Material Safety Data Sheet

Flammable Liquid Mixture: Decane / Ethyl Benzene / M-Xylene / O-Xylene / P-Xylene

Section 1. Chemical product and company identification

Product name : Flammable Liquid Mixture: Decane / Ethyl Benzene / M-Xylene / O-Xylene / P-Xylene

Supplier : AIRGAS INC., on behalf of its subsidiaries
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

MSDS # : 012531

Date of Preparation/ Revision : **1/2/2015.**

In case of emergency : 1-866-734-3438

Section 2. Hazards identification

Physical state : Liquid.

Emergency overview : DANGER!

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. POSSIBLE CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA.

Extremely flammable liquid. Severely irritating to the eyes and skin. Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not get in eyes. Avoid contact with skin and clothing. Contains material that can cause target organ damage. Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Target organs : Contains material which causes damage to the following organs: mucous membranes, upper respiratory tract, skin.
Contains material which may cause damage to the following organs: blood, kidneys, the nervous system, liver, gastrointestinal tract, central nervous system (CNS), ears, eye, lens or cornea.

Potential acute health effects

Eyes : Irritating to eyes.

Skin : Irritating to skin.

Inhalation : Irritating to respiratory system. Harmful by inhalation.

Ingestion : No known significant effects or critical hazards.

Potential chronic health effects

Chronic effects : Contains material that can cause target organ damage.

Carcinogenicity : Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.

Target organs : Contains material which causes damage to the following organs: mucous membranes, upper respiratory tract, skin.
Contains material which may cause damage to the following organs: blood, kidneys, the nervous system, liver, gastrointestinal tract, central nervous system (CNS), ears, eye, lens or cornea.

Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

Section 3. Composition, Information on Ingredients

United States

Name	CAS number	% Volume	Exposure limits
decane	124-18-5	80 - 99	
m-xylene	108-38-3	0.0001 - 5	**NIOSH REL (United States, 1/2013).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **ACGIH TLV (United States, 3/2012).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes.
p-xylene	106-42-3	0.0001 - 5	**NIOSH REL (United States, 1/2013).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **ACGIH TLV (United States, 3/2012).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes.
o-xylene	95-47-6	0.0001 - 5	**NIOSH REL (United States, 1/2013).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **ACGIH TLV (United States, 3/2012).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes.
ethylbenzene	100-41-4	0.0001 - 5	**ACGIH TLV (United States, 3/2012).** TWA: 20 ppm 8 hours.

NIOSH REL (United States, 1/2013).
STEL: 545 mg/m³ 15 minutes.
STEL: 125 ppm 15 minutes.
TWA: 435 mg/m³ 10 hours.
TWA: 100 ppm 10 hours.
OSHA PEL (United States, 6/2010).
TWA: 435 mg/m³ 8 hours.
TWA: 100 ppm 8 hours.
OSHA PEL 1989 (United States, 3/1989).
STEL: 545 mg/m³ 15 minutes.
STEL: 125 ppm 15 minutes.
TWA: 435 mg/m³ 8 hours.
TWA: 100 ppm 8 hours.

Section 4. First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire-fighting measures

Flammability of the product : May be combustible at high temperature.

Auto-ignition temperature : Lowest known value: 206°C (402.8°F) (decane).

Flash point : Lowest known value: Closed cup: 23°C (73.4°F). (ethylbenzene)

Flammable limits : Greatest known range: Lower: 1.1% Upper: 7% (m-xylene)

Products of combustion : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Extinguishing media

Suitable : Use dry chemical, CO_2, water spray (fog) or foam.

Not suitable : Do not use water jet.

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Extremely flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

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Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Handling : Do not ingest. Wash thoroughly after handling.
|Extremely hazardous liquid and vapor under pressure.

Storage : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

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, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin : 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.
When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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.

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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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Personal protection in case of a large spill : Full chemical-resistant suit and self-contained breathing apparatus should be worn only by trained and authorized persons.

Product name	Exposure limits
United States	
decane m-xylene	**NIOSH REL (United States, 1/2013).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **ACGIH TLV (United States, 3/2012).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes.
p-xylene	**NIOSH REL (United States, 1/2013).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **ACGIH TLV (United States, 3/2012).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes.
o-xylene	**NIOSH REL (United States, 1/2013).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **ACGIH TLV (United States, 3/2012).**

	TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes.
ethylbenzene	**ACGIH TLV (United States, 3/2012).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 1/2013).** STEL: 545 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 435 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 545 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

Section 9. Physical and chemical properties

Physical state : Liquid.

Boiling/condensation point : Lowest known value: 136.1°C (277°F) (ethylbenzene). Weighted average: 170.7°C (339.3°F)

Melting/freezing point : May start to solidify at the following temperature: 13.2°C (55.8°F) This is based on data for the following ingredient: p-xylene. Weighted average: -28.97°C (-20.1°F)

Critical temperature : Lowest known value: 325.33°C (617.6°F) (decane).

Specific gravity : Weighted average: 0.72 (Water = 1)

Vapor pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.23 kPa (1.73 mm Hg) (at 20°C)

Vapor density : Highest known value: 4.9 (Air = 1) (decane). Weighted average: 4.7 (Air = 1)

Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.2compared with butyl acetate

VOC : 119 % (w/w)

Viscosity : Dynamic: Highest known value: 0.76 cP (o-xylene) Weighted average: 0.65 cP
Kinematic: Highest known value: 1.16 cSt (decane) Weighted average: 1.14 cSt
Kinematic (40C): Highest known value: 0.641 cSt (ethylbenzene)

Section 10. Stability and reactivity

Stability and reactivity : The product is stable.

Incompatibility with various substances : Highly reactive or incompatible with the following materials: oxidizing materials and acids.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
decane	LC50 Inhalation Vapor	Rat	72300 mg/m³	2 hours
m-xylene	LD50 Dermal	Rabbit	14100 uL/kg	-
	LD50 Oral	Rat	4988 mg/kg	-
	TDLo Dermal	Rat	0.92 mL/kg	-
	TDLo Dermal	Rat	8 mg/kg	-
p-xylene	LD50 Intraperitoneal	Rat	3810 mg/kg	-
	LD50 Oral	Rat	3910 mg/kg	-
	LC50 Inhalation Gas.	Rat	9100 ppm	1 hours

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	LC50 Inhalation Gas.	Rat	4550 ppm	4 hours
o-xylene	LD50 Oral	Rat	3567 mg/kg	-
	LDLo Oral	Rat	5 g/kg	-
	LC50 Inhalation Gas.	Rat	13400 ppm	1 hours
	LC50 Inhalation Gas.	Mouse	8736 ppm	1 hours
ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Dermal	Rabbit	17800 uL/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
	TDLo Dermal	Rat	0.08 mL/kg	-
	TDLo Intraperitoneal	Rat	1062 mg/kg	-
	LC50 Inhalation Vapor	Rat	55000 mg/m³	2 hours

Chronic effects on humans : **CARCINOGENIC EFFECTS**: Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [m-xylene]. Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [p-xylene]. Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [o-xylene]. Classified A3 (Proven for animals.) by ACGIH, 2B (Possible for humans.) by IARC [ethylbenzene].
Contains material which causes damage to the following organs: mucous membranes, upper respiratory tract, skin.
Contains material which may cause damage to the following organs: blood, kidneys, the nervous system, liver, gastrointestinal tract, central nervous system (CNS), ears, eye, lens or cornea.

Other toxic effects on humans : No specific information is available in our database regarding the other toxic effects of this material to humans.

Specific effects

Carcinogenic effects : Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.

Mutagenic effects : No known significant effects or critical hazards.

Reproduction toxicity : No known significant effects or critical hazards.

Section 12. Ecological information

Aquatic ecotoxicity

decane	-	Acute EC50 89 mg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	96 hours
	-	Acute EC50 >500000 µg/l Marine water	Algae - Diatom - Skeletonema costatum	96 hours
	-	Acute LC50 530 mg/l Fresh water	Fish - Bluegill - Lepomis macrochirus	96 hours
	-	Acute LC50 >500 ppm Marine water	Fish - Sheepshead minnow - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling) - 14 to 28 days post-hatch - 8 to 15 mm	96 hours
	-	Acute LC50 18000 to 24000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - <=24	48 hours

			hours	
m-xylene	-	Acute EC50 8540 to 10500 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
	-	Acute EC50 7090 to 9700 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
	-	Acute EC50 5770 to 7640 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
	-	Acute EC50 5000 to 8740 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute EC50 4900 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	72 hours
	-	Acute EC50 3530 to 5000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute LC50 55700 to 87400 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute LC50 23600 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute LC50 16000 to 18000 µg/l Fresh water	Fish - Fathead minnow - Pimephales promelas - 34 days - 19 mm - 0. 099 g	96 hours
	-	Acute LC50 12900 µg/l Fresh water	Fish - Guppy - Poecilia reticulata	96 hours
	-	Acute LC50 8840 to 12400 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
	-	Acute LC50 8520 to 11700 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
	-	Acute LC50 8400 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
	-	Acute LC50 9.2 to 10 ul/ L Marine water	Fish - Striped bass - Morone	96 hours

			saxatilis - Juvenile (Fledgling, Hatchling, Weanling) - 6 g	
p-xylene	-	Acute EC50 5030 to 6310 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute EC50 4730 to 6310 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute EC50 3200 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	72 hours
	-	Acute LC50 33100 to 45400 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute LC50 31500 to 51800 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute LC50 28000 to 57000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute LC50 8800 µg/l Fresh water	Fish - Guppy - Poecilia reticulata	96 hours
	-	Acute LC50 8400 to 9900 µg/l Fresh water	Fish - Fathead minnow - Pimephales promelas - 30 days - 0.093 g	96 hours
	-	Acute LC50 2600 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
	-	Acute LC50 2 ul/L Marine water	Fish - Striped bass - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling) - 6 g	96 hours
o-xylene	-	Acute EC50 12700 to 17100 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
	-	Acute EC50 10700 to 15100 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
	-	Acute EC50 4700 µg/l Fresh water	Algae - Green algae -	72 hours

			Pseudokirchneriella subcapitata	
	-	Acute EC50 3820 to 5590 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - 0 to 24 hours	48 hours
	-	Acute EC50 1870 to 2510 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute EC50 <1390 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute LC50 38000 µg/l Marine water	Crustaceans - Dungeness or edible crab - Cancer magister - Zoea - 1 instar	48 hours
	-	Acute LC50 27100 to 48300 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
	-	Acute LC50 22400 to 31100 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
	-	Acute LC50 17200 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute LC50 16100 to 22400 µg/l Fresh water	Fish - Bluegill - Lepomis macrochirus - 1.1 g	96 hours
	-	Acute LC50 15700 to 20300 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
	-	Acute LC50 12000 µg/l Fresh water	Fish - Guppy - Poecilia reticulata	96 hours
	-	Acute LC50 8050 to 11600 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 13.1 g	96 hours
	-	Acute LC50 7600 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
	-	Acute LC50 11 to 12 ul/L Marine water	Fish - Striped bass - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling) - 6 g	96 hours
ethylbenzene	-	Acute EC50 13300 to	Crustaceans -	48 hours

	18100 µg/l Fresh water	Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	
-	Acute EC50 7700 µg/l Marine water	Algae - Diatom - Skeletonema costatum	96 hours
-	Acute EC50 6530 to 9460 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
-	Acute EC50 5400 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	72 hours
-	Acute EC50 4900 µg/l Marine water	Algae - Diatom - Skeletonema costatum	72 hours
-	Acute EC50 4600 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	72 hours
-	Acute EC50 3600 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	96 hours
-	Acute EC50 2970 to 4400 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
-	Acute EC50 2930 to 4400 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
-	Acute LC50 75000 to 120000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - <=24 hours	48 hours
-	Acute LC50 18400 to 25400 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
-	Acute LC50 13900 to 17200 µg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <=24 hours	48 hours
-	Acute LC50 13300 to 18100 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
-	Acute LC50 9100 to 11000 µg/l Fresh water	Fish - Fathead minnow - Pimephales promelas - 30 days - 0.079 g	96 hours
-	Acute LC50 9090 to 11000 µg/l Fresh water	Fish - Fathead minnow - Pimephales promelas - 28 to	96 hours

		32 days - 19.5 mm - 0.088 g	
-	Acute LC50 8780 to 13700 µg/l Fresh water	Crustaceans - Brine shrimp - Artemia sp. - Nauplii - 2 to 3 instar	48 hours
-	Acute LC50 >5200 µg/l Marine water	Crustaceans - Opossum shrimp - Americamysis bahia - <24 hours	48 hours
-	Acute LC50 5100 to 5700 µg/l Marine water	Fish - Atlantic silverside - Menidia menidia	96 hours
-	Acute LC50 4200 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
-	Acute LC50 4.3 to 4.7 ul/L Marine water	Fish - Striped bass - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling) - 6 g	96 hours
-	Chronic NOEC 1000 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	96 hours

Products of degradation : Products of degradation: carbon oxides (CO, CO_2) and water.

Section 13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Product removed from the cylinder must be disposed of in accordance with appropriate Federal, State, local regulation.Return cylinders with residual product to Airgas, Inc.Do not dispose of locally.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information

Flammable Liquid Mixture: Decane / Ethyl Benzene / M-Xylene / O-Xylene / P-Xylene						
DOT Classification	UN3161	Liquefied gas, flammable, n.o.s.	2.1	-		**Reportable quantity** 2000 lbs / 908 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
TDG Classification	UN3161	Liquefied gas, flammable, n.o.s.	2.1	-		**Explosive Limit and Limited Quantity Index** 0.125 **ERAP Index** 3000 **Passenger Carrying Ship Index** Forbidden **Passenger Carrying Road or Rail Index** Forbidden
Mexico Classification	UN3161	Liquefied gas, flammable, n.o.s.	2.1	-		**Reportable quantity** 2000 lbs / 908 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."

Section 15. Regulatory information

United States

HCS Classification : Irritating material
Carcinogen
Target organ effects

U.S. Federal regulations : **TSCA 8(a) PAIR**: p-xylene
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304: No products were found.
SARA 311/312 Hazards identification: Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: ethylbenzene

Clean Water Act (CWA) 311: m-xylene; p-xylene; o-xylene; ethylbenzene

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements :	m-xylene	108-38-3	0.0001 - 5
	p-xylene	106-42-3	0.0001 - 5
	o-xylene	95-47-6	0.0001 - 5
	ethylbenzene	100-41-4	0.0001 - 5
Supplier notification :	m-xylene	108-38-3	0.0001 - 5
	p-xylene	106-42-3	0.0001 - 5
	o-xylene	95-47-6	0.0001 - 5
	ethylbenzene	100-41-4	0.0001 - 5

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations : **Connecticut Carcinogen Reporting**: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.
Louisiana Reporting: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: The following components are listed: M-XYLENE; P-XYLENE; O-XYLENE; ETHYL BENZENE
Michigan Critical Material: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Hazardous Substances: The following components are listed: DECANE; m-XYLENE; BENZENE, 1,3-DIMETHYL-; p-XYLENE; BENZENE, 1,4-DIMETHYL-; o-XYLENE; BENZENE, 1,2-DIMETHYL-; ETHYL BENZENE; BENZENE, ETHYL-
New Jersey Spill: None of the components are listed.
New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.
New York Acutely Hazardous Substances: The following components are listed: m-Xylene; p-Xylene; o-Xylene; Ethylbenzene
New York Toxic Chemical Release Reporting: None of the components are listed.
Pennsylvania RTK Hazardous Substances: The following components are listed: DECANE; BENZENE, 1,3-DIMETHYL-; BENZENE, 1,4-DIMETHYL-; BENZENE, 1, 2-DIMETHYL-; BENZENE, ETHYL-
Rhode Island Hazardous Substances: None of the components are listed.

WARNING: This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.

Flammable Liquid Mixture: Decane / Ethyl Benzene / M-Xylene / O-Xylene / P-Xylene

Canada

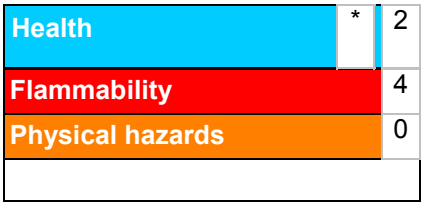
WHMIS (Canada) : Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

CEPA Toxic substances: None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed: Decane (all isomers); Xylene (all isomers); Xylene (all isomers); Xylene (all isomers); Ethylbenzene
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

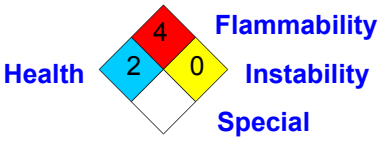
Section 16. Other information

Label requirements : EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. POSSIBLE CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA.

Hazardous Material Information System (U.S.A.) :



National Fire Protection Association (U.S.A.) :



Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.