Safety Data Sheet
9000 HE ja1

1. Product and company identification

Product name	:	9000 HE ja1
Material uses	:	Petrochemical industry: Fuel additive.
Internal code	:	IFS0274
System code	:	IFS0274
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 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
CARCINOGENICITY - Category 2

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H226 - Flammable liquid and vapor.
H319 - Causes serious eye irritation.
H315 - Causes skin irritation.
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 heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P233 - Keep container tightly closed.
P264 - Wash hands thoroughly after handling.

Response : P308 + P313 - IF exposed or concerned: Get medical attention.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P302 + P352 + P362-2 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing.
P332 + P313 - If skin irritation occurs: Get medical attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.

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

See toxicological information (Section 11)

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Solvent naphtha (petroleum), light arom.	30 - 60	64742-95-6
1,2,4-trimethylbenzene	9.99 - 14.99	95-63-6
2-butoxyethanol; butyl cellosolve	9.99 - 14.99	111-76-2
Xylene	4.99 - 9.99	1330-20-7
2-ethylhexan-1-ol	4.99 - 9.99	104-76-7
Solvent naphtha (petroleum), heavy arom.	0.99 - 4.99	64742-94-5
ethylbenzene	0.99 - 4.99	100-41-4
Cumene	0.09 - 0.99	98-82-8
naphthalene	0.09 - 0.99	91-20-3

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 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 : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. 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 : Causes serious eye irritation.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : Causes skin irritation.

Ingestion : Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Section 4. First aid measures

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

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.

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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

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

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
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: 41.7°C (107.1°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).

Section 6. Accidental release measures

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

Protective measures : Put on appropriate personal protective equipment (see Section 8). 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. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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

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

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
1,2,4-trimethylbenzene	**ACGIH TLV (United States, 4/2014).** TWA: 25 ppm, 0 times per shift, 8 hours. TWA: 123 mg/m³, 0 times per shift, 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 25 ppm, 0 times per shift, 8 hours. TWA: 125 mg/m³, 0 times per shift, 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 25 ppm, 0 times per shift, 10 hours. TWA: 125 mg/m³, 0 times per shift, 10 hours.

Section 8. Exposure controls/personal protection

2-butoxyethanol; butyl cellosolve	**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. **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. **ACGIH TLV (United States, 4/2014).** 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.
Xylene	**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.
ethylbenzene	**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.
Cumene	**OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.** TWA: 50 ppm, 0 times per shift, 8 hours. TWA: 245 mg/m³, 0 times per shift, 8 hours. **NIOSH REL (United States, 10/2013). Absorbed through skin.** TWA: 50 ppm, 0 times per shift, 10 hours. TWA: 245 mg/m³, 0 times per shift, 10 hours. **ACGIH TLV (United States, 4/2014).** TWA: 50 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: 245 mg/m³, 0 times per shift, 8 hours.
naphthalene	**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.

Section 8. Exposure controls/personal protection

	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.

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

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

Individual protection measures

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

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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

Respiratory protection : 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 : TranslucentAmber.

Odor : Aromatic.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : Lowest known value: 136.05°C (276.9°F) (ethylbenzene). Weighted average: 165.59°C (330.1°F)

Flash point : Closed cup: 41.7°C (107.1°F) [Pensky-Martens.]

Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.3compared with butyl acetate

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Greatest known range: Lower: 0.79% Upper: 12.7% (2-ethylhexan-1-ol)

Vapor pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.32 kPa (2.4 mm Hg) (at 20°C)

Vapor density : Highest known value: 4.6 to 5.5 (Air = 1) (Solvent naphtha (petroleum), heavy arom.). Weighted average: 4.3 (Air = 1)

Specific gravity : 0.897 [ASTM D 4052]

Density : 7.47 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).

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 : Incompatible with fluorine.

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

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

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

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Test	Species	Result	Dose
Solvent naphtha (petroleum), light arom.	-	Rat	LD50 Oral	8400 mg/kg
2-butoxyethanol	-	Rat	LD50 Oral	250 mg/kg
xylene	-	Rabbit	LD50 Dermal	4320 mg/kg
	-	Rat	LD50 Oral	4300 mg/kg
2-ethylhexan-1-ol	-	Rabbit	LD50 Dermal	1970 mg/kg
	-	Rat	LD50 Oral	3730 mg/kg
Solvent naphtha (petroleum), heavy arom.	-	Rat	LC50 Inhalation Vapor	>590 mg/m³
	-	Rabbit	LD50 Dermal	>2 mL/kg
	-	Rat	LDLo Oral	5 mL/kg
ethylbenzene	-	Mouse	LC50 Inhalation Vapor	35500 mg/m³
	-	Rabbit	LC50 Inhalation Vapor	4000 ppm
	-	Rabbit	LD50 Dermal	>5000 mg/kg
cumene	-	Rat	LC50 Inhalation Vapor	39000 mg/m³
	-	Rat	LD50 Oral	1400 mg/kg
naphthalene	-	Rat	LC50 Inhalation Vapor	>340 mg/m³
	-	Rabbit	LD50 Dermal	>2000 mg/kg
	-	Rat	LD50 Dermal	>2500 mg/kg
	-	Rat	LD50 Oral	490 mg/kg

Potential chronic health effects

Not available.

Irritation/Corrosion

Product/ingredient name	Test	Species	Result	
Solvent naphtha (petroleum), light arom.	-	Rabbit	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	-
2-ethylhexan-1-ol	-	Rabbit	Eyes - Moderate irritant	-
	-	Rabbit	Skin - Moderate irritant	-
Solvent naphtha (petroleum), heavy arom.	-	Rabbit	Skin - Mild irritant	-
	-	Mammal - species unspecified	Eyes - Mild irritant	-
ethylbenzene	-	Rabbit	Eyes - Severe irritant	-
	-	Rabbit	Skin - Mild irritant	-
cumene	-	Rabbit	Eyes - Mild irritant	-
	-	Rabbit	Eyes - Mild irritant	-
	-	Rabbit	Skin - Mild irritant	-
	-	Rabbit	Skin - Moderate irritant	-

Sensitization

Product/ingredient name	Test	Species	Result
2-ethylhexan-1-ol	-	Guinea pig	Not sensitizing -

Section 11. Toxicological information

Mutagenicity

Not available.

Carcinogenicity

Classification

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

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
1,2,4-trimethylbenzene	Category 3	Not applicable.	Respiratory tract irritation
Solvent naphtha (petroleum), heavy arom.	Category 3	Not applicable.	Narcotic effects
Cumene	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

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

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
1,2,4-trimethylbenzene	Acute LC50 7.72 mg/l	Fish	96 hours
2-butoxyethanol; butyl cellosolve	Acute EC50 >1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1490 mg/l	Fish	96 hours
	Chronic NOEC 1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Xylene	Acute LC50 3.3 mg/l	Fish	96 hours
2-ethylhexan-1-ol	Acute EC50 11.5 mg/l	Algae	72 hours
	Acute EC50 39 mg/l	Daphnia	48 hours
	Acute LC50 10 to 33 mg/l Fresh water	Fish - Lepomis macrochirus	96 hours
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
	Acute LC50 2 to 5 mg/l	Fish	96 hours

Section 12. Ecological information

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
	Chronic NOEC 6800 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
Cumene	Acute EC50 2600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 10.6 mg/l	Daphnia	48 hours
	Acute LC50 2.7 mg/l	Fish	96 hours
naphthalene	Acute EC50 1.96 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 2350 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 1.6 mg/l	Fish	96 hours

Persistence and degradability

Product/ingredient name	Test	Result
2-ethylhexan-1-ol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	>60 % - Readily - 28 days

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Xylene	-	-	Readily
2-ethylhexan-1-ol	-	-	Readily
Solvent naphtha (petroleum), heavy arom.	-	-	Inherent
ethylbenzene	-	-	Readily

Bioaccumulative potential

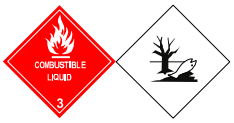
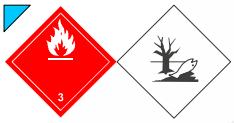
Product/ingredient name	$LogP_{ow}$	BCF	Potential
Solvent naphtha (petroleum), light arom.	-	10 to 2500	high
1,2,4-trimethylbenzene	4.09	275	low
2-butoxyethanol; butyl cellosolve	0.83	-	low
Xylene	3.12 to 3.2	8.1 to 25.9	low
2-ethylhexan-1-ol	2.3 to 3.1	-	low
Solvent naphtha (petroleum), heavy arom.	-	<100	low
ethylbenzene	3.1	-	low
Cumene	3.66	94.69	low
naphthalene	3.3	>100	low

Section 13. Disposal considerations

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

Section 13. Disposal considerations

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	NA1993	UN1993	UN1993
UN proper shipping name	Combustible liquid, n.o.s. (Solvent naphtha (petroleum), light arom., 1,2, 4-trimethylbenzene). Marine pollutant (Solvent naphtha (petroleum), light arom.) RQ (xylene, naphthalene)	FLAMMABLE LIQUID, N.O.S. (Solvent naphtha (petroleum), light arom., 1,2, 4-trimethylbenzene). Marine pollutant (Solvent naphtha (petroleum), light arom.)	Flammable liquid, n.o.s. (Solvent naphtha (petroleum), light arom., 1,2, 4-trimethylbenzene)
Transport hazard class(es)	Combustible liquid. 	3 	3 
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	No.
Additional information	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. 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. **Reportable quantity** 1218.7 lbs / 553.28 kg [162.94 gal / 616.81 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements. **Limited quantity** Yes. **Packaging instruction** **Passenger aircraft** Quantity limitation: 60 L	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. **Emergency schedules (EmS)** F-E, _S-E_ **Special provisions** 223, 274, 955	The environmentally hazardous substance mark may appear if required by other transportation regulations. **Passenger and Cargo Aircraft** Quantity limitation: 60 L Packaging instructions: 355 **Cargo Aircraft Only**Quantity limitation: 220 L Packaging instructions: 366 **Limited Quantities - Passenger Aircraft**Quantity limitation: 10 L Packaging instructions: Y344 **Special provisions** A3

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 : **United States inventory (TSCA 8b)**: All components are listed or exempted.
Clean Water Act (CWA) 307: ethylbenzene; naphthalene; toluene

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

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Solvent naphtha (petroleum), light arom.	30 - 60	Yes.	No.	No.	Yes.	No.
1,2,4-trimethylbenzene	9.99 - 14.99	Yes.	No.	No.	Yes.	No.
2-butoxyethanol; butyl cellosolve	9.99 - 14.99	Yes.	No.	No.	Yes.	No.
Xylene	4.99 - 9.99	Yes.	No.	No.	Yes.	No.
2-ethylhexan-1-ol	4.99 - 9.99	Yes.	No.	No.	Yes.	No.
Solvent naphtha (petroleum), heavy arom.	0.99 - 4.99	Yes.	No.	No.	Yes.	No.
ethylbenzene	0.99 - 4.99	Yes.	No.	No.	Yes.	Yes.
Cumene	0.09 - 0.99	Yes.	No.	No.	Yes.	Yes.
naphthalene	0.09 - 0.99	No.	No.	No.	Yes.	Yes.

SARA 313

Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	1,2,4-trimethylbenzene 2-butoxyethanol xylene ethylbenzene naphthalene	95-63-6 111-76-2 1330-20-7 100-41-4 91-20-3	9.99 - 14.99 9.99 - 14.99 4.99 - 9.99 0.99 - 4.99 0.09 - 0.99
Supplier notification	1,2,4-trimethylbenzene 2-butoxyethanol xylene ethylbenzene naphthalene	95-63-6 111-76-2 1330-20-7 100-41-4 91-20-3	9.99 - 14.99 9.99 - 14.99 4.99 - 9.99 0.99 - 4.99 0.09 - 0.99

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

State regulations

Massachusetts : The following components are listed: PSEUDOCUMENE; XYLENE; XYLENE; 2-BUTOXYETHANOL; 2-ETHYLHEXANOL

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

New Jersey : The following components are listed: PSEUDOCUMENE; 1,2,4-TRIMETHYL BENZENE; XYLENES; BENZENE, DIMETHYL-; CUMENE; BENZENE, (1-METHYLETHYL)-; XYLENES; BENZENE, DIMETHYL-; NAPHTHALENE; MOTH FLAKES; 2-BUTOXY ETHANOL; BUTYL CELLOSOLVE

Pennsylvania : The following components are listed: PSEUDOCUMENE; BENZENE, DIMETHYL-; BENZENE, (1-METHYLETHYL)-; BENZENE, DIMETHYL-; NAPHTHALENE; ETHANOL, 2-BUTOXY-; 1-HEXANOL, 2-ETHYL-

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
ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.	0.99 - 4.99
cumene	Yes.	No.	No.	No.	0.09 - 0.99
naphthalene	Yes.	No.	Yes.	No.	0.09 - 0.99
toluene	No.	Yes.	No.	7000 µg/day (ingestion) 13000 µg/day (inhalation)	<1ppm

International lists

National inventory

Australia inventory (AICS) : Not determined.

Canada inventory : All components are listed or exempted.

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

Europe inventory : At least one component is not listed in EINECS but all such components are listed in ELINCS.
Please contact your supplier for information on the inventory status of this material.

Japan inventory (ENCS) : At least one component is not listed.

New Zealand Inventory of Chemicals (NZIoC) : Not determined.

Section 15. Regulatory information

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

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

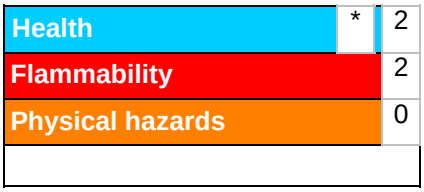
Taiwan inventory (TCSI) : Not determined.

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.)



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 : R10- Flammable.
R20/21- Harmful by inhalation and in contact with skin.
R36/38- Irritating to eyes and skin.
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

Date of printing : 2015-05-20

Date of issue/Date of revision : 2015-05-20

Date of previous issue : 2015-04-30

Version : 1.01

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.