Safety Data Sheet
Winter Express

1. Product and company identification

Product name	:	Winter Express
Material uses	:	Petrochemical industry: Fuel additive.
Internal code	:	IFS1072
System code	:	IFS1072
Date of issue/Date of revision	:	2020-01-15
Date of previous issue	:	2019-10-07
Version	:	1
Supplier	:	Innospec Fuel Specialties LLC 8310 South Valley Highway Suite 350 Englewood CO, 80112 USA
Information contact	:	1-800-441-9547
e-mail address of person responsible for this SDS	:	sdsinfo@innospecinc.com
NON-emergency enquiries	:	corporatecommunications@innospecinc.com

Emergency telephone number

In USA, Canada and North America, 24 hour / 7 day emergency information for our product is provided by the CHEMTREC® Emergency Call Center based in the USA

Country information	:	**Emergency telephone number**
USA, Canada, Puerto Rico, Virgin Islands	:	+1 800 424 9300
In case of difficulties, or for ships at sea	:	+1 703 527 3887

In Europe, Middle East, Africa, Asia Pacific and South America 24 hour / 7 day emergency response for our products is provided by the NCEC CARECHEM 24 global network

The main regional centres are listed here in Section 1.
Other local contact numbers for specific language support in Asia Pacific are listed in Section 16

Country information	:	**Emergency telephone number**	**Location**
South America (all countries)	:	+1 215 207 0061	Philadelphia USA
Brazil	:	+55 11 3197 5891	Brazil
Mexico	:	+52 555 004 8763	Mexico
Europe (all countries) Middle East, Africa (French, Portuguese, English)	:	+44 (0) 1235 239 670	London, UK
Middle East, Africa (Arabic, French, English)	:	+44 (0) 1235 239 671	Lebanon
Asia Pacific (all countries except China)	:	+65 3158 1074	Singapore
China	:	400 120 6011	Beijing China

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2B
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H226 - Flammable liquid and vapor.
H312 + H332 - Harmful in contact with skin or if inhaled.
H315 + H320 - Causes skin and eye irritation.
H361 - Suspected of damaging the unborn child.
H351 - Suspected of causing cancer.
H304 - May be fatal if swallowed and enters airways.

Precautionary statements

Prevention : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P233 - Keep container tightly closed.
P271 - Use only outdoors or in a well-ventilated area.
P261 - Avoid breathing vapor.
P264 - Wash hands thoroughly after handling.

Response : P308 + P313 - IF exposed or concerned: Get medical attention.
P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.
P332 + P313 - If skin irritation occurs: Get medical attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.

Section 2. Hazards identification

Storage : P405 - Store locked up.
P403 - Store in a well-ventilated place.
P235 - Keep cool.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

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

See toxicological information (Section 11)

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Xylene	60 - 100	1330-20-7
ethylbenzene	15 - 30	100-41-4
Solvent naphtha (petroleum), light arom.	0.99 - 4.99	64742-95-6
2-(2-methoxyethoxy)ethanol	0.99 - 4.99	111-77-3
cumene	0.09 - 0.99	98-82-8
naphthalene	0.09 - 0.99	91-20-3
toluene	0.09 - 0.99	108-88-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Additional information

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Remove dentures if any. Wash out mouth with water. Stop if the exposed person feels sick as vomiting may be dangerous. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes eye irritation.

Inhalation : Harmful if inhaled.

Skin contact : Harmful in contact with skin. Causes skin irritation.

Ingestion : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Section 4. First aid measures

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

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

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. 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.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : 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.

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.

Flash point : Closed cup: 30°C (86°F) [Pensky-Martens.]

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : 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.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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 and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : 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

Section 6. Accidental release measures

information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not swallow. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. 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

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Xylene	**ACGIH TLV (United States, 3/2018).** TWA: 100 ppm, 0 times per shift, 8 hours. TWA: 434 mg/m³, 0 times per shift, 8 hours. STEL: 150 ppm, 0 times per shift, 15 minutes. STEL: 651 mg/m³, 0 times per shift, 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm, 0 times per shift, 8 hours. TWA: 435 mg/m³, 0 times per shift, 8 hours. STEL: 150 ppm, 0 times per shift, 15 minutes. STEL: 655 mg/m³, 0 times per shift, 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm, 0 times per shift, 8 hours. TWA: 435 mg/m³, 0 times per shift, 8 hours.
ethylbenzene	**ACGIH TLV (United States, 3/2018).** TWA: 20 ppm, 0 times per shift, 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm, 0 times per shift, 8 hours.

Section 8. Exposure controls/personal protection

	TWA: 435 mg/m³, 0 times per shift, 8 hours. STEL: 125 ppm, 0 times per shift, 15 minutes. STEL: 545 mg/m³, 0 times per shift, 15 minutes. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm, 0 times per shift, 10 hours. TWA: 435 mg/m³, 0 times per shift, 10 hours. STEL: 125 ppm, 0 times per shift, 15 minutes. STEL: 545 mg/m³, 0 times per shift, 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm, 0 times per shift, 8 hours. TWA: 435 mg/m³, 0 times per shift, 8 hours.
cumene	**OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.** TWA: 50 ppm, 0 times per shift, 8 hours. TWA: 245 mg/m³, 0 times per shift, 8 hours. **NIOSH REL (United States, 10/2016). Absorbed through skin.** TWA: 50 ppm, 0 times per shift, 10 hours. TWA: 245 mg/m³, 0 times per shift, 10 hours. **ACGIH TLV (United States, 3/2018).** TWA: 50 ppm, 0 times per shift, 8 hours. **OSHA PEL (United States, 5/2018). Absorbed through skin.** TWA: 50 ppm, 0 times per shift, 8 hours. TWA: 245 mg/m³, 0 times per shift, 8 hours.
naphthalene	**ACGIH TLV (United States, 3/2018). Absorbed through skin.** TWA: 10 ppm, 0 times per shift, 8 hours. TWA: 52 mg/m³, 0 times per shift, 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 10 ppm, 0 times per shift, 8 hours. TWA: 50 mg/m³, 0 times per shift, 8 hours. STEL: 15 ppm, 0 times per shift, 15 minutes. STEL: 75 mg/m³, 0 times per shift, 15 minutes. **NIOSH REL (United States, 10/2016).** TWA: 10 ppm, 0 times per shift, 10 hours. TWA: 50 mg/m³, 0 times per shift, 10 hours. STEL: 15 ppm, 0 times per shift, 15 minutes. STEL: 75 mg/m³, 0 times per shift, 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 10 ppm, 0 times per shift, 8 hours. TWA: 50 mg/m³, 0 times per shift, 8 hours.
toluene	**OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm, 0 times per shift, 8 hours. TWA: 375 mg/m³, 0 times per shift, 8 hours. STEL: 150 ppm, 0 times per shift, 15 minutes. STEL: 560 mg/m³, 0 times per shift, 15 minutes. **OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm, 0 times per shift, 8 hours. CEIL: 300 ppm, 0 times per shift, 0 hours. AMP: 500 ppm, 0 times per shift, 10 minutes. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm, 0 times per shift, 10 hours. TWA: 375 mg/m³, 0 times per shift, 10 hours. STEL: 150 ppm, 0 times per shift, 15 minutes. STEL: 560 mg/m³, 0 times per shift, 15 minutes.

Section 8. Exposure controls/personal protection

	ACGIH TLV (United States, 3/2018). TWA: 20 ppm, 0 times per shift, 8 hours.

Appropriate engineering controls : 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.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

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.

Eye/face protection : 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, gases 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 protection

Hand protection : 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.

Body protection : 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.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Clear to hazy; Light straw; Amber.

Odor : Aromatic.

Odor threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Boiling point : Lowest known value: 136.05°C (276.9°F) (ethylbenzene). Weighted average: 139.89°C (283.8°F)

Flash point : Closed cup: 30°C (86°F) [Pensky-Martens.]

Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.76compared with butyl acetate

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Greatest known range: Lower: 1.6% Upper: 18.1% (diethylene glycol monomethyl ether)

Vapor pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.85 kPa (6.38 mm Hg) (at 20°C)

Vapor density : Highest known value: 4.47 (Air = 1) (Solvent naphtha (petroleum), light arom.). Weighted average: 3.72 (Air = 1)

Specific gravity : 0.886 [ASTM D 4052]

Density : 7.39 lbs/gal

Solubility : Insoluble in the following materials: cold water, hot water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Lowest known value: 215°C (419°F) (diethylene glycol monomethyl ether).

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): 0.03 cm^2/s (3 cSt)

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : Incompatible with fluorine.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Species	Result	Dose
Xylene	-	Rabbit	LD50 Dermal	4320 mg/kg -
	-	Rat	LD50 Oral	4300 mg/kg -
ethylbenzene	-	Mouse	LC50 Inhalation Vapor	35500 mg/m³ 2 hours
	-	Rabbit	LC50 Inhalation Vapor	4000 ppm 4 hours
	-	Rabbit	LD50 Dermal	>5000 mg/kg -
Solvent naphtha (petroleum), light arom.	-	Rat	LD50 Oral	8400 mg/kg -
cumene	-	Rat	LC50 Inhalation Vapor	39000 mg/m³ 4 hours
	-	Rat	LD50 Oral	1400 mg/kg -
naphthalene	-	Rat	LC50 Inhalation Vapor	>340 mg/m³ 1 hours
	-	Rabbit	LD50 Dermal	>2000 mg/kg -
	-	Rat	LD50 Oral	490 mg/kg -
toluene	-	Rat	LC50 Inhalation Vapor	26700 ppm 1 hours
	-	Rabbit	LD50 Dermal	>5000 mg/kg -
	-	Rat	LD50 Oral	5000 mg/kg -

Potential chronic health effects

Not available.

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
Xylene	-	Rabbit	Eyes - Severe irritant -
	-	Rat	Skin - Mild irritant -
	-	Rabbit	Skin - Moderate irritant -
ethylbenzene	-	Rabbit	Eyes - Severe irritant -
	-	Rabbit	Skin - Mild irritant -
Solvent naphtha (petroleum), light arom.	-	Rabbit	Eyes - Mild irritant -
2-(2-methoxyethoxy)ethanol	-	Rabbit	Eyes - Mild irritant -
	-	Rabbit	Eyes - Moderate irritant -
cumene	-	Rabbit	Eyes - Mild irritant -
	-	Rabbit	Eyes - Mild irritant -
	-	Rabbit	Skin - Mild irritant -
	-	Rabbit	Skin - Moderate irritant -
toluene	-	Pig	Skin - Mild irritant -
	-	Rabbit	Skin - Moderate irritant -

Sensitization

Not available.

Mutagenicity

Section 11. Toxicological information

Not available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
Xylene	-	3	-
ethylbenzene	-	2B	-
cumene	-	2B	Reasonably anticipated to be a human carcinogen.
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
toluene	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Product/ingredient name			Result	Dose
toluene	EPA 414 Prenatal Developmental Toxicity Study	Rat - Female	-	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
cumene	Category 3	Not applicable.	Narcotic effects
toluene	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
toluene	Category 2	Not determined	central nervous system (CNS)

Aspiration hazard

Name	Result
Xylene	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light arom.	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Xylene	Acute LC50 3.3 mg/l	Fish	96 hours
ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 7.2 mg/l	Algae	48 hours
	Acute EC50 2.93 mg/l	Daphnia	48 hours
	Acute LC50 4.2 mg/l	Fish	96 hours

Section 12. Ecological information

	Chronic NOEC <1000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Chronic NOEC 6800 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
2-(2-methoxyethoxy)ethanol	Acute LC50 7500000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
cumene	Acute EC50 2600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 10.6 mg/l	Daphnia	48 hours
	Acute LC50 2.7 mg/l	Fish	96 hours
naphthalene	Acute EC50 1.96 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 2350 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 1.6 mg/l	Fish	96 hours
	Chronic NOEC 0.5 mg/l Marine water	Crustaceans - Uca pugnax - Adult	3 weeks
	Chronic NOEC 1.5 mg/l Fresh water	Fish - Oreochromis mossambicus	60 days
toluene	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6 mg/l	Daphnia	48 hours
	Acute LC50 15.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours
	Acute LC50 5.8 mg/l	Fish	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Xylene	-	-	Readily
ethylbenzene	-	-	Readily
toluene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	3.12 to 3.2	8.1 to 25.9	low
ethylbenzene	3.1	-	low
Solvent naphtha (petroleum), light arom.	-	10 to 2500	high
2-(2-methoxyethoxy)ethanol	-1.14 to 0.93	-	low
cumene	3.66	94.69	low
naphthalene	3.3	>100	low
toluene	2.65	90	low

Section 13. Disposal considerations

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.

Section 13. Disposal considerations

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN1307	UN1307	UN1307
UN proper shipping name	Xylenes solution RQ (xylene, ethylbenzene)	XYLENES solution	Xylenes solution
Transport hazard class(es)	3 	3 	3 
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Additional information	**Reportable quantity** 163.56 lbs / 74.257 kg [22.141 gal / 83.811 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements. **Limited quantity** Yes. **Packaging instruction** Exceptions: 150. Non-bulk: 203. Bulk: 242. **Quantity limitation** Passenger aircraft/rail: 60 L. Cargo aircraft: 220 L. **Special provisions** B1, IB3, T2, TP1	**Emergency schedules** F-E, S-D **Special provisions** 223	**Quantity limitation** Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging instructions: 366. Limited Quantities - Passenger Aircraft: 10 L. Packaging instructions: Y344. **Special provisions** A3

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.

Clean Water Act (CWA) 307: ethylbenzene; toluene; naphthalene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

SARA 302/304

Section 15. Regulatory information

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Xylene	60 - 100	Yes.	No.	No.	Yes.	No.
ethylbenzene	15 - 30	Yes.	No.	No.	Yes.	Yes.
Solvent naphtha (petroleum), light arom.	0.99 - 4.99	Yes.	No.	No.	Yes.	No.
2-(2-methoxyethoxy)ethanol	0.99 - 4.99	Yes.	No.	No.	No.	Yes.
cumene	0.09 - 0.99	Yes.	No.	No.	Yes.	Yes.
naphthalene	0.09 - 0.99	No.	No.	No.	Yes.	Yes.
toluene	0.09 - 0.99	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	xylene ethylbenzene diethylene glycol monomethyl ether naphthalene	1330-20-7 100-41-4 111-77-3 91-20-3	60 - 100 15 - 30 0.99 - 4.99 0.09 - 0.99
Supplier notification	xylene ethylbenzene diethylene glycol monomethyl ether naphthalene	1330-20-7 100-41-4 111-77-3 91-20-3	60 - 100 15 - 30 0.99 - 4.99 0.09 - 0.99

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

State regulations

Massachusetts : The following components are listed: XYLENE; DIMETHYLBENZENE; XYLENE; DIMETHYLBENZENE; XYLENE; DIMETHYLBENZENE; DIETHYLENE GLYCOL METHYL ETHER

New York : The following components are listed: Xylene mixed; Naphthalene; Xylene mixed; Xylene mixed; Cumene; Benzene, 1-methylethyl-

New Jersey : The following components are listed: XYLENES; BENZENE, DIMETHYL-; NAPHTHALENE; MOTH FLAKES; XYLENES; BENZENE, DIMETHYL-; XYLENES; BENZENE, DIMETHYL-; CUMENE; BENZENE, (1-METHYLETHYL)-; GLYCOL ETHERS

Pennsylvania : The following components are listed: BENZENE, DIMETHYL-; NAPHTHALENE; BENZENE, DIMETHYL-; BENZENE, DIMETHYL-; BENZENE, (1-METHYLETHYL)-; ETHANOL, 2-(2-METHOXYETHOXY)-

California Prop. 65

Section 15. Regulatory information

: **WARNING**: This product can expose you to chemicals including ethylbenzene, cumene, naphthalene, which are known to the State of California to cause cancer, and toluene, 2-ethylhexanoic acid, 2-methoxyethanol; ethylene glycol monomethyl ether, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level	Contains : % or ppm
ethylbenzene	Yes.	No.			≥10 - ≤19
cumene	Yes.	No.			≤0.3
naphthalene	Yes.	No.			≤0.3
toluene	No.	Yes.			≤0.3
2-ethylhexanoic acid	No.	Yes.			<0.1
ethylene glycol monomethyl ether	No.	Yes.			<0.1

International lists

National inventory

Australia inventory (AICS) : At least one component is not listed.

Canada inventory : All components are listed or exempted.

China inventory (IECSC) : At least one component is not listed.

Europe inventory : Not determined.

Japan inventory (ENCS) : **Japan inventory (ENCS)**: At least one component is not listed.
Japan inventory (ISHL): Not determined.

New Zealand Inventory of Chemicals (NZIoC) : At least one component is not listed.

Philippines inventory (PICCS) : At least one component is not listed.

Korea inventory (KECI) : At least one component is not listed.

Taiwan inventory (TCSI) : All components are listed or exempted.

United States inventory (TSCA 8b) : All components are listed or exempted.

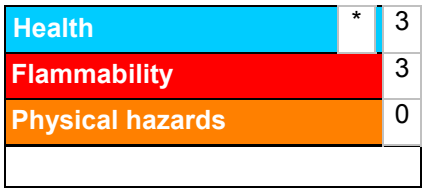
Our REACH (pre-) registrations DO NOT cover the following:
1. The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
2. The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations
Customers and other third parties importing and/or re-importing our products into Europe will need either:
- Their own (pre-) registration for substances contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
- In the case of importation only, to make use of the "Only Representative" provisions, if available.

FIFRA

EPA Registration Number: : 000121470

Section 16. Other information

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



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Section 16. Other information

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

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Key to abbreviations :
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Indicates information that has changed from previously issued version.

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