

# GENEX 1R

GENEX1R@SAFETY

## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME	GENEX 1R
Recommended use	Fire Fighting Foam Concentrate for extinguishers
MANUFACTURER	3FFF Limited
Address	Unit C. Marconi Courtyard, Brunel Road, Earlstree Ind Est, Corby, NN17 4LT
Phone no.	+44-(0)1536 202919.
Fax no.	+44-(0)1536 263641.
E-mail	enquiries@3fffuk.com

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation	Aqueous solution of surfactants
Hazardous components	ButylDiGlycol Ether ( ButylCarbitol ) ..... [5-10%] Xi ; R36 / CAS N° : 112-34-5 / EINECS 203-961-6
	AlkylSulfate ..... [1-5%] Xi ; R36/38
	FluoroSurfactant ..... [1-5%] F ; R10

### 3. HAZARDS IDENTIFICATION

Health hazards	Slightly irritating to eyes
Physical and chemical hazards	Not flammable
Specific risks	This product is not classified hazardous under European directive 1999/45/EC

### 4. FIRST AID MEASURES

After skin contact	Wash off with water. Remove contaminated soaked clothing and rinse with water
After eye contact	Flush eye with plenty of water for at least 10 minutes
After swallowing	Wash mouth with water. Seek medical advice should pain occur and persist

### 5. FIRE FIGHTING MEASURES

Extinguishing media	Not applicable. Fire fighting foam concentrate
Protective equipment for fire fighters	Standard equipment against fires

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear gloves and goggles
Environmental protection	Absorb onto sand or other absorbent material and shovel into container for disposal
CLEANING MEASURES:	
Collecting	Pump into clearly identified unbreakable containers
Cleaning	Wash thoroughly with water
Disposal	Incineration according to local regulations

### 7. HANDLING AND STORAGE

HANDLING:	Standard equipment against chemicals
STORAGE:	
Technical measures	Storage area should contain accidental spill
Storage conditions	Sealed containers in normal cool warehouse
Storage recommendations	Product in bulk: stainless steel, polyester or mild steel protected with epoxy or polyurethane coating. Tanks in PE, PP
Packaging material:	
Recommended	Polyethylene, Polypropylene, stainless steel
Not advised	Mild steel, iron, aluminium, copper and its alloys
Recommended sealing	Viton, Kevlar, Teflon

### 8. EXPOSURE CONTROL AND PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT:	
Hand protection	Impermeable gloves (PVC) if continual handling
Eye protection	Goggles
Body protection	Working clothes
HYGIENIC MEASURES:	DO NOT eat, drink or smoke while handling the product. Clean hands after working

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE</b>	
<input type="checkbox"/> Physical form	Liquid
<input type="checkbox"/> Colour / Odour	Pink, synthetic smell
<input type="checkbox"/> PH	8.0 +/- 1.0
<input type="checkbox"/> Freezing point	- 12°C
<input type="checkbox"/> Boiling point	+ 100 °C
<input type="checkbox"/> Flammability / oxidising / explosive properties	None
<input type="checkbox"/> Specific gravity at 20°C	1050 +/- 20 Kg / m <sup>3</sup>
<input type="checkbox"/> Solubility	Completely soluble in water

### 10. STABILITY AND REACTIVITY

<input type="checkbox"/> Thermal decomposition	Stable under normal conditions of use and storage
<input type="checkbox"/> Hazardous reactions	None expected in standard use

### 11. TOXICOLOGICAL DATA

<input type="checkbox"/> Acute toxicity	None to be expected
<input type="checkbox"/> Local effects on the eye and skin	Not irritant at the recommended concentration of use

### 12. ECOLOGICAL DATA

<b>ENVIRONMENTAL BEHAVIOUR:</b>	
<input type="checkbox"/> Biodegradation data ( 15% volume )	COD / BOD not available
<input type="checkbox"/> Biodegradation rate	GENEX 1R is expected to be readily biodegradable
<input type="checkbox"/> Bio accumulative	PerFluorinated Organic Compounds persist in environment
<b>ECOTOXICITY:</b>	
<input type="checkbox"/> Aquatic life toxicity	PFCs are suspected to bio accumulate in living beings
	Not expected to be toxic after dilution

### 13. DISPOSAL CONDITIONS

<b>PRODUCT:</b>	
<input type="checkbox"/> Prohibition	Do not discharge in the environment.
<input type="checkbox"/> Disposal	Small amounts of product do not interfere with water treatment facilities. If released in sewage system, it is recommended to control the flow rate in order to avoid any foaming excess. Big quantities should be treated as chemical waste according to local regulations
<b>PACKAGING:</b>	
<input type="checkbox"/> Prohibition	Do not discharge in the environment
<input type="checkbox"/> Cleaning	Rinse with plenty of water
<input type="checkbox"/> Disposal	Incineration or an agreed method for package recycling

### 14. TRANSPORT INFORMATION

<b>INTERNATIONAL REGULATION</b>	
<input type="checkbox"/> Road - RID/ADR	Non hazardous
<input type="checkbox"/> Sea - OMI/IMDG	Non hazardous
<input type="checkbox"/> Air - ICAO/IATA	Non hazardous

### 15. REGULATORY INFORMATION

<b>LABELLING</b>	
<input type="checkbox"/> CE regulations	Not classified
<input type="checkbox"/> Hazard symbols	/
<input type="checkbox"/> S phrases	S20/21 : When using do not eat, drink or smoke

### 16. OTHER INFORMATIONS

<input type="checkbox"/> Rules of drafting	This Material Safety Data Sheet complies with ISO 11014-1. It is redacted in accordance to European directive 2001/58/EC
<input type="checkbox"/> Edition date	03/06/2003
<input type="checkbox"/> Printing date	01/10/2008

# GENEX 1R



## AFFF Concentrate for Extinguishers

### CHARACTERISTICS

- █ GENEX 1R is an AFFF Synthetic Additive.
  - AFFF : it forms an **Aqueous Film** on hydrocarbon fuels : the aqueous film gives a spreading foam and a total insulation from air ensuring a quick stopping of the fire. This property enhances extinction speed far better than with conventional foams.
- █ GENEX 1R is a combination of highly concentrated fluorosurfactants and hydrocarbon surfactants together with stabilisers and preservatives. Its low viscosity allows pumping whatever the equipment.
- █ GENEX 1R is specially designed for extinguishers type A and B, either as a concentrate or as a premixable compound.

### PHYSICAL DATA

Specific Gravity at 20°C	1.05 +/- 0.02 Kg/dm <sup>3</sup>
Ph at 20°C	8.0 +/- 1.0
Viscosity at 20°C	10 +/- 2 cStokes
Viscosity at -10°C	50 +/- 5 cStokes
Freezing point	- 12°C
Pour point	- 10°C
Sediment after ageing	< 0.1%
Surface tension at 15%	17 +/- 2 mN/m
Interfacial tension at 15%	2 +/- 1 mN/m

### FOAM QUALITY AT 15%

Low Expansion	10 *
Drainage Time 25%	3 minutes

\* Foam Expansion values depend on the equipment and nozzle

### APPLICATION & PERFORMANCES

- █ GENEX 1R can be used at a concentration of 15% on hydrocarbon fuels. The rate should be adjusted after determining the extinguisher size and the tray surface.  
It is suitable with all kind of extinguishers.
- █ GENEX 1R is suitable for both A and B fires.
- █ GENEX 1R can be freeze-protected with our speciality FREEZOL.

### WARRANTY & SERVICES

- █ GENEX 1R has a 5 years warranty in its original packaging and at storage temperatures -30°C / +60°C.
- █ GENEX 1R has a 5 years warranty as a premix in water.

Safety Data (MSDS) is available upon simple request.

#### KEY

☼	Standard.	█	Extinguisher Application.
✈	Aviation.	█	Enclosed Space. High Expansion.
☼	Anti-Fuming	✈	Fire Service.
✈	Environmentally Friendly.	☼	Alcohol Resistant.
☼	Anti-Freeze	✈	Aviation/Protein.