# Blue Emergency Diesel Thaw

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 06/15/2017

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product form : Mixture

Product name : Blue Emergency Diesel Thaw

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Fuel: additive

### 1.3. Details of the supplier of the safety data sheet

Old World Industries, LLC
4065 Commercial Ave.
Northbrook, IL 60062 - USA
T (847) 559-2000
www.oldworldind.com

### 1.4. Emergency telephone number

Emergency number : (800) 424-9300; (703) 527 3887 (International)
Chemtrec

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**GHS-US classification**

| | | |
|---|---|---|
| Flammable liquids, Category 3 | H226 | Flammable liquid and vapor |
| Acute toxicity (inhalation:vapor) Category 4 | H332 | Harmful if inhaled |
| Skin corrosion/irritation, Category 2 | H315 | Causes skin irritation |
| Serious eye damage/eye irritation, Category 1 | H318 | Causes serious eye damage |
| Carcinogenicity, Category 2 | H351 | Suspected of causing cancer |
| Specific target organ toxicity — Single exposure, Category 3, Narcosis | H336 | May cause drowsiness or dizziness |
| Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation | H335 | May cause respiratory irritation |
| Specific target organ toxicity — Repeated exposure, Category 2 | H373 | May cause damage to organs through prolonged or repeated exposure |
| Aspiration hazard, Category 1 | H304 | May be fatal if swallowed and enters airways |

Full text of H statements : see section 16

### 2.2. Label elements

**GHS-US labelling**

Hazard pictograms (GHS-US) :

GHS02 GHS05 GHS07 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H226 - Flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H318 - Causes serious eye damage
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness

H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe fume, mist, spray, vapors
P264 - Wash affected areas thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear personal protective equipment as required
P301+P310 - If swallowed: Immediately call doctor/physician or poison center. Rinse Mouth
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention
P310 - Immediately call a doctor/physician or poison center
P314 - Get medical advice/attention if you feel unwell
P331 - Do NOT induce vomiting
P332+P313 - If skin irritation occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use carbon dioxide (CO2), Dry chemical, foam to extinguish
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local/regional/national/international regulations

### 2.3. Other hazards

Other hazards not contributing to the classification : SPARKS MAY IGNITE LIQUID AND VAPOR MAY CAUSE FLASH FIRE (OR EXPLOSION).

### 2.4. Unknown acute toxicity (GHS US)

19.9 percent of the mixture consists of ingredient(s) of unknown acute toxicity. (inhalation: vapor); 36 percent of the mixture consists of ingredient(s) of unknown acute toxicity. (inhalation: mist)

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % by wt | GHS-US classification |
|---|---|---|---|
| xylene | (CAS-No.) 1330-20-7 | 40 - 50 | Flam. Liq. 3, H226<br>Acute Tox. 4 (Dermal), H312<br>Acute Tox. 4 (Inhalation), H332<br>Acute Tox. 4 (Inhalation:dust,mist), H332<br>Skin Irrit. 2, H315 |
| isobutyl alcohol | (CAS-No.) 78-83-1 | 20 - 30 | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>STOT SE 3, H335<br>STOT SE 3, H336 |
| petroleum naphtha, hydrotreated light | (CAS-No.) 64742-47-8 | 10 - 20 | Asp. Tox. 1, H304 |
| ethylbenzene | (CAS-No.) 100-41-4 | 10 - 20 | Flam. Liq. 2, H225<br>Acute Tox. 4 (Inhalation), H332<br>Muta. 1B, H340<br>Carc. 1A, H350<br>Asp. Tox. 1, H304<br>Aquatic Chronic 3, H412 |
| 2-ethyl-1-hexanol | (CAS-No.) 104-76-7 | 5 - 10 | Flam. Liq. 4, H227<br>Acute Tox. 4 (Inhalation), H332<br>Skin Irrit. 2, H315<br>STOT SE 3, H335 |

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes, lifting lower and upper lids. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. If vomiting occurs, prevent asphyxia/aspiration pneumonia.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : Suspected of damaging fertility or the unborn child. Causes damage to organs . Suspected of causing cancer.

Symptoms/effects after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness. Prolonged exposure can cause nervous system damage. May cause nausea, abdominal pain, headache, shortness of breath, visual impairment and blindness. When material is misted or when vapors are released from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

Symptoms/effects after skin contact : Causes skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : May be fatal if swallowed and enters airways. Gastrointestinal complaints. Vomiting. Diarrhea. Abdominal pain. Central nervous system depression. Headache. Dizziness. Drowsiness. Weakness.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry chemical. Foam.

Unsuitable extinguishing media : Do not use a heavy water stream. Container may slop over if solid jet (water/foam) is applied. Will float and can be reignited on water surface.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture. Vapors may travel considerable distance to a source of ignition and flash back.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Wear positive pressure self-contained breathing apparatus (SCBA). Protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing fume, mist, spray, vapors.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Avoid breathing fume, mist, spray, vapors. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Wash affected areas thoroughly after handling.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, lighting, ventilating equipment.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources, hot surfaces, open flames, sparks. Keep container tightly closed.

Incompatible products : Reducing agents. Keep away from strong acids, strong bases and oxidizing agents.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| **xylene (1330-20-7)** | | |
|---|---|---|
| ACGIH | ACGIH TWA (mg/m³) | 434 mg/m³ |
| ACGIH | ACGIH STEL (mg/m³) | 651 mg/m³ |
| ACGIH | Remark (ACGIH) | Upper Respiratory Tract & eye irritant; Central Nervous System impairment |
| OSHA | OSHA PEL (TWA) (mg/m³) | 435 mg/m³ |
| OSHA | OSHA PEL (TWA) (ppm) | 100 ppm |
| OSHA | OSHA PEL (STEL) (mg/m³) | 655 mg/m³ |
| OSHA | OSHA PEL (STEL) (ppm) | 150 ppm |

| **isobutyl alcohol (78-83-1)** | | |
|---|---|---|
| ACGIH | ACGIH TWA (ppm) | 50 ppm |
| ACGIH | Remark (ACGIH) | Skin & eye irr |
| OSHA | OSHA PEL (TWA) (mg/m³) | 300 mg/m³ |
| OSHA | OSHA PEL (TWA) (ppm) | 100 ppm |

| **ethylbenzene (100-41-4)** | | |
|---|---|---|
| ACGIH | ACGIH TWA (ppm) | 20 ppm |
| ACGIH | Remark (ACGIH) | Upper Respiratory Tract irritant; kidney damage (nephropathy) |
| OSHA | OSHA PEL (TWA) (mg/m³) | 435 mg/m³ |

| ethylbenzene (100-41-4) | | |
|---|---|---|
| OSHA | OSHA PEL (TWA) (ppm) | 100 ppm |
| OSHA | OSHA PEL (STEL) (mg/m³) | 545 mg/m³ |
| OSHA | OSHA PEL (STEL) (ppm) | 125 ppm |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Provide a good standard of controlled ventilation (10 air changes per hour). Provide local exhaust or general room ventilation.

### 8.3. Individual protection measures/Personal protective equipment

**Personal protective equipment:**

Avoid all unnecessary exposure. Gloves. In case of splash hazard: safety glasses. Insufficient ventilation: wear respiratory protection.

**Materials for protective clothing:**

GIVE GOOD RESISTANCE: nitrile rubber. neoprene. GIVE POOR RESISTANCE: Polyvinyl alcohol. Note: polyvinyl alcohol gloves are water soluble and should not be used when there is potential for water contact.

**Hand protection:**

Wear protective gloves

**Eye protection:**

Chemical goggles or safety glasses

**Skin and body protection:**

Wear suitable protective clothing. Chemical resistant apron

**Respiratory protection:**

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection

**Other information:**

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | Liquid |
| Color | : | Colorless |
| Odor | : | petroleum-like odor |
| Odor threshold | : | No data available |
| Relative evaporation rate (butylacetate=1) | : | No data available |
| Freezing point | : | No data available |
| Boiling point | : | 106 °C (223 ºF) |
| Flash point | : | 25 °C (77 ºF) [Method Used: Pensky-Martens Closed Cup] |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Flammability (solid, gas) | : | No data available |
| Vapor pressure | : | No data available |
| Relative vapor density at 20 °C | : | No data available |
| Specific Gravity | : | 0.84 @ 15.6 ºC (60 .1 ºF) |
| Density | : | 7 lbs/gal @ 15.6 ºC (60 .1 ºF) |
| Solubility | : | Water: Insoluble |

| | | |
|---|---|---|
| Log Pow | : | No data available |
| Log Kow | : | No data available |
| Viscosity, kinematic | : | 0.88 mm²/s @ 40 ºC (104 ºF) |
| Viscosity, dynamic | : | No data available |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |
| Explosive limits | : | No data available |

### 9.2. Other information

Other properties : Pour Point: -93 ºC (-135 ºF).

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Combustible liquid. May form flammable/explosive vapor-air mixture. May undergo self-accelerating, exothermic reaction if heated above 100 ºC (212 ºF).

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

### 10.5. Incompatible materials

Reducing agents. Keep away from strong acids, strong bases and oxidizing agents.

### 10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Inhalation:vapour: Harmful if inhaled.

| **Blue Emergency Diesel Thaw** | |
|---|---|
| ATE US (vapors) | 11.00 mg/l/4h |

| **xylene (1330-20-7)** | |
|---|---|
| LD50 oral rat | 3523 - 8600 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 3523 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value; >4000 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value) |
| LD50 dermal rabbit | > 4,200.00 mg/kg bodyweight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity) |
| LC50 inhalation rat (mg/l) | 29.00 mg/l/4h (Rat; Experimental value; 27.57 mg/l/4h; Rat; Experimental value) |
| ATE US (oral) | 3,523.00 mg/kg bodyweight |
| ATE US (dermal) | 1,100.00 mg/kg bodyweight |
| ATE US (gases) | 4,500.00 ppmv/4h |
| ATE US (vapors) | 11.00 mg/l/4h |
| ATE US (dust,mist) | 1.50 mg/l/4h |

| **isobutyl alcohol (78-83-1)** | |
|---|---|
| LD50 oral rat | > 2,830.00 mg/kg bodyweight (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 3350 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value) |
| LD50 dermal rabbit | 2,460.00 mg/kg bodyweight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity; > 2000 mg/kg bodyweight; Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity) |
| ATE US (dermal) | 2,460.00 mg/kg bodyweight |

| **ethylbenzene (100-41-4)** | |
|---|---|
| LD50 oral rat | 3,500.00 mg/kg (Rat; Other; Experimental value) |
| LD50 dermal rabbit | 15,415.00 mg/kg (Rabbit; Literature study; Other; 15432 mg/kg; Rabbit; Experimental value) |
| LC50 inhalation rat (mg/l) | 17.80 mg/l/4h (Rat; Literature study) |
| LC50 inhalation rat (ppm) | 4,000.00 ppm/4h (Rat; Literature study) |
| ATE US (gases) | 4,500.00 ppmv/4h |

| ethylbenzene (100-41-4) | |
|---|---|
| ATE US (vapors) | 11.00 mg/l/4h |
| ATE US (dust,mist) | 1.50 mg/l/4h |

| 2-ethyl-1-hexanol (104-76-7) | |
|---|---|
| LD50 oral rat | 3,290.00 mg/kg bodyweight (Rat; Equivalent or similar to OECD 401; Experimental value) |
| LD50 dermal rat | > 3,000.00 mg/kg bodyweight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity) |
| LD50 dermal rabbit | > 2,600.00 mg/kg bodyweight (Rabbit; Experimental value; Equivalent or similar to OECD 402) |
| ATE US (oral) | 3,290.00 mg/kg bodyweight |
| ATE US (gases) | 4,500.00 ppmv/4h |
| ATE US (vapors) | 11.00 mg/l/4h |
| ATE US (dust,mist) | 1.50 mg/l/4h |

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

| xylene (1330-20-7) | |
|---|---|
| IARC group | 3 - Not classifiable |

| ethylbenzene (100-41-4) | |
|---|---|
| IARC group | 2B - Possibly carcinogenic to humans |

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause drowsiness or dizziness. May cause respiratory irritation.

| xylene (1330-20-7) | |
|---|---|
| Additional information | Xylene has been found to cause cardiac, liver and kidney effects, anemia and eye damage in laboratory animals. Prolonged and repeated inhalation of hydrocarbon solvents such as xylene can cause chronic neurological disturbances. Chronic exposure to xylene has been shown to cause hearing loss in experimental animals. |

| petroleum naphtha, hydrotreated light (64742-47-8) | |
|---|---|
| Additional information | If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract. |

| 2-ethyl-1-hexanol (104-76-7) | |
|---|---|
| Additional information | 2-Ethylhexanol may cause respiratory tract irritation |

Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.

May cause damage to organs through prolonged or repeated exposure

| isobutyl alcohol (78-83-1) | |
|---|---|
| Additional information | Prolonged or repeated exposure to isobutyl alcohol may cause liver and central nervous system (CNS) damage |

| petroleum naphtha, hydrotreated light (64742-47-8) | |
|---|---|
| Additional information | Repeated overexposure to petroleum naphtha can cause nervous system damage |

| 2-ethyl-1-hexanol (104-76-7) | |
|---|---|
| Additional information | Repeated overexposure to 2-ethylhexanol may result in liver and kidney damage. A 14-day dermal toxicity study of 2-ethylhexanol in rats showed blood effects, decreased spleen weight and decreased triglycerides |

Aspiration hazard : May be fatal if swallowed and enters airways.

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if inhaled.

Symptoms/effects after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness. Prolonged exposure can cause nervous system damage. May cause nausea, abdominal pain, headache, shortness of breath, visual impairment and blindness. When material is misted or when vapors are released from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

| | | |
|---|---|---|
| Symptoms/effects after skin contact | : | Causes skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard. |
| Symptoms/effects after eye contact | : | Causes serious eye damage. |
| Symptoms/effects after ingestion | : | May be fatal if swallowed and enters airways. Gastrointestinal complaints. Vomiting. Diarrhea. Abdominal pain. Central nervous system depression. Headache. Dizziness. Drowsiness. Weakness. |

## SECTION 12: Ecological information

### 12.1. Toxicity

| **isobutyl alcohol (78-83-1)** | |
|---|---|
| LC50 fish 1 | 1,430.00 mg/l (LC50; Other; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value) |
| EC50 Daphnia 1 | 1,100.00 mg/l (EC50; ASTM; 48 h; Daphnia pulex; Static system; Fresh water; Experimental value) |
| Threshold limit algae 1 | 593 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value) |
| Threshold limit algae 2 | < 53 mg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value) |

| **ethylbenzene (100-41-4)** | |
|---|---|
| LC50 fish 2 | 4.20 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Salmo gairdneri; Semi-static system; Fresh water; Experimental value) |

| **2-ethyl-1-hexanol (104-76-7)** | |
|---|---|
| EC50 Daphnia 1 | 39.00 mg/l (EC50; EU Method C.2; 48 h; Daphnia magna; Static system; Fresh water; Experimental value) |
| LC50 fish 2 | 17.10 mg/l (LC50; EU Method C.1; 96 h; Leuciscus idus; Flow-through system; Fresh water; Experimental value) |

### 12.2. Persistence and degradability

| **xylene (1330-20-7)** | |
|---|---|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available. Photolysis in the air. |

| **isobutyl alcohol (78-83-1)** | |
|---|---|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil. Photodegradation in the air. |

| **ethylbenzene (100-41-4)** | |
|---|---|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil. |
| Biochemical oxygen demand (BOD) | 1.44 g $O_2$/g substance (20d.) |
| Chemical oxygen demand (COD) | 2.10 g $O_2$/g substance |
| ThOD | 3.17 g $O_2$/g substance |
| BOD (% of ThOD) | 45.40 (20 days) |

| **2-ethyl-1-hexanol (104-76-7)** | |
|---|---|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. |

### 12.3. Bioaccumulative potential

| **xylene (1330-20-7)** | |
|---|---|
| BCF fish 1 | 15.00 8 weeks; Salmo gairdneri (Oncorhynchus mykiss) |
| BCF fish 2 | 7 - 26 (8 weeks; Oncorhynchus mykiss) |
| Log Pow | 3.20 (Conclusion by analogy; 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| **isobutyl alcohol (78-83-1)** | |
|---|---|
| Log Pow | 1.00 (Practical experience/observation; 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

| ethylbenzene (100-41-4) | |
|---|---|
| BCF fish 1 | 1.00 (BCF; Other; 6 weeks; Oncorhynchus kisutch; Flow-through system; Salt water; Literature study) |
| BCF fish 2 | 15 - 79 (BCF) |
| BCF other aquatic organisms 1 | 4.68 (BCF) |
| Log Pow | 3.15 (Experimental value; 3.6; Experimental value; EU Method A.8: Partition Coefficient; 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| 2-ethyl-1-hexanol (104-76-7) | |
|---|---|
| BCF other aquatic organisms 1 | 25.33 (BCF; BCFWIN) |
| Log Pow | 2.90 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

### 12.4. Mobility in soil

| xylene (1330-20-7) | |
|---|---|
| Ecology - soil | May be harmful to plant growth, blooming and fruit formation. |

| isobutyl alcohol (78-83-1) | |
|---|---|
| Surface tension | 0.07 N/m (20 °C) |
| Log Koc | log Koc,SRC PCKOCWIN v1.66; 0.31; Calculated value |

| ethylbenzene (100-41-4) | |
|---|---|
| Surface tension | 0.03 N/m |
| Log Koc | log Koc,PCKOCWIN v1.66; 2.71; Calculated value; Koc; PCKOCWIN v1.66; 517.8; Calculated value |

| 2-ethyl-1-hexanol (104-76-7) | |
|---|---|
| Surface tension | 0.00 N/m (20 °C; 0.81 g/l) |
| Log Koc | Koc,PCKOCWIN v1.66; 26.01; Calculated value |

### 12.5. Other adverse effects

Effect on global warming : No known effects from this product.

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to appropriate waste disposal facility, in accordance with local/regional/national/international regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

## SECTION 14: Transport information

**Department of Transportation (DOT)**

In accordance with DOT

Transport document description : UN1993 Flammable liquids, n.o.s. (Xylene, Isobutyl alcohol) R.Q. Xylene 100 lbs, Ethyl benzene 1000 lbs, 3, III

UN-No.(DOT) : UN1993

Proper Shipping Name (DOT) : Flammable liquids, n.o.s.
(Xylene, Isobutyl alcohol) R.Q. Xylene 100 lbs, Ethyl benzene 1000 lbs

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : III - Minor Danger

| | | |
|---|---|---|
| Hazard labels (DOT) | : | 3 - Flammable liquid |


| | | |
|---|---|---|
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : | 203 |
| DOT Packaging Bulk (49 CFR 173.xxx) | : | 242 |
| DOT Symbols | : | G - Identifies PSN requiring a technical name |
| DOT Special Provisions (49 CFR 172.102) | : | B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.<br>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.<br>IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).<br>T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)<br>TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / (1 + a (tr - tf)) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.<br>TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : | 150 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : | 60 L |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : | 220 L |
| DOT Vessel Stowage Location | : | A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel. |
| Emergency Response Guide (ERG) Number | : | 128 |
| Other information | : | No supplementary information available. |

### Transportation of Dangerous Goods

**Refer to current TDG Canada for further Canadian regulations**

### Transport by sea

| | | |
|---|---|---|
| UN-No. (IMDG) | : | 1993 |
| Transport document description (IMDG) | : | UN 1993 FLAMMABLE LIQUID, N.O.S. (Xylene, Isobutyl alcohol), 3, III |
| Class (IMDG) | : | 3 - Flammable liquids |
| Packing group (IMDG) | : | III - substances presenting low danger |
| Subsidiary risk (IMDG) | : | Excepted Quantity: E1 |
| Limited quantities (IMDG) | : | 5 L |
| EmS-No. (1) | : | F-E |
| EmS-No. (2) | : | S-E |

### Air transport

| | | |
|---|---|---|
| UN-No. (IATA) | : | 1993 |
| Transport document description (IATA) | : | UN 1993 Flammable liquid, n.o.s. (Xylene, Isobutyl alcohol), 3, III |
| Class (IATA) | : | 3 - Flammable Liquids |
| Packing group (IATA) | : | III - Minor Danger |

| | | |
|---|---|---|
| Subsidiary risks (IATA) | : | **Limited Quantities - Passenger Aircraft** Quantity limitation: 10 L Packaging instructions: Y344 |

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| **Blue Emergency Diesel Thaw** | |
|---|---|
| EPA TSCA Regulatory Flag | United States inventory (TCSA 8b): All components are listed or exempt |
| CERCLA RQ | 228 lb(s) (104 kgs) *Calculated* This is the amount of product/material required to be released before CERCLA reporting is required. (Xylene CAS # 1330-20-7)<br>20057 lbs (9098 kgs) *Calculated* This is the amount of product/material required to be released before CERCLA reporting is required. (Isobutyl Alcohol CAS # 78-83-1)<br>9091 lbs (4124 kgs) *Calculated* This is the amount of product/material required to be released before CERCLA reporting is required. (Ethylbenzene CAS # 100-41-4)<br>>50000 lbs (22680 kgs) *Calculated* This is the amount of product/material required to be released before CERCLA reporting is required. (n-Butyl alcohol CAS # 71-36-3)<br>>50000 lbs (22680 kgs) *Calculated* This is the amount of product/material required to be released before CERCLA reporting is required. (Benzene CAS # 71-43-2) |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 100 lb(s) (Xylene CAS # 1330-20-7) 44.0% by weight<br>5000 lb(s) (Isobutyl alcohol CAS # 78-83-1) 24.9% by weight<br>1000 lb(s) (Ethyl benzene CAS # 100-41-4) 11.0% by weight<br>5000 lb(s) (n-Butyl alcohol CAS # 71-36-3) 475.0 ppm by weight<br>10 lb(s) (benzene CAS # 71-43-2) 55.0 ppm by weight |
| SARA Section 311/312 Hazard Classes | Fire hazard<br>Immediate (acute) health hazard<br>Delayed (chronic) health hazard |
| SARA Section 313 - Emission Reporting | 44 % by weight (Xylene CAS# 1330-20-7) Reporting threshold for other uses - 10000 lbs; Reporting threshold for manufacturing and processing - 25000 lbs<br>11.0 % by weight (Ethyl benzene CAS# 100-41-4) Reporting threshold for other uses - 10000 lbs; Reporting threshold for manufacturing and processing - 25000 lbs |

| **xylene (1330-20-7)** | |
|---|---|
| EPA TSCA Regulatory Flag | EPA: I |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard<br>Fire hazard |
| SARA Section 313 - Emission Reporting | 1 % Subject to Form R - Reporting requirements; Subject to Supplier notification |

| **isobutyl alcohol (78-83-1)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Not subject to reporting requirements of the United States SARA Section 313 | |
| CERCLA RQ | 5000 lb(s) |
| SARA Section 311/312 Hazard Classes | Fire hazard<br>Immediate (acute) health hazard |

| **petroleum naphtha, hydrotreated light (64742-47-8)** | |
|---|---|
| EPA TSCA Regulatory Flag | United States inventory (TCSA 8b): All components are listed or exempted |
| SARA Section 311/312 Hazard Classes | Fire hazard<br>Delayed (chronic) health hazard |

| **ethylbenzene (100-41-4)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Subject to reporting requirements of United States SARA Section 313 | |
| CERCLA RQ | 1000 lb(s) |
| SARA Section 311/312 Hazard Classes | Fire hazard<br>Immediate (acute) health hazard<br>Delayed (chronic) health hazard |
| SARA Section 313 - Emission Reporting | Subject to Form R - Reporting Requirements; Subject to Supplier Notification |

| 2-ethyl-1-hexanol (104-76-7) | |
|---|---|
| SARA Section 311/312 Hazard Classes | Fire hazard<br>Immediate (acute) health hazard |

### 15.2. International regulations

#### CANADA

| Blue Emergency Diesel Thaw | |
|---|---|
| WHMIS Classification | This SDS has been prepared according to the criteria of the Hazardous Products Regulations (HPR) (WHMIS 2015) and the SDS contains all of the information required by the HPR. Applicable GHS information is listed in section 2.2 of this SDS. |

#### EU-Regulations

No additional information available

#### National regulations

| Blue Emergency Diesel Thaw |
|---|
| DSL (Canada): The intentional ingredients of this product are listed |

| xylene (1330-20-7) |
|---|
| Listed on RCRA Hazardous Substances Xylenes (1330-20-7) RCRA Code: U239<br>Listed on CERCLA Hazardous Substances List (RQ 1000 lb)<br>Listed on the SC Toxic Air Pollutants List<br>Listed on Title V<br>Clean Water Act (CWA) 311 |

| ethylbenzene (100-41-4) |
|---|
| Listed on IARC (International Agency for Research on Cancer) |

### 15.3. US State regulations

California Proposition 65 - This product contains, or may contain, substance(s) known to the state of California to cause cancer, developmental toxicity and/or reproductive toxicity

| ethylbenzene (100-41-4) | | | | |
|---|---|---|---|---|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significant risk level (NSRL) |
| Yes | No | No | No | 41 µg/day (ingestion); 54 µg/day (inhalation) |

| xylene (1330-20-7) |
|---|
| U.S. - Pennsylvania - RTK (Right to Know) List<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Massachusetts - Right To Know List<br>New York- Reporting of Releases Par 597- List of Hazardous Substances: 1000 lb RQ (air); 1 lb RQ (land/water) |

| isobutyl alcohol (78-83-1) |
|---|
| U.S. - Massachusetts - Right To Know List<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Pennsylvania - RTK (Right to Know) List |

| ethylbenzene (100-41-4) |
|---|
| U.S. - Massachusetts - Right To Know List<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Pennsylvania - RTK (Right to Know) List<br>U.S. - Minnesota - Hazardous Substance List |

| 2-ethyl-1-hexanol (104-76-7) |
|---|
| U.S. - Massachusetts - Right To Know List<br>U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16: Other information

Revision date : 06/15/2017

Other information : None.

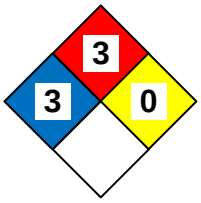
Full text of H-statements:

| | |
|---|---|
| H225 | Highly flammable liquid and vapor |
| H226 | Flammable liquid and vapor |
| H227 | Combustible liquid |
| H304 | May be fatal if swallowed and enters airways |
| H312 | Harmful in contact with skin |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |
| H332 | Harmful if inhaled |
| H335 | May cause respiratory irritation |
| H336 | May cause drowsiness or dizziness |
| H340 | May cause genetic defects |
| H350 | May cause cancer |
| H351 | Suspected of causing cancer |
| H373 | May cause damage to organs through prolonged or repeated exposure |
| H412 | Harmful to aquatic life with long lasting effects |

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.




Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 ºF (22 ºC) and boiling points above 100 ºF (37 ºC). as well as liquids with flash points between 73 ºF (22 ºC) and 100 ºF (37 ºC). (Classes IB & IC)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS GHS US (GHS HazCom 2012) OWI