 65:	This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.	
SARA TITLE III-Section 311/312 Categorization (40 CFR 370):	Immediate (acute), delayed (chronic) hazard (as of 2018, the EPA has adopted GHS hazard classifications)	
SARA TITLE III-Section 313 (40 CFR 372):	This product does not contain materials which are listed in Section 313 at or above de minimis concentrations.	
CERCLA Hazardous Substance (40 CFR 302)	This product does not contain materials subject to reporting under CERCLA and Section 304 of EPCRA.	
Water Hazard Class (WGK):	This product is slightly water-endangering (WGK=1).	
Other Chemical Inventories:	Australia (AICS):	All components of this product are listed.
	China (IECSC):	All components of this product are listed.
	Japan (ENCS):	All components of this product are listed.
	Korea (KCI):	All components of this product are listed.
	Philippines (PICCS):	All components of this product are listed.
	Taiwan (TCSI):	All components of this product are listed.

**SECTION 16 OTHER INFORMATION**

NFPA Rating - HEALTH:	2
NFPA Rating - FIRE:	1
NFPA Rating - REACTIVITY:	0
NFPA Rating - SPECIAL:	NONE
Full text of H-Statements referred	



**SECTION 16 OTHER INFORMATION**

to under Section 3:

H226	Flammable liquid and vapor
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

SDS Date Issued: May 8, 2019

SDS Current Version: 1.0                      Version Date: May 8, 2019

SDS Revision History: v1.0 Initial version.

Abbreviations:

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

CAS#: Chemical Abstract Services Number

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

NFPA: National Fire Protection Association

DOT: US Department of Transportation

RCRA: US Resource Conservation and Recovery Act

TLV: Threshold Limit Value TWA:  
Time-Weighted Average

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

WEEL: Workplace Environmental Exposure Levels

AIHA: American Industrial Hygiene Association

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

NOAEL: No Observed Adverse Effect Level

NOEL: No Observed Effect Level

EC50: Effective Concentration 50%

LL50: Lethal Loading Rate 50%

BCF: Bioconcentration Factor

BOD: Biological Oxygen Demand

Koc: Soil Organic Carbon Partition Coefficient.

Tlm: Median Tolerance Limit

Key References:

United States National Library of Medicine's TOXNET  
Patty's Toxicology, 5<sup>th</sup> Edition  
European Commission's Institute for Health and Consumer Protection  
European Chemicals Agency (ECHA)  
American Conference of Governmental Industrial Hygienists  
International Agency for Research on Cancer  
United States National Toxicology Program  
United States Occupational Safety and Health Administration  
United States Department of Transportation  
Supplier Material Safety Data Sheets

**SECTION 16 OTHER INFORMATION**

Disclaimer: *The data contained herein is based on information that the company believes to be reliable, but no expressed or implied warranty is made with regard to the accuracy of such data or its suitability for a given situation. Such data relates only to the specific product described and not to such products in combination with any other product and no agent of the company is authorized to vary any of such data. The company and its agents disclaim all liability for any action taken or foregone on reliance upon such data.*

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