Version: 4.0 Effective Date: Jun-23-2016 Previous Date: Oct-09-2015



# SAFETY DATA SHEET

# **TURBOLINE FS100 (CONC)**

#### 1. Identification

**Product identifier TURBOLINE FS100 (CONC)** 

Other means of identification None.

Recommended use Distillate fuel stabilizer.

Recommended restrictions None known.

Company/undertaking identification

Hammonds Fuel Additives, Inc. 6951 W Little York Rd Houston, TX 77040

CHEMTREC 1-800-424-9300

#### 2. Hazard(s) identification

Physical hazards Flammable liquids Category 4 Acute toxicity, inhalation Health hazards Category 3 Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2 Sensitization, skin Category 1 Germ cell mutagenicity Category 2 Carcinogenicity

Category 2 Reproductive toxicity Category 1B Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Specific target organ toxicity, repeated

exposure (dermal)

Aspiration hazard

Category 1 Not classified.

**OSHA** defined hazards

Label elements



Signal word

Hazard statement

Combustible liquid. May be fatal if swallowed and enters airways. Toxic if inhaled. May cause respiratory irritation. Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. Suspected of causing cancer. Suspected of causing genetic defects. May damage fertility or the unborn child. Causes damage to organs (adrenal gland, bone marrow, kidney, liver, thymus gland) through prolonged or repeated exposure by skin contact.

Category 1 (adrenal gland, bone marrow,

kidney, liver, thymus gland)

Precautionary statement

Obtain special instructions before use. Do not handle until all safety precautions have been read and Prevention

understood. Keep away from flames and hot surfaces-No smoking. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear

protective gloves/protective clothing/eye protection/face protection.

If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously Response

with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If swallowed: Immediately call a poison center/doctor. If on skin: Wash with plenty of water, Call a poison center/doctor. Do NOT induce vomiting. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before

reuse. In case of fire: Use appropriate media for extinction.

Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep Storage

cool. Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified

None known.

(HNOC)

None

Supplemental information

# 3. Composition/information on ingredients

#### **Mixtures**

Components	CAS#	Percent
Solvent naphtha (petroleum),heavy aromatic	64742-94-5	40 - 60
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	10 - 20
Phosphonothioic acid, polyisobutenyl derivs., esters with pentaerythritol	68908-58-7	10 - 20
BHT, butylated hydroxytoluene	128-37-0	2.5 - 10
Naphthalene	91-20-3	2.5 - 10
Ethylbenzene	100-41-4	0.1 - 1
N,N, Disalicylidene-1.2 Propanediamine	94-91-7	0.1 - 1
Xylene	1330-20-7	0.1 - 1

#### Composition comments

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation. Naphthalene (91-20-3) and Ethylbenzene (100-41-4) are components of the aromatic naphtha solvent and are not WHMIS regulated components of this product.

## 4. First-aid measures

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial

respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper

respiratory medical device. Call a POISON CENTER or doctor/physician.

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or Skin contact

other skin disorders: Seek medical attention and take along these instructions. Wash contaminated

clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Call a physician or poison control center immediately. Rinse mouth, Do not induce vomiting. If vomiting

occurs, keep head low so that stomach content doesn't get into the lungs.

Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include Most important symptoms/effects, acute and delayed

stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Edema. Jaundice.

Prolonged exposure may cause chronic effects.

This product contains a hydrocarbon solvent. It may not be advisable to induce vomiting. Aspiration into Indication of immediate medical the lungs will result in chemical pneumonia. Provide general supportive measures and treat attention and special treatment symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed. needed

> IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

**General information** 

Ingestion

Material name: TURBOLINE FS100 (CONC) Version number: 4.0

## 5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

Specific hazards arising from the

chemical

Special protective equipment and precautions for firefighters

Fire fighting

Specific methods

equipment/instructions

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards Combustible liquid.

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. Ensure good ventilation.

Methods and materials for containment and cleaning up Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Contain and absorb on absorbent material (e.g. sand).

Place in waste disposal container.

Flush area with water. Spread sand/grit. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Put material in suitable, covered, labeled containers.

**Environmental precautions** 

Product as is - Incinerate or land dispose in an approved landfill. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements. Avoid discharge into drains, water courses or onto the ground.

# 7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from open flames, hot surfaces and sources of ignition. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS). Store containers closed when not in use.

Store in cool, well ventilated area. Keep away from all sources of ignition. Store away from oxidizers.

## 8. Exposure controls/personal protection

#### Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Туре	Value	Form	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	PEL	5 mg/m3	Mist.	

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# US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Тур	е		Value	Form
				2000 mg/m3	
				500 ppm	
Ethylbenzene (CAS 100-41-4)	PEL			435 mg/m3	
				100 ppm	
Naphthalene (CAS 91-20-3)	PEL			50 mg/m3	
•				10 ppm	
Solvent naphtha	PEL			400 mg/m3	
(petroleum),heavy aromatic				<b>.</b>	
(CAS 64742-94-5)					
				100 ppm	
Xylene (CAS 1330-20-7)	PEL			435 mg/m3	
				100 ppm	
US. ACGIH Threshold Limit Val	ues				
Components	Тур	e		Value	Form
BHT, butylated	TW			2 mg/m3	Inhalable fraction and
hydroxytoluene (CAS				g,o	vapor.
128-37-0)					
Distillates (petroleum),	TW	Α		5 mg/m3	Inhalable fraction.
solvent-dewaxed heavy				-	
paraffinic (CAS 64742-65-0)					
Ethylbenzene (CAS 100-41-4)	TW	A		20 ppm	
Naphthalene (CAS 91-20-3)	TW	A		10 ppm	
Solvent naphtha	TW	А		200 mg/m3	Non-aerosol.
(petroleum),heavy aromatic					
(CAS 64742-94-5)					
	CTE	1		1 E O nnm	
Xylene (CAS 1330-20-7)	STE			150 ppm	
Aylerie (CAS 1330-20-7)	TW			100 ppm	
US. NIOSH: Pocket Guide to Ch	TW/ emical Hazards	А		100 ppm	
US. NIOSH: Pocket Guide to Ch Components	TW/ emical Hazards Typ	e e		100 ppm  Value	Form
US. NIOSH: Pocket Guide to Ch Components BHT, butylated	TW/ emical Hazards	e e		100 ppm	Form
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS	TW/ emical Hazards Typ	e e		100 ppm  Value	Form
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0)	emical Hazards Typ	A A		100 ppm  Value  10 mg/m3	Form
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum),	TW/ emical Hazards Typ	A A		100 ppm  Value	Form
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy	emical Hazards Typ	A A		100 ppm  Value  10 mg/m3	Form
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum),	emical Hazards  Typ  TWA	A Ne A ing		100 ppm  Value  10 mg/m3  1800 mg/m3	
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy	emical Hazards Typ TWA Ceil	A Ne A ing L		100 ppm  Value  10 mg/m3  1800 mg/m3	Mist.
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	emical Hazards Typ TWA Ceil STE	A  ne  A  ing  L  A		100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3	
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy	emical Hazards Typ TWA Ceil	A  ne  A  ing  L  A		100 ppm  Value  10 mg/m3  1800 mg/m3  5 mg/m3  545 mg/m3	Mist.
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	emical Hazards Typ TWA Ceil STE TWA STE	e A ing L A		100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3  545 mg/m3  125 ppm	Mist.
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	emical Hazards Typ TWA Ceil STE	e A ing L A		100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3	Mist.
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0) Ethylbenzene (CAS 100-41-4)	emical Hazards Typ TWA Ceil STE TWA STE	A  ing  L  A		100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm	Mist.
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	emical Hazards Typ TWA Ceil STE TWA STE	A  ing  L  A		100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3	Mist.
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0) Ethylbenzene (CAS 100-41-4)	emical Hazards Typ TWA Ceil STE TWA STE	ee A ing L A L		100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3  15 ppm	Mist.
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0) Ethylbenzene (CAS 100-41-4)	emical Hazards Typ TWA Ceil STE TWA STE	ee A ing L A L		100 ppm  Value  10 mg/m3  1800 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3  15 ppm  50 mg/m3	Mist.
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0) Ethylbenzene (CAS 100-41-4) Naphthalene (CAS 91-20-3)	emical Hazards Typ TWA Ceil STE TWA STE	ee A ing L A L		100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3  15 ppm	Mist.
US. NIOSH: Pocket Guide to Ch Components BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0) Ethylbenzene (CAS 100-41-4)	emical Hazards Typ TWA Ceil STE TWA STE	ee A ing L A L		100 ppm  Value  10 mg/m3  1800 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3  15 ppm  50 mg/m3	Mist.
US. NIOSH: Pocket Guide to Ch Components  BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)  Ethylbenzene (CAS 100-41-4)  Naphthalene (CAS 91-20-3)	emical Hazards Typ TWA Ceil STE TWA STE TWA	ee A ing L A L		100 ppm  Value  10 mg/m3  1800 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3  15 ppm  50 mg/m3  10 ppm	Mist.
US. NIOSH: Pocket Guide to Ch Components  BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)  Ethylbenzene (CAS 100-41-4)  Naphthalene (CAS 91-20-3)  ogical limit values ACGIH Biological Exposure Ind Components  V	emical Hazards Typ TWA Ceil STE TWA STE TWA STE TWA STE TWA	ee A ing L A L A Determinant		100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3  15 ppm  50 mg/m3  10 ppm	Mist.
US. NIOSH: Pocket Guide to Ch Components  BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)  Ethylbenzene (CAS 100-41-4)  Naphthalene (CAS 91-20-3)	emical Hazards Typ TWA Ceil STE TWA STE TWA STE TWA STE TWA	ee A ing L A L A L Determinant Sum of	Specimen Creatinine	100 ppm  Value  10 mg/m3  1800 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3  15 ppm  50 mg/m3  10 ppm	Mist.
US. NIOSH: Pocket Guide to Ch Components  BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)  Ethylbenzene (CAS 100-41-4)  Naphthalene (CAS 91-20-3)  ogical limit values ACGIH Biological Exposure Ind Components  V	emical Hazards Typ TWA Ceil STE TWA STE TWA STE TWA STE TWA	ee A ing L A L A L Sum of mandelic acid	Specimen	100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3  15 ppm  50 mg/m3  10 ppm	Mist.
US. NIOSH: Pocket Guide to Ch Components  BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)  Ethylbenzene (CAS 100-41-4)  Naphthalene (CAS 91-20-3)  ogical limit values ACGIH Biological Exposure Ind Components  V	emical Hazards Typ TWA Ceil STE TWA STE TWA STE TWA STE TWA	ee A ing L A L A L Sum of mandelic acid and	Specimen Creatinine	100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3  15 ppm  50 mg/m3  10 ppm	Mist.
US. NIOSH: Pocket Guide to Ch Components  BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)  Ethylbenzene (CAS 100-41-4)  Naphthalene (CAS 91-20-3)  ogical limit values ACGIH Biological Exposure Ind Components  V	emical Hazards Typ TWA Ceil STE TWA STE TWA STE TWA STE TWA	ee A ing L A L A  Determinant Sum of mandelic acid and phenylglyoxylic	Specimen Creatinine	100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3  15 ppm  50 mg/m3  10 ppm	Mist.
US. NIOSH: Pocket Guide to Ch Components  BHT, butylated hydroxytoluene (CAS 128-37-0) Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)  Ethylbenzene (CAS 100-41-4)  Naphthalene (CAS 91-20-3)  ogical limit values ACGIH Biological Exposure Ind Components  V  Ethylbenzene (CAS 100-41-4) 0	emical Hazards Typ TWA Ceil STE TWA STE TWA STE TWA STE TWA	ee A ing L A L A L Sum of mandelic acid and	Specimen Creatinine	100 ppm  Value  10 mg/m3  1800 mg/m3  10 mg/m3  5 mg/m3  545 mg/m3  125 ppm  435 mg/m3  100 ppm  75 mg/m3  15 ppm  50 mg/m3  10 ppm	Mist.

<sup>\* -</sup> For sampling details, please see the source document.

#### **Exposure guidelines**

## US ACGIH Threshold Limit Values: Skin designation

Naphthalene (CAS 91-20-3) Solvent naphtha (petroleum), heavy aromatic (CAS

Can be absorbed through the skin. Can be absorbed through the skin.

64742-94-5)

#### Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

#### Individual protection measures, such as personal protective equipment

Splash proof chemical goggles. Eye/face protection

Skin protection

Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend Hand protection

on its material but also on other quality features and is different from one producer to the other. Suitable gloves can be recommended by the glove supplier. Glove selection must take into account any solvents

and other hazards present.

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. Other

If engineering controls do not maintain airborne concentrations below recommended exposure limits Respiratory protection

(where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE

CONDITIONS WARRANT A RESPIRATOR'S USE.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Observe any medical surveillance requirements. When using do not smoke. Always observe good General hygiene considerations

> personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

**Appearance** 

Amber to brown Color

Physical state Liquid

HYDROGEN SULFIDE Odor

Odor threshold Not available. 6 (5% EXTRACT) pH in aqueous solution -45 °F (-43 °C) Melting point/freezing point Initial boiling point and boiling 358 °F (181 °C)

range

165 °F (74 °C) P-M(CC) Flash point

**Evaporation rate** < 1 (Ether = 1)Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Not available. Flammability limit - lower (%) Flammability limit - upper

(%)

Not available.

Not available. Explosive limit - lower (%) Explosive limit - upper (%) Not available. Vapor pressure < 5 mm Ha 70 °F (21 °C) Vapor pressure temp. Vapor density > 1 (Air = 1)

0.9 Relative density

70 °F (21 °C) Relative density temperature

Solubility(ies)

< 0.01 % Solubility (water)

Material name: TURBOLINE FS100 (CONC)

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Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperatureNot available.Decomposition temperatureNot available.Viscosity18 cpsViscosity temperature70 °F (21 °C)

Other information

Explosive properties

Oxidizing properties

Not explosive.

Not oxidizing.

Percent volatile

Four point

Not explosive.

Specific gravity 0.901

## 10. Stability and reactivity

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions Hazardous polymerization does not occur.

Conditions to avoid Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash

point. Contact with incompatible materials. Keep away from all sources of ignition.

**Incompatible materials** Strong oxidizing agents.

Hazardous decomposition

products

Oxides of carbon, nitrogen, phosphorus, and sulphur evolved in fire.

## 11. Toxicological information

## Information on likely routes of exposure

**Inhalation** Toxic if inhaled. May cause irritation to the respiratory system. May cause damage to organs through

prolonged or repeated exposure by inhalation.

Skin contact Causes skin irritation. May cause an allergic skin reaction. Causes damage to organs through prolonged

or repeated exposure by skin contact.

**Eye contact** Causes serious eye irritation.

**Ingestion** Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious

chemical pneumonia. Ingestion of large amounts may produce gastrointestinal disturbances including

irritation, nausea, and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Edema. Jaundice.

# Information on toxicological effects

**Acute toxicity** May be fatal if swallowed and enters airways. Toxic if inhaled. May cause respiratory irritation. May

cause an allergic skin reaction.

Product Species Test Results

TURBOLINE FS100 (CONC) (CAS Mixture)

**Acute** Dermal

LD50 Rabbit > 5000 mg/kg, (Calculated according to GHS

additivity formula)

Inhalation

LC50 Rat 9.54 mg/l, 4 Hour, (Calculated according to

GHS additivity formula (Category 3))

Oral

LD50 Rat > 5000 mg/kg, (Calculated according to GHS

additivity formula)

Components	Species	Test Results
BHT, butylated hydroxytoluer	ne (CAS 128-37-0)	
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	> 2930 mg/kg
Ethylbenzene (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	15400 mg/kg
Inhalation		
LC50	Rat	17.2 mg/l/4h
Oral		
LD50	Rat	3500 mg/kg
N,N, Disalicylidene-1.2 Propa	nediamine (CAS 94-91-7)	
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	1350 mg/kg
Naphthalene (CAS 91-20-3)		
Acute		
Dermal		
LD50	Rabbit	> 16000 mg/kg
Oral		
LD50	Rat	> 2000 mg/kg
· ·	heavy aromatic (CAS 64742-94-5)	
Acute		
Dermal	- 11 v	
LD50	Rabbit	> 3160 mg/kg
Inhalation		
LC50	Rat	> 5.2 mg/L, 4 Hour
Oral		<i>I</i>
LD50	Rat	7050 mg/kg
Xylene (CAS 1330-20-7)		
Acute		
Dermal	0.11.7	5000 //
LD50	Rabbit	> 5000 mg/kg
Inhalation	9.1	11.50
LC50	Rat	11.58 mg/l, 4 Hour
Oral	_	
LD50	Rat	4300 mg/kg

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation. **Serious eye damage/eye irritation** Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization This product is not expected to cause respiratory sensitization.

May cause an allergic skin reaction. Skin sensitization Germ cell mutagenicity Suspected of causing genetic defects.

Carcinogenicity Suspected of causing cancer.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

BHT, butylated hydroxytoluene (CAS 128-37-0)

Distillates (petroleum), solvent-dewaxed heavy paraffinic

(CAS 64742-65-0)

Ethylbenzene (CAS 100-41-4) 2B Possibly carcinogenic to humans. Naphthalene (CAS 91-20-3) 2B Possibly carcinogenic to humans.

Xylene (CAS 1330-20-7) 3 Not classifiable as to carcinogenicity to humans.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

#### US. National Toxicology Program (NTP) Report on Carcinogens

Distillates (petroleum), solvent-dewaxed heavy paraffinic

(CAS 64742-65-0)

Known To Be Human Carcinogen.

May damage fertility or the unborn child. Reproductive toxicity

Specific target organ toxicity

Naphthalene (CAS 91-20-3)

- single exposure

May cause respiratory irritation.

Specific target organ toxicity

- repeated exposure

Causes damage to organs (adrenal gland, bone marrow, kidney, liver, thymus gland) through prolonged

3 Not classifiable as to carcinogenicity to humans.

3 Not classifiable as to carcinogenicity to humans.

Reasonably Anticipated to be a Human Carcinogen.

or repeated exposure by skin contact.

Aspiration hazard May be fatal if swallowed and enters airways.

Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be Chronic effects

harmful. Prolonged exposure may cause chronic effects.

# 12. Ecological information

## **Ecotoxicity**

Product		Species	Test Results
TURBOLINE FS100 (COI	NC) (CAS Mixture)		
	LC50	Fathead Minnow	7.7 mg/L, Static Acute Bioassay, 96 hour
	NOEL	Fathead Minnow	6.3 mg/L, Static Acute Bioassay, 96 hour
Aquatic			
Crustacea	0% Mortality	Daphnia magna	6.3 mg/L, Static Acute Bioassay, 48 hour
	LC50	Daphnia magna	28.3 mg/L, Static Acute Bioassay, 48 hour

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

#### Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Ethylbenzene 3.15 Naphthalene 3.3 3.12 - 3.2**Xylene** 

No data available. Mobility in soil Not available. Other adverse effects

Persistence and degradability

No data is available on the degradability of this product.

#### 13. Disposal considerations

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the **Disposal instructions** 

> material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations. Via an authorized waste disposal

contractor to an approved waste disposal site, observing all local and national regulations.

Dispose in accordance with all applicable regulations. Local disposal regulations

Hazardous waste code D018: Waste Benzene

> The waste code should be assigned in discussion between the user, the producer and the waste disposal company. The complete waste code should be assigned in discussion with the waste disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal

instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Via an authorized waste disposal contractor to an approved waste disposal site, observing all local and national regulations.

## 14. Transport information

#### DOT

UN number NA1993

UN proper shipping name COMBUSTIBLE LIQUID, N.O.S. (SOLVENT NAPHTHA (PETROLEUM), HEAVY AROMATIC, NAPHTHALENE),

RQ(NAPHTHALENE, XYLENE)

Transport hazard class(es)

Class Combustible Liquid

Subsidiary risk - Packing group |||

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

ERG number 128

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container

classification.

IATA

UN number UN3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SOLVENT NAPHTHA (PETROLEUM), HEAVY

AROMATIC, NAPHTHALENE)

Transport hazard class(es)

Class 9
Subsidiary risk Packing group III
Environmental hazards No.
ERG Code 171

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling. Some containers may not be approved under IATA, please check BOL for exact container classification.

#### **IMDG**

UN number UN3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SOLVENT NAPHTHA (PETROLEUM), HEAVY

AROMATIC, NAPHTHALENE), RQ (NAPHTHALENE, XYLENE), MARINE POLLUTANT

Transport hazard class(es)

Class 9
Subsidiary risk Packing group III
Environmental hazards

Marine pollutant Yes EmS F-A,S-F

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

#### IATA; IMDG



#### Marine pollutant



**General information** IMDG Regulated Marine Pollutant.

## 15. Regulatory information

**US federal regulations**This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29

CFR 1910.1200.

## TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated

#### **CERCLA Hazardous Substance List (40 CFR 302.4)**

Ethylbenzene (CAS 100-41-4) Listed.
Naphthalene (CAS 91-20-3) Listed.
Xylene (CAS 1330-20-7) Listed.

## SARA 304 Emergency release notification

Not regulated.

## OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

# Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

## SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous Yes

chemical

## SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.	
Naphthalene	91-20-3	2.5 - 10	
Ethylbenzene	100-41-4	0.1 - 1	
Xylene	1330-20-7	0.1 - 1	

#### Other federal regulations

## Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Ethylbenzene (CAS 100-41-4) Naphthalene (CAS 91-20-3) Xylene (CAS 1330-20-7)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

# Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

<sup>\*</sup>A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

:ountry(s

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing

#### **US state regulations**

#### US - Massachusetts RTK - Substance List

BHT, butylated hydroxytoluene (CAS 128-37-0)

Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)

Ethylbenzene (CAS 100-41-4) Naphthalene (CAS 91-20-3) Xylene (CAS 1330-20-7)

#### US - Pennsylvania RTK - Hazardous Substances

BHT, butylated hydroxytoluene (CAS 128-37-0)

Ethylbenzene (CAS 100-41-4) Naphthalene (CAS 91-20-3)

Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)

Xylene (CAS 1330-20-7)

#### US - Rhode Island RTK

Ethylbenzene (CAS 100-41-4) Naphthalene (CAS 91-20-3) Xylene (CAS 1330-20-7)

## US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

#### US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)

Ethylbenzene (CAS 100-41-4) Naphthalene (CAS 91-20-3)

Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)

Xylene (CAS 1330-20-7)

#### US. New Jersey Worker and Community Right-to-Know Act

BHT, butylated hydroxytoluene (CAS 128-37-0)

Ethylbenzene (CAS 100-41-4) Naphthalene (CAS 91-20-3)

Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)

Xylene (CAS 1330-20-7)

#### US. Pennsylvania Worker and Community Right-to-Know Law

BHT, butylated hydroxytoluene (CAS 128-37-0)

Ethylbenzene (CAS 100-41-4) Naphthalene (CAS 91-20-3)

Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)

Xylene (CAS 1330-20-7)

## US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive

## US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2) Listed: February 27, 1987 Ethylbenzene (CAS 100-41-4) Listed: June 11, 2004 Naphthalene (CAS 91-20-3) Listed: April 19, 2002

## US - California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2) Listed: December 26, 1997 Toluene (CAS 108-88-3) Listed: January 1, 1991

## US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

## US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2) Listed: December 26, 1997

## 16. Other information, including date of preparation or last revision

Issue date Jun-26-2014
Revision date Jun-23-2016

Version # 4.0

List of abbreviations CAS: Chemical Abstract Service Registration Number

TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

ACGIH: American Conference of Governmental Industrial Hygienists

NOEL: No Observed Effect Level STEL: Short Term Exposure Limit LC50: Lethal Concentration, 50%

LD50: Lethal Dose, 50% TWA: Time Weighted Average BOD: Biochemical Oxygen Demand COD: Chemical Oxygen Demand TOC: Total Organic Carbon

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

References: No data available

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information Disclaimer

and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process,

unless specified in the text.

**Revision information** This document has undergone significant changes and should be reviewed in its entirety.

This SDS has been prepared by GE Water & Process Technologies Regulatory Department Prepared by

(1-215-355-3300).

Material name: TURBOLINE FS100 (CONC)

Version number: 4.0

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