



Safety Data Sheet

Material Name: Transmix

EU/CLP 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.

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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

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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.

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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 ***

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.

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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.

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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 ***

Component Exposure Limits

Fuels, diesel, no. 2 (270-676-1)

- 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)
- Belgium: 100 mg/m3 TWA (as total hydrocarbon, aerosol and vapor)
Skin (listed under Gas oil)
- Portugal: 100 mg/m3 TWA [VLE-MP] (aerosol and vapor, as total Hydrocarbons, listed under Fuel diesel)

Gasoline, motor fuel (289-220-8)

- ACGIH: 500 ppm STEL
300 ppm TWA
- Netherlands: 480 mg/m3 STEL
240 mg/m3 TWA
- Portugal: 300 ppm TWA [VLE-MP]
- Spain: 300 ppm TWA [VLA-ED] (manufacturing, commercialization, and use restrictions under REACH)
- Sweden: 250 mg/m3 LLV (listed under Petroleum fuels)

Toluene (203-625-9)

- EU: 50 ppm TWA; 192 mg/m3 TWA
100 ppm STEL; 384 mg/m3 STEL
Possibility of significant uptake through the skin
- ACGIH: 20 ppm TWA
- Austria: 100 ppm STEL [KZW] (4 X 15 min); 380 mg/m3 STEL [KZW] (4 X 15 min)
50 ppm TWA [TMW]; 190 mg/m3 TWA [TMW]
skin notation
- Belgium: 100 ppm STEL; 384 mg/m3 STEL
22 ppm TWA; 77 mg/m3 TWA
Skin
- Denmark: 25 ppm TWA; 94 mg/m3 TWA
Potential for cutaneous absorption
- Finland: 100 ppm STEL; 380 mg/m3 STEL
25 ppm TWA; 81 mg/m3 TWA
Potential for cutaneous absorption
- France: 100 ppm STEL [VLCT] (restrictive limit); 384 mg/m3 STEL [VLCT] (restrictive limit)
50 ppm TWA [VME] (restrictive limit); 192 mg/m3 TWA [VME] (restrictive limit)
- Germany: 50 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 4); 190 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 4)

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1.0 mg/L Medium: whole blood Time: end of shift Parameter: Toluene; 3.0 mg/L Medium: urine
Time: end of several shifts Parameter: o-Cresol (for long-term exposures)
50 ppm TWA MAK; 190 mg/m³ TWA MAK
200 ppm Peak; 760 mg/m³ Peak
Greece: 100 ppm STEL; 384 mg/m³ STEL
50 ppm TWA; 192 mg/m³ TWA
Ireland: 100 ppm STEL; 384 mg/m³ STEL
50 ppm TWA; 192 mg/m³ TWA
Potential for cutaneous absorption
Italy: 192 ppm TWA; 50 mg/m³ TWA
Netherlands: 384 mg/m³ STEL
150 mg/m³ TWA
Portugal: 50 ppm TWA [VLE-MP]
Spain: 100 ppm STEL [VLA-EC]; 384 mg/m³ STEL [VLA-EC]
50 ppm TWA [VLA-ED] (indicative limit value; manufacturing, commercialization, and use
restrictions under REACH); 192 mg/m³ TWA [VLA-ED] (indicative limit value; manufacturing,
commercialization, and use restrictions under REACH)
skin - potential for cutaneous exposure
Sweden: 50 ppm LLV; 200 mg/m³ LLV
100 ppm STV; 400 mg/m³ STV

3-Methylpentane (202-481-4)

Austria: 800 ppm STEL [KZW] (4 X 15 min); 2800 mg/m³ STEL [KZW] (4 X 15 min)
200 ppm TWA [TMW]; 700 mg/m³ TWA [TMW]
Finland: 630 ppm STEL; 2300 mg/m³ STEL
500 ppm TWA; 1800 mg/m³ TWA
Germany: 500 ppm TWA AGW (exposure factor 2); 1800 mg/m³ TWA AGW (exposure factor 2)
500 ppm TWA MAK; 1800 mg/m³ TWA MAK
1000 ppm Peak (except n-Hexane, listed under Hexane); 3600 mg/m³ Peak (except n-Hexane,
listed under Hexane)
Sweden: 200 ppm LLV; 700 mg/m³ LLV
300 ppm STV; 1100 mg/m³ STV

Xylenes (o-, m-, p- isomers) (215-535-7)

ACGIH: 150 ppm STEL
100 ppm TWA
Austria: 100 ppm STEL [KZW] (4 X 15 min); 442 mg/m³ STEL [KZW] (all isomers, 4 X 15 min)
50 ppm TWA [TMW]; 221 mg/m³ TWA [TMW] (all isomers)
skin notation
Belgium: 100 ppm STEL; 442 mg/m³ STEL
50 ppm TWA; 221 mg/m³ TWA
Skin
Denmark: 25 ppm TWA; 109 mg/m³ TWA
Potential for cutaneous absorption (listed under Xylene, all isomers)
Finland: 100 ppm STEL; 440 mg/m³ STEL
50 ppm TWA; 220 mg/m³ TWA
Potential for cutaneous absorption
France: 100 ppm STEL [VLCT] (restrictive limit); 442 mg/m³ STEL [VLCT] (restrictive limit)
50 ppm TWA [VME] (restrictive limit); 221 mg/m³ TWA [VME] (restrictive limit)
Germany: 100 ppm TWA AGW (all isomers, exposure factor 2); 440 mg/m³ TWA AGW (all isomers,
exposure factor 2)

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1.5 mg/L Medium: whole blood Time: end of shift Parameter: Xylene (all isomers); 2 g/L Medium: urine Time: end of shift Parameter: Xylene (all isomers)
100 ppm TWA MAK; 440 mg/m³ TWA MAK
200 ppm Peak (all isomers); 880 mg/m³ Peak (all isomers)
Greece: 150 ppm STEL; 650 mg/m³ STEL
100 ppm TWA; 435 mg/m³ TWA
Ireland: 100 ppm STEL; 442 mg/m³ STEL
50 ppm TWA; 221 mg/m³ TWA
Potential for cutaneous absorption
Italy: 50 ppm TWA (pure); 221 mg/m³ TWA (pure)
Netherlands: 442 mg/m³ STEL
210 mg/m³ TWA
skin notation
Portugal: 100 ppm TWA [VLE-MP]
Spain: 100 ppm STEL [VLA-EC]; 442 mg/m³ STEL [VLA-EC]
50 ppm TWA [VLA-ED] (indicative limit value); 221 mg/m³ TWA [VLA-ED] (indicative limit value)
skin - potential for cutaneous exposure
Sweden: 50 ppm LLV; 200 mg/m³ LLV
100 ppm STV; 450 mg/m³ STV

Octane (203-892-1)

ACGIH: 300 ppm TWA
Belgium: 375 ppm STEL; 1775 mg/m³ STEL
300 ppm TWA; 1420 mg/m³ TWA
Denmark: 200 ppm TWA; 935 mg/m³ TWA
Finland: 380 ppm STEL; 1800 mg/m³ STEL
300 ppm TWA; 1400 mg/m³ TWA
France: 300 ppm TWA [VME]; 1450 mg/m³ TWA [VME]
Germany: 500 ppm TWA AGW (all isomers except trimethylpentane, exposure factor 2); 2400 mg/m³ TWA AGW (all isomers except trimethylpentane, exposure factor 2)
500 ppm TWA MAK; 2400 mg/m³ TWA MAK (except trimethylpentane isomers)
1000 ppm Peak (all isomers except Trimethylpentane isomers); 4800 mg/m³ Peak (all isomers except Trimethylpentane isomers)
Greece: 500 ppm STEL; 2350 mg/m³ STEL
500 ppm TWA; 2350 mg/m³ TWA
Ireland: 375 ppm STEL; 1800 mg/m³ STEL
300 ppm TWA; 1450 mg/m³ TWA
Portugal: 300 ppm TWA [VLE-MP]
Spain: 300 ppm TWA [VLA-ED]; 1420 mg/m³ TWA [VLA-ED]

Ethyl alcohol (200-578-6)

ACGIH: 1000 ppm STEL
Austria: 2000 ppm STEL [KZW] (3 X 60 min); 3800 mg/m³ STEL [KZW] (3 X 60 min)
1000 ppm TWA [TMW]; 1900 mg/m³ TWA [TMW]
Belgium: 1000 ppm TWA; 1907 mg/m³ TWA
Denmark: 1000 ppm TWA; 1900 mg/m³ TWA
Finland: 1300 ppm STEL; 2500 mg/m³ STEL
1000 ppm TWA; 1900 mg/m³ TWA
France: 5000 ppm STEL [VLCT]; 9500 mg/m³ STEL [VLCT]
1000 ppm TWA [VME]; 1900 mg/m³ TWA [VME]
Germany: 500 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and

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BAT values are observed, exposure factor 2); 960 mg/m³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 2)
500 ppm TWA MAK; 960 mg/m³ TWA MAK
1000 ppm Peak; 1920 mg/m³ Peak
Greece: 1000 ppm TWA; 1900 mg/m³ TWA
Ireland: 1000 ppm TWA; 1900 mg/m³ TWA
Netherlands: 1900 mg/m³ STEL
260 mg/m³ TWA
skin notation
Portugal: 1000 ppm TWA [VLE-MP]
Spain: 1000 ppm TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary o biocide compound); 1910 mg/m³ TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary o biocide compound)
Sweden: 500 ppm LLV; 1000 mg/m³ LLV
1000 ppm STV; 1900 mg/m³ STV

n-Heptane (205-563-8)

ACGIH: 500 ppm STEL (listed under Heptane, all isomers)
400 ppm TWA (listed under Heptane, all isomers)
Austria: 2000 ppm STEL [KZW] (4 X 15 min); 8000 mg/m³ STEL [KZW] (all isomers, 4 X 15 min)
500 ppm TWA [TMW]; 2000 mg/m³ TWA [TMW] (all isomers)
Belgium: 500 ppm STEL; 2085 mg/m³ STEL
400 ppm TWA; 1664 mg/m³ TWA
Denmark: 200 ppm TWA; 820 mg/m³ TWA
Finland: 500 ppm STEL; 2100 mg/m³ STEL
300 ppm TWA; 1200 mg/m³ TWA
France: 500 ppm STEL [VLCT] (restrictive limit); 2085 mg/m³ STEL [VLCT] (restrictive limit)
400 ppm TWA [VME] (restrictive limit); 1668 mg/m³ TWA [VME] (restrictive limit)
Germany: 500 ppm TWA AGW (all isomers, exposure factor 1); 2100 mg/m³ TWA AGW (all isomers, exposure factor 1)
500 ppm TWA MAK; 2100 mg/m³ TWA MAK
500 ppm Peak; 2100 mg/m³ Peak
Greece: 500 ppm STEL; 2000 mg/m³ STEL
500 ppm TWA; 2000 mg/m³ TWA
Ireland: 500 ppm TWA; 2085 mg/m³ TWA
Italy: 500 ppm TWA; 2085 mg/m³ TWA
Netherlands: 1600 mg/m³ STEL
1200 mg/m³ TWA
Portugal: 400 ppm TWA [VLE-MP]
Spain: 500 ppm TWA [VLA-ED] (indicative limit value); 2085 mg/m³ TWA [VLA-ED] (indicative limit value)
Sweden: 200 ppm LLV; 800 mg/m³ LLV
300 ppm STV; 1200 mg/m³ STV

1,2,4-trimethyl-benzene (202-436-9)

Austria: 30 ppm STEL [KZW] (4 X 15 min); 150 mg/m³ STEL [KZW] (4 X 15 min)
20 ppm TWA [TMW]; 100 mg/m³ TWA [TMW]
Denmark: 20 ppm TWA; 100 mg/m³ TWA
Finland: 20 ppm TWA; 100 mg/m³ TWA
France: 50 ppm STEL [VLCT] (restrictive limit); 250 mg/m³ STEL [VLCT] (restrictive limit)

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20 ppm TWA [VME] (restrictive limit); 100 mg/m³ TWA [VME] (restrictive limit)

Germany: 20 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 2); 100 mg/m³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 2)
20 ppm TWA MAK; 100 mg/m³ TWA MAK
40 ppm Peak (all isomers, listed under Trimethylbenzene); 200 mg/m³ Peak (all isomers, listed under Trimethylbenzene)

Greece: 25 ppm TWA; 125 mg/m³ TWA

Ireland: 20 ppm TWA; 100 mg/m³ TWA

Italy: 20 ppm TWA; 100 mg/m³ TWA

Netherlands: 200 mg/m³ STEL
100 mg/m³ TWA

Spain: 20 ppm TWA [VLA-ED] (indicative limit value); 100 mg/m³ TWA [VLA-ED] (indicative limit value)

Sweden: 25 ppm LLV; 120 mg/m³ LLV
35 ppm STV; 170 mg/m³ STV

Pentane (203-692-4)

EU: 1000 ppm TWA; 3000 mg/m³ TWA

ACGIH: 600 ppm TWA (listed under Pentane, all isomers)

Austria: 1200 ppm STEL [KZW] (3 X 60 min); 3600 mg/m³ STEL [KZW] (3 X 60 min)
600 ppm TWA [TMW]; 1800 mg/m³ TWA [TMW]

Belgium: 750 ppm STEL; 2250 mg/m³ STEL
600 ppm TWA; 1800 mg/m³ TWA

Denmark: 500 ppm TWA; 1500 mg/m³ TWA

Finland: 630 ppm STEL; 1900 mg/m³ STEL
500 ppm TWA; 1500 mg/m³ TWA

France: 1000 ppm TWA [VME] (restrictive limit); 3000 mg/m³ TWA [VME] (restrictive limit)

Germany: 1000 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 2); 3000 mg/m³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 2)
1000 ppm TWA MAK; 3000 mg/m³ TWA MAK
2000 ppm Peak (listed under Pentane); 6000 mg/m³ Peak (listed under Pentane)

Greece: 1000 ppm STEL; 2950 mg/m³ STEL
1000 ppm TWA; 2950 mg/m³ TWA

Ireland: 750 ppm STEL; 2250 mg/m³ STEL
1000 ppm TWA; 3000 mg/m³ TWA

Italy: 667 ppm TWA; 2000 mg/m³ TWA

Netherlands: 1800 mg/m³ TWA

Portugal: 600 ppm TWA [VLE-MP]

Spain: 1000 ppm TWA [VLA-ED] (indicative limit value); 3000 mg/m³ TWA [VLA-ED] (indicative limit value)

Sweden: 600 ppm LLV; 1800 mg/m³ LLV
750 ppm STV; 2000 mg/m³ STV

Cumene (202-704-5)

ACGIH: 50 ppm TWA

Austria: 20 ppm STEL [KZW] (4 X 15 min); 250 mg/m³ STEL [KZW] (4 X 15 min)
20 ppm TWA [TMW]; 100 mg/m³ TWA [TMW]
skin notation

Belgium: 50 ppm STEL; 250 mg/m³ STEL

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20 ppm TWA; 100 mg/m³ TWA
Skin

Denmark: 20 ppm TWA; 100 mg/m³ TWA
Potential for cutaneous absorption

Finland: 50 ppm STEL; 250 mg/m³ STEL
20 ppm TWA; 100 mg/m³ TWA
Potential for cutaneous absorption

France: 50 ppm STEL [VLCT] (restrictive limit); 250 mg/m³ STEL [VLCT] (restrictive limit)
20 ppm TWA [VME] (restrictive limit); 100 mg/m³ TWA [VME] (restrictive limit)

Germany: 20 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 2.5); 100 mg/m³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 2.5)
50 mg/g Medium: urine Time: end of shift Parameter: 2-Phenyl-2-propanol (measured as mg/g Creatinine); 2 mg/L Medium: whole blood Time: end of shift Parameter: iso-Propylbenzene
50 ppm TWA MAK; 250 mg/m³ TWA MAK
200 ppm Peak; 1000 mg/m³ Peak

Greece: 75 ppm STEL; 370 mg/m³ STEL
50 ppm TWA; 245 mg/m³ TWA

Ireland: 50 ppm STEL; 250 mg/m³ STEL
20 ppm TWA; 100 mg/m³ TWA
Potential for cutaneous absorption

Italy: 20 ppm TWA; 100 mg/m³ TWA

Netherlands: 250 mg/m³ STEL
100 mg/m³ TWA
skin notation

Portugal: 50 ppm TWA [VLE-MP]

Spain: 50 ppm STEL [VLA-EC]; 250 mg/m³ STEL [VLA-EC]
20 ppm TWA [VLA-ED] (indicative limit value); 100 mg/m³ TWA [VLA-ED] (indicative limit value)
skin - potential for cutaneous exposure

Sweden: 25 ppm LLV; 120 mg/m³ LLV
35 ppm STV; 170 mg/m³ STV

Ethylbenzene (202-849-4)

ACGIH: 20 ppm TWA

Austria: 200 ppm STEL [KZW] (8 X 5 min); 880 mg/m³ STEL [KZW] (8 X 5 min)
100 ppm TWA [TMW]; 440 mg/m³ TWA [TMW]
skin notation

Belgium: 125 ppm STEL; 551 mg/m³ STEL
100 ppm TWA; 442 mg/m³ TWA
Skin

Denmark: 50 ppm TWA; 217 mg/m³ TWA

Finland: 200 ppm STEL; 880 mg/m³ STEL
50 ppm TWA; 220 mg/m³ TWA
Potential for cutaneous absorption

France: 100 ppm STEL [VLCT] (restrictive limit); 442 mg/m³ STEL [VLCT] (restrictive limit)
20 ppm TWA [VME] (restrictive limit); 88.4 mg/m³ TWA [VME] (restrictive limit)

Germany: 100 ppm TWA AGW (exposure factor 2); 440 mg/m³ TWA AGW (exposure factor 2)
1 mg/L Medium: whole blood Time: end of shift Parameter: Ethylbenzene; 800 mg/g Medium: urine Time: end of shift Parameter: Mandelic acid plus Phenylglyoxylic acid (measured as mg/g Creatinine)

Safety Data Sheet

Material Name: Transmix

20 ppm TWA MAK; 88 mg/m³ TWA MAK
40 ppm Peak; 176 mg/m³ Peak
Greece: 125 ppm STEL; 545 mg/m³ STEL
100 ppm TWA; 435 mg/m³ TWA
Ireland: 200 ppm STEL; 884 mg/m³ STEL
100 ppm TWA; 442 mg/m³ TWA
Potential for cutaneous absorption
Italy: 100 ppm TWA; 442 mg/m³ TWA
Netherlands: 430 mg/m³ STEL
215 mg/m³ TWA
skin notation
Portugal: 100 ppm TWA [VLE-MP]
Spain: 200 ppm STEL [VLA-EC]; 884 mg/m³ STEL [VLA-EC]
100 ppm TWA [VLA-ED] (indicative limit value); 441 mg/m³ TWA [VLA-ED] (indicative limit value)
skin - potential for cutaneous exposure
Sweden: 50 ppm LLV; 200 mg/m³ LLV
100 ppm STV; 450 mg/m³ STV

Benzene (200-753-7)

ACGIH: 2.5 ppm STEL
0.5 ppm TWA
Skin - potential significant contribution to overall exposure by the cutaneous route
Austria: skin notation
Belgium: 1 ppm TWA; 3.25 mg/m³ TWA
Skin
Denmark: 0.5 ppm TWA; 1.6 mg/m³ TWA
Potential for cutaneous absorption
Finland: 1 ppm TWA (dust); 3.25 mg/m³ TWA (dust)
Potential for cutaneous absorption
France: 1 ppm TWA [VME] (restrictive limit); 3.25 mg/m³ TWA [VME] (restrictive limit)
Greece: 1.0 ppm TWA; 3.19 mg/m³ TWA
Ireland: 1 ppm TWA; 3 mg/m³ TWA
Potential for cutaneous absorption
Italy: 1 ppm TWA; 3.25 mg/m³ TWA
Netherlands: 3.25 mg/m³ TWA
skin notation
Portugal: 0.5 ppm TWA [VLE-MP]
Spain: 1 ppm TWA [VLA-ED] (manufacturing, commercialization, and use restrictions under REACH);
3.25 mg/m³ TWA [VLA-ED] (manufacturing, commercialization, and use restrictions under REACH)
skin - potential for cutaneous exposure
Sweden: 0.5 ppm LLV; 1.5 mg/m³ LLV
3 ppm STV; 9 mg/m³ STV

Nonane (203-913-4)

ACGIH: 200 ppm TWA
Belgium: 200 ppm TWA; 1065 mg/m³ TWA
Denmark: 200 ppm TWA; 1050 mg/m³ TWA
Finland: 250 ppm STEL; 1300 mg/m³ STEL
200 ppm TWA; 1100 mg/m³ TWA
France: 200 ppm TWA [VME]; 1050 mg/m³ TWA [VME]

Safety Data Sheet

Material Name: Transmix

Naphthalene (202-049-5)

ACGIH: 15 ppm STEL
10 ppm TWA
Skin - potential significant contribution to overall exposure by the cutaneous route

Austria: 10 ppm TWA [TMW]; 50 mg/m³ TWA [TMW]
skin notation

Belgium: 15 ppm STEL; 80 mg/m³ STEL
10 ppm TWA; 53 mg/m³ TWA
Skin

Denmark: 10 ppm TWA; 50 mg/m³ TWA

Finland: 2 ppm STEL; 10 mg/m³ STEL
1 ppm TWA; 5 mg/m³ TWA

France: 10 ppm TWA [VME]; 50 mg/m³ TWA [VME]

Germany: 0.1 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, inhalable fraction, exposure factor 1); 0.5 mg/m³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, inhalable fraction, exposure factor 1)

Greece: 10 ppm TWA; 50 mg/m³ TWA

Ireland: 15 ppm STEL; 75 mg/m³ STEL
10 ppm TWA; 50 mg/m³ TWA

Netherlands: 80 mg/m³ STEL
50 mg/m³ TWA

Portugal: 10 ppm TWA [VLE-MP]

Spain: 15 ppm STEL [VLA-EC]; 80 mg/m³ STEL [VLA-EC]
10 ppm TWA [VLA-ED]; 53 mg/m³ TWA [VLA-ED]
skin - potential for cutaneous exposure

Sweden: 10 ppm LLV; 50 mg/m³ LLV
15 ppm STV; 80 mg/m³ STV

Hexane (203-777-6)

EU: 20 ppm TWA; 72 mg/m³ TWA

ACGIH: 50 ppm TWA
Skin - potential significant contribution to overall exposure by the cutaneous route

Austria: 80 ppm STEL [KZW] (4 X 15 min); 288 mg/m³ STEL [KZW] (4 X 15 min)
20 ppm TWA [TMW]; 72 mg/m³ TWA [TMW]

Belgium: 20 ppm TWA; 72 mg/m³ TWA

Denmark: 20 ppm TWA; 72 mg/m³ TWA

Finland: 20 ppm TWA; 72 mg/m³ TWA
Potential for cutaneous absorption

France: 20 ppm TWA [VME] (restrictive limit); 72 mg/m³ TWA [VME] (restrictive limit)

Germany: 50 ppm TWA AGW (exposure factor 8); 180 mg/m³ TWA AGW (exposure factor 8)
5 mg/L Medium: urine Time: end of shift Parameter: 2,5-Hexandione plus 4,5-Dihydroxy-2-hexanone
50 ppm TWA MAK; 180 mg/m³ TWA MAK
400 ppm Peak; 1440 mg/m³ Peak

Greece: 20 ppm TWA; 72 mg/m³ TWA

Ireland: 20 ppm TWA; 72 mg/m³ TWA

Italy: 20 ppm TWA; 72 mg/m³ TWA

Netherlands: 144 mg/m³ STEL
72 mg/m³ TWA

Safety Data Sheet

Material Name: Transmix

Portugal: 50 ppm TWA [VLE-MP]
Spain: 20 ppm TWA [VLA-ED] (indicative limit value); 72 mg/m³ TWA [VLA-ED] (indicative limit value)
Sweden: 25 ppm LLV; 90 mg/m³ LLV
50 ppm STV; 180 mg/m³ STV

Cyclohexane (203-806-2)

EU: 200 ppm TWA; 700 mg/m³ TWA
ACGIH: 100 ppm TWA
Austria: 800 ppm STEL [KZW] (4 X 15 min); 2800 mg/m³ STEL [KZW] (4 X 15 min)
200 ppm TWA [TMW]; 700 mg/m³ TWA [TMW]
Belgium: 100 ppm TWA; 350 mg/m³ TWA
Denmark: 50 ppm TWA; 172 mg/m³ TWA
Finland: 250 ppm STEL; 875 mg/m³ STEL
100 ppm TWA; 350 mg/m³ TWA
France: 375 ppm STEL [VLCT]; 1300 mg/m³ STEL [VLCT]
200 ppm TWA [VME] (restrictive limit); 700 mg/m³ TWA [VME] (restrictive limit)
Germany: 200 ppm TWA AGW (exposure factor 4); 700 mg/m³ TWA AGW (exposure factor 4)
170 mg/g Medium: urine Time: end of shift Parameter: 1,2-Cyclohexandiol (measured as mg/g Creatinine); 170 mg/g Medium: urine Time: end of several shifts Parameter: 1,2-Cyclohexandiol (measured as mg/g Creatinine; for long-term exposures)
200 ppm TWA MAK; 700 mg/m³ TWA MAK
800 ppm Peak; 2800 mg/m³ Peak
Greece: 200 ppm TWA; 700 mg/m³ TWA
Ireland: 200 ppm TWA; 700 mg/m³ TWA
Italy: 100 ppm TWA; 350 mg/m³ TWA
Netherlands: 1400 mg/m³ STEL
700 mg/m³ TWA
Portugal: 100 ppm TWA [VLE-MP]
Spain: 200 ppm TWA [VLA-ED] (indicative limit value); 700 mg/m³ TWA [VLA-ED] (indicative limit value)
Sweden: 300 ppm LLV; 1000 mg/m³ LLV
370 ppm STV; 1300 mg/m³ STV

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.

Safety Data Sheet

Material Name: Transmix

Personal Protective Equipment: Eyes

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

Personal Protective Equipment: Skin and Body

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

* * * Section 9 - Physical & 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.

Safety Data Sheet

Material Name: Transmix

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

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

Safety Data Sheet

Material Name: Transmix

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 EMERGENCIES. 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.

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))

Safety Data Sheet

Material Name: Transmix

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))

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.

Safety Data Sheet

Material Name: Transmix

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

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
24 Hr EC50 Daphnia magna	170 mg/L

Conditions

Toluene (108-88-3)

Test & Species

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	

Conditions

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

Test & Species

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

Conditions

Safety Data Sheet

Material Name: Transmix

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
48 Hr LC50 Gammarus lacustris	0.6 mg/L

Octane (111-65-9)

Test & Species

48 Hr EC50 water flea	0.38 mg/L
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Conditions

Ethyl alcohol (64-17-5)

Test & Species

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]

Conditions

n-Heptane (142-82-5)

Test & Species

96 Hr LC50 Cichlid fish	375.0 mg/L
24 Hr EC50 Daphnia magna	>10 mg/L

Conditions

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

Test & Species

96 Hr LC50 Pimephales promelas	7.19-8.28 mg/L [flow-through]
48 Hr EC50 Daphnia magna	6.14 mg/L

Conditions

Pentane (109-66-0)

Test & Species

96 Hr LC50 Oncorhynchus mykiss	9.87 mg/L
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Conditions

Safety Data Sheet

Material Name: Transmix

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]
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]

Safety Data Sheet

Material Name: Transmix

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

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 Desmodesmus subspicatus	>500 mg/L
24 Hr EC50 Daphnia magna	>400 mg/L

Safety Data Sheet

Material Name: Transmix

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.

* * * 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

IATA Information

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

Hazard Class: 3

UN #: 1268

Packing Group: I

ICAO Information

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

Hazard Class: 3

UN #: 1268

Packing Group: I

IMDG Information

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

Hazard Class: 3

UN #: 1268

Packing Group: I

* * * Section 15 - Regulatory Information * * *

Regulatory Information

Component Analysis – Inventory

Component/CAS	EC #	EEC	CAN	TSCA
Fuels, diesel, no. 2 68476-34-6	270-676-1	EINECS	DSL	Yes

Safety Data Sheet

Material Name: Transmix

Gasoline, motor fuel 86290-81-5	289-220-8	EINECS	DSL	No
Toluene 108-88-3	203-625-9	EINECS	DSL	Yes
3-Methylpentane 96-14-0	202-481-4	EINECS	DSL	Yes
Xylenes (o-, m-, p- isomers) 1330-20-7	215-535-7	EINECS	DSL	Yes
Octane 111-65-9	203-892-1	EINECS	DSL	Yes
Ethyl alcohol 64-17-5	200-578-6	EINECS	DSL	Yes
n-Heptane 142-82-5	205-563-8	EINECS	DSL	Yes
1,2,4-trimethyl-benzene 95-63-6	202-436-9	EINECS	DSL	Yes
Pentane 109-66-0	203-692-4	EINECS	DSL	Yes
Cumene 98-82-8	202-704-5	EINECS	DSL	Yes
Ethylbenzene 100-41-4	202-849-4	EINECS	DSL	Yes
Benzene 71-43-2	200-753-7	EINECS	DSL	Yes
Nonane 111-84-2	203-913-4	EINECS	DSL	Yes
Naphthalene 91-20-3	202-049-5	EINECS	DSL	Yes
Hexane 110-54-3	203-777-6	EINECS	DSL	Yes
Cyclohexane 110-82-7	203-806-2	EINECS	DSL	Yes

*** Section 16 - Other Information ***

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; AS = Standards Australia; DFG = Deutsche Forschungsgemeinschaft; DOT = Department of Transportation; DSL = Domestic Substances List; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EU = European Union; HMIS = Hazardous Materials Identification System; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Association; NOHSC = National Occupational Health & Safety Commission; NTP = National Toxicology Program; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average

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