



# Material Safety Data Sheet

Issue Date: 03-APR-2008  
Supersedes: 03-DEC-2007

RE-FLOW

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## 1 Identification of Product and Company

**Identification of substance or preparation**  
RE-FLOW

**Product Application Area**  
Multifunctional diesel fuel additive

**Company/Undertaking Identification**  
GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355-3300, F 215 953 5524

**Emergency Telephone**  
(800) 877-1940

Prepared by Product Stewardship Group: 215 355-3300

## 2 Composition / Information On Ingredients

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation.

### HAZARDOUS INGREDIENTS:

Cas#	Chemical Name	Range (w/w%)
91-20-3	NAPHTHALENE Irritant; absorbed by skin; sensitizer; possible human carcinogen (IARC=2B; NTP=anticipated); toxic to liver, kidney, and blood; causes nasal tumors in rats	1-5
100-41-4	ETHYLBENZENE Flammable liquid; Irritant (eyes, skin, and respiratory); possible human carcinogen (IARC=2B; NTP=anticipated); potential nervous system toxin	0.1-1.0
67-63-0	ISOPROPYL ALCOHOL Flammable liquid; chronic overexposure may cause liver and kidney toxicity	40-70
64742-94-5	SOLVENT NAPHTHA, PETROLEUM, HEAVY AROMATIC Combustible liquid; irritant (eyes)	15-40
64742-95-6	LIGHT AROMATIC NAPHTHA	10-20

Combustible; irritant

95-63-6

1,2,4-TRIMETHYLBENZENE

7-13

Flammable; irritant (respiratory); CNS depressant

### 3 Hazards Identification

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#### EMERGENCY OVERVIEW

##### WARNING

May cause moderate irritation to the skin. May cause dermatitis.  
May be absorbed. Severe irritant to the eyes. Vapors, gases, mists  
or aerosols may cause irritation to the upper respiratory tract.  
Prolonged exposure may cause dizziness and headache.

DOT hazard: Flammable liquid

Odor: Slight Hydrocarbon; Appearance: Yellow, Liquid

Fire fighters should wear positive pressure self-contained breathing  
apparatus(full face-piece type). Proper fire-extinguishing media:  
dry chemical, carbon dioxide, or foam--Water spray should be used  
only to cool fire-exposed containers and disperse vapors.

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#### POTENTIAL HEALTH EFFECTS

##### ACUTE SKIN EFFECTS:

Primary route of exposure; May cause moderate irritation to the  
skin. May cause dermatitis. May be absorbed.

##### ACUTE EYE EFFECTS:

Severe irritant to the eyes.

##### ACUTE RESPIRATORY EFFECTS:

Primary route of exposure;Vapors, gases, mists or aerosols may  
cause irritation to the upper respiratory tract. Prolonged exposure  
may cause dizziness and headache.

##### INGESTION EFFECTS:

May cause gastrointestinal irritation with possible nausea,  
vomiting, headache, dizziness, unconsciousness and injury to the  
kidneys and liver. Small amounts aspirated during  
ingestion/vomiting may cause lung injury, possibly death.

##### TARGET ORGANS:

Prolonged or repeated exposure may increase the risk of cancer  
and/or cause toxicity to the liver, kidney, nervous system and  
reproductive system, CNS depression and/or defatting-type  
dermatitis.

##### MEDICAL CONDITIONS AGGRAVATED:

Not known.

##### SYMPTOMS OF EXPOSURE:

Excessive dermal exposure causes defatting and drying of skin.  
Excessive inhalation of vapors causes dizziness, headache and  
nausea.

## 4 First Aid Measures

### **SKIN CONTACT:**

Wash thoroughly with soap and water. Remove contaminated clothing. Thoroughly wash clothing before reuse. Get medical attention if irritation develops or persists.

### **EYE CONTACT:**

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get immediate medical attention.

### **INHALATION:**

Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get immediate medical attention.

### **INGESTION:**

Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. Immediately contact physician. Dilute contents of stomach using 2-8 fluid ounces (60-240 mL) of milk or water.

### **NOTES TO PHYSICIANS:**

This product contains a hydrocarbon solvent. Aspiration into the lungs will result in chemical pneumonia and may be fatal.

## 5 Fire Fighting Measures

### **FIRE FIGHTING INSTRUCTIONS:**

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

### **EXTINGUISHING MEDIA:**

dry chemical, carbon dioxide, or foam--Water spray should be used only to cool fire-exposed containers and disperse vapors.

### **HAZARDOUS DECOMPOSITION PRODUCTS:**

oxides of carbon and nitrogen

### **FLASH POINT:**

~ 60F ~ 16C P-M(CC)

### **MISCELLANEOUS:**

Flammable liquid  
UN 1993;Emergency Response Guide #128

## 6 Accidental Release Measures

### **PROTECTION AND SPILL CONTAINMENT:**

Ventilate area. Use specified protective equipment. Contain and absorb on absorbent material. Place in waste disposal container. Remove ignition sources. Flush area with water. Spread sand/grit.

### **DISPOSAL INSTRUCTIONS:**

Water contaminated with this product may be sent to a sanitary sewer treatment facility, in accordance with any local agreement, a permitted waste treatment facility or discharged under a permit. Product as is - Incinerate or land dispose in an approved landfill.

## 7 Handling & Storage

**HANDLING:**

Flammable. Store in explosive proof area where electrical equipment meets NFPA code.

**STORAGE:**

Keep containers closed when not in use. Keep away from flames or sparks. Bond containers during filling or discharge when performed at temperatures at or above the product flash point.

## 8 Exposure Controls / Personal Protection

**EXPOSURE LIMITS****CHEMICAL NAME**

## NAPHTHALENE

PEL (OSHA): 10 PPM

TLV (ACGIH): 10 PPM

## ETHYLBENZENE

PEL (OSHA): 100 PPM(125PPM-STEL)

TLV (ACGIH): 100 PPM(125PPM-STEL)

## ISOPROPYL ALCOHOL

PEL (OSHA): 400 PPM(500PPM-STEL)

TLV (ACGIH): 200 PPM(400PPM-STEL)

## SOLVENT NAPHTHA, PETROLEUM, HEAVY AROMATIC

PEL (OSHA): NOT DETERMINED

TLV (ACGIH): NOT DETERMINED

MISC: Note- manufacturer's recommended exposure limit: 100 ppm.

## LIGHT AROMATIC NAPHTHA

PEL (OSHA): NOT DETERMINED

TLV (ACGIH): NOT DETERMINED

MISC: Note- manufacturer's recommended exposure limit: 100 ppm.

## 1,2,4-TRIMETHYLBENZENE

PEL (OSHA): NOT DETERMINED

TLV (ACGIH): 25 PPM(TRIMETHYLBENZENE MIXED ISOMERS)

**8) EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)****ENGINEERING CONTROLS:**

Adequate ventilation to maintain air contaminants below exposure limits.

**PERSONAL PROTECTIVE EQUIPMENT:**

Use protective equipment in accordance with 29CFR 1910 Subpart I

**RESPIRATORY PROTECTION:**

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.

USE AIR PURIFYING RESPIRATORS WITHIN USE LIMITATIONS ASSOCIATED WITH THE EQUIPMENT OR ELSE USE SUPPLIED AIR-RESPIRATORS.

If air-purifying respirator use is appropriate, use organic vapor cartridges and any of the following particulate respirators: R95, R99, R100, P95, P99 or P100.

**SKIN PROTECTION:**

nitrile gloves-- Wash off after each use. Replace as necessary.

**EYE PROTECTION:**

splash proof chemical goggles

## 9 Physical & Chemical Properties

Density	6.7 lbs/ga	Vapor Pressure (mmHG)	< 5.0
Freeze Point (F)	< -32	Vapor Density (air=1)	> 1.00
Freeze Point (C)	< -36		
Viscosity(cps 70F,21C)	7	% Solubility (water)	< 0.0
Odor	Slight Hydrocarbon		
Appearance	Yellow		
Physical State	Liquid		
Flash Point	P-M(CC)	~ 60F ~ 15C	
pH :	No Data		
Evaporation Rate (Ether=1)	< 1.00		
Percent VOC:	98.0		

NA = not applicable      ND = not determined

## 10 Stability & Reactivity

**STABILITY:**

Stable under normal storage conditions.

**HAZARDOUS POLYMERIZATION:**

Will not occur.

**INCOMPATIBILITIES:**

May react with strong oxidizers.

**DECOMPOSITION PRODUCTS:**

oxides of carbon and nitrogen

**INTERNAL PUMPOUT/CLEANOUT CATEGORIES:**

"B"

## 11 Toxicological Information

No Data Available.

## 12 Ecological Information

**AQUATIC TOXICOLOGY**

No Data Available.

**BIODEGRADATION**

No Data Available.

## 13 Disposal Considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :  
D001=Ignitable; D018=Benzene.

Please be advised; however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

## 14 Transport Information

DOT HAZARD: Flammable liquid  
PROPER SHIPPING NAME: FLAMMABLE LIQUID, N.O.S. (AROMATIC SOLVENT, ISOPROPANOL)  
3, UN 1993, PG II (NAPHTHALENE) RQ  
DOT EMERGENCY RESPONSE GUIDE #: 128  
Note: Some containers may be DOT exempt, please check BOL for exact container classification

## 15 Regulatory Information

### TSCA:

All components of this product are included on or are in compliance with the U.S. TSCA regulations.

### CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ):

694 gallons due to NAPHTHALENE; 2,020 gallons due to XYLENE;  
Treat as oil spill

### SARA SECTION 312 HAZARD CLASS:

Immediate (acute); Delayed (Chronic); Fire

### SARA SECTION 313 CHEMICALS:

CAS#	CHEMICAL NAME	RANGE
91-20-3	NAPHTHALENE	2.0-5.0%
100-41-4	ETHYLBENZENE	0.1-1.0%
95-63-6	1,2,4-TRIMETHYLBENZENE	6.0-10.0%
1330-20-7	XYLENE	0.1-1.0%

### CALIFORNIA REGULATORY INFORMATION

#### CALIFORNIA SAFE DRINKING WATER AND TOXIC

#### ENFORCEMENT ACT (PROPOSITION 65):

This product contains one or more ingredients known to the state of California to cause cancer and reproductive toxicity.

### MICHIGAN REGULATORY INFORMATION

CAS#	CHEMICAL NAME
91-20-3	NAPHTHALENE
1330-20-7	XYLENE

## 16 Other Information

### NFPA/HMIS

### CODE TRANSLATION

Health	2	Moderate Hazard
Fire	3	Serious Hazard
Reactivity	0	Minimal Hazard
Special	NONE	No special Hazard
(1) Protective Equipment	B	Goggles, Gloves

(1) refer to section 8 of MSDS for additional protective equipment recommendations.

**CHANGE LOG**

	EFFECTIVE DATE	REVISIONS TO SECTION:	SUPERCEDES
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MSDS status:	25-SEP-2002		** NEW **
	01-APR-2004	15	25-SEP-2002
	22-JUL-2005	2,3,5,8,9,15	01-APR-2004
	23-SEP-2005	3,9	22-JUL-2005
	03-DEC-2007	4,5,8,10,15	23-SEP-2005
	03-APR-2008	13	03-DEC-2007