



Safety Data Sheet

Material Name: Transmix

US GHS

Synonyms: None

*** Section 1 - Product and Company Identification ***

Manufacturer Information

Hess Corporation
1 Hess Plaza
Woodbridge, NJ 07095-0961

Phone: 732-750-6000 Corporate EHS
Emergency # 800-424-9300 CHEMTREC
www.hess.com (Environment, Health, Safety Internet Website)

*** Section 2 - Hazards Identification ***

GHS Classification:

Flammable Liquid - Category 2
Skin Corrosion/Irritation - Category 2
Eye Damage/Irritation - Category 2
Germ Cell Mutagenicity - Category 1B
Carcinogenicity - Category 1A
Reproductive Toxicity - Category 2
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3
Specific Target Organ Systemic Toxicity (STOT) - Repeat Exposure Category 1
Aspiration Hazard - Category 1
Hazardous to the Aquatic Environment Acute - Category 1
Hazardous to the Aquatic Environment Chronic - Category 1

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

Danger

Hazard Statements

Highly flammable liquid and vapour.
Causes skin irritation.
Causes serious eye irritation.
May cause genetic defects.
May cause cancer.
Suspected of damaging fertility or the unborn child.
May cause drowsiness or dizziness.
Causes damage to organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.

Safety Data Sheet

Material Name: Transmix

Very toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

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

Response

IF ON SKIN (or hair): Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs, get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
IF exposed or concerned: Get medical advice/attention.
In case of fire: Use dry chemical, foam or carbon dioxide.
Collect spillage.

Storage

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

Disposal

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

* * * Section 3 - Composition / Information on Ingredients * * *

CAS #	Component	Percent
68476-34-6	Fuels, diesel, no. 2	0-100
86290-81-5	Gasoline, motor fuel	0-100
108-88-3	Toluene	0-30
96-14-0	3-Methylpentane	5-25
1330-20-7	Xylenes (o-, m-, p- isomers)	0-25
111-65-9	Octane	0-18.5

Safety Data Sheet

Material Name: Transmix

64-17-5	Ethyl alcohol	0-10
142-82-5	n-Heptane	1-5
95-63-6	1,2,4-trimethyl-benzene	0-6
109-66-0	Pentane	1-5
98-82-8	Cumene	0-5
100-41-4	Ethylbenzene	0-5
71-43-2	Benzene	0-4.9
91-20-3	Naphthalene	1-3
111-84-2	Nonane	1-3
110-82-7	Cyclohexane	0-3
110-54-3	Hexane	0-3

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if pain or redness continues.

First Aid: Skin

Remove contaminated clothing and shoes. Wash exposed area thoroughly with soap and water. Remove contaminated clothing promptly and launder before reuse. Contaminated leather goods should be discarded. If irritation persists or symptoms described in the SDS develop, seek medical attention. High pressure skin injections are SERIOUS MEDICAL EMERGENCIES. Get immediate medical attention.

First Aid: Ingestion

This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. DO NOT INDUCE VOMITING. Aspiration into the lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea. May cause harmful central nervous system effects, similar to those listed under "inhalation".

First Aid: Inhalation

Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

See Section 9 for Flammability Properties.

Highly flammable liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Safety Data Sheet

Material Name: Transmix

Dangerous· when exposed to heat or flame. Vapors form flammable or explosive mixtures with air at room temperature. Vapor or gas may spread to distant ignition sources (pilot lights, welding equipment, electrical equipment, etc.) and flash back. Vapors may accumulate in low areas. Vapors may concentrate in confined areas. Flowing product can be ignited by self generated static electricity. Use adequate bonding and grounding to prevent static buildup. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire. Irritating or toxic substances may be emitted upon thermal decomposition. For fires involving this material, do not enter any enclosed or confined space without proper protective equipment, which may include NIOSH approved self-contained breathing apparatus with full face mask. Clothing, rags or similar organic material contaminated with this product and stored in a closed space may undergo spontaneous combustion. Transfer to and from commonly bonded and grounded containers.

Hazardous Combustion Products

These products are carbon oxides (CO, CO₂), nitrogen and sulfur oxides (NO_x, SO_x), particulate matter, VOC's.

Extinguishing Media

Use dry chemical, foam or carbon dioxide to extinguish the fire. Consult foam manufacturer for appropriate media, application rates and water/foam ratio. Subsurface application is only recommended where it is known that the fuel contains less than 3% oxygenated blending components. Water can be used to cool fire- exposed containers, structures and to protect personnel.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. If a leak or spill has not ignited; ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Use water to flush spills away from sources of ignition. Do not flush down public sewers.

Collect contaminated fire-fighting water separately. It must not enter the sewage system. Dike area of fire to prevent runoff. Decontaminate emergency personnel and equipment with soap and water.

*** Section 6 - Accidental Release Measures ***
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Recovery and Neutralization

Carefully contain and stop the source of the spill, if safe to do so.

Materials and Methods for Clean-Up

If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dike spilled material or otherwise contain it to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Emergency Measures

Evacuate nonessential personnel and remove or secure all ignition sources.

Safety Data Sheet

Material Name: Transmix

Personal Precautions and Protective Equipment

Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (section 8). Do not touch or walk through spilled material. Tanks, vessels or other confined spaces which have contained product should be freed of vapors before entering. The container should be checked to ensure a safe atmosphere before entry. Empty containers may contain toxic, flammable/combustible or explosive residues or vapors. Do not cut, grind, drill, weld, or reuse empty containers that contained this product. Do not transfer this product to another container unless the container receiving the product is labeled with proper DOT shipping name, hazard class and other information that describes the product and its hazards.

Environmental Precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Gasoline may contain oxygenated blend products (Ethanol, etc.) that are soluble in water and therefore precautions should be taken to protect surface and groundwater sources from contamination. If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Extremely flammable. Review Fire Fighting Measures section before proceeding with clean up.. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g., by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment or drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies.

Prevention of Secondary Hazards

None

*** Section 7 - Handling and Storage ***

Handling Procedures

Do not ingest. Avoid prolonged contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling. Use only in well ventilated locations. Keep away from heat, spark and flames. In case of fire, use water spray, foam, dry chemical or carbon dioxide as described in the Fire Fighting Measures section of the SDS. Do not pressurize, cut, weld, braze, solder, and drill on or near this container. "Empty" container contains residue (liquid and/or vapor) and may explode in heat of a fire.

Use good personal hygiene practices. After handling this product, wash hands before eating, drinking, or using toilet facilities. Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth. For use as a motor fuel only. Do not use as a cleaning solvent or for other non-motor fuel uses. To prevent ingestion and exposure - Do not siphon by mouth to transfer product between containers. Use good personal hygiene practices. After handling this product, wash hands before eating, drinking, or using toilet facilities.

Safety Data Sheet

Material Name: Transmix

Storage Procedures

Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch load" because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices.

Incompatibilities

Reactive with oxidizing agents, reducing agents, acids, alkalis.

*** Section 8 - Exposure Controls / Personal Protection ***
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Component Exposure Limits

Fuels, diesel, no. 2 (68476-34-6)

ACGIH: 100 mg/m³ TWA (inhalable fraction and vapor, as total hydrocarbons, listed under Diesel fuel)
Skin - potential significant contribution to overall exposure by the cutaneous route (listed under Diesel fuel)

Gasoline, motor fuel (86290-81-5)

ACGIH: 300 ppm TWA
500 ppm STEL

Toluene (108-88-3)

ACGIH: 20 ppm TWA
OSHA: 500 ppm Peak (10 minutes)
300 ppm Ceiling
200 ppm TWA
NIOSH: 100 ppm TWA; 375 mg/m³ TWA
150 ppm STEL; 560 mg/m³ STEL

Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: 100 ppm TWA
150 ppm STEL
OSHA: 100 ppm TWA; 435 mg/m³ TWA

Octane (111-65-9)

ACGIH: 300 ppm TWA
OSHA: 500 ppm TWA; 2350 mg/m³ TWA
NIOSH: 75 ppm TWA; 350 mg/m³ TWA
385 ppm Ceiling (15 min); 1800 mg/m³ Ceiling (15 min)

Ethyl alcohol (64-17-5)

ACGIH: 1000 ppm STEL
OSHA: 1000 ppm TWA; 1900 mg/m³ TWA
NIOSH: 1000 ppm TWA; 1900 mg/m³ TWA

Safety Data Sheet

Material Name: Transmix

n-Heptane (142-82-5)

ACGIH: 400 ppm TWA (listed under Heptane, all isomers)
500 ppm STEL (listed under Heptane, all isomers)
OSHA: 500 ppm TWA; 2000 mg/m³ TWA
NIOSH: 85 ppm TWA; 350 mg/m³ TWA
440 ppm Ceiling (15 min); 1800 mg/m³ Ceiling (15 min)

1,2,4-trimethyl-benzene (95-63-6)

NIOSH: 25 ppm TWA; 125 mg/m³ TWA

Pentane (109-66-0)

ACGIH: 600 ppm TWA (listed under Pentane, all isomers)
OSHA: 1000 ppm TWA; 2950 mg/m³ TWA
NIOSH: 120 ppm TWA; 350 mg/m³ TWA
610 ppm Ceiling (15 min); 1800 mg/m³ Ceiling (15 min)

Cumene (98-82-8)

ACGIH: 50 ppm TWA
OSHA: prevent or reduce skin absorption
50 ppm TWA; 245 mg/m³ TWA
NIOSH: 50 ppm TWA; 245 mg/m³ TWA
Potential for dermal absorption

Ethylbenzene (100-41-4)

ACGIH: 20 ppm TWA
OSHA: 100 ppm TWA; 435 mg/m³ TWA
NIOSH: 100 ppm TWA; 435 mg/m³ TWA
125 ppm STEL; 545 mg/m³ STEL

Benzene (71-43-2)

ACGIH: 0.5 ppm TWA
2.5 ppm STEL
Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA: 5 ppm STEL (Cancer hazard, Flammable, See 29 CFR 1910.1028, 15 min); 0.5 ppm Action Level; 1 ppm TWA
50 ppm Peak (10 minutes)
25 ppm Ceiling
5 ppm STEL (see 29 CFR 1910.1028)
10 ppm TWA (applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028); 1 ppm TWA
NIOSH: 0.1 ppm TWA
1 ppm STEL

Nonane (111-84-2)

ACGIH: 200 ppm TWA
OSHA: 200 ppm TWA; 1050 mg/m³ TWA
NIOSH: 200 ppm TWA; 1050 mg/m³ TWA

Safety Data Sheet

Material Name: Transmix

Naphthalene (91-20-3)

ACGIH: 10 ppm TWA
15 ppm STEL
Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA: 10 ppm TWA; 50 mg/m³ TWA
NIOSH: 10 ppm TWA; 50 mg/m³ TWA
15 ppm STEL; 75 mg/m³ STEL

Hexane (110-54-3)

ACGIH: 50 ppm TWA
Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA: 500 ppm TWA; 1800 mg/m³ TWA
NIOSH: 50 ppm TWA; 180 mg/m³ TWA

Cyclohexane (110-82-7)

ACGIH: 100 ppm TWA
OSHA: 300 ppm TWA; 1050 mg/m³ TWA
NIOSH: 300 ppm TWA; 1050 mg/m³ TWA

Engineering Measures

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment: Respiratory

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

Personal Protective Equipment: Hands

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

Personal Protective Equipment: Eyes

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

Personal Protective Equipment: Skin and Body

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

Safety Data Sheet

Material Name: Transmix

*** Section 9 - Physical & Chemical Properties ***

Appearance:	Light straw to red clear	Odor:	Strong hydrocarbon
Physical State:	Liquid	pH:	ND
Vapor Pressure:	6.4 - 15 RVP @ 100 °F (38 °C) (275-475 mm Hg @ 68 °F (20 °C)	Vapor Density:	3-4
Boiling Point:	26.7-226.7°C (80.1-440.1°F)	Melting Point:	ND
Solubility (H2O):	Very slight	Specific Gravity:	30.0 to 71.0 API or 0.70-0.88
Evaporation Rate:	10-11	VOC:	ND
Percent Volatile:	100%	Octanol/H2O Coeff.:	ND
Flash Point:	-40 °C (-40 °F)	Flash Point Method:	CC
Upper Flammability Limit (UFL):	7.1	Lower Flammability Limit (LFL):	1.3
Burning Rate:	ND	Auto Ignition:	>260°C (500°F)

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources.

Incompatible Products

Reactive with oxidizing agents, reducing agents, acids, alkalis.

Hazardous Decomposition Products

These products are carbon oxides (CO, CO₂), nitrogen and sulfur oxides (NO_x, SO_x), particulate matter, VOC's.

*** Section 11 - Toxicological Information ***

Acute Toxicity

A: General Product Information

Harmful if swallowed.

B: Component Analysis - LD50/LC50

Gasoline, motor fuel (86290-81-5)

Inhalation LC50 Rat >5.2 mg/L 4 h; Oral LD50 Rat 14000 mg/kg; Dermal LD50 Rabbit >2000 mg/kg

Toluene (108-88-3)

Inhalation LC50 Rat 12.5 mg/L 4 h; Inhalation LC50 Rat >26700 ppm 1 h; Oral LD50 Rat 636 mg/kg; Dermal LD50 Rabbit 8390 mg/kg; Dermal LD50 Rat 12124 mg/kg

Xylenes (o-, m-, p- isomers) (1330-20-7)

Inhalation LC50 Rat 5000 ppm 4 h; Inhalation LC50 Rat 47635 mg/L 4 h; Oral LD50 Rat 4300 mg/kg; Dermal LD50 Rabbit >1700 mg/kg

Safety Data Sheet

Material Name: Transmix

Octane (111-65-9)

Inhalation LC50 Rat 118 g/m³ 4 h; Inhalation LC50 Rat 25260 ppm 4 h

Ethyl alcohol (64-17-5)

Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h

n-Heptane (142-82-5)

Inhalation LC50 Rat 103 g/m³ 4 h; Oral LD50 Mouse 5000 mg/kg; Dermal LD50 Rabbit 3000 mg/kg

1,2,4-trimethyl-benzene (95-63-6)

Inhalation LC50 Rat 18 g/m³ 4 h; Oral LD50 Rat 3400 mg/kg; Dermal LD50 Rabbit >3160 mg/kg

Pentane (109-66-0)

Inhalation LC50 Rat 364 g/m³ 4 h; Dermal LD50 Rabbit 3000 mg/kg; Oral LD50 Rat >2000 mg/kg

Cumene (98-82-8)

Oral LD50 Rat 1400 mg/kg; Inhalation LC50 Rat 39000 mg/m³ 4 h; Dermal LD50 Rabbit >3160 mg/kg

Ethylbenzene (100-41-4)

Inhalation LC50 Rat 17.2 mg/L 4 h; Oral LD50 Rat 3500 mg/kg; Dermal LD50 Rabbit 15354 mg/kg

Benzene (71-43-2)

Inhalation LC50 Rat 13050-14380 ppm 4 h; Oral LD50 Rat 1800 mg/kg

Nonane (111-84-2)

Inhalation LC50 Rat 3200 ppm 4 h

Naphthalene (91-20-3)

Inhalation LC50 Rat >340 mg/m³ 1 h; Oral LD50 Rat 490 mg/kg; Dermal LD50 Rat >2500 mg/kg; Dermal LD50 Rabbit >20 g/kg

Hexane (110-54-3)

Inhalation LC50 Rat 48000 ppm 4 h; Oral LD50 Rat 25 g/kg; Dermal LD50 Rabbit 3000 mg/kg

Cyclohexane (110-82-7)

Inhalation LC50 Rat 13.9 mg/L 4 h; Oral LD50 Rat >5000 mg/kg; Dermal LD50 Rabbit >2000 mg/kg

Potential Health Effects: Skin Corrosion Property/Stimulativeness

Prolonged or repeated contact may cause moderate irritation, defatting (cracking), redness, itching, inflammation, dermatitis and possible secondary infection. High pressure skin injections are SERIOUS MEDICAL EMERGENCIAS. Injury may not appear serious at first. Within a few hours, tissues will become swollen, discolored and extremely painful.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

May cause severe irritation, redness, tearing, blurred vision and conjunctivitis.

Safety Data Sheet

Material Name: Transmix

Potential Health Effects: Ingestion

Toxic if swallowed. This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. DO NOT INDUCE VOMITING. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea. May cause harmful central nervous system effects, similar to those listed under "inhalation".

Potential Health Effects: Inhalation

Nasal and respiratory tract irritation, central nervous system effects including excitation, euphoria, contracted eye pupils, dizziness, drowsiness, blurred vision, fatigue, nausea, headache, loss of reflexes, tremors, convulsions, seizures, loss of consciousness, coma, respiratory arrest and sudden death could occur as a result of long term and/or high concentration exposure to vapors. May also cause anemia and irregular heart rhythm. Repeated or prolonged exposure may cause behavioral changes.

Respiratory Organs Sensitization/Skin Sensitization

This product is not reported to have any skin sensitization effects.

Generative Cell Mutagenicity

This product may cause genetic defects.

Carcinogenicity

A: General Product Information

May cause cancer. Risk of cancer depends on duration and level of exposure.

B: Component Carcinogenicity

Fuels, diesel, no. 2 (68476-34-6)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans (listed under Diesel fuel)

Gasoline, motor fuel (86290-81-5)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Toluene (108-88-3)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

Ethyl alcohol (64-17-5)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

IARC: Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [2010] (in alcoholic beverages) (Group 1 (carcinogenic to humans))

Cumene (98-82-8)

IARC: Monograph 101 [in preparation] (Group 2B (possibly carcinogenic to humans))

Ethylbenzene (100-41-4)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

IARC: Monograph 77 [2000] (Group 2B (possibly carcinogenic to humans))

Safety Data Sheet

Material Name: Transmix

Benzene (71-43-2)

ACGIH: A1 - Confirmed Human Carcinogen
OSHA: 5 ppm STEL (Cancer hazard, Flammable, See 29 CFR 1910.1028, 15 min); 0.5 ppm Action Level; 1 ppm TWA
NIOSH: potential occupational carcinogen
NTP: Known Human Carcinogen (Select Carcinogen)
IARC: Monograph 100F [in preparation]; Supplement 7 [1987]; Monograph 29 [1982] (Group 1 (carcinogenic to humans))

Naphthalene (91-20-3)

ACGIH: A4 - Not Classifiable as a Human Carcinogen
NTP: Reasonably Anticipated To Be A Human Carcinogen (Possible Select Carcinogen)
IARC: Monograph 82 [2002] (Group 2B (possibly carcinogenic to humans))

Reproductive Toxicity

This product is suspected of damaging fertility or the unborn child.

Specified Target Organ General Toxicity: Single Exposure

This product may cause drowsiness or dizziness.

Specified Target Organ General Toxicity: Repeated Exposure

This product causes damage to organs through prolonged or repeated exposure. Contains material which causes damage to the following organs: blood, kidneys, lungs, the reproductive system, liver, peripheral nervous system, gastrointestinal tract, upper respiratory tract, skin, bone marrow, central nervous system (CNS), eye, lens or cornea.

Aspiration Respiratory Organs Hazard

The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

Very toxic to aquatic life with long lasting effects. Keep out of sewers, drainage areas and waterways. Report spills and releases, as applicable, under Federal and State regulations.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Fuels, diesel, no. 2 (68476-34-6)

Test & Species

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	35 mg/L [flow-through]

Conditions

Gasoline, motor fuel (86290-81-5)

Test & Species

Test & Species	Conditions
96 Hr LC50 Alburnus alburnus	119 mg/L [static]
96 Hr LC50 Cyprinodon variegatus	82 mg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	56 mg/L

Conditions

Safety Data Sheet

Material Name: Transmix

24 Hr EC50 Daphnia magna 170 mg/L

Toluene (108-88-3)

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	15.22-19.05 mg/L [flow-through] 1 day old
96 Hr LC50 Pimephales promelas	12.6 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	5.89-7.81 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	14.1-17.16 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	5.8 mg/L [semi-static]
96 Hr LC50 Lepomis macrochirus	11.0-15.0 mg/L [static]
96 Hr LC50 Oryzias latipes	54 mg/L [static]
96 Hr LC50 Poecilia reticulata	28.2 mg/L [semi-static]
96 Hr LC50 Poecilia reticulata	50.87-70.34 mg/L [static]
96 Hr EC50 Pseudokirchneriella subcapitata	>433 mg/L
72 Hr EC50 Pseudokirchneriella subcapitata	12.5 mg/L [static]
48 Hr EC50 Daphnia magna	5.46 - 9.83 mg/L [Static]
48 Hr EC50 Daphnia magna	11.5 mg/L

Xylenes (o-, m-, p- isomers) (1330-20-7)

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	13.4 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	2.661-4.093 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	13.5-17.3 mg/L
96 Hr LC50 Lepomis macrochirus	13.1-16.5 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	19 mg/L
96 Hr LC50 Lepomis macrochirus	7.711-9.591 mg/L [static]
96 Hr LC50 Pimephales promelas	23.53-29.97 mg/L [static]
96 Hr LC50 Cyprinus carpio	780 mg/L [semi-static]
96 Hr LC50 Cyprinus carpio	>780 mg/L
96 Hr LC50 Poecilia reticulata	30.26-40.75 mg/L [static]
48 Hr EC50 water flea	3.82 mg/L

Safety Data Sheet

Material Name: Transmix

48 Hr LC50 Gammarus lacustris 0.6 mg/L

Octane (111-65-9)

Test & Species

Conditions

48 Hr EC50 water flea 0.38 mg/L

Ethyl alcohol (64-17-5)

Test & Species

Conditions

96 Hr LC50 Oncorhynchus mykiss 12.0 - 16.0 mL/L
[static]

96 Hr LC50 Pimephales promelas >100 mg/L [static]

96 Hr LC50 Pimephales promelas 13400 - 15100 mg/L
[flow-through]

48 Hr LC50 Daphnia magna 9268 - 14221 mg/L

24 Hr EC50 Daphnia magna 10800 mg/L

48 Hr EC50 Daphnia magna 2 mg/L [Static]

n-Heptane (142-82-5)

Test & Species

Conditions

96 Hr LC50 Cichlid fish 375.0 mg/L

24 Hr EC50 Daphnia magna >10 mg/L

1,2,4-trimethyl-benzene (95-63-6)

Test & Species

Conditions

96 Hr LC50 Pimephales promelas 7.19-8.28 mg/L [flow-
through]

48 Hr EC50 Daphnia magna 6.14 mg/L

Pentane (109-66-0)

Test & Species

Conditions

96 Hr LC50 Oncorhynchus mykiss 9.87 mg/L

96 Hr LC50 Pimephales promelas 11.59 mg/L

96 Hr LC50 Lepomis macrochirus 9.99 mg/L

48 Hr EC50 Daphnia magna 9.74 mg/L

Cumene (98-82-8)

Test & Species

Conditions

96 Hr LC50 Pimephales promelas 6.04-6.61 mg/L [flow-
through]

96 Hr LC50 Oncorhynchus mykiss 4.8 mg/L [flow-
through]

96 Hr LC50 Oncorhynchus mykiss 2.7 mg/L [semi-static]

96 Hr LC50 Poecilia reticulata 5.1 mg/L [semi-static]

Safety Data Sheet

Material Name: Transmix

72 Hr EC50 Pseudokirchneriella subcapitata	2.6 mg/L
48 Hr EC50 Daphnia magna	0.6 mg/L
48 Hr EC50 Daphnia magna	7.9 - 14.1 mg/L [Static]

Ethylbenzene (100-41-4)

Test & Species

Conditions

96 Hr LC50 Oncorhynchus mykiss	11.0-18.0 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	4.2 mg/L [semi-static]
96 Hr LC50 Pimephales promelas	7.55-11 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	32 mg/L [static]
96 Hr LC50 Pimephales promelas	9.1-15.6 mg/L [static]
96 Hr LC50 Poecilia reticulata	9.6 mg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	4.6 mg/L
96 Hr EC50 Pseudokirchneriella subcapitata	>438 mg/L
72 Hr EC50 Pseudokirchneriella subcapitata	2.6 - 11.3 mg/L [static]
96 Hr EC50 Pseudokirchneriella subcapitata	1.7 - 7.6 mg/L [static]
48 Hr EC50 Daphnia magna	1.8 - 2.4 mg/L

Benzene (71-43-2)

Test & Species

Conditions

96 Hr LC50 Pimephales promelas	10.7-14.7 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	5.3 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	22.49 mg/L [static]
96 Hr LC50 Poecilia reticulata	28.6 mg/L [static]
96 Hr LC50 Pimephales promelas	22330-41160 µg/L [static]
96 Hr LC50 Lepomis macrochirus	70000-142000 µg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	29 mg/L
48 Hr EC50 Daphnia magna	8.76 - 15.6 mg/L [Static]
48 Hr EC50 Daphnia magna	10 mg/L

Naphthalene (91-20-3)

Test & Species

Conditions

Safety Data Sheet

Material Name: Transmix

96 Hr LC50 Pimephales promelas	5.74-6.44 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	1.6 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	0.91-2.82 mg/L [static]
96 Hr LC50 Pimephales promelas	1.99 mg/L [static]
96 Hr LC50 Lepomis macrochirus	31.0265 mg/L [static]
72 Hr EC50 Skeletonema costatum	0.4 mg/L
48 Hr LC50 Daphnia magna	2.16 mg/L
48 Hr EC50 Daphnia magna	1.96 mg/L [Flow through]
48 Hr EC50 Daphnia magna	1.09 - 3.4 mg/L [Static]

Hexane (110-54-3)

Test & Species

Conditions

96 Hr LC50 Pimephales promelas	2.1-2.98 mg/L [flow-through]
24 Hr EC50 Daphnia magna	>1000 mg/L

Cyclohexane (110-82-7)

Test & Species

Conditions

96 Hr LC50 Pimephales promelas	3.96-5.18 mg/L [flow-through]
96 Hr LC50 Pimephales promelas	23.03-42.07 mg/L [static]
96 Hr LC50 Lepomis macrochirus	24.99-44.69 mg/L [static]
96 Hr LC50 Poecilia reticulata	48.87-68.76 mg/L [static]
72 Hr EC50 Desmodemus subspicatus	>500 mg/L
24 Hr EC50 Daphnia magna	>400 mg/L

Persistence/Degradability

No information available.

Bioaccumulation

No information available.

Mobility in Soil

If released, oxygenates such as ethers and alcohols will be expected to exhibit fairly high mobility in soil, and therefore may leach into groundwater.

Safety Data Sheet

Material Name: Transmix

*** Section 13 - Disposal Considerations ***

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packaging

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

*** Section 14 - Transportation Information ***

Component Marine Pollutants

This material contains one or more of the following chemicals required by US DOT to be identified as marine pollutants.

Gasoline, motor fuel (86290-81-5)

0-100 DOT regulated marine pollutant

DOT Information

Shipping Name: Petroleum Distillates, n.o.s.

Hazard Class: 3

UN #: 1268

Packing Group: I

Placard:



*** Section 15 - Regulatory Information ***

Regulatory Information

A: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Toluene (108-88-3)

SARA 313: 1.0 % de minimis concentration

CERCLA: 1000 lb final RQ; 454 kg final RQ

Xylenes (o-, m-, p- isomers) (1330-20-7)

SARA 313: 1.0 % de minimis concentration

CERCLA: 100 lb final RQ; 45.4 kg final RQ

1,2,4-trimethyl-benzene (95-63-6)

SARA 313: 1.0 % de minimis concentration

Safety Data Sheet

Material Name: Transmix

Cumene (98-82-8)

SARA 313: 1.0 % de minimis concentration
CERCLA: 5000 lb final RQ; 2270 kg final RQ

Ethylbenzene (100-41-4)

SARA 313: 0.1 % de minimis concentration
CERCLA: 1000 lb final RQ; 454 kg final RQ

Benzene (71-43-2)

SARA 313: 0.1 % de minimis concentration
CERCLA: 10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule)

Naphthalene (91-20-3)

SARA 313: 0.1 % de minimis concentration
CERCLA: 100 lb final RQ; 45.4 kg final RQ

Hexane (110-54-3)

SARA 313: 1.0 % de minimis concentration
CERCLA: 5000 lb final RQ; 2270 kg final RQ

Cyclohexane (110-82-7)

SARA 313: 1.0 % de minimis concentration
CERCLA: 1000 lb final RQ; 454 kg final RQ

SARA Section 311/312 – Hazard Classes

Toluene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Hexane (Other Isomers): Fire hazard, Immediate (acute) health hazard; Xylene (o,m,p isomers): Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health • hazard; Octane (All Isomers): Fire hazard; 1,2,4-Trimethylbenzene: Fire hazard, Delayed (chronic) health hazard; n- Heptane: Fire hazard; Pentane: Fire hazard, Immediate (acute) health hazard; Cumene: Fire hazard, Immediate (acute) health hazard; Ethylbenzene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Benzene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; n-Hexane: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Cyclohexane: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Gasoline: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Naphthalene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; n-Nonane: Fire hazard, Immediate (acute) health hazard

B: Component Marine Pollutants

This material contains one or more of the following chemicals required by US DOT to be identified as marine pollutants.

Gasoline, motor fuel (86290-81-5)

0-100 DOT regulated marine pollutant

State Regulations

Safety Data Sheet

Material Name: Transmix

A: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Fuels, diesel, no. 2	68476-34-6	No	No	No	Yes	No	No
Gasoline, motor fuel	86290-81-5	No	No	No	No	Yes	No
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes	No
3-Methylpentane	96-14-0	No	Yes	No	No	Yes	No
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	Yes	Yes	Yes	Yes	No
Octane	111-65-9	Yes	Yes	Yes	Yes	Yes	No
Ethyl alcohol	64-17-5	Yes	Yes	Yes	Yes	Yes	No
n-Heptane	142-82-5	Yes	Yes	Yes	Yes	Yes	No
1,2,4-trimethyl-benzene	95-63-6	No	Yes	Yes	Yes	Yes	No
Pentane	109-66-0	Yes	Yes	Yes	Yes	Yes	No
Cumene	98-82-8	Yes	Yes	Yes	Yes	Yes	No
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	Yes	No
Benzene	71-43-2	Yes	Yes	Yes	Yes	Yes	No
Nonane	111-84-2	Yes	Yes	Yes	Yes	Yes	No
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	Yes	No
Hexane	110-54-3	No	Yes	Yes	Yes	Yes	No
Cyclohexane	110-82-7	Yes	Yes	Yes	Yes	Yes	No

WARNING! This product contains a chemical known to the state of California to cause cancer.

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Toluene	108-88-3	1 %
Octane	111-65-9	1 %
Ethyl alcohol	64-17-5	0.1 %
n-Heptane	142-82-5	1 %
1,2,4-trimethyl-benzene	95-63-6	0.1 %
Pentane	109-66-0	1 %
Cumene	98-82-8	1 %
Ethylbenzene	100-41-4	0.1 %
Benzene	71-43-2	0.1 %
Nonane	111-84-2	1 %
Naphthalene	91-20-3	1 %
Hexane	110-54-3	1 %
Cyclohexane	110-82-7	1 %

Additional Regulatory Information

Safety Data Sheet

Material Name: Transmix

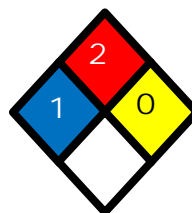
Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Fuels, diesel, no. 2	68476-34-6	Yes	DSL	EINECS
Gasoline, motor fuel	86290-81-5	No	DSL	EINECS
Toluene	108-88-3	Yes	DSL	EINECS
3-Methylpentane	96-14-0	Yes	DSL	EINECS
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	DSL	EINECS
Octane	111-65-9	Yes	DSL	EINECS
Ethyl alcohol	64-17-5	Yes	DSL	EINECS
n-Heptane	142-82-5	Yes	DSL	EINECS
1,2,4-trimethyl-benzene	95-63-6	Yes	DSL	EINECS
Pentane	109-66-0	Yes	DSL	EINECS
Cumene	98-82-8	Yes	DSL	EINECS
Ethylbenzene	100-41-4	Yes	DSL	EINECS
Benzene	71-43-2	Yes	DSL	EINECS
Nonane	111-84-2	Yes	DSL	EINECS
Naphthalene	91-20-3	Yes	DSL	EINECS
Hexane	110-54-3	Yes	DSL	EINECS
Cyclohexane	110-82-7	Yes	DSL	EINECS

***** Section 16 - Other Information *****

NFPA® Hazard Rating

Health	1
Fire	2
Reactivity	0



HMIS® Hazard Rating

Health	1*	Slight
Fire	2	Moderate
Physical	0	Minimal

*Chronic

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Literature References

None

Safety Data Sheet

Material Name: Transmix

Other Information

Information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

End of Sheet