

<b>MATERIAL NAME:</b> Butane		<b>SDS #:</b> MMP-006
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## SAFETY DATA SHEET

### SECTION 1 ♦ IDENTIFICATION



Magellan Midstream Partners One Williams Center Tulsa, OK 74172	For Emergency Source Information Contact: ➤ 3E Contact: (877) 852-0015 or +1 (760) 602-8700
<b>GHS PRODUCT IDENTIFIER:</b> H- GRADE BUTANE	<b>CHEMICAL FAMILY:</b> Petroleum Hydrocarbon
<b>PRODUCT USES:</b> Used primarily as a fuel source for internal combustion engines.	

### SECTION 2 \* HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS	
Flammable Gas - Category 1	Gas Under Pressure-Liquefied Gas

#### GHS LABEL ELEMENTS

#### BUTANE

GHS PICTOGRAMS	SIGNAL WORD
 	<b>DANGER</b>

#### HAZARD STATEMENTS

Contains gas under pressure, may explode if heated	Extremely flammable gas
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#### PRECAUTIONARY STATEMENTS

##### *Prevention*

Do not eat, drink or smoke when using this product	Protect from sunlight, store in ventilated place
Wash thoroughly after handling	Do not breathe gas/mist/vapors/spray
No smoking. Keep away from heat/sparks/open flames/hot surfaces	

##### *Response*

Eliminate all ignition sources if safe to do so	
Leaking gas fire: Do not extinguish, unless leak can be stopped safely	
Store in ventilated place	IF exposed or concerned: Call a POISON CENTER or doctor/physician

##### *Storage*

Store in a well-ventilated place Keep cool	Protect from sunlight
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##### *Disposal*

Dispose of contents/container in accordance with local/regional/national/international regulations.

#### SUPPLIER INFORMATION

Magellan Midstream Partners	One Williams Center	Tulsa, OK 74172
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### SECTION 3 ▼ COMPOSITION/INFORMATION OF INGREDIENTS

INGREDIENT	CAS NUMBER	PERCENTAGE (%)
Butane	106-97-8	10-99
Isopentane	78-78-4	0-15
Isobutane	75-28-5	0-15
n-Pentane	109-66-0	0-15
Hexanes	Not applicable	0-5
Heptane	142-82-5	0-5

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<b>SECTION 4 + FIRST AID MEASURES</b>	
<b>EYES:</b> Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids, Get Medical Aid.	
<b>SKIN:</b> Quickly remove contaminated clothing. In case of frostbite or freeze burns seek immediate medical attention.	
<b>INGESTION:</b> Risk is low since it is a gas. Call a physician and/or transport to an emergency facility immediately.	
<b>INHALATION:</b> Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give Cardiopulmonary Resuscitation. If breathing is difficult, give oxygen.	
NOTE TO PHYSICIAN: TREAT SYMPTOMATICALLY AND SUPPORTIVELY	
<b>SECTION 5 ⌘ FIRE-FIGHTING MEASURES</b>	
<b>EXTREMELY FLAMMABLE!</b> This material is extremely flammable/explosive! Exposure to materials adjacent to container may start addition fires/explosions. Keep any source of heat away from material, e.g., smoking, heat, sparks.	
<b>SUITABLE EXTINGUISHING MEDIA:</b> Stop flow of material first if it can be done safely. Water fog, dry chemical, foam, or Carbon Dioxide. Use water spray to cool nearby containers and structure exposed to fire. Water fog or spray are of value in cooling tanks and containers but may not achieve extinguishment.	
<b>HAZARDOUS REACTIONS/DECOMPOSITION:</b> Burning or excessive heating may produce carbon monoxide and carbon dioxide, also other harmful gases/vapors including oxides and/or other compounds of chlorine, manganese, and bromine.	
<b>SPECIAL PROTECTIVE ACTIONS FOR FIREFIGHTERS:</b> For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of combustion products and oxygen deficiencies. If firefighters cannot work upwind to the fire, respiratory protective equipment must be worn. Cool tanks and containers exposed to fire with water. Notify appropriate authorities if liquid enters sewer/waterways.	
SEE SECTION 9 FOR FLAMMABILITY PROPERTIES	
<b>SECTION 6 ❖ ACCIDENTAL RELEASE MEASURES</b>	
<b>PERSONAL PRECAUTIONS</b>	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to safe areas. Use personal protective equipment. All equipment used when handling the product must be grounded. Ensure adequate ventilation. Take precautionary measures against static discharges. Keep people away from and upwind of spill/leak. Stop leak if you can do it without risk.
<b>METHODS FOR CONTAINMENT</b>	A gas suppressing foam may be used to reduce gas. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Dike far ahead of liquid spill for later disposal.
<b>METHODS FOR CLEANING UP</b>	Use clean non-sparking tools to collect absorbed material. Dike far ahead of liquid spill for later disposal.
<b>OTHER INFORMATION</b>	Water spray may reduce gas; but may not prevent ignition in closed spaces.
<b>SECTION 7 ✕ HANDLING AND STORAGE</b>	
Prior to working with this product workers should be trained on its proper handling and storage	
<b>PRECAUTIONS FOR SAFETY HANDLING</b>	<ul style="list-style-type: none"> <li>➤ Handle as a flammable gas.</li> <li>➤ Keep away from heat, sparks, and open flame! Electrical equipment should be approved for classified area. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion.</li> <li>➤ Ensure adequate ventilation, keep away from open flames, hot surfaces and sources of ignition.</li> <li>➤ Do not allow back feed into container</li> <li>➤ Purge air from system before introducing gas</li> <li>➤ Use properly selected piping and equipment for this material</li> </ul>
<b>STORAGE PROCEDURES</b>	<ul style="list-style-type: none"> <li>➤ Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers.</li> </ul>

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	<ul style="list-style-type: none"> <li>➤ Store upright with valve protection cap in place and firmly secured to prevent falling or being knocked over.</li> <li>➤ Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive gas. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition.</li> <li>➤ Store in a well-ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code".</li> <li>➤ Avoid storage near incompatible materials.</li> </ul>
<b>INCOMPATIBILITIES</b>	<ul style="list-style-type: none"> <li>➤ Keep away from strong oxidizers.</li> </ul>

**SECTION 8 # EXPOSURE CONTROLS / PERSONAL PROTECTION**

**EXPOSURE LIMITS**

Chemical Name	ACGIH TLV (2014)	OSHA PEL	NIOSH REL
Butane	TWA: Not Listed	TWA: Not Listed	TWA: 800 ppm
Hexane	TWA: 50 ppm <i>Skin</i>	TWA: 500	1,100 ppm
Heptane	TWA: 400 ppm STEL: 500 ppm	TWA: 500 ppm	750 ppm
n-Pentane	TWA: 600 ppm	TWA: 1,000	120 ppm (REL) 1,500 ppm

**ENGINEERING CONTROLS:** Use adequate ventilation to keep gas concentrations of this product below occupational exposure and flammability limits, particularly in confined areas.

**PERSONAL PROTECTIVE EQUIPMENT**

**Personal Protective Equipment: Respiratory**

Use a properly fitted, air-purifying or air-supplied respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workplace exposure limits for product or components are exceeded, NIOSH approved equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for non-routine and emergency use.

**Personal Protective Equipment: Hands**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Personal Protective Equipment: Eyes**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, or mists. Keep away from eyes. Eye contact can be avoided by wearing safety glasses or chemical splash goggles.

**Personal Protective Equipment: Skin and Body**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Keep away from skin. Skin contact can be minimized by wearing protective gloves such as neoprene, nitrile-butadiene rubber, etc. and, where necessary, impervious clothing and boots. Leather goods contaminated with this product should be discarded. A source of clean water should be available in the work area for flushing eyes and skin. Flame Retardant Clothing is recommended.

**SECTION 9 ⇄ PHYSICAL AND CHEMICAL PROPERTIES**

<b>BOILING POINT (760 MM HG):</b> 30.2 °F/ -1 °C	<b>PERCENT VOLATILE BY VOLUME:</b> 100%
<b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1):</b> 0.6	<b>VISCOSITY UNITS, TEMP:</b> Not Applicable
<b>EVAPORATION RATE (BuAc = 1):</b> Unavailable	<b>GAS DENSITY (AIR =1):</b> 2.11
<b>VAPOR PRESSURE AT 25°C:</b> 2.05 Atmospheres	<b>SOLUBILITY IN WATER:</b> Insoluble
<b>APPEARANCE AND ODOR:</b> Colorless gas with a gasoline-like or natural gas odor. If odorized, then rotten eggs odor	

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<b>FLASH POINT:</b> (Method Used) NA (Gas)	<b>FLAMMABLE LIMITS:</b> LEL: 1.6% UEL: 8.4%
<b>AUTOIGNITION TEMPERATURE:</b> 761 °F / 405 °C	<b>VOC CONTENT:</b> 100%

**SECTION 10 ☒ STABILITY AND REACTIVITY**

<b>CHEMICAL STABILITY:</b> Stable under normal temperatures and pressures
<b>HAZARDOUS REACTION POTENTIAL:</b> Will not occur
<b>CONDITIONS TO AVOID:</b> Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources.
<b>Incompatible Products:</b> Avoid contact with acids, aluminum chloride, chlorine, chlorine dioxide, halogens and oxidizing agents.
<b>MATERIALS TO AVOID:</b> Keep away from strong oxidizers.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b> Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).
<b>HAZARDOUS POLYMERIZATION:</b> Has not been reported.

**SECTION 11 ☼ TOXICOLOGICAL INFORMATION**

**BUTANE**

Butane is a colorless gas with no odor, although an odorant is sometimes added to the gas to provide warning of its presence. Health effects may include drowsiness, narcosis, asphyxia; cardiac arrhythmia at high concentrations and frostbite from contact with liquid.

**TOXICITY**

Type Of Dose	Specie	Result	Type Of Dose	Specie	Result	Type Of Dose	Specie	Result
LC <sub>50</sub> (inh)	Mouse (2 hours)	680 g/M <sup>3</sup>	LD <sub>50</sub> (dermal)	Rabbit	No Data	LC <sub>50</sub> (inh)	Rat (4 hours)	658 g/M <sup>3</sup>

Specific organ toxicity, single exposure: May cause drowsiness or dizziness	Specific organ toxicity, repeated exposure: may cause damage to organs from repeated or prolonged exposure. May cause nervous system damage.
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**CARCINOGENICITY**

Testicular tumors shown in rats.	
<b>IARC</b>	Not Listed
<b>NTP</b>	Not Listed

<b>California (Prop 65):</b> Not listed as carcinogen	<b>NIOSH:</b> Not Listed	<b>ACGIH:</b> Not Listed	<b>OSHA:</b> Not Listed
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**MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS**

Respiratory or Skin sensitization: No data available	Germ cell mutagenicity: No data available
Reproductive toxicity: No data available	Teratogenicity: No data available
Skin Corrosion/irritation: Gas is not irritating, however, frostbite and burns may occur due to being a liquefied product	Serious eye damage: Gas is not irritating, however, frostbite and burns may occur due to being a liquefied product
Synergistic effects: No data available	Aspiration hazard: No data available

RTECS #: EJ4200000

**HEXANE**

May cause respiratory tract irritation. Exposure produces central nervous system depression. Inhalation of vapors may cause drowsiness and dizziness. Chronic exposure may cause liver damage. Adverse reproductive effects have been reported in animals. Laboratory experiments have resulted in mutagenic effects.

**TOXICITY**

Type Of Dose	Specie	Result	Type Of Dose	Specie	Result	Type Of Dose	Specie	Result
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LD <sub>50</sub> (oral)	Rat	15.8 g/kg	LD <sub>50</sub> (dermal)	Rabbit	No Data	LC <sub>50</sub> (inh)	Rat (4 hours)	48,000 ppm
Specific organ toxicity, single exposure: May cause drowsiness or dizziness				Specific organ toxicity, repeated exposure: may cause damage to organs from repeated or prolonged exposure. May cause nervous system damage.				
<b>CARCINOGENICITY</b>								
Testicular tumors shown in rats.								
<b>IARC</b>				Not Listed				
<b>NTP</b>				Not Listed				
<b>California (Prop 65):</b> Not listed as carcinogen		<b>NIOSH:</b> Not Listed		<b>ACGIH:</b> Not Listed			<b>OSHA:</b> Not Listed	
<b>MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS</b>								
Respiratory or Skin sensitization: No data available				Germ cell mutagenicity: No data available				
Reproductive toxicity: overexposure may cause reproductive disorders based on lab animals. May damage fertility in humans.				Teratogenicity: No data available				
Skin Corrosion/irritation: No data available				Serious eye damage, irritation -rabbit: mild eye irritation				
Synergistic effects: No data available				Aspiration hazard: May be fatal if swallowed and enters airway.				
RTECS #: MN9275000								
<b>HEPTANE</b>								
Heptane can affect the body if it is inhaled, comes in contact with the eyes or skin, or is swallowed. Hexane vapor is a narcotic and a mild upper respiratory irritant. Peripheral nerve damage has been reported to occur in workers exposed to hexane vapors, characterized by progressive weakness and numbness in the extremities.								
<b>TOXICITY</b>								
Type Of Dose	Specie	Result	Type Of Dose	Specie	Result	Type Of Dose	Specie	Result
LD <sub>50</sub> (oral)	Mouse	222 mg/kg	LD <sub>50</sub> (dermal)	Rabbit	No Data	LC <sub>50</sub> (inh)	Rat (4 hours)	103 g/M <sup>3</sup>
Specific organ toxicity, single exposure: May cause drowsiness				Specific organ toxicity, repeated exposure: No data available				
<b>CARCINOGENICITY</b>								
<b>IARC</b>				Not Listed				
<b>NTP</b>				Not Listed				
<b>California (Prop 65):</b> Not Listed		<b>NIOSH:</b> Not Listed		<b>ACGIH:</b> Not Listed			<b>OSHA:</b> Not Listed	
<b>MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS</b>								
Respiratory or Skin sensitization: No data available				Germ cell mutagenicity: No data available				
Reproductive toxicity: No data available				Teratogenicity: No data available				
Skin Corrosion/irritation: Testing showed no irritation				Serious eye damage, irritation-rabbit: mild eye irritation				
Synergistic effects: No data available				Aspiration hazard: No data available				
RTECS #: MI7700000								
<b>N-PENTANE</b>								
Inhalation of very high concentrations of pentane (>10% in air) may cause narcosis and irritation of the mucous membranes (eye, nose, and throat). In humans, inhalation of 5000 ppm for 10 minutes failed to cause these symptoms. There is no report in the literature indicating any adverse effects from pentane other than narcosis and irritation.								

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TOXICITY								
Type Of Dose	Specie	Result	Type Of Dose	Specie	Result	Type Of Dose	Specie	Result
LD <sub>50</sub> (oral)	Rat	446 g/kg	LD <sub>50</sub> (dermal)	Rabbit	No Data	LC <sub>50</sub> (inh)	Rat (4 hours)	364 g/M <sup>3</sup>
Specific organ toxicity, single exposure: No data available				Specific organ toxicity, repeated exposure: Liver damage				
CARCINOGENICITY								
<b>IARC</b>		Not Listed						
<b>NTP</b>		Not Listed						
<b>California (Prop 65):</b> Not Listed as carcinogen		<b>NIOSH:</b> Not Listed		<b>ACGIH:</b> Not Listed			<b>OSHA:</b> Not Listed	
MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS								
Respiratory or Skin sensitization: No data available				Germ cell mutagenicity: No data available				
Reproductive toxicity: No data available				Teratogenicity: No data available				
Skin Corrosion/irritation: Skin-rabbit: skin irritation				Serious eye damage, irritation-rabbit: No data available				
Synergistic effects: No data available				Aspiration hazard: No data available				
RTECS #: RZ9450000								

## SECTION 12 \* ECOLOGICAL INFORMATION

TOXICITY					
Type Of Dose	Specie	Result	Type Of Dose	Specie	Result
LC <sub>50</sub>	-----	No Data	EC <sub>50</sub>	-----	No Data
EC <sub>50</sub>	-----	No Data	EC <sub>50</sub>	-----	No Data
PERSISTENCE AND DEGRADABILITY/MOBILITY IN SOIL					
No data available					
BIOACCUMULATIVE POTENTIAL					
Log L <sub>ow</sub>		2.89	BCF		1.78 - 1.97
K <sub>ow</sub> (n-Octanol/Water Partition Coefficient)				2.89	


### HEXANE

TOXICITY					
Type Of Dose	Specie	Result	Type Of Dose	Specie	Result
LC <sub>50</sub>	fathead minnow	2.5 mg/L 96 hours	EC <sub>50</sub>	Water Flea	3.87 mg/L 48 Hours
EC <sub>50</sub>	Green algae	12.8 g/L 3 hours	EC <sub>50</sub>	Microtox	No Data
BIOACCUMULATIVE POTENTIAL					
Log P <sub>ow</sub>		3.9	BCF		No Data

### HEPTANE

TOXICITY					
Type Of Dose	Specie	Result	Type Of Dose	Specie	Result
LC <sub>50</sub>	Goldfish 24 hours	4 mg/L	EC <sub>50</sub>	Water Flea	1.5 mg/L 48 Hours
EC <sub>50</sub>	-----	No Data	EC <sub>50</sub>	-----	No Data
BIOACCUMULATIVE POTENTIAL					
Log P <sub>ow</sub>		>3.0	BCF		No Data
K <sub>oc</sub> (Soil/water Partition Coefficient)				No Data	



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<i>n</i> -PENTANE					
TOXICITY					
Type Of Dose	Specie	Result	Type Of Dose	Specie	Result
LC <sub>50</sub>	Rainbow trout	9.87 g/L 96 Hours	EC <sub>50</sub>	Water Flea	9.7 g/L 48 Hours
EC <sub>50</sub>	Green algae	No Data	EC <sub>50</sub>	Microtox	No Data
Log P <sub>ow</sub>		3.39	BCF		1.9-2.35
SECTION 13 * DISPOSAL CONSIDERATIONS					
Not Meant To Be All Inclusive - Check Local, State, And Federal Laws And Regulations					
Dispose of in accordance with local regulations.					
Waste Disposal Method: Should not be released into the environment.					
Contaminated Packaging: Dispose of in accordance with local regulations.					
SECTION 14 ☐ TRANSPORTATION INFORMATION					
Not Meant To Be All Inclusive - Check Local, State, And Federal Laws And Regulations					
Element	U.S. DOT	IMDG	IATA		
UN Number	UN 1075	UN 1075	UN 1075		
UN Proper Shipping Name	Petroleum Gases, Liquefied	Petroleum Gases, Liquefied	Petroleum Gases, Liquefied		
Hazard Class	2.1	2.1	2.1		
Placard/Label					
Environmental Hazard	No	No	No		
Packing Group	Not applicable	Not applicable	Not applicable		
SECTION 15 ∩ REGULATORY INFORMATION					
Agency	Listing				
OSHA	Guidance only, consult specific regulations All ingredients are listed as hazardous under 29 CFR 1910.1200				
CERCLA RQ's (40 CFR Part 302)	Hexane – 5,000 pounds				
TSCA 8(a)	Not Listed				
TSCA 8(b)	Not Listed				
SARA (40 CFR Part 355) TPQ's	Not Listed				
SARA 302/304/311/312 extremely hazardous substances	Not Listed				
RCRA	Hexane - U056				
State Regulations: Massachusetts, New Jersey, and Pennsylvania	Hexane and Pentane				
State Regulations: New York	Listed				
SARA 311/312 SDS distribution - chemical inventory - hazard identification	n-Hexane: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard				
EPA Form R Toxic Chemical Release Inventory	Not Listed				

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Clean Water Act (CWA) 307	Not Listed
Clean Water Act (CWA) 311	Not Listed
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	Not Listed
Clean Air Act Section 602 Class I Substances	Not Listed
Clean Air Act Section 602 Class II Substances	Not Listed

**SECTION 16 ☞ OTHER INFORMATION**

 <p><b>NFPA LABEL</b></p>	 <p><b>HMIS III LABEL</b></p> <p><u>Personal Protection Index</u>        NPCA recommends that PPE codes be determined by the employer, who is familiar with the actual conditions under which chemicals in the facility are used.</p>
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**Acronym List**

°F=degrees Fahrenheit	°C=degrees Celsius	ACGIH= American Conference of Industrial Hygienists
APR=Air Purifying Respirator	BCF= Bioconcentration Factor	BuAc=Butyl Acetate
CAS=Chemical Abstract Service	CERCLA= Comprehensive Environmental Response, Compensation, and Liability Act	
CHEMTREC= Chemical Transportation Emergency Center	CNS=Central Nervous System	CWA=Clean Water Act
DOT=Department of Transportation	EC50= Effective Concentration Fifty	EPA=Environmental Protection Agency
g/Kg=Grams per Kilogram	g/M <sup>3</sup> =Grams per Cubic Meter	GHS=Global Harmonization System
H <sub>2</sub> O=Water	HAP=Hazardous Air Pollutants	HMIS= Hazardous Materials Identification System
IARC= International Agency for Research on Cancer	IATA= International Air Transport Association	IMDG= International Maritime Dangerous Goods
LC <sub>50</sub> =Lethal Concentration Fifty	LD <sub>50</sub> =Lethal Dose Fifty	LEL=Lower Explosive Limit
Log P <sub>ow</sub> =Octanol/water partition coefficient	mg/Kg=Milligrams per Kilogram	mg/L=Milligrams per Liter
mL/Kg=Milliliters per Kilogram	mm HG=millimeters of mercury	NFPA=National Fire Protection Association
NIOSH= National Institute for Occupational Safety and Health	NTP=National Toxicology Program	OSHA=Occupational Safety and Health Administration
PEL=Permissible Exposure Limit	ppm=Parts per Million	RCRA=Resource Conservation and Recovery Act
RQ=Reportable Quantities	RTECS=Registry of Toxic Effects of Chemical Substances	SARA= Superfund Amendments and Reauthorization Act
SDS=Safety Data Sheet	STEL=Short Term Exposure Limit	
TLV=Threshold Limit Value	TPQ=Threshold Planning Quantity	TSCA=Toxic Substance and Control Act
TWA=Time Weighted Average	UEL=Upper Explosive Limit	VOC=Volatile Organic Compounds
°F=degrees Fahrenheit	°C=degrees Celsius	ACGIH= American Conference of Industrial Hygienists
APR=Air Purifying Respirator	BCF= Bioconcentration Factor	BuAc=Butyl Acetate
CAS=Chemical Abstract Service	CERCLA= Comprehensive Environmental Response, Compensation, and Liability Act	



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CHEMTREC= Chemical Transportation Emergency Center	CNS=Central Nervous System	CWA=Clean Water Act
DOT=Department of Transportation	EC50= Effective Concentration Fifty	EPA=Environmental Protection Agency
g/Kg=Grams per Kilogram	g/M <sup>3</sup> =Grams per Cubic Meter	GHS=Global Harmonization System
H <sub>2</sub> O=Water	HAP=Hazardous Air Pollutants	HMIS= Hazardous Materials Identification System
IARC= International Agency for Research on Cancer	IATA= International Air Transport Association	IMDG= International Maritime Dangerous Goods
LC <sub>50</sub> =Lethal Concentration Fifty	LD <sub>50</sub> =Lethal Dose Fifty	LEL=Lower Explosive Limit
Log P <sub>ow</sub> =Octanol/water partition coefficient	mg/Kg=Milligrams per Kilogram	mg/L=Milligrams per Liter
mL/Kg=Milliliters per Kilogram	mm HG=millimeters of mercury	NFPA=National Fire Protection Association
NIOSH= National Institute for Occupational Safety and Health	NTP=National Toxicology Program	OSHA=Occupational Safety and Health Administration
PEL=Permissible Exposure Limit	ppm=Parts per Million	RCRA=Resource Conservation and Recovery Act
RQ=Reportable Quantities	SARA= Superfund Amendments and Reauthorization Act	SDS=Safety Data Sheet
STEL=Short Term Exposure Limit	TLV=Threshold Limit Value	TPQ=Threshold Planning Quantity
TSCA=Toxic Substance and Control Act	TWA=Time Weighted Average	UEL=Upper Explosive Limit
VOC=Volatile Organic Compounds		

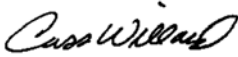
**SDS REVISIONS:** Updated DOT placard

**SDS CREATION DATE:** 09/15/14

**REVISION #2:** 09/19/22

**DISCLAIMER**

The information in this SDS was obtained from sources which we believe are reliable. **HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESSED OR IMPLIED, REGARDING ITS ACCURACY.** Some conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. **FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.** All product measurements such as flash point, *etc.* are considered approximate values. All data provided by Magellan Midstream Partners, L.P. or supplier. This SDS was prepared and is to be used only for this product.

SDS DEVELOPER:   
Cass Willard, CIH

DATE: 09/19/22