

Safety Data Sheet

7725 fb1

1. Product and company identification

Product name : 7725 fb1
Material uses : Petrochemical industry: Fuel additive.
Internal code : FS-000331
System code : FS0890
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	: +86 10 5100 3039	Beijing China

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1/17

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	: F LAMMABLE LIQUIDS - Category 4 SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1
<u>GHS label elements</u>	
Hazard pictograms	: 
Signal word	: Danger
Hazard statements	: F 227 - Combustible liquid. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H351 - Suspected of causing cancer. H304 - May be fatal if swallowed and enters airways. H335 - May cause respiratory irritation.
<u>Precautionary statements</u>	
Prevention	: P 201 - 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 flames and hot surfaces. - No smoking. P271 - Use only outdoors or in a well-ventilated area. P261 - Avoid breathing vapor. P264 - Wash hands thoroughly after handling. P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.
Response	: P 308 + 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. P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical attention.
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.

Section 2. Hazards identification

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

See toxicological information (Section 11)

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Solvent naphtha (petroleum), heavy arom.	30 - 60	64742-94-5
naphthalene	4.99 - 9.99	91-20-3
2-butoxyethanol; butyl cellosolve	4.99 - 9.99	111-76-2
Xylene	0.99 - 4.99	1330-20-7
Aliphatic amine.	Proprietary	-
Proprietary	Proprietary	-
ethylbenzene	0.09 - 0.99	100-41-4
Polyalkylenepolyamine	Proprietary	-

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

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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

- 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** : No known significant effects or critical hazards.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- 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:
respiratory tract irritation
coughing
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.
- Specific hazards arising from the chemical** : Combustible 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.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
- 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: 62.778°C (145°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 information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Section 7. Handling and storage

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. 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. 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
naphthalene 2-butoxyethanol; butyl cellosolve	<p>ACGIH TLV (United States, 3/2015). Absorbed through skin. TWA: 10 ppm, 0 times per shift, 8 hours. TWA: 52 mg/m³, 0 times per shift, 8 hours.</p> <p>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.</p> <p>NIOSH REL (United States, 10/2013). 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.</p> <p>OSHA PEL (United States, 2/2013). TWA: 10 ppm, 0 times per shift, 8 hours. TWA: 50 mg/m³, 0 times per shift, 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 25 ppm, 0 times per shift, 8 hours. TWA: 120 mg/m³, 0 times per shift, 8 hours.</p> <p>NIOSH REL (United States, 10/2013). Absorbed through skin. TWA: 5 ppm, 0 times per shift, 10 hours. TWA: 24 mg/m³, 0 times per shift, 10 hours.</p> <p>ACGIH TLV (United States, 4/2014).</p>

Section 8. Exposure controls/personal protection

Xylene	<p>TWA: 20 ppm, 0 times per shift, 8 hours. OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 50 ppm, 0 times per shift, 8 hours. TWA: 240 mg/m³, 0 times per shift, 8 hours. ACGIH TLV (United States, 4/2014). 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, 2/2013). TWA: 100 ppm, 0 times per shift, 8 hours. TWA: 435 mg/m³, 0 times per shift, 8 hours. ACGIH TLV (United States, 4/2014). 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. 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, 10/2013). 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, 2/2013). TWA: 100 ppm, 0 times per shift, 8 hours. TWA: 435 mg/m³, 0 times per shift, 8 hours. AIHA WEEL (United States, 10/2011). Absorbed through skin. Skin sensitizer. TWA: 5 mg/m³ 8 hours.</p>
ethylbenzene	
Polyalkylenopolyamine	

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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

- 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.
- 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** : Yellow. Amber.
- Odor** : Aromatic.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Lowest known value: 138.85°C (281.9°F) (xylene). Weighted average: 191.88°C (377.4°F)
- Flash point** : Closed cup: 62.778°C (145°F) [Pensky-Martens.]
- Evaporation rate** : Highest known value: 0.77 (xylene) Weighted average: 0.08 compared with butyl acetate
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Greatest known range: Lower: 1.1% Upper: 10.6% (2-butoxyethanol)
- Vapor pressure** : Highest known value: 0.7 to 0.9 kPa (5 to 6.6 mm Hg) (at 20°C) (xylene). Weighted average: 0.13 kPa (0.98 mm Hg) (at 20°C)
- Vapor density** : Highest known value: 4.6 to 5.5 (Air = 1) (solvent naphtha (petroleum), heavy arom.). Weighted average: 4.92 (Air = 1)
- Specific gravity** : 0.915 [ASTM D 4052]
- Density** : 7.62 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: 244°C (471.2°F) (2-butoxyethanol).

Section 9. Physical and chemical properties

- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): 0.07 cm²/s (7 cSt)
- Aerosol product**

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- 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
Solvent naphtha (petroleum), heavy arom. naphthalene	-	Rat	LC50 Inhalation Vapor	>590 mg/ 4 hours m ³
		Rabbit	LD50 Dermal	>2 mL/kg -
		Rabbit	LD50 Dermal	2000 mg/kg -
		Rat	LDLo Oral	5 mL/kg -
		Rat	LC50 Inhalation Vapor	>340 mg/ 1 hours m ³
		Rabbit	LD50 Dermal	>2000 mg/ - kg
		Rat	LD50 Dermal	>2500 mg/ - kg
		Rat	LD50 Oral	490 mg/kg -
		Rat	LD50 Oral	250 mg/kg -
		2-butoxyethanol; butyl cellosolve Xylene	-	Rabbit
Rat	LD50 Oral			4300 mg/kg -
Aliphatic amine.	-	Rabbit - Male	LD50 Dermal	1578 mg/kg -
		Rat - Male	LD50 Oral	365 mg/kg -
Proprietary ethylbenzene	OECD 420 Acute Oral Toxicity - Fixed Dose Method	Rat - Female	LD50 Oral	>2000 mg/ - kg
		Mouse	LC50 Inhalation Vapor	35500 mg/ 2 hours m ³
		Rabbit	LC50 Inhalation Vapor	4000 ppm 4 hours
		Rabbit	LD50 Dermal	>5000 mg/ - kg
Polyalkylenepolyamine	-	Rat	LD50 Dermal	1260 mg/kg -

Section 11. Toxicological information

	-	Rat	LD50 Oral	2100 to - 3990 mg/kg
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Potential chronic health effects

Product/ingredient name	Test	Species	Result	Dose
Polyalkylenepolyamine	-	Rat	Sub-chronic LOAEL Oral	43 mg/kg
	-	Rabbit	Sub-chronic LOAEL Dermal	50 mg/kg

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
Solvent naphtha (petroleum), heavy arom.	-	Rabbit	Skin - Mild irritant -
	-	Mammal - species unspecified	Eyes - Mild irritant -
2-butoxyethanol; butyl cellosolve	-	Rabbit	Eyes - Moderate irritant -
	-	Rabbit	Eyes - Severe irritant -
Xylene	-	Rabbit	Skin - Mild irritant -
	-	Rabbit	Eyes - Severe irritant -
Aliphatic amine.	-	Rat	Skin - Mild irritant -
	-	Rabbit	Skin - Moderate irritant -
Proprietary	-	Rabbit	Skin - Visible necrosis -
	EU B46	Human	Skin - Edema 89.8
ethylbenzene	-	Human	Eyes - Cornea opacity 11.7
	-	Rabbit	Eyes - Severe irritant -
Polyalkylenepolyamine	-	Rabbit	Skin - Mild irritant -
	-	Rabbit	Eyes - Moderate irritant -
	-	Rabbit	Skin - Severe irritant -

Sensitization

Product/ingredient name	Test	Species	Result
Proprietary	OECD 429 Skin Sensitization: Local Lymph Node Assay	Mouse	Sensitizing -
Polyalkylenepolyamine	-	Guinea pig	Sensitizing -

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Proprietary	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative
Polyalkylenepolyamine	-	Experiment: In vivo Subject: Mammalian-Animal	Negative

Carcinogenicity

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
2-butoxyethanol; butyl cellosolve	-	3	
Xylene	-	3	-
ethylbenzene	-	2B	-

Reproductive toxicity

Product/ingredient name	Test	Species	Result	Dose
Polyalkylenepolyamine	-	Mammal - species unspecified	-	Oral: 970 NOAEL
	-	Mammal - species unspecified	-	Dermal: 161 NOAEL

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), heavy arom.	Category 3	Not applicable.	Respiratory tract irritation
Solvent naphtha (petroleum), heavy arom.	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

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

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Solvent naphtha (petroleum), heavy arom.	Acute EC50 1 to 3 mg/l	Algae	72 hours
naphthalene	Acute EC50 3 to 10 mg/l	Daphnia	48 hours
	Acute LC50 2 to 5 mg/l	Fish	96 hours
	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
2-butoxyethanol; butyl cellosolve	Acute LC50 1.6 mg/l	Fish	96 hours
	Acute EC50 >1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Xylene	Acute LC50 1490 mg/l	Fish	96 hours
	Chronic NOEC 1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 3.3 mg/l	Fish	96 hours

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Section 12. Ecological information

Aliphatic amine.	EC50 2.9 mg/l	Algae	96 hours
	EC50 10 mg/l	Daphnia	48 hours
	LC50 780 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
	Chronic NOEC <1000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
Polyalkylenepolyamine	Chronic NOEC 6800 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 6.8 mg/l	Algae	72 hours
	Acute EC50 24.1 mg/l	Daphnia	48 hours
	Acute LC50 420 mg/l	Fish	96 hours
	Acute NOEC 0.5 mg/l	Algae	-

Persistence and degradability

Product/ingredient name	Test	Result
Proprietary	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	22 % - Not readily - 28 days

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Solvent naphtha (petroleum), heavy arom.	-	-	Inherent
Xylene	-	-	Readily
Proprietary	-	-	Not readily
ethylbenzene	-	-	Readily
Polyalkylenepolyamine	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Solvent naphtha (petroleum), heavy arom.	2.9 to 6.1	130 to 159	low
naphthalene	3.3	>100	low
2-butoxyethanol; butyl cellosolve	0.83	-	low
Xylene	3.12 to 3.2	8.1 to 25.9	low
Proprietary	6.78 to 9.23	-	high
ethylbenzene	3.1	-	low
Polyalkylenepolyamine	-3.16	-	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

Section 13. Disposal considerations

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 14. Transport information

	DOT Classification	IMDG	IATA
UN number	NA1993	UN3082	UN3082
UN proper shipping name	☑ Combustible liquid, n.o.s. (Solvent naphtha (petroleum), heavy arom., naphthalene). Marine pollutant (Solvent naphtha (petroleum), heavy arom.) RQ (naphthalene, xylene)	☑ ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy arom., naphthalene). Marine pollutant (Solvent naphtha (petroleum), heavy arom.)	☑ Environmentally hazardous substance, liquid, n.o.s. (Solvent naphtha (petroleum), heavy arom., naphthalene)
Transport hazard class(es)	Combustible liquid. 	9 	9 
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.
Additional information	<p>☑ Non-bulk packages (less than or equal to 119 gal) of combustible liquids, that are marine pollutants, are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by vessel.</p> <p>This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.</p> <p>Reportable quantity 1947 lbs / 883.92 kg [255.2 gal / 966.03 L] Package sizes shipped in quantities less than the product reportable quantity are not</p>	<p>☑ This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.</p> <p>Emergency schedules (EmS) F-A, S-F</p> <p>Special provisions 274, 335, 969</p>	<p>☑ This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.</p> <p>Passenger and Cargo Aircraft Quantity limitation: 450 L Packaging instructions: 964</p> <p>Cargo Aircraft Only Quantity limitation: 450 L Packaging instructions: 964</p> <p>Limited Quantities - Passenger Aircraft Quantity limitation: 30 kg Packaging instructions: Y964</p> <p>Special provisions A97, A158, A197</p>

Section 14. Transport information

	subject to the RQ (reportable quantity) transportation requirements. Limited quantity Yes. Packaging instruction Passenger aircraft Quantity limitation: 60 L Cargo aircraft Quantity limitation: 220 L Special provisions 148, IB3, T1, T4, TP1		
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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 : **TSCA 5(a)2 final significant new use rules:** Aliphatic amine.
 The manufacture and use of a substance contained in this product is controlled under a TSCA Section 5(e) Consent Order. Users should minimize exposure and release to water. See MSDS and applicable paragraph 5(e) Significant New Use Rule (SNUR) for details.

TSCA 5(e) substance consent order: Aliphatic amine.
United States inventory (TSCA 8b): All components are listed or exempted.
 Clean Water Act (CWA) 307: naphthalene; ethylbenzene

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

SARA 302/304

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

Section 15. Regulatory information

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
<input checked="" type="checkbox"/> Solvent naphtha (petroleum), heavy arom.	30 - 60	Yes.	No.	No.	Yes.	No.
<input checked="" type="checkbox"/> naphthalene	4.99 - 9.99	No.	No.	No.	Yes.	Yes.
<input checked="" type="checkbox"/> 2-butoxyethanol; butyl cellosolve	4.99 - 9.99	Yes.	No.	No.	Yes.	No.
<input checked="" type="checkbox"/> Xylene	0.99 - 4.99	Yes.	No.	No.	Yes.	No.
<input checked="" type="checkbox"/> Aliphatic amine.	Proprietary	No.	No.	No.	Yes.	No.
<input checked="" type="checkbox"/> Proprietary	Proprietary	No.	No.	No.	Yes.	No.
<input checked="" type="checkbox"/> ethylbenzene	0.09 - 0.99	Yes.	No.	No.	Yes.	Yes.
<input checked="" type="checkbox"/> Polyalkylenepolyamine	Proprietary	No.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	<input checked="" type="checkbox"/> naphthalene	91-20-3	4.99 - 9.99
	<input checked="" type="checkbox"/> 2-butoxyethanol	111-76-2	4.99 - 9.99
	<input checked="" type="checkbox"/> xylene	1330-20-7	0.99 - 4.99
	<input checked="" type="checkbox"/> ethylbenzene	100-41-4	0.09 - 0.99
Supplier notification	<input checked="" type="checkbox"/> naphthalene	91-20-3	4.99 - 9.99
	<input checked="" type="checkbox"/> 2-butoxyethanol	111-76-2	4.99 - 9.99
	<input checked="" type="checkbox"/> xylene	1330-20-7	0.99 - 4.99
	<input checked="" type="checkbox"/> ethylbenzene	100-41-4	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: NAPHTHALENE; XYLENE; 2-BUTOXYETHANOL
- New York** : The following components are listed: Naphthalene; Xylene (mixed)
- New Jersey** : The following components are listed: NAPHTHALENE; MOTH FLAKES; XYLENES; BENZENE, DIMETHYL-; 2-BUTOXY ETHANOL; BUTYL CELLOSOLVE
- Pennsylvania** : The following components are listed: NAPHTHALENE; BENZENE, DIMETHYL-; ETHANOL, 2-BUTOXY-
- California Prop. 65** : **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	Contains : % or ppm
<input checked="" type="checkbox"/> naphthalene	Yes.	No.	Yes.	No.	4.99 - 9.99
<input checked="" type="checkbox"/> ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.	0.09 - 0.99

International lists

National inventory

Australia inventory (AICS)

Canada inventory

: At least one component is not listed.

: Not determined.

Date of issue/Date of revision : 2017-01-18

15/17

Section 15. Regulatory information

China inventory (IECSC)	: At least one component is not listed.
Europe inventory	: At least one component is not listed.
Japan inventory (ENCS)	: <input checked="" type="checkbox"/> Japan inventory (ENCS) : At least one component is not listed.
	: <input checked="" type="checkbox"/> Japan inventory (ISHL) : Not determined.
New Zealand Inventory of Chemicals (NZIoC)	: <input checked="" type="checkbox"/> Not determined.
Philippines inventory (PICCS)	: At least one component is not listed.
Korea inventory (KECI)	: At least one component is not listed.
Taiwan inventory (TCSI)	: Not determined.
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.

Section 16. Other information

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

Health	2
Flammability	2
Physical hazards	0

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 are not required on SDSs 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 mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

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.

Classification according to Directive 67/548/EEC [DSD] or Classification according to Directive 1999/45/EC [DPD]

Risk phrases	: <input checked="" type="checkbox"/> R40- Limited evidence of a carcinogenic effect. R37/38- Irritating to respiratory system and skin. R43- May cause sensitization by skin contact. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases	: S36/37- Wear suitable protective clothing and gloves. S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

Date of issue/Date of revision : 2017-01-18

Section 16. Other information

History

Date of printing	: 2017-01-18
Date of issue/Date of revision	: 2017-01-18
Date of previous issue	: 2016-02-12
Version	: 1.04
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.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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.

Safety Data Sheet

7725 fb1

1. Product and company identification

Product name : 7725 fb1
Internal code : IFS0242
System code : IFS0242
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



Country information : **Emergency telephone number** **Location**

South America (all countries)	: +1 215 207 0061	Philadelphia USA
Brazil	: +55 113 711 9144	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	: +86 10 5100 3039	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 4
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2

GHS label elements

Date of issue/Date of revision : 2015-05-18

Section 2. Hazards identification

Hazard pictograms



Signal word

: Warning

Hazard statements

: H227 - Combustible liquid.
H317 - May cause an allergic skin reaction.
H351 - Suspected of causing cancer.

Precautionary statements

Prevention

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P281 - Use personal protective equipment as required.
P280 - Wear protective gloves. Wear eye or face protection.
P210 - Keep away from flames and hot surfaces. - No smoking.
P261 - Avoid breathing vapor.
P272 - Contaminated work clothing should not be allowed out of the workplace.

Response

: P308 + P313 - IF exposed or concerned: Get medical attention.
P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.
P333 + P313 - If skin irritation or rash occurs: Get medical attention.

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

See toxicological information (Section 11)

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
Benzene, ethylenated, residues, distn. lights	30 - 60	178535-25-6
Solvent naphtha (petroleum), heavy arom.	9.99 - 14.99	64742-94-5
2-butoxyethanol; butyl cellosolve	4.99 - 9.99	111-76-2
Xylene	0.99 - 4.99	1330-20-7
naphthalene	0.99 - 4.99	91-20-3
Aliphatic amine.	Proprietary	-
Proprietary	Proprietary	-
ethylbenzene	0.09 - 0.99	100-41-4
Polyalkylenepolyamine	Proprietary	-

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

Section 3. Composition/information on ingredients

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 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 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. 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** : No known significant effects or critical hazards.
- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.

- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Combustible 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. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

- 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: 62.778°C (145°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 specialised 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). Water polluting material. May be harmful to the environment if released in large quantities.

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.

Section 6. Accidental release measures

- 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 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. 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. 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
2-butoxyethanol; butyl cellosolve	<p>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.</p> <p>TWA: 25 ppm, 0 times per shift, 8 hours. TWA: 120 mg/m³, 0 times per shift, 8 hours.</p> <p>NIOSH REL (United States, 10/2013). Absorbed through skin.</p> <p>TWA: 5 ppm, 0 times per shift, 10 hours. TWA: 24 mg/m³, 0 times per shift, 10 hours.</p> <p>ACGIH TLV (United States, 4/2014).</p> <p>TWA: 20 ppm, 0 times per shift, 8 hours.</p> <p>OSHA PEL (United States, 2/2013). Absorbed through skin.</p> <p>TWA: 50 ppm, 0 times per shift, 8 hours. TWA: 240 mg/m³, 0 times per shift, 8 hours.</p> <p>ACGIH TLV (United States, 4/2014).</p>
Xylene	

Date of issue/Date of revision : 2015-05-18

Section 8. Exposure controls/personal protection

naphthalene	<p>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, 2/2013). TWA: 100 ppm, 0 times per shift, 8 hours. TWA: 435 mg/m³, 0 times per shift, 8 hours.</p> <p>ACGIH TLV (United States, 4/2014). 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, 10/2013). 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, 2/2013). TWA: 10 ppm, 0 times per shift, 8 hours. TWA: 50 mg/m³, 0 times per shift, 8 hours.</p>
ethylbenzene	<p>ACGIH TLV (United States, 4/2014). 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. 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, 10/2013). 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, 2/2013). TWA: 100 ppm, 0 times per shift, 8 hours. TWA: 435 mg/m³, 0 times per shift, 8 hours.</p>
Polyalkylenepolyamine	<p>AIHA WEEL (United States, 10/2011). Absorbed through skin. Skin sensitizer. TWA: 5 mg/m³ 8 hours.</p>

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.

Section 8. Exposure controls/personal protection

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. Contaminated work clothing should not be allowed out of the workplace. 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: safety glasses with side-shields.
- 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.
- 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** : Use a properly fitted, air-purifying or supplied-air 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.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Clear. Amber.
- Odor** : Aromatic.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Lowest known value: 138.85°C (281.9°F) (xylene). Weighted average: 209.71°C (409.5°F)
- Flash point** : Closed cup: 62.778°C (145°F) [Pensky-Martens.]
- Evaporation rate** : Highest known value: 0.77 (xylene) Weighted average: 0.17 compared with butyl acetate
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Greatest known range: Lower: 1.1% Upper: 10.6% (2-butoxyethanol)
- Vapor pressure** : Highest known value: 0.7 to 0.9 kPa (5 to 6.6 mm Hg) (at 20°C) (xylene). Weighted average: 0.06 kPa (0.45 mm Hg) (at 20°C)
- Vapor density** : Highest known value: 5.5 (Air = 1) (Benzene, ethylenated, residues, distn. lights). Weighted average: 5.26 (Air = 1)
- Specific gravity** : 0.915 [ASTM D 4052]
- Density** : 7.62 lbs/gal

Date of issue/Date of revision : 2015-05-18

Section 9. Physical and chemical properties

- Solubility** : Insoluble in the following materials: cold water, hot water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Lowest known value: 244°C (471.2°F) (2-butoxyethanol).
- Decomposition temperature** : Not available.
- Viscosity** : Not available.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- 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
Benzene, ethylenated, residues, distn. lights Solvent naphtha (petroleum), heavy arom.	OECD 423 Acute Oral toxicity - Acute Toxic Class Method	Rat - Male, Female	LD50 Oral	>2000 mg/kg
	-	Rat	LC50 Inhalation Vapor	>590 mg/m ³
	-	Rabbit	LD50 Dermal	>2 mL/kg
	-	Rat	LDLo Oral	5 mL/kg
2-butoxyethanol xylene	-	Rat	LD50 Oral	250 mg/kg
	-	Rabbit	LD50 Dermal	4320 mg/kg
naphthalene	-	Rat	LD50 Oral	4300 mg/kg
	-	Rat	LC50 Inhalation Vapor	>340 mg/m ³
	-	Rabbit	LD50 Dermal	>2000 mg/kg
	-	Rat	LD50 Dermal	>2500 mg/kg
Aliphatic amine.	-	Rat	LD50 Oral	490 mg/kg
	-	Rabbit - Male	LD50 Dermal	1578 mg/kg
Proprietary ethylbenzene	OECD 420 Acute Oral Toxicity - Fixed Dose Method	Rat - Male	LD50 Oral	365 mg/kg
		Rat - Female	LD50 Oral	>2000 mg/kg
		Mouse	LC50 Inhalation Vapor	35500 mg/m ³
Polyalkylenepolyamine	-	Rabbit	LC50 Inhalation Vapor	4000 ppm
	-	Rabbit	LD50 Dermal	>5000 mg/kg
	-	Rat	LD50 Dermal	1260 mg/kg
	-	Rat	LD50 Oral	2100 to 3990 mg/kg

Potential chronic health effects

Section 11. Toxicological information

Product/ingredient name	Test	Species	Result	Dose
Polyalkylenepolyamine	-	Rat	Sub-chronic LOAEL Oral	43 mg/kg
	-	Rabbit	Sub-chronic LOAEL Dermal	50 mg/kg

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
Solvent naphtha (petroleum), heavy arom.	-	Rabbit	Skin - Mild irritant -
	-	Mammal - species unspecified	Eyes - Mild irritant -
2-butoxyethanol	-	Rabbit	Eyes - Moderate irritant -
	-	Rabbit	Eyes - Severe irritant -
	-	Rabbit	Skin - Mild irritant -
xylene	-	Rabbit	Eyes - Severe irritant -
	-	Rat	Skin - Mild irritant -
	-	Rabbit	Skin - Moderate irritant -
Aliphatic amine.	-	Rabbit	Skin - Visible necrosis -
	-	Rabbit	Skin - Visible necrosis -
Proprietary	EU B46	Human	Skin - Edema 89.8
	EU EPISKIN- Under validation	Human	Eyes - Cornea opacity 11.7
ethylbenzene	-	Rabbit	Eyes - Severe irritant -
Polyalkylenepolyamine	-	Rabbit	Skin - Mild irritant -
	-	Rabbit	Eyes - Moderate irritant -
	-	Rabbit	Skin - Severe irritant -

Sensitization

Product/ingredient name	Test	Species	Result
Proprietary	OECD 429 Skin Sensitization: Local Lymph Node Assay	Mouse	Sensitizing -
Polyalkylenepolyamine	-	Guinea pig	Sensitizing -

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Benzene, ethylenated, residues, distn. lights	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative
Proprietary	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative
Polyalkylenepolyamine	-	Experiment: In vivo Subject: Mammalian-Animal	Negative

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
2-butoxyethanol; butyl cellosolve	-	3	-
Xylene	-	3	-
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
ethylbenzene	-	2B	-

Reproductive toxicity

Section 11. Toxicological information

Product/ingredient name	Test	Species	Result	Dose
Polyalkylenepolyamine	-	Mammal - species unspecified	-	Oral: 970 NOAEL
	-	Mammal - species unspecified	-	Dermal: 161 NOAEL

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), heavy arom.	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Benzene, ethylenated, residues, distn. lights	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1
Xylene	ASPIRATION HAZARD - Category 1

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Benzene, ethylenated, residues, distn. lights	Acute EC50 6.2 mg/l (growth rate) Fresh water	Algae	72 hours WAF
	Acute EC50 1.3 mg/l Fresh water	Daphnia	48 hours WAF
Solvent naphtha (petroleum), heavy arom.	Acute EC50 1 to 3 mg/l	Algae	72 hours
	Acute EC50 3 to 10 mg/l	Daphnia	48 hours
2-butoxyethanol; butyl cellosolve	Acute LC50 2 to 5 mg/l	Fish	96 hours
	Acute EC50 >1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Xylene naphthalene	Acute LC50 1490 mg/l	Fish	96 hours
	Chronic NOEC 1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Aliphatic amine.	Acute LC50 3.3 mg/l	Fish	96 hours
	Acute EC50 1.96 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
ethylbenzene	Acute LC50 2350 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 1.6 mg/l	Fish	96 hours
	EC50 2.9 mg/l	Algae	96 hours
	EC50 10 mg/l	Daphnia	48 hours
	LC50 780 mg/l	Fish	96 hours
	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

Date of issue/Date of revision : 2015-05-18

Section 12. Ecological information

Polyalkylenepolyamine	Chronic NOEC <1000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Chronic NOEC 6800 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 6.8 mg/l	Algae	72 hours
	Acute EC50 24.1 mg/l	Daphnia	48 hours
	Acute LC50 420 mg/l	Fish	96 hours
	Acute NOEC 0.5 mg/l	Algae	-

Persistence and degradability

Product/ingredient name	Test	Result
Benzene, ethylenated, residues, distn. lights Proprietary	OECD 310 Ready Biodegradability - CO ₂ in Sealed Vessels (Headspace Test)	15 % - Not readily - 28 days
	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	22 % - Not readily - 28 days

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Benzene, ethylenated, residues, distn. lights	-	-	Not readily
Solvent naphtha (petroleum), heavy arom.	-	-	Inherent
Xylene	-	-	Readily
Proprietary	-	-	Not readily
ethylbenzene	-	-	Readily
Polyalkylenepolyamine	-	-	Not readily





Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Benzene, ethylenated, residues, distn. lights	3.43 to 6.5	-	high
Solvent naphtha (petroleum), heavy arom.	-	<100	low
2-butoxyethanol; butyl cellosolve	0.83	-	low
Xylene	3.12 to 3.2	8.1 to 25.9	low
naphthalene	3.3	>100	low
Proprietary	6.78 to 9.23	-	high
ethylbenzene	3.1	-	low
Polyalkylenepolyamine	-3.16	-	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 14. Transport information

	DOT Classification	IMDG	IATA
UN number	NA1993	UN3082	UN3082
UN proper shipping name	Combustible liquid, n.o.s. (Benzene, ethylenated, residues, distn. lights, Solvent naphtha (petroleum), heavy arom.). Marine pollutant (Benzene, ethylenated, residues, distn. lights, Solvent naphtha (petroleum), heavy arom.) RQ (xylene, naphthalene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Benzene, ethylenated, residues, distn. lights, Solvent naphtha (petroleum), heavy arom.). Marine pollutant (Benzene, ethylenated, residues, distn. lights, Solvent naphtha (petroleum), heavy arom.)	Environmentally hazardous substance, liquid, n.o.s. (Benzene, ethylenated, residues, distn. lights, Solvent naphtha (petroleum), heavy arom.)
Transport hazard class(es)	Combustible liquid.  	9  	9  
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.
Additional information	<p>Non-bulk packages (less than or equal to 119 gal) of combustible liquids, that are marine pollutants, are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by vessel.</p> <p>The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes.</p> <p>Reportable quantity 3301.8 lbs / 1499 kg [432.79 gal / 1638.3 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.</p> <p>Limited quantity Yes.</p> <p>Packaging instruction Passenger aircraft Quantity limitation: 60 L</p>	<p>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p>Emergency schedules (EmS) F-A, S-F</p> <p>Special provisions 274, 335</p>	<p>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p>Passenger and Cargo Aircraft Quantity limitation: 450 L Packaging instructions: 964</p> <p>Cargo Aircraft OnlyQuantity limitation: 450 L Packaging instructions: 964</p> <p>Limited Quantities - Passenger AircraftQuantity limitation: 30 kg Packaging instructions: Y964</p> <p>Special provisions A97, A158</p>

Section 14. Transport information

	Cargo aircraft Quantity limitation: 220 L		
	Special provisions IB3, T4, TP1		

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 : **TSCA 5(a)2 final significant new use rules:** Aliphatic amine.
 The manufacture and use of a substance contained in this product is controlled under a TSCA Section 5(e) Consent Order. Users should minimize exposure and release to water. See MSDS and applicable paragraph 5(e) Significant New Use Rule (SNUR) for details.

TSCA 5(e) substance consent order: Aliphatic amine.

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

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

Clean Air Act Section 112 : Listed

(b) Hazardous Air Pollutants (HAPs)

SARA 302/304

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
Benzene, ethylenated, residues, distn. lights	30 - 60	Yes.	No.	No.	No.	No.
Solvent naphtha (petroleum), heavy arom.	9.99 - 14.99	Yes.	No.	No.	Yes.	No.
2-butoxyethanol; butyl cellosolve	4.99 - 9.99	Yes.	No.	No.	Yes.	No.
Xylene	0.99 - 4.99	Yes.	No.	No.	Yes.	No.
naphthalene	0.99 - 4.99	No.	No.	No.	Yes.	Yes.
Aliphatic amine.	Proprietary	No.	No.	No.	Yes.	No.
Proprietary	Proprietary	No.	No.	No.	Yes.	No.
ethylbenzene	0.09 - 0.99	Yes.	No.	No.	Yes.	Yes.
Polyalkylenepolyamine	Proprietary	No.	No.	No.	Yes.	No.

SARA 313

Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	2-butoxyethanol	111-76-2	4.99 - 9.99
	xylene	1330-20-7	0.99 - 4.99
	naphthalene	91-20-3	0.99 - 4.99
	ethylbenzene	100-41-4	0.09 - 0.99
Supplier notification	2-butoxyethanol	111-76-2	4.99 - 9.99
	xylene	1330-20-7	0.99 - 4.99
	naphthalene	91-20-3	0.99 - 4.99
	ethylbenzene	100-41-4	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: NAPHTHALENE; XYLENE; 2-BUTOXYETHANOL
- New York** : The following components are listed: Naphthalene; Ethylbenzene; Xylene (mixed)
- New Jersey** : The following components are listed: NAPHTHALENE; MOTH FLAKES; ETHYL BENZENE; BENZENE, ETHYL-; XYLENES; BENZENE, DIMETHYL-; 2-BUTOXY ETHANOL; BUTYL CELLOSOLVE
- Pennsylvania** : The following components are listed: NAPHTHALENE; BENZENE, ETHYL-; BENZENE, DIMETHYL-; ETHANOL, 2-BUTOXY-
- California Prop. 65** : **WARNING:** This product contains a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level	Contains : % or ppm
naphthalene	Yes.	No.	Yes.	No.	0.99 - 4.99
ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.	0.09 - 0.99
toluene	No.	Yes.	No.	7000 µg/day (ingestion) 13000 µg/day (inhalation)	<100ppm
cumene	Yes.	No.	No.	No.	<100ppm

International lists

National inventory

Australia inventory (AICS)

Canada inventory

China inventory (IECSC)

Europe inventory

Japan inventory (ENCS)

New Zealand Inventory of Chemicals (NZIoC)

Philippines inventory (PICCS)

Korea inventory (KECI)

Taiwan inventory (TCSI)

United States inventory (TSCA 8b)

- : At least one component is not listed.
- : At least one component is not listed in DSL but all such components are listed in NDSL.
- : At least one component is not listed.
- : At least one component is not listed.
- : At least one component is not listed.
- : Not determined.
- : At least one component is not listed.
- : At least one component is not listed.
- : Not determined.
- : All components are listed or exempted.

Section 15. Regulatory information

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.

Section 16. Other information

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

Health	*	3
Flammability		2
Physical hazards		0

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 are not required on SDSs 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 mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

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.

Classification according to Directive 67/548/EEC [DSD] or Classification according to Directive 1999/45/EC [DPD]

Risk phrases : R40- Limited evidence of a carcinogenic effect.
 R20/21- Harmful by inhalation and in contact with skin.
 R36/38- Irritating to eyes and skin.
 R43- May cause sensitization by skin contact.
 R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases : S36/37- Wear suitable protective clothing and gloves.
 S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

History

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Version : 1.01

Date of issue/Date of revision : 2015-05-18

Section 16. Other information

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 73/78 = 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.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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.

7725 fb1

Material Safety Data Sheet

1 Company Identification

Innospec Fuel Specialties
8375 S. Willow Street
Littleton, CO 80124

Product information 1-800-441-9547
In Case of Emergency
Call Chemtrec 1-800-424-9300

2 Composition / Ingredient Information

<u>Material</u>	<u>CAS Number</u>	<u>%</u>
Detergent		10-30
Proprietary Amine		<5
Heavy Aromatic Naphtha	64742-94-5	10-20
Light Ends of Polyethylbenzene Residue	178535-25-6	50-70
(Triethylbenzene)	102-25-0	(10-15)
*Naphthalene)	91-20-3	(<2)
*Xylene.....	1330-20-7	<5
(Ethylbenzene).....	100-41-4	(<1)
*Ethylene Glycol N-Butyl Ether	111-76-2	<10

*Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

3 Hazardous Identification

Potential Health Effects

In general, overexposure to high atmospheric concentrations of alkyl-substituted aromatics may produce central nervous system depression, headache, dizziness, incoordination, nausea and loss of appetite. Aspiration (liquid enters the lung), may cause lung damage due to chemical pneumonia, a condition caused by petroleum-like solvents. Skin contact may cause skin irritation with discomfort or rash.

Minute amounts of petroleum hydrocarbons aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possible death.

Individuals with preexisting diseases of the kidneys or liver may have increased susceptibility to the toxicity of excessive exposures.

Skin contact with Detergent may cause skin sensitization upon extended contact. The compound may cause skin sensitization in susceptible individuals. Eye contact may cause eye irritation with discomfort,

tearing, or blurring of vision. Inhalation may initially include irritation of the upper respiratory passages with coughing and discomfort. Individuals with preexisting diseases of the central nervous system may have increased susceptibility to the toxicity of excessive exposures to Detergent.

Xylene can penetrate the skin in amounts capable of causing systemic toxicity. Eye contact may cause eye irritation with discomfort, tearing or blurring of vision. Inhalation of Ethylbenzene may cause irritation of the upper respiratory passages with coughing and discomfort.

Inhalation or ingestion of Xylene or Ethylbenzene may cause nonspecific discomfort, such as nausea, headache, or weakness; or temporary nervous system depression with anesthetic effects such as dizziness, headache, confusion, incoordination, and loss of consciousness.

Inhalation or ingestion of Ethylbenzene may cause abnormal liver or kidney function. Aspiration of Ethylbenzene into the lungs during ingestion or vomiting may lead to chemical pneumonitis.

Ingestion of Xylene or Ethylbenzene may cause gastrointestinal tract irritation. Higher exposure to Xylene may lead to cardiac stress; anemia and other blood changes; respiratory effects; possible liver and kidney damage; or fatality from gross overexposure.

Inhalation or ingestion of Heavy Aromatic Naphtha may cause central nervous system depression with anesthetic effects, such as dizziness, headache, confusion, incoordination and loss of consciousness. Higher exposures may result in fatality from gross overexposure. Ingestion may cause gastrointestinal irritation. Aspiration hazard! Small amounts aspirated into the lungs during ingestion or vomiting may cause lung injury, possibly leading to death. Symptoms of aspiration into the lungs include coughing, gasping, choking, shortness of breath, bluish discolored skin, rapid breathing and heart rate. Chemical pneumonitis from aspiration may result in fever. Pulmonary edema or bleeding, drowsiness, confusion, coma and seizures may occur in more serious cases. Symptoms may develop immediately or as late as 24 hours after the exposure, depending on how much chemical entered the lungs.

Prolonged or repeated exposure to Ethylene Glycol N-Butyl Ether may cause skin irritation which may be slow to heal. A single prolonged exposure may result in the material being absorbed in harmful amounts. Excessive exposure may cause hemolysis, thereby impairing the blood's ability to transport oxygen. Repeated minor exposure may result in absorption of harmful amounts. May cause moderate eye irritation which may be slow to heal. May cause moderate corneal injury. Effects may be slow to heal. Vapors of Ethylene Glycol N-Butyl Ether may irritate eyes. A single prolonged excessive inhalation exposure may cause adverse effects. Excessive exposure may cause irritation to upper respiratory tract. Observations in animals include blood and kidney effects. Single dose oral toxicity of Ethylene Glycol N-Butyl Ether is considered to be moderate. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. One case of Massive Ingestion (i.e. attempted suicide) reported blood (hemolysis) and kidney effects.

Carcinogenicity Information

Ethylbenzene and Naphthalene have been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B). This IARC classification was based upon limited evidence of carcinogenicity to animals and inadequate evidence of carcinogenicity to humans.

4 First Aid Measures

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Skin Contact

Flush skin with water after contact. Wash contaminated clothing before reuse.

Eye Contact

In case of contact immediately, flush eyes with plenty of water for at least 15 minutes. Call a physician.

Ingestion

If swallowed, do not induce vomiting. Allow victim to rinse his mouth and then to drink 2-4 cupfuls of water. Never give anything by mouth to an unconscious person. Call a physician.

Notes to Physicians

Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400-ml water and mix thoroughly. Administer 5 ml/kg or 350 ml for an average adult.

Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances. Activated charcoal may induce vomiting, but may be given after emesis or lavage to absorb toxic additives. Steroid therapy in mild to moderate cases does not improve outcome. Bacterial pneumonia often occurs after exposure, but prophylactic antibiotics are not indicated and should be reserved for documented bacterial pneumonia.

5 Fire Fighting Measures

Flammable Properties

Flash Point..... 145°F (62°C)

Method..... PMCC

Extinguishing Media

Water Spray, Foam, Dry Chemical, CO₂.

Fire Fighting Instructions

Wear self-contained breathing apparatus. Wear full protective equipment.

6 Accidental Release Measures

Note: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) SECTIONS before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. Soak up with sawdust, sand, oil dry or other absorbent material. Remove source of heat, sparks, flame, impact, friction, or electricity. Dike spill. Prevent material from entering sewers, waterways, or low areas.

Spill Clean-Up

Soak up with sawdust, sand, oil dry or other absorbent material.

Accidental Release Measures

Spills are very slippery and should be cleaned up promptly. Unless released material is cleaned up immediately for reprocessing, recycling, or reuse, a release of 100 lbs. may trigger the reporting requirements of CERCLA Section 103.

7 Handling and Storage

Handling (Personnel)

Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling.

Handling (Physical Aspects)

Keep away from heat, sparks and flames.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store in accordance with National Fire Protection Association recommendations.

8 Exposure Controls

Engineering Controls

Use only with adequate ventilation. Keep container tightly closed.

Personal Protective Equipment

Eye/Face Protection

Wear coverall chemical splash goggles or safety glasses.

Respirators

Where there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

Protective Clothing

Where there is potential for skin contact have available and wear as appropriate Impervious gloves, apron, pants, hood and jacket.

Exposure Limits

Xylene:

PEL (OSHA)	100 ppm, 435 ,mg/m ³ , 8 hr TWA
TLV (ACGIH)	100 ppm, 434 mg/m ³ , 8 hr TWA
	STEL 150 ppm, 651 mg/m ³ , A4; BEI
AEL* (Innospec Fuel Specialties)	100 ppm, 8 & 12 hr, TWA, skin
	150 ppm, 15 minute TWA

Ethylbenzene:

PEL (OSHA)	100 ppm, 435 mg/m ³ , 8 hr, TWA
TLV (ACGIH)	100 ppm, 434 mg/m ³ , 8 hr, TWA, A3, BEI
	STEL 125 ppm, 543 mg/m ³
AEL* (Innospec Fuel Specialties)	None established

Heavy Aromatic Naphtha:

PEL (OSHA)None established
TLV (ACGIH)None established
AEL* (Innospec Fuel Specialties)50 ppm, 300 mg/m³, 8 hr, TWA

Naphthalene:

PEL (OSHA).....10 ppm, 50 mg/m³, 8 hr. TWA
TLV (ACGIH).....10 ppm, 52 mg/m³, 8 hr TWA, Skin; A4
STEL 15 ppm, 79 mg/m³, A4
AEL* (Innospec Fuel Specialties)None established

Ethylene Glycol N-Butyl Ether:

PEL (OSHA)25 ppm, skin
TLV (ACGIH)20 ppm, 8 hr TWA, A3
AEL* (Innospec Fuel Specialties)None established

The "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposure should be considered

* AEL is Innospec Fuel Specialties' acceptable exposure limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

9 Physical and Chemical Properties

Physical Data

Appearance..... Clear amber
Form..... Liquid
Odor Aromatic
Specific Gravity 0.915 @ 60/60°F (16/16°C)
Density 7.62 lbs./gal. @ 60°F (16°C)
Solubility in water <10 wt%

10 Stability and Reactivity

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility

Incompatible with strong oxidizers.

Decomposition

Decomposes with heat. Hazardous decomposition products include oxides of carbon.

Polymerization

Will not occur.

11 Toxicological Information

Animal Data

Heavy Aromatic Naphtha:

Inhalation 6 hour LC50.....	>11.67 mg/L in rats
Skin Absorption LD50	>3,160 mg/kg in rabbits
Oral LD50.....	>5,000 mg/kg in rats

Naphthalene:

Inhalation 15 minute LC50:	>0.34 mg/L in rats
Skin Absorption LD50:	10,000 mg/kg in rabbits
Oral LD50:.....	1,780 mg/kg in rats

Xylene (mixed isomers):

Inhalation 4 hour LC50.....	6,700 ppm in rats
Skin absorption LD50.....	4,320 mg/kg in rabbits
Oral ALD	4,500 mg/kg in rats

Ethylbenzene:

Inhalation 4 hour LC50.....	>4,000 ppm in rats
Skin absorption LD50.....	~15,000 mg/kg in mice
Oral LD50.....	>3,500 mg/kg in rats

Detergent:

Skin absorption LD50.....	660 mg/kg in rabbits
Oral LD50.....	3,990 mg/kg in rats

Ethylene Glycol N-Butyl Ether:

Inhalation LC50.....	700 ppm in rats, 7 hours
Skin Absorption LD50	220 mg/kg in rabbits
Oral LD50.....	470 mg/kg in rats

Proprietary Amines:

Skin Absorption:.....	1,578 mg/kg in rabbits
Oral LD50:.....	365 mg/kg in rats

Dermal absorption of Xylene in animals causes narcosis. Toxic effects described in animals by inhalation include upper respiratory irritation; central nervous system effects; behavioral effects; decreased weight gain; hearing loss; and effects on the blood, liver, kidneys, heart, spleen, lungs and bone marrow. By ingestion, xylene caused central nervous system effects; decreased body weight and liver effects. Tests of xylene in animals demonstrate no carcinogenic activity. Xylene does not produce heritable genetic damage in animals or genetic damage in bacterial or mammalian cell cultures. Although abnormal sperm were observed after an interperitoneal injection in rats, xylene did not produce reproductive effects. Developmental toxicity was observed in animals exposed to xylene but only at concentrations that were maternally toxic.

The detergent is a severe skin and eye irritant and is a skin sensitizer in animals. Effects of long term dermal exposures include hyperkeratosis and necrosis of the epidermis but no evidence of increased incidences of tumors. Repeated dietary administration of high doses produced depressed liver weights and body weight loss. Tests in animals demonstrate no carcinogenic activity. No animal test reports are available to define developmental or reproductive hazards. The Detergent does produce genetic damage in bacterial and mammalian cell cultures but has not been tested in animals.

Heavy Aromatic Naphtha is a severe skin irritant, and is an eye irritant, but is not a skin sensitizer in animals. Repeated inhalation exposures caused reduced growth rate, respiratory tract irritation, congestion in liver and spleen, changes in blood tests and equilibrium disturbances. No animal test reports are available to define carcinogenic, mutagenic, developmental or reproductive hazards.

12 Ecological Information

Xylene:

96 hour LC50 fathead minnow: 27-42 mg/L

Heavy Aromatic Naphtha:

96 hour LC50, fathead minnows: 4.2 – 20.8 mg/L

Proprietary Amine:

Fathead minnows 96 hour LC50 780 mg/L

Daphnia magna 48 hour EC50 10 mg/L

Fresh water alga 96 hour EC50 2.9 mg/L

13 Disposal Considerations

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations.

14 Shipping Information

DOT

Proper Shipping Name..... Combustible Liquid, n.o.s. (Aromatic Naphtha, Xylene)
Hazard Class 3
I.D. No. (UN/NA) NA 1993
Packing Group III
Special Information Flash Point: 62°C
Not regulated in containers <119 gallons
Marine Pollutant Triethylbenzene
DOT Label(s) Combustible Liquid

IMO

Proper Shipping Name..... Environmentally Hazardous Substance, Liquid, n.o.s.
(Triethylbenzene)
Hazard Class 3
I.D. No. (UN) 3082
Packing Group III
Special Information Flash Point: 62°C
Marine Pollutant Triethylbenzene
IMO Label Miscellaneous Dangerous Goods

Reportable Quantity

Xylene 100 lbs.
Ethylbenzene 1000 lbs.
Naphthalene..... 100 lbs.

Shipping Containers

Steel Drums UN1A1/Y/100

15 US Federal Regulations

TSCA Inventory Status..... Reported / Included

Title III Hazard Classifications Sections 311, 312

Acute Yes
Chronic Yes
Fire Yes
Reactivity No
Pressure No

16 Other Information

NPCA-HMIS Rating

Health..... 2* (Chronic Health Effects)
Flammability..... 2
Reactivity 0

Personal Protection rating to be supplied by user depending on use conditions.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS:

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(302) 451-1362