

|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
|--------------------------------|---|-----------------------|

## SAFETY DATA SHEET

### SECTION 1 ♦ IDENTIFICATION

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

### SECTION 2 \* HAZARDS IDENTIFICATION

| GHS CLASSIFICATIONS   |  |  |
|---|--|--|
| Aspiration Hazard - Category 1  | Carcinogenicity - Category 1A  | Flammable Liquid - Category 1          |
| Germ Cell Mutagenicity - Category 1B  | Hazardous to the Aquatic Environment – Acute Hazard - Category 3                                 | Skin Corrosion/Irritation - Category 2 |
| Specific Target Organ Toxicity (Repeat Exposure) - Category 1 (liver, kidneys, bladder, blood, bone marrow, nervous system) | Specific Target Organ Toxicity (Single Exposure) - Category 3 (respiratory irritation, narcosis) |  |
| Hazardous to the Aquatic Environment – Chronic Hazard - Category 2  | Eye Damage/Irritation - Category 2B  | Toxic to Reproduction - Category 1A    |

### GHS LABEL ELEMENTS

| Transmix  |   |   |   |               |
|---|---|---|---|---------------|
| GHS PICTOGRAMS  |   |   |   | SIGNAL WORD   |
|  |  |  |  | <b>DANGER</b> |

### HAZARD STATEMENTS

|   |   |                                       |
|---|---|---------------------------------------|
| Causes damage to organs (liver, kidneys, bladder, blood, bone marrow, nervous system) through prolonged or repeated exposure. | May be fatal if swallowed and enters airways. |                                       |
| Causes skin irritation.   | Harmful to aquatic life.                      | Extremely flammable liquid and vapor. |
| May damage fertility or the unborn child.   | May cause drowsiness or dizziness.            |                                       |
| May cause genetic defects.  | May cause respiratory irritation.             | May cause cancer.                     |

### PRECAUTIONARY STATEMENTS

| <i>Prevention</i>   |   |
|---|---|
| Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. |   |
| Ground/bond container and receiving equipment.  | Use only non-sparking tools.                  |
| Use explosion-proof electrical/ ventilating/ lighting/equipment.                                |   |
| Take precautionary measures against static discharge.   | Keep out of reach of children.                |
| Wear protective gloves/protective clothing/eye protection/face protection.                      |   |
| Wash hands and forearms thoroughly after handling.  | Obtain special instructions before use.       |
| Do not breathe mist/vapors/spray.   | Use only outdoors or in well-ventilated area. |
| Do not eat, drink or smoke when using this product.   | Avoid release to the environment.             |
| Do not handle until all safety precautions have been read and understood.                       |   |

*Response*

In case of fire: Use water spray, fog, dry chemical fire extinguishers or hand held fire extinguisher.

IF exposed or concerned: Get medical advice/attention.

IF ON SKIN (or hair): Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or doctor/physician if you feel unwell.

Get medical advice/attention if you feel unwell.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting.

*Storage*

|                                  |           |                 |                               |
|----------------------------------|-----------|-----------------|-------------------------------|
| Store in a well-ventilated place | Keep cool | Store locked up | Keep container tightly closed |
|----------------------------------|-----------|-----------------|-------------------------------|

*Disposal*

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

**SUPPLIER INFORMATION**

|                             |                     |                 |
|-----------------------------|---------------------|-----------------|
| Magellan Midstream Partners | One Williams Center | Tulsa, OK 74172 |
|-----------------------------|---------------------|-----------------|

**SECTION 3 ▼ COMPOSITION/INFORMATION OF INGREDIENTS**

*NOTE: Transmix is the trade/industry name for mixtures of refined petroleum products in unknown concentrations.*

| INGREDIENT                           | CAS NUMBER     | PERCENTAGE (%) |
|--------------------------------------|----------------|----------------|
| Mixed Refined Petroleum Hydrocarbons | Not Applicable | 100            |
| Diesel Fuels                         | 68476-34-6     | 0-100          |
| Gasoline                             | 8006-61-9      | 0-100          |
| Toluene                              | 108-88-3       | <30            |
| Ethyl benzene                        | 100-41-4       | <5             |
| Naphthalene                          | 91-20-3        | <5             |
| Xylenes (o-, m-, p- isomers)         | 1330-20-7      | <30            |
| Isopropyl ether                      | 108-20-3       | <30            |
| Ethyl tert-butyl ether               | 637-92-3       | <30            |
| tert-Amyl methyl ether               | 994-05-8       | <30            |
| Ethyl alcohol                        | 64-17-5        | 0-1            |
| Hexane                               | 110-54-3       | <10            |
| Heptane                              | 142-82-5       | <2             |
| Benzene                              | 71-43-2        | <10            |
| Trimethyl benzene                    | 25551-13-7     | <5             |
| 1,2,4-Trimethyl benzene              | 95-63-6        | <5             |
| n-Nonane                             | 111-84-2       | <3             |
| Cumene                               | 98-82-8        | <5             |
| Cyclohexane                          | 110-82-7       | <5             |
| Styrene                              | 100-42-5       | <1             |

**SECTION 4 + FIRST AID MEASURES**

**EYES:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids, Get Medical Aid.

**SKIN:** Quickly remove contaminated clothing and immediately wash skin with plenty of soap and water for at least 15 minutes. Get medical aid if irritation develops or persists.

**INGESTION:** Do not induce vomiting. Call a physician and/or transport to an emergency facility immediately.

**INHALATION:** Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give cardiopulmonary resuscitation. If breathing is difficult, give medical oxygen.

NOTE TO PHYSICIAN: TREAT SYMPTOMATICALLY AND SUPPORTIVELY

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**SECTION 5 ⚡ FIRE-FIGHTING MEASURES**

**SEE SECTION 9 FOR FLAMMABILITY PROPERTIES**

**EXTREMELY FLAMMABLE!** This material releases vapors at or below ambient temperatures. When mixed with air in certain proportions and exposed to an ignition source, these vapors can burn in the open or explode in confined spaces. Being heavier than air, flammable vapors may travel long distances along the ground before reaching a point of ignition and flashing back.

**SUITABLE EXTINGUISHING MEDIA:** 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.

**HAZARDOUS REACTIONS/DECOMPOSITION:** 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.

**SPECIAL PROTECTIVE ACTIONS FOR FIREFIGHTERS:** For fires involving this material, do not enter any enclosed or confined 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 of the fire, respiratory protective equipment must be worn. Cool tanks and containers exposed to fire with water. Burning liquid will float on water. Notify appropriate authorities if liquid enters sewer/waterways.

**SECTION 6 ❖ ACCIDENTAL RELEASE MEASURES**

|                             |   |
|-----------------------------|---|
| <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 so without risk. |
|-----------------------------|---|

|                                |  |
|--------------------------------|--|
| <b>METHODS FOR CONTAINMENT</b> | A vapor suppressing foam may be used to reduce vapors. 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. |
|--------------------------------|--|

|                                |   |
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| <b>METHODS FOR CLEANING UP</b> | Use clean non-sparking tools to collect absorbed material. Dike far ahead of liquid spill for later disposal. |
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| <b>OTHER INFORMATION</b> | Water spray may reduce vapor but may not prevent ignition in closed spaces. |
|--------------------------|---|

**SECTION 7 ⚡ HANDLING AND STORAGE**

Prior to working with this product workers should be trained on its proper handling and storage

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| <b>PRECAUTIONS FOR SAFETY HANDLING</b> | <ul style="list-style-type: none"> <li>➤ Use only as a motor fuel.</li> <li>➤ Do not siphon by mouth.</li> <li>➤ Handle as a flammable liquid.</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>➤ Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents."</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> <li>➤ Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. 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> </ul> |
|---------------------------|--|

➤ Avoid storage near incompatible materials.

## INCOMPATIBILITIES

➤ Keep away from strong oxidizers.

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

| Chemical Name           | ACGIH TLV (2013)                              | OSHA PEL                     | NIOSH IDLH     |
|-------------------------|---|------------------------------|----------------|
| Diesel                  | TWA: 100 mg/M <sup>3</sup> ( <i>Skin</i> )    | Not Applicable               | Not Applicable |
| Gasoline                | TWA: 300 ppm<br>STEL: 500 ppm                 | Not Applicable               | Not Applicable |
| Toluene                 | TWA: 20 ppm                                   | TWA: 200 ppm                 | 500 ppm        |
| Xylenes (all isomers)   | TWA: 100 ppm<br>STEL: 150 ppm                 | TWA: 100 ppm                 | 900 ppm        |
| Isopropyl ether         | TWA: 250 ppm<br>STEL: 310 ppm                 | TWA: 500 ppm                 | 1400 ppm       |
| Ethyl tert-butyl ether  | TWA: 25 ppm                                   | Not Applicable               | Not Applicable |
| tert-Amyl methyl ether  | TWA: 20 ppm                                   | Not Applicable               | Not Applicable |
| Ethyl alcohol           | TWA: 1,000 ppm                                | TWA: 1,000 ppm               | 3,300 ppm      |
| Hexane                  | TWA: 50 ppm ( <i>Skin</i> )                   | TWA: 500                     | 1,100 ppm      |
| Benzene                 | TWA: 0.5 ppm<br>STEL: 2.5 ppm ( <i>Skin</i> ) | TWA: 1 ppm<br>STEL: 5        | 500 ppm        |
| n-Nonane                | TWA: 200 ppm                                  | Not Applicable               | Not Applicable |
| Trimethyl benzene       | TWA: 25 ppm                                   | Not Applicable               | Not Applicable |
| Heptane                 | TWA: 400 ppm<br>STEL: 500 ppm                 | TWA: 500 ppm                 | 750 ppm        |
| 1,2,4-Trimethyl benzene | TWA: 25 ppm                                   | Not Applicable               | Not Applicable |
| Cumene                  | TWA: 50 ppm                                   | TWA: 50 ppm                  | 900 ppm        |
| Cyclohexane             | TWA: 100 ppm                                  | TWA: 300 ppm                 | 1,300 ppm      |
| Ethyl benzene           | TWA: 20 ppm                                   | TWA: 100 ppm                 | 800 ppm        |
| Naphthalene             | TWA: 10 ppm<br>STEL: 15 ppm<br><i>Skin</i>    | TWA: 10 ppm                  | 250 ppm        |
| Styrene                 | TWA: 20 ppm<br>STEL: 40 ppm                   | TWA: 100 ppm<br>Ceiling: 200 | 700 ppm        |

**ENGINEERING MEASURES:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits and flammability limits, particularly in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**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**

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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**

*NOTE: Many properties are estimated due to varying concentrations in the mixture.*

|   |   |
|---|---|
| <b>BOILING POINT (760 MM HG):</b> 120-350 °F / 49-177 °C                                    | <b>PERCENT VOLATILE BY VOLUME:</b> Slight - 100%  |
| <b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1):</b> 0.72  | <b>VISCOSITY UNITS, TEMP:</b> < 1.4 cSt @ 37.7 °C |
| <b>EVAPORATION RATE (BuAc = 1):</b> Unavailable   | <b>VAPOR DENSITY (AIR =1):</b> 3-4                |
| <b>VAPOR PRESSURE AT 25°C:</b> 200-700 mm Hg  | <b>SOLUBILITY IN WATER:</b> Negligible            |
| <b>APPEARANCE AND ODOR:</b> Clear to dark brown colored liquid; petroleum distillates odor. |   |
| <b>FLASH POINT:</b> (Method Used) -40 °F/-40 °C   | LEL: 1.2%   |
| <b>FLAMMABLE LIMITS:</b>  | UEL: 8%   |
| <b>AUTOIGNITION TEMPERATURE:</b> ~ 482 °F /250 °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> Keep away from strong oxidizers.   |
| <b>MATERIALS TO AVOID:</b> Contact with nitric and sulfuric acids will form nitroresols that can decompose violently.              |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS:</b> Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).                   |
| <b>HAZARDOUS POLYMERIZATION:</b> Has not been reported   |
| <b>OTHER PHYSICAL AND CHEMICAL PROPERTIES:</b> If uninhibited, gasoline will cause rusting of copper and alloys containing copper. |

**SECTION 11 ☠ TOXICOLOGICAL INFORMATION**

**DIESEL FUELS**

Diesel may be irritating to the eyes, respiratory system and skin. The main hazard associated with diesel is chemical pneumonitis that may arise following aspiration of liquid or inhalation of mist/vapor.

| Toxicity                |        |             |                           |        |             |                        |               |           |
|-------------------------|--------|-------------|---------------------------|--------|-------------|------------------------|---------------|-----------|
| Type Of Dose            | Specie | Result      | Type Of Dose              | Specie | Result      | Type Of Dose           | Specie        | Result    |
| LD <sub>50</sub> (oral) | Rat    | 5,001 mg/Kg | LD <sub>50</sub> (dermal) | Rabbit | 2,001 mg/Kg | LC <sub>50</sub> (inh) | Rat (4 hours) | 7.64 mg/l |

RTECS #: LS9142500

**GASOLINE**

Aspiration of gasoline into the lungs will cause chemical pneumonia. Liquid, mist, or vapors can cause eye, skin and respiratory tract irritation and CNS depression. Mild eye irritation may result from contact with liquid, mist, and/or vapors. Liquid may penetrate skin to cause central nervous system depression. Vapor penetration can also cause systematic effects. Skin irritation or more serious disorders may occur upon prolonged and repeated contact due to

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skin defatting. Irritation of the mouth, throat, and gastrointestinal tract leading to nausea, vomiting, diarrhea and restlessness. CNS Depression similar to that caused by vapor inhalation. Exposure can cause irritation to the nose, throat, and lungs and signs of CNS depression (dizziness, drowsiness, loss of coordination, coma and death), depending on the concentration/duration of exposure. Long-term exposure to unleaded gasoline has also produced kidney damage in laboratory animals. The exact relationship between these results and possible human effects is not known. Persons with pre-existing skin disorders, impaired liver or kidney function, or CNS and chronic respiratory diseases should avoid exposure to this material. This material may contain benzene at concentrations above 0.1%. Benzene is considered to be a known human carcinogen by OSHA, IARC and NTP.

| Toxicity                |        |               |                           |        |               |                        |                 |                      |
|-------------------------|--------|---------------|---------------------------|--------|---------------|------------------------|-----------------|----------------------|
| Type Of Dose            | Specie | Result        | Type Of Dose              | Specie | Result        | Type Of Dose           | Specie          | Result               |
| LD <sub>50</sub> (oral) | Rat    | Not Available | LD <sub>50</sub> (dermal) | Rabbit | Not Available | LC <sub>50</sub> (inh) | Rat (5 minutes) | 300 g/M <sup>3</sup> |

RTECS #: LX3300000

***TOLUENE***

The most common effect of overexposure to toluene is irritation of the mucous membranes, skin and central nervous system depression (headaches, lassitude, light-headedness, incoordination, fatigue, decreased reaction time, etc.). Unlike closely related compound benzene, toluene does not appear to be toxic to the bone marrow. No synergistic effects data available. For the skin, prolonged and repeated exposure can caused defatting and dermatitis.

| TOXICITY                |        |           |                           |        |            |                        |               |                     |
|-------------------------|--------|-----------|---------------------------|--------|------------|------------------------|---------------|---------------------|
| Type Of Dose            | Specie | Result    | Type Of Dose              | Specie | Result     | Type Of Dose           | Specie        | Result              |
| LD <sub>50</sub> (oral) | Rat    | 636 mg/kg | LD <sub>50</sub> (dermal) | Rabbit | 14.1 mL/kg | LC <sub>50</sub> (inh) | Rat (4 hours) | 49 g/M <sup>3</sup> |

|   |   |
|---|---|
| Specific organ toxicity, single exposure: No data available | Specific organ toxicity, repeated exposure: No data available |
|---|---|

**CARCINOGENICITY**

|             |                                |                               |   |
|-------------|--------------------------------|-------------------------------|---|
| <b>IARC</b> | Inadequate evidence in animals | Inadequate evidence in humans | Group 3: not classifiable as a human carcinogen |
|-------------|--------------------------------|-------------------------------|---|

|            |            |
|------------|------------|
| <b>NTP</b> | Not Listed |
|------------|------------|

|  |                          |   |                         |
|--|--------------------------|---|-------------------------|
| <b>California (Prop 65):</b><br>Listed as carcinogen | <b>NIOSH:</b> Not Listed | <b>ACGIH:</b> A4-Not Classifiable As Human Carcinogen | <b>OSHA:</b> Not Listed |
|--|--------------------------|---|-------------------------|

**MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS**

|  |  |
|--|--|
| Respiratory or Skin sensitization: No data available             | Germ cell mutagenicity: Genotoxicity in vitro-rat: Liver and DNA damage                                |
| Reproductive toxicity: Have been shown in male/female rats       | Teratogenicity: Developmental-rat: Fetotoxicity, stunted fetus. Suspected human reproductive toxicity. |
| Skin Corrosion/irritation: Skin-rabbit: irritation over 24 hours | Serious eye damage, irritation -rabbit: No data available  |
| Synergistic effects: No data available                           | Aspiration hazard: No data available   |

RTECS #: XS5250000

***XYLENE***

Xylene vapor may cause irritation of the eyes, nose, and throat. At high concentrations, xylene vapor may cause severe breathing difficulties which may be delayed in onset. At high concentrations, it may also cause dizziness, staggering, drowsiness, and unconsciousness. In addition, breathing high concentrations may cause loss of appetite, nausea, vomiting, and abdominal pain. Liquid xylene may be irritating to the eyes and skin. Exposure to high concentrations of xylene vapor may cause reversible damage to the kidneys and liver. Repeated or prolonged exposure to xylene may cause a skin rash. Repeated exposure of the eyes to high concentrations of xylene vapor may cause reversible eye damage.

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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                                   | 4.3 g/kg  | LD <sub>50</sub> (dermal) | Rabbit   | 1,700 mg/kg | LC <sub>50</sub> (inh)                          | Rat (4 hours)           | 5,000 ppm            |
| Specific organ toxicity, single exposure: No data available   |                                       |           |                           | Specific organ toxicity, repeated exposure: No data available  |             |   |                         |                      |
| CARCINOGENICITY   |                                       |           |                           |  |             |   |                         |                      |
| <b>IARC</b>   | Inadequate evidence in animals        |           |                           | Inadequate evidence in humans  |             | Group 3: not classifiable as a human carcinogen |                         |                      |
| <b>NTP</b>  | Suspect Carcinogen                    |           |                           |  |             |   |                         |                      |
| <b>California (Prop 65):</b> Not Listed as carcinogen   | <b>NIOSH:</b> Occupational Carcinogen |           |                           | <b>ACGIH:</b> A4-Not Classifiable As Human Carcinogen  |             |   | <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: irritation over 24 hours  |                                       |           |                           | Serious eye damage, irritation-rabbit: mild eye irritation   |             |   |                         |                      |
| Synergistic effects: No data available  |                                       |           |                           | Aspiration hazard: No data available   |             |   |                         |                      |
| RTECS #: ZE2100000  |                                       |           |                           |  |             |   |                         |                      |
| ISOPROPYL ETHER   |                                       |           |                           |  |             |   |                         |                      |
| Isopropyl ether can affect the body if it is inhaled or if it comes in contact with the eyes or skin. It can also affect the body if it is swallowed. Strong concentrations of isopropyl ether vapor may cause irritation of the eyes and nose. May cause drowsiness or dizziness. Signs and symptoms include nausea, headache and narcosis. Repeated or prolonged exposure to liquid isopropyl ether may cause dryness and irritation of the skin. |                                       |           |                           |  |             |   |                         |                      |
| TOXICITY  |                                       |           |                           |  |             |   |                         |                      |
| Type Of Dose  | Specie                                | Result    | Type Of Dose              | Specie   | Result      | Type Of Dose                                    | Specie                  | Result               |
| LD <sub>50</sub> (oral)   | Rat                                   | 5.88 g/kg | LD <sub>50</sub> (dermal) | Rabbit   | 20 mL/kg    | LC <sub>50</sub> (inh)                          | Rat (4 hours)           | 162 g/M <sup>3</sup> |
| Specific organ toxicity, single exposure: No data available   |                                       |           |                           | Specific organ toxicity, repeated exposure: No data available  |             |   |                         |                      |
| 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: maternal rat: specific developmental effects include musculoskeletal system.   |                                       |           |                           | Teratogenicity: Developmental-rat: Fetotoxicity, stunted fetus. Suspected human reproductive toxicity. |             |   |                         |                      |
| Skin Corrosion/irritation: Skin-rabbit: mild skin irritation  |                                       |           |                           | Serious eye damage, irritation-rabbit: mild eye irritation   |             |   |                         |                      |
| Synergistic effects: No data available  |                                       |           |                           | Aspiration hazard: No data available   |             |   |                         |                      |
| RTECS #: TZ5425000  |                                       |           |                           |  |             |   |                         |                      |
| NONANE  |                                       |           |                           |  |             |   |                         |                      |
| Nonane may cause irritation eyes, skin, nose, and throat. Other symptoms may include: headache, drowsiness, dizziness, confusion, nausea, tremor, and incoordination. If liquid is aspirated it may cause chemical pneumonitis.   |                                       |           |                           |  |             |   |                         |                      |
| TOXICITY  |                                       |           |                           |  |             |   |                         |                      |

|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
|--------------------------------|---|-----------------------|

| Type Of Dose            | Specie | Result    | Type Of Dose              | Specie | Result  | Type Of Dose           | Specie        | Result    |
|-------------------------|--------|-----------|---------------------------|--------|---------|------------------------|---------------|-----------|
| LD <sub>50</sub> (oral) | Mouse  | 218 mg/kg | LD <sub>50</sub> (dermal) | Rabbit | No Data | LC <sub>50</sub> (inh) | Rat (4 hours) | 3,200 ppm |

Specific organ toxicity, single exposure: May cause drowsiness  
 Specific organ toxicity, repeated exposure: No data available

**CARCINOGENICITY**

**IARC** Not Listed

**NTP** Not Listed

|   |                          |                          |                         |
|---|--------------------------|--------------------------|-------------------------|
| <b>California (Prop 65):</b> Not Listed | <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: Testing showed no irritation  
 Serious eye damage, irritation-rabbit: mild eye irritation

Synergistic effects: No data available  
 Aspiration hazard: No data available

RTECS #: RA6115000

**HEPTANE**

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.

**TOXICITY**

| 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

**CARCINOGENICITY**

**IARC** Not Listed

**NTP** Not Listed

|   |                          |                          |                         |
|---|--------------------------|--------------------------|-------------------------|
| <b>California (Prop 65):</b> Not Listed | <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: Testing showed no irritation  
 Serious eye damage, irritation-rabbit: mild eye irritation

Synergistic effects: No data available  
 Aspiration hazard: No data available

RTECS #: MI7700000

**ETHYL TERT-BUTYL ETHER**

Acute exposures may cause respiratory tract irritation. May cause nausea, dizziness, and headache. Chronic inhalation may lead to decreased pulmonary function. Prolonged or repeated exposure affects the nervous system. This has been shown to cause testicular lesions in rat inhalation studies. In a human inhalation study, there were slight but significant decreases in the measures of pulmonary function. Chemical has not been thoroughly investigated.

**TOXICITY**

| Type Of Dose | Specie | Result | Type Of Dose | Specie | Result | Type Of Dose | Specie | Result |
|--------------|--------|--------|--------------|--------|--------|--------------|--------|--------|
|--------------|--------|--------|--------------|--------|--------|--------------|--------|--------|



|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
|--------------------------------|---|-----------------------|

|   |        |                          |                           |  |            |                        |                         |                       |
|---|--------|--------------------------|---------------------------|--|------------|------------------------|-------------------------|-----------------------|
| LD <sub>50</sub> (oral)   | Rat    | >5 g/kg                  | LD <sub>50</sub> (dermal) | Rabbit   | >2 g/kg    | LC <sub>50</sub> (inh) | Rat<br>(4 hours)        | 5.8 g/M <sup>3</sup>  |
| Specific organ toxicity, single exposure: No data available   |        |                          |                           | 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><br>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: No data available  |        |                          |                           | Teratogenicity: No data available                              |            |                        |                         |                       |
| Skin Corrosion/irritation: Skin-rabbit: skin irritation   |        |                          |                           | Serious eye damage, irritation-rabbit: moderate eye irritation |            |                        |                         |                       |
| Synergistic effects: No data available  |        |                          |                           | Aspiration hazard: No data available                           |            |                        |                         |                       |
| RTECS #: KN4730200  |        |                          |                           |  |            |                        |                         |                       |
| <b>TERT-AMYL METHYL ETHER</b>   |        |                          |                           |  |            |                        |                         |                       |
| Acute exposures may cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed. May cause respiratory tract irritation. Chronic exposure may cause neurological degradation and/or abnormalities. Chemical has not been thoroughly investigated.   |        |                          |                           |  |            |                        |                         |                       |
| <b>TOXICITY</b>   |        |                          |                           |  |            |                        |                         |                       |
| Type Of Dose  | Specie | Result                   | Type Of Dose              | Specie   | Result     | Type Of Dose           | Specie                  | Result                |
| LD <sub>50</sub> (oral)   | Rat    | 1.6 gm/kg                | LD <sub>50</sub> (dermal) | Rabbit   | >3.16 g/kg | LC <sub>50</sub> (inh) | Rat<br>(4 hours)        | 31.8 g/M <sup>3</sup> |
| Specific organ toxicity, single exposure: may cause drowsiness or dizziness   |        |                          |                           | 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><br>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: inhalation toxicity in rats, including embryonic and fetal effects including death   |        |                          |                           | Teratogenicity: No data available                              |            |                        |                         |                       |
| Skin Corrosion/irritation: Skin-rabbit: no skin irritation  |        |                          |                           | Serious eye damage, irritation-rabbit: no eye irritation       |            |                        |                         |                       |
| Synergistic effects: No data available  |        |                          |                           | Aspiration hazard: No data available                           |            |                        |                         |                       |
| RTECS #: EK4421000  |        |                          |                           |  |            |                        |                         |                       |
| <b>ETHYL ALCOHOL</b>  |        |                          |                           |  |            |                        |                         |                       |
| Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause respiratory tract irritation. May cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation. Long term exposure may cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects. Prolonged exposure may cause liver, kidney, and heart damage. |        |                          |                           |  |            |                        |                         |                       |
| <b>TOXICITY</b>   |        |                          |                           |  |            |                        |                         |                       |
| Type Of Dose  | Specie | Result                   | Type Of Dose              | Specie   | Result     | Type Of Dose           | Specie                  | Result                |

|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
|--------------------------------|---|-----------------------|

|  |        |                          |                           |  |         |                        |                         |            |
|--|--------|--------------------------|---------------------------|--|---------|------------------------|-------------------------|------------|
| LD <sub>50</sub> (oral)  | Rat    | 7.06 g/kg                | LD <sub>50</sub> (dermal) | Rabbit   | No Data | LC <sub>50</sub> (inh) | Rat (10 hours)          | 20,000 ppm |
| Specific organ toxicity, single exposure: No data available  |        |                          |                           | Specific organ toxicity, repeated exposure: Liver damage   |         |                        |                         |            |
| <b>CARCINOGENICITY</b>   |        |                          |                           |  |         |                        |                         |            |
| <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: Human oral effects on newborn including retardation and addiction   |        |                          |                           | Teratogenicity: No data available  |         |                        |                         |            |
| Skin Corrosion/irritation: Skin-rabbit: skin irritation  |        |                          |                           | Serious eye damage, irritation-rabbit: mild eye irritation, Draize Test  |         |                        |                         |            |
| Synergistic effects: No data available   |        |                          |                           | Aspiration hazard: No data available   |         |                        |                         |            |
| RTECS #: KQ6300000   |        |                          |                           |  |         |                        |                         |            |
| <b>HEXANE</b>  |        |                          |                           |  |         |                        |                         |            |
| 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.  |        |                          |                           |  |         |                        |                         |            |
| <b>TOXICITY</b>  |        |                          |                           |  |         |                        |                         |            |
| Type Of Dose   | Specie | Result                   | Type Of Dose              | Specie   | Result  | Type Of Dose           | Specie                  | Result     |
| 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>BENZENE</b>   |        |                          |                           |  |         |                        |                         |            |
| Acute inhalation effects may cause respiratory tract irritation drowsiness, unconsciousness, and central nervous system depression. Potential symptoms of overexposure by inhalation are dizziness, headache, vomiting, visual disturbances, staggering gait, hilarity, fatigue, and other symptoms of CNS depression. |        |                          |                           |  |         |                        |                         |            |

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|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
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Chronic exposures may cause bone marrow abnormalities with damage to blood forming tissues. May cause anemia and other blood cell abnormalities. Chronic exposure to benzene has been associated with an increased incidence of leukemia and multiple myeloma (tumor composed of cells of the type normally found in the bone marrow). This substance has caused adverse reproductive and fetal effects in laboratory animals.

| Toxicity                |        |           |                           |        |           |                        |                 |           |
|-------------------------|--------|-----------|---------------------------|--------|-----------|------------------------|-----------------|-----------|
| Type Of Dose            | Specie | Result    | Type Of Dose              | Specie | Result    | Type Of Dose           | Specie          | Result    |
| LD <sub>50</sub> (oral) | Rat    | 930 mg/kg | LD <sub>50</sub> (dermal) | Rabbit | 9.4 ml/kg | LC <sub>50</sub> (inh) | Mouse (4 hours) | 9,980 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. |
|---|--|

**CARCINOGENICITY**

|             |                                |                               |   |
|-------------|--------------------------------|-------------------------------|---|
| <b>IARC</b> | Sufficient evidence in animals | Sufficient evidence in humans | Group 1: classifiable as a human carcinogen |
|-------------|--------------------------------|-------------------------------|---|

**NTP** Carcinogen

|  |   |   |                                |
|--|---|---|--------------------------------|
| <b>California (Prop 65):</b><br>Listed as carcinogen | <b>NIOSH:</b> Potential Occupational Carcinogen | <b>ACGIH:</b> A1 - Confirmed human carcinogen | <b>OSHA:</b> Select Carcinogen |
|--|---|---|--------------------------------|

**MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS**

|  |   |
|--|---|
| Respiratory or Skin sensitization: No data available | Germ cell mutagenicity: lab testing shows mutagenic effects (in vivo). Genotoxicity in humans (in vivo) lymphocyte. Genotoxic damage shown in mice. |
|--|---|

|  |   |
|--|---|
| Reproductive toxicity: inhalation toxicity in mouse, including embryonic and fetal effects including death | Teratogenicity: Rat inhalation include effects include stunted fetus and death<br>Mouse inhalation include effects include cytological changes and abnormalities to blood and lymphatic system. |
|--|---|

|   |   |
|---|---|
| Skin Corrosion/irritation: will cause skin irritation | Serious eye damage, irritation -rabbit: mild eye irritation |
|---|---|

|  |   |
|--|---|
| Synergistic effects: damage to bone marrow | Aspiration hazard: May be fatal if swallowed and enters airway. |
|--|---|

RTECS #: CY1400000

**TRIMETHYL BENZENE**

Acute inhalation effects respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May cause drowsiness, unconsciousness, and central nervous system depression. Vapors may cause dizziness or suffocation. Prolonged or repeated skin contact may cause dermatitis. May cause anemia and other blood cell abnormalities. Prolonged exposure may produce a narcotic effect. Prolonged or repeated exposure may cause nausea, dizziness, and headache.

**TOXICITY**

| Type Of Dose            | Specie | Result    | Type Of Dose              | Specie | Result  | Type Of Dose           | Specie        | Result  |
|-------------------------|--------|-----------|---------------------------|--------|---------|------------------------|---------------|---------|
| LD <sub>50</sub> (oral) | Rat    | 8.97 g/kg | LD <sub>50</sub> (dermal) | Rabbit | No Data | LC <sub>50</sub> (inh) | Rat (4 hours) | No Data |

|   |   |
|---|---|
| Specific organ toxicity, single exposure: No data available | Specific organ toxicity, repeated exposure: No data available |
|---|---|

**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 |
|---|--------------------------|--------------------------|-------------------------|

|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
|--------------------------------|---|-----------------------|

| <b>MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS</b> |  |
|--|--|
| Respiratory or Skin sensitization: No data available         | Germ cell mutagenicity: test performed on rats showed negative results |
| Reproductive toxicity: No data available                     | 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 #: DC3220000   |  |

***1,2,4 TRIMETHYL BENZENE***

Acute inhalation effects respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May cause drowsiness, unconsciousness, and central nervous system depression. Vapors may cause dizziness or suffocation. Prolonged or repeated skin contact may cause dermatitis. May cause anemia and other blood cell abnormalities. Prolonged exposure may produce a narcotic effect. Prolonged or repeated exposure may cause nausea, dizziness, and headache.

| <b>TOXICITY</b>   |        |          |                           |   |         |                        |               |                     |
|---|--------|----------|---------------------------|---|---------|------------------------|---------------|---------------------|
| Type Of Dose  | Specie | Result   | Type Of Dose              | Specie  | Result  | Type Of Dose           | Specie        | Result              |
| LD <sub>50</sub> (oral)                                     | Rat    | 5.0 g/kg | LD <sub>50</sub> (dermal) | Rabbit  | No Data | LC <sub>50</sub> (inh) | Rat (4 hours) | 18 g/M <sup>3</sup> |
| Specific organ toxicity, single exposure: No data available |        |          |                           | Specific organ toxicity, repeated exposure: No data available |         |                        |               |                     |

**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: test performed on rats showed negative results |
| Reproductive toxicity: No data available             | 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 #: DC3325000                                   |  |

***CUMENE***

Cumene may cause irritation of the skin and eyes. It may also cause dizziness, drowsiness, slight incoordination, and unconsciousness. At very high concentrations, it may cause narcotic symptoms. Prolonged or repeated exposure to Cumene may cause skin rash.

| <b>TOXICITY</b>  |        |          |                           |   |         |                        |               |                     |
|--|--------|----------|---------------------------|---|---------|------------------------|---------------|---------------------|
| Type Of Dose   | Specie | Result   | Type Of Dose              | Specie  | Result  | Type Of Dose           | Specie        | Result              |
| LD <sub>50</sub> (oral)  | Rat    | 1.4 g/kg | LD <sub>50</sub> (dermal) | Rabbit  | No Data | LC <sub>50</sub> (inh) | Rat (4 hours) | 39 g/M <sup>3</sup> |
| Specific organ toxicity, single exposure: May cause respiratory irritation |        |          |                           | Specific organ toxicity, repeated exposure: No data available |         |                        |               |                     |

**CARCINOGENICITY**

|             |            |  |  |
|-------------|------------|--|--|
| <b>IARC</b> | Not Listed |  |  |
| <b>NTP</b>  | Not Listed |  |  |

|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
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|  |        |                                |                           |  |            |   |               |                     |
|--|--------|--------------------------------|---------------------------|--|------------|---|---------------|---------------------|
| <b>California (Prop 65):</b><br>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: Testing showed no sensitization   |        |                                |                           | Germ cell mutagenicity: test performed on rats showed negative results |            |   |               |                     |
| Reproductive toxicity: No data available   |        |                                |                           | Teratogenicity: No data available                                      |            |   |               |                     |
| Skin Corrosion/irritation: Testing showed no irritation  |        |                                |                           | Serious eye damage, irritation-Testing showed no irritation            |            |   |               |                     |
| Synergistic effects: No data available   |        |                                |                           | Aspiration hazard: May be fatal if swallowed and enters airway.        |            |   |               |                     |
| RTECS #: GR8575000   |        |                                |                           |  |            |   |               |                     |
| <b>CYCLOHEXANE</b>   |        |                                |                           |  |            |   |               |                     |
| May cause respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness. Prolonged or repeated skin contact may cause defatting and dermatitis.  |        |                                |                           |  |            |   |               |                     |
| <b>TOXICITY</b>  |        |                                |                           |  |            |   |               |                     |
| Type Of Dose   | Specie | Result                         | Type Of Dose              | Specie   | Result     | Type Of Dose                              | Specie        | Result              |
| LD <sub>50</sub> (oral)  | Rat    | 5 g/kg                         | LD <sub>50</sub> (dermal) | Rabbit   | >180 g/kg  | LC <sub>50</sub> (inh)                    | Rat (4 hours) | >9,500 ppm          |
| Specific organ toxicity, single exposure: May cause drowsiness or dizziness  |        |                                |                           | 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 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: 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: May be fatal if swallowed and enters airway.        |            |   |               |                     |
| RTECS #: GU6300000   |        |                                |                           |  |            |   |               |                     |
| <b>ETHYL BENZENE</b>   |        |                                |                           |  |            |   |               |                     |
| Exposure to ethyl benzene may cause irritation of the skin and mucous membranes. It may also cause transient eye irritation at concentrations of 200 ppm. Breathing very high levels can cause dizziness and throat and eye irritation. Breathing lower levels has resulted in hearing effects and kidney damage in animals. |        |                                |                           |  |            |   |               |                     |
| <b>TOXICITY</b>  |        |                                |                           |  |            |   |               |                     |
| Type Of Dose   | Specie | Result                         | Type Of Dose              | Specie   | Result     | Type Of Dose                              | Specie        | Result              |
| LD <sub>50</sub> (oral)  | Rat    | 3.5 g/kg                       | LD <sub>50</sub> (dermal) | Rabbit   | 17.8 mL/kg | LC <sub>50</sub> (inh)                    | Rat (4 hours) | 55 g/M <sup>3</sup> |
| Specific organ toxicity, single exposure: No data available  |        |                                |                           | Specific organ toxicity, repeated exposure: No data available          |            |   |               |                     |
| <b>CARCINOGENICITY</b>   |        |                                |                           |  |            |   |               |                     |
| <b>IARC</b>  |        | Sufficient evidence in animals |                           | Inadequate evidence in humans  |            | Group 2B: Possibly carcinogenic to humans |               |                     |
| <b>NTP</b>   |        | Not Listed                     |                           |  |            |   |               |                     |

|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
|--------------------------------|---|-----------------------|

|  |                                       |   |  |
|--|---------------------------------------|---|--|
| <b>California (Prop 65):</b><br>Listed as carcinogen | <b>NIOSH:</b> Occupational Carcinogen | <b>ACGIH:</b> A4-Not Classifiable As Human Carcinogen | <b>OSHA:</b><br>Possible Select Carcinogen |
|--|---------------------------------------|---|--|

| <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: No data available                 |  | Serious eye damage, irritation-rabbit: No data available |  |
| Synergistic effects: No data available                       |  | Aspiration hazard: No data available                     |  |
| RTECS #: DA0700000   |  |  |  |

***NAPHTHALENE***

Inhalation may cause respiratory tract irritation. Hemolytic anemia (destruction of red blood cells) is the primary health concern for humans exposed to naphthalene for either short or long periods of time. Other effects may include nausea, profuse perspiration, vomiting, kidney damage and liver damage. Chronic exposure may cause lung damage.

| <b>TOXICITY</b>   |        |           |                           |   |          |                        |              |         |
|---|--------|-----------|---------------------------|---|----------|------------------------|--------------|---------|
| Type Of Dose  | Specie | Result    | Type Of Dose              | Specie  | Result   | Type Of Dose           | Specie       | Result  |
| LD <sub>50</sub> (oral)                                     | Rat    | 490 mg/kg | LD <sub>50</sub> (dermal) | Rabbit  | >20 g/kg | LC <sub>50</sub> (inh) | Rat (1 hour) | No Data |
| Specific organ toxicity, single exposure: No data available |        |           |                           | Specific organ toxicity, repeated exposure: No data available |          |                        |              |         |

| <b>CARCINOGENICITY</b> |   |                               |   |
|------------------------|---|-------------------------------|---|
| <b>IARC</b>            | Sufficient evidence in animals                            | Inadequate evidence in humans | Group 2B: Possibly carcinogenic to humans |
| <b>NTP</b>             | Listed as reasonably anticipated to be a human carcinogen |                               |   |

|  |                          |                          |                         |
|--|--------------------------|--------------------------|-------------------------|
| <b>California (Prop 65):</b><br>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: 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 #: QJ0525000   |  |  |  |

***STYRENE***

Styrene can cause eye and upper respiratory irritation at concentrations of over 100 ppm; when concentrations reach over 350 ppm, irritation is strong and neurological impairment is observed. Central nervous system depression (tiredness, headache and dizziness) has been observed at concentrations between 200-700 ppm.

| <b>TOXICITY</b>   |        |           |                           |   |         |                        |              |                       |
|---|--------|-----------|---------------------------|---|---------|------------------------|--------------|-----------------------|
| Type Of Dose  | Specie | Result    | Type Of Dose              | Specie  | Result  | Type Of Dose           | Specie       | Result                |
| LD <sub>50</sub> (oral)                                     | Rat    | 2.65 g/kg | LD <sub>50</sub> (dermal) | Rabbit  | No Data | LC <sub>50</sub> (inh) | Rat (1 hour) | 11.8 g/M <sup>3</sup> |
| Specific organ toxicity, single exposure: No data available |        |           |                           | Specific organ toxicity, repeated exposure: No data available |         |                        |              |                       |

| <b>CARCINOGENICITY</b> |   |                               |   |
|------------------------|---|-------------------------------|---|
| <b>IARC</b>            | Sufficient evidence in animals                            | Inadequate evidence in humans | Group 2B: Possibly carcinogenic to humans |
| <b>NTP</b>             | Listed as reasonably anticipated to be a human carcinogen |                               |   |

|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
|--------------------------------|---|-----------------------|

|  |                          |                          |                         |
|--|--------------------------|--------------------------|-------------------------|
| <b>California (Prop 65):</b><br>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: Lab experiments have shown mutagenic effects. |
| 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 #: WL3675000   |   |

**SECTION 12 \* ECOLOGICAL INFORMATION**

**DIESEL 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**

Readily biodegradable in the environment. The presence of ethanol in this product may impede the biodegradation of benzene, toluene, ethyl benzene and xylene in groundwater, resulting in elongated plumes of these constituents.

**BIOACCUMULATIVE POTENTIAL**

|                     |         |     |         |
|---------------------|---------|-----|---------|
| Log P <sub>ow</sub> | 3 - 6.0 | BCF | No Data |
|---------------------|---------|-----|---------|

**MOBILITY IN SOIL**

|  |         |
|--|---------|
| K <sub>oc</sub> (Soil/water Partition Coefficient) | No Data |
|--|---------|

**GASOLINE 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> | Microtox | 11.5 mg/L<br>48 Hours |

**PERSISTENCE AND DEGRADABILITY**

Readily biodegradable in the environment. The presence of ethanol in this product may impede the biodegradation of benzene, toluene, ethyl benzene and xylene in groundwater, resulting in elongated plumes of these constituents.

**BIOACCUMULATIVE POTENTIAL**

|                     |           |     |         |
|---------------------|-----------|-----|---------|
| Log P <sub>ow</sub> | 2.1 - 6.0 | BCF | No Data |
|---------------------|-----------|-----|---------|

**MOBILITY IN SOIL**

|  |         |
|--|---------|
| K <sub>oc</sub> (Soil/water Partition Coefficient) | No Data |
|--|---------|

**TOLUENE TOXICITY**

| Type Of Dose     | Specie      | Result                | Type Of Dose     | Specie     | Result                |
|------------------|-------------|-----------------------|------------------|------------|-----------------------|
| LC <sub>50</sub> | Goldfish    | 13 mg/L<br>96 Hours   | EC <sub>50</sub> | Water Flea | 11.5 mg/L<br>48 Hours |
| EC <sub>50</sub> | Green algae | >433 mg/L<br>72 Hours | EC <sub>50</sub> | Microtox   | 19.7 mg/L<br>48 Hours |

**BIOACCUMULATIVE POTENTIAL**

|                     |      |     |       |
|---------------------|------|-----|-------|
| Log P <sub>ow</sub> | 2.65 | BCF | 8.317 |
|---------------------|------|-----|-------|

**XYLENE TOXICITY**

| Type Of Dose     | Specie       | Result | Type Of Dose     | Specie     | Result   |
|------------------|--------------|--------|------------------|------------|----------|
| LC <sub>50</sub> | Striped Bass | 2 mg/L | LC <sub>50</sub> | Water Flea | 0.6 mg/L |

|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
|--------------------------------|---|-----------------------|

|                     |             |                   |                  |          |                      |
|---------------------|-------------|-------------------|------------------|----------|----------------------|
|                     |             |                   |                  |          | 48 Hours             |
| EC <sub>50</sub>    | Green algae | 72 mg/L<br>14 day | EC <sub>50</sub> | Microtox | 8.4 µg/L<br>48 Hours |
| Log P <sub>ow</sub> |             | 2.77 - 3.15       | BCF              |          | No Data              |

**ISOPROPYL ETHER**

**TOXICITY**

| Type Of Dose        | Specie         | Result               | Type Of Dose     | Specie     | Result                |
|---------------------|----------------|----------------------|------------------|------------|-----------------------|
| LC <sub>50</sub>    | Fathead Minnow | 91.7 mg/L<br>96 Hour | EC <sub>50</sub> | Water Flea | 190 mg/L<br>48 Hours  |
| EC <sub>50</sub>    | Green algae    | No Data              | EC <sub>50</sub> | Microtox   | 500 mg/L<br>5 minutes |
| Log P <sub>ow</sub> |                |                      |                  | 1.52       |                       |

**ETHYL ALCOHOL**

**TOXICITY**

| Type Of Dose        | Specie        | Result               | Type Of Dose     | Specie     | Result                 |
|---------------------|---------------|----------------------|------------------|------------|------------------------|
| LC <sub>50</sub>    | Rainbow trout | 12.9 g/L<br>96 Hours | EC <sub>50</sub> | Water Flea | 9.2 g/L<br>48 Hours    |
| EC <sub>50</sub>    | Green algae   | No Data              | EC <sub>50</sub> | Microtox   | 34.6 g/L<br>30 minutes |
| Log P <sub>ow</sub> |               |                      |                  | -0.32      |                        |

**NONANE**

**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 |

**BIOACCUMULATIVE POTENTIAL**

|  |      |     |         |
|--|------|-----|---------|
| Log P <sub>ow</sub>                                | 5.65 | BCF | No Data |
| K <sub>oc</sub> (Soil/water Partition Coefficient) |      |     | No Data |

**HEXANE**

**TOXICITY**

| Type Of Dose     | Specie         | Result               | Type Of Dose     | Specie     | Result                |
|------------------|----------------|----------------------|------------------|------------|-----------------------|
| LC <sub>50</sub> | Fathead Minnow | 2.5 mg/L<br>96 hours | EC <sub>50</sub> | Water Flea | 3.87 mg/L<br>48 Hours |
| EC <sub>50</sub> | Green algae    | 12.8 g/L<br>3 hours  | EC <sub>50</sub> | Microtox   | No Data               |

**BIOACCUMULATIVE POTENTIAL**

|                     |     |     |         |
|---------------------|-----|-----|---------|
| Log P <sub>ow</sub> | 3.9 | BCF | No Data |
|---------------------|-----|-----|---------|

**BENZENE**

**TOXICITY**

| Type Of Dose     | Specie         | Result                 | Type Of Dose     | Specie     | Result              |
|------------------|----------------|------------------------|------------------|------------|---------------------|
| LC <sub>50</sub> | Fathead Minnow | 15-32 mg/L<br>96 hours | EC <sub>50</sub> | Water Flea | 10 mg/L<br>48 Hours |
| EC <sub>50</sub> | Green algae    | 29 mg/L<br>72 Hours    | EC <sub>50</sub> | Microtox   | No Data             |

**BIOACCUMULATIVE POTENTIAL**

|                     |      |     |       |
|---------------------|------|-----|-------|
| Log P <sub>ow</sub> | 1.83 | BCF | 4.265 |
|---------------------|------|-----|-------|



|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
|--------------------------------|---|-----------------------|

| <i>HEPTANE</i>                                     |                      |                        |                  |            |                          |
|--|----------------------|------------------------|------------------|------------|--------------------------|
| TOXICITY   |                      |                        |                  |            |                          |
| Type Of Dose                                       | Specie               | Result                 | Type Of Dose     | Specie     | Result                   |
| LC <sub>50</sub>                                   | Goldfish<br>24 hours | 4 mg/L                 | EC <sub>50</sub> | Water Flea | 1.5 mg/L<br>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    |                          |
| <i>1,2,4 TRIMETHYL BENZENE</i>                     |                      |                        |                  |            |                          |
| TOXICITY   |                      |                        |                  |            |                          |
| Type Of Dose                                       | Specie               | Result                 | Type Of Dose     | Specie     | Result                   |
| LC <sub>50</sub>                                   | Fathead Minnow       | 7.72 mg/L<br>96 hours  | EC <sub>50</sub> | Water Flea | 6.14 mg/L<br>48 Hours    |
| EC <sub>50</sub>                                   | Green algae          | No Data                | EC <sub>50</sub> | Microtox   | No Data                  |
| BIOACCUMULATIVE POTENTIAL                          |                      |                        |                  |            |                          |
| Log P <sub>ow</sub>                                |                      | 3.63                   | BCF              |            | 120.2                    |
| <i>CUMENE</i>                                      |                      |                        |                  |            |                          |
| TOXICITY   |                      |                        |                  |            |                          |
| Type Of Dose                                       | Specie               | Result                 | Type Of Dose     | Specie     | Result                   |
| LC <sub>50</sub>                                   | Rainbow trout        | 4.8 mg/L<br>96 Hours   | EC <sub>50</sub> | Water Flea | 0.6 mg/L<br>48 Hours     |
| EC <sub>50</sub>                                   | Green algae          | 2.6 mg/L<br>72 Hours   | EC <sub>50</sub> | Microtox   | 0.89 mg/L<br>5 Min       |
| Log P <sub>ow</sub>                                |                      |                        |                  | 3.55       |                          |
| <i>CYCLOHEXANE</i>                                 |                      |                        |                  |            |                          |
| TOXICITY   |                      |                        |                  |            |                          |
| Type Of Dose                                       | Specie               | Result                 | Type Of Dose     | Specie     | Result                   |
| LC <sub>50</sub>                                   | Fathead Minnow       | 32-93 mg/L<br>96 hours | EC <sub>50</sub> | Water Flea | 0.6 mg/L<br>48 Hours     |
| EC <sub>50</sub>                                   | Green algae          | >500 mg/L<br>72 Hours  | EC <sub>50</sub> | Microtox   | 85.5 mg/L<br>5 Min       |
| Log P <sub>ow</sub>                                |                      |                        |                  | 3.44       |                          |
| <i>ETHYL BENZENE</i>                               |                      |                        |                  |            |                          |
| TOXICITY   |                      |                        |                  |            |                          |
| Type Of Dose                                       | Specie               | Result                 | Type Of Dose     | Specie     | Result                   |
| LC <sub>50</sub>                                   | Sheepshead minnow    | 88 mg/L<br>96 hours    | EC <sub>50</sub> | Water Flea | 1.8-2.4 mg/L<br>48 Hours |
| EC <sub>50</sub>                                   | Green algae          | 4.6 mg/L<br>72 Hours   | EC <sub>50</sub> | Microtox   | 9.68 mg/L<br>30 Min      |
| BIOACCUMULATIVE POTENTIAL                          |                      |                        |                  |            |                          |
| Log P <sub>ow</sub>                                |                      | 3.118                  | BCF              |            | No Data                  |
| <i>NAPHTHALENE</i>                                 |                      |                        |                  |            |                          |
| TOXICITY   |                      |                        |                  |            |                          |
| Type Of Dose                                       | Specie               | Result                 | Type Of Dose     | Specie     | Result                   |
| LC <sub>50</sub>                                   | Fathead Minnow       | 1-6.5 mg/L<br>96 hours | EC <sub>50</sub> | Water Flea | 2.16 mg/L<br>48 Hours    |
| EC <sub>50</sub>                                   | Green algae          | 0.4 mg/L               | EC <sub>50</sub> | Microtox   | 0.93 mg/L                |

|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
|--------------------------------|---|-----------------------|

|  |  |          |  |  |        |
|--|--|----------|--|--|--------|
|  |  | 96 Hours |  |  | 30 Min |
|--|--|----------|--|--|--------|

| BIOACCUMULATIVE POTENTIAL |  |     |     |  |      |
|---------------------------|--|-----|-----|--|------|
| Log P <sub>ow</sub>       |  | 3.3 | BCF |  | 85.1 |

**STYRENE**

**TOXICITY**

| Type Of Dose     | Specie         | Result                | Type Of Dose     | Specie     | Result               |
|------------------|----------------|-----------------------|------------------|------------|----------------------|
| LC <sub>50</sub> | Fathead Minnow | 4 mg/L<br>96 hours    | EC <sub>50</sub> | Water Flea | 4.7 mg/L<br>48 Hours |
| EC <sub>50</sub> | Green algae    | 0.72 mg/L<br>96 Hours | EC <sub>50</sub> | Microtox   | 5.4 mg/L<br>5 Min    |

|                     |  |  |  |  |      |
|---------------------|--|--|--|--|------|
| Log P <sub>ow</sub> |  |  |  |  | 2.95 |
|---------------------|--|--|--|--|------|

**SECTION 13 \* DISPOSAL CONSIDERATIONS**

Not Meant To Be All Inclusive - Check Local, State, And Federal Laws And Regulations

Maximize product recovery for reclaim and reuse. Implement waste minimization principles. EPA U.S. Waste Codes: "Ignitable hazardous waste" (D001), unless proven otherwise. Use approved treatment, transporters, and disposal sites in compliance with all laws.


Waste Disposal Method: Should not be released into the environment.

Contaminated Packaging: Dispose of in accordance with local regulations.

US EPA Waste Number: D018 and D001

**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 1268  | UN 1268                                       | UN 1268                                       |
| UN Proper Shipping Name | Petroleum Products<br>(Gasoline, Diesel Fuel)  | Petroleum Products<br>(Gasoline, Diesel Fuel) | Petroleum Products<br>(Gasoline, Diesel Fuel) |
| Hazard Class            | 3  | 3   | 3   |
| Placard/Label           |  |   |   |
| Environmental Hazard    | Yes  | Yes   | Yes   |
| Packing Group           | II   | II  | II  |

**SECTION 15 ) REGULATORY INFORMATION**

| Agency                           | Listing  |
|----------------------------------|--|
|                                  | Guidance only, consult specific regulations                    |
| OSHA                             | All ingredients are listed as hazardous under 29 CFR 1910.1200 |
| CERCLA RQ's<br>(40 CFR Part 102) | Benzene – 10 pounds  |
|                                  | Cumene - 5,000 pounds  |
|                                  | Cyclohexane - 1,000 pounds                                     |
|                                  | Naphthalene – 100 pounds                                       |
|                                  | Styrene - 1,000 pounds   |
|                                  | Xylene - 100 pounds  |
|                                  | Ethyl Benzene - 1,000 pounds                                   |
|                                  | Toluene - 1,000 pounds   |
|                                  | Hexane – 5,000 pounds  |
| TSCA 8(a)                        | Naphthalene  |
|                                  | n-Nonane   |
|                                  | n-Heptane  |
| TSCA 8(b)                        | All components are listed or exempted                          |

|  |   |                |
|--|---|----------------|
| SARA (40 CFR Part 355) TPQ's   | None of the ingredients are listed  |                |
| SARA 302/304/311/312 extremely hazardous substances                        | None of the ingredients are listed  |                |
| SARA 302/304 emergency planning and notification                           | None of the ingredients are listed  |                |
| SARA 302/304/311/312 hazardous chemicals                                   | Gasoline, natural; Xylene; Toluene; n-Hexane; Naphthalene; 1,2,4-Trimethylbenzene; Ethylbenzene; Benzene; Nonane; Heptane   |                |
| RCRA   | Benzene - U019  | Hexane - U056  |
|  | Naphthalene – U165  |                |
|  | Xylene - U239   | Toluene - U220 |
| State Regulations: Massachusetts, New Jersey, and Pennsylvania             | Xylene Toluene, Hexane, Benzene, Ethyl benzene ,1,2,4 Trimethyl Benzene, and Naphthalene  |                |
| New York - all listed except 1,2,4 Trimethyl Benzene                       |   |                |
| SARA 311/312 SDS distribution - chemical inventory - hazard identification | Diesel: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Gasoline, natural: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Xylene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Toluene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; n-Hexane: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Naphthalene: Fire hazard, Immediate(acute) health hazard, Delayed (chronic) health hazard; 1,2,4-Trimethylbenzene: Fire hazard, Delayed (chronic) health hazard; Ethylbenzene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Benzene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Nonane: Fire hazard, Immediate (acute) health hazard; n-Heptane: Fire hazard |                |
| EPA Form R Toxic Chemical Release Inventory                                | Toluene, Xylene, Hexane, 1,2,4 Trimethyl Benzene, Benzene, Ethyl benzene and Naphthalene  |                |
| Clean Water Act (CWA) 307  | Toluene, Benzene, Ethylbenzene and Naphthalene  |                |
| Clean Water Act (CWA) 311  | Xylene, Toluene, Benzene, Ethylbenzene and Naphthalene  |                |
| Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)               | 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 style="margin-top: 10px;"><b>NFPA LABEL</b></p> | <div style="text-align: center;">  </div> <p style="text-align: center; margin-top: 10px;"><b>HMIS III LABEL</b></p> <p style="margin-top: 10px;"><u>Personal Protection Index</u><br/>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> |
|--|---|

|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>MATERIAL NAME:</b> Transmix |  | <b>SDS #:</b> MMP-002 |
|--------------------------------|---|-----------------------|

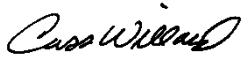
| Acronym List   |  |   |
|--|--|---|
| °F=degrees Fahrenheit                                    | °C=degrees Celsius   | ACGIH= American Conference of Industrial Hygienists                           |
| APR=Air Purifying Respirator                             | BCF= Bioconcentration Factor                                 | BuAc=Butyl Acetate  |
| CANUTEC= Canadian Transport Emergency Centre             | 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                                 | N.O.S=Not Otherwise Specified   |
| 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  | SETIQ= Emergency Transportation System for the Chemical Industry; Mexico      |
| 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:** Reformatted to meet GHS Requirements

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SDS DEVELOPER:       DATE: 05/30/14  
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