# RD SYSTEMS a biotechne brand

1.	IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING						
1.1	Product Identifiers						
	Product Name:	Recombinant Human Flt-3 Ligand/FLT3L					
	Catalog Number:	BT-FT3L					
1.2		es of the substance or mixture and uses advi	sed against				
	Identified Uses:						
1.3		of the safety data sheet	<b>-</b>				
	Company:	R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE	Telephone: Fax:	1-800-343-7475 1-612-656-4400			
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com			
			Email address:	info@bio-techne.com			
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722			
		Toronto, ON M8Z 4E6	Fax:	902-827-6402			
			Email address:	Canada.inquiries@bio-techne.com			
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449			
		Abingdon Science Park	Fax:	44 (0)1235 533420			
		Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com			
	China:	1193 Changning Road	Telephone:	86-400-821-3475			
		Unit 1901, Raffles Changning Office	Fax:	76 (021)52371001			
		Shanghai , China	Email address:	techsupport.cn@bio-techne.com			
1.4	Emergency Telephone Number						
	Emergency Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475						
2.	HAZARDS IDENTIFICATION						
2.1	Classification of the substance or mixture						
	This substance does not meet the classification criteria of the EC Directives 67/548/EEC, 1999/45/EC, 1272/2008 [CLP], GHS or 29 CFR 1910.1200 [OSHA].						
2.2	Label Elements						
	The product does not need to be labelled in accordance with EC directives or respective national laws.						
2.3	Other Hazards - None						
3.	COMPOSITION/INFORMATION ON INGREDIENTS						
3.1	Substances						
	Not applicable.						
3.2	Mixtures						
	This product does not o	contain hazardous chemicals at concentrations	of 1% or greater. This prod	uct is not known to contain carcinogens at con	centrations of 0.1% or greater.		
4.	FIRST AID MEASUR	ES					
4.1	Description of first aid measures						
	General Advice						
	Consult a doctor and show this safety data sheet.						
	If Inhaled Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.						
	In Case of Skin Contact						
	Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.						
	In Case of Eye Contact Flush with copious amounts of water for at least 15 minutes. Consult a doctor.						
	If Swallowed						
	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.						
4.2		oms and effects, both acute and delayed					
		vledge, the chemical, physical and toxicological		noroughly investigated.			
4.3		te medical attention and special treatment ne					
	Show this safety data s	sheet to the doctor in attendance. Immediate m	edical attention is required.		Page 1 of		

# 5. FIRE-FIGHTING MEASURES

## 5.1 Extinguishing Media

5.2

# Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## Special hazards arising from the substance or mixture

In combustion, may emit toxic fumes.

## 5.3 Precautions for fire-fighters

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

## 6. ACCIDENTIAL RELEASE MEASURES

## 6.1 Personal precautions, protective equipment and emergency procedures

Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

# 6.2 Environmental precautions

Do not let product enter drains.

# 6.3 Methods and materials for containment and cleaning up

Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.

## 6.4 Reference to other sections

For required PPE see section 8. For disposal see section 13.

## 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

# 7.2 Conditions for safe storage, including any incompatibilities

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.

## 7.3 Specific end uses

Not applicable.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

## Components with workplace control parameters

Contains no substances with occupational exposure limit values.

## 8.2 Exposure controls

# Appropriate Engineering Controls

Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

# **Personal Protective Equipment**

## Eye / Face Protection

#### Use appropriate safety glasses.

# **Skin Protection**

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

# **Body Protection**

Wear appropriate protective clothing.

#### **Respiratory Protection**

If risk assessment indicates necessary, use a suitable respirator.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 Information on basic physical and chemical properties

Appearance	No data available.	Vapor Pressure	No data available.
Odor	No data available.	Vapor Density	No data available.
Odor Threshold	No data available.	Relative Density	No data available.
pH	No data available.	Solubility(ies)	No data available.
Melting / Freezing Point	No data available.	Partition Coefficient	No data available.
Boiling Point / Range	No data available.	Autoignition Temperature	No data available.
Flash Point	No data available.	Decomposition Temperature	No data available.
Evaporation Rate	No data available.	Viscosity	No data available.
Flammability (Solid, Gas)	No data available.	Explosive Properties	No data available.

# 9.2 Other safety information

No data available.

# 10. STABILITY AND REACTIVITY

# 10.1 Reactivity

Stable under recommended transport or storage conditions.

## 10.2 Chemical stability

Stable under recommended storage conditions.

# 10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

**Oxidizing Properties** 

10.4 Conditions to avoid

Heat, moisture.

# 10.5 Incompatible materials

Strong acids/alkalis, strong oxidising/reducing agents.

# 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidising/reducing agents.

## 11. TOXICOLOGICAL INFORMATION

# 11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data

Skin Corrosion / Irritation

Classified based on available data

# Serious Eye Damage / Irritation

Classified based on available data

## **Respiratory or Skin Sensitization**

Classified based on available data

## Germ Cell Mutagenicity

Classified based on available data

## Carcinogenicity

Classified based on available data

## **Reproductive Toxicity**

Classified based on available data

## Specific Target Organ Toxicity - Single Exposure

Classified based on available data

# Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data

# Aspiration Hazard

Classified based on available data

# Symptoms / Routes of Exposure

Inhalation:	There may be irritation of the throat with a feeling of tightness in the chest.
Ingestion:	There may be irritation of the throat.
Skin:	There may be mild irritation at the site of contact.
Eyes:	There may be irritation and redness.
Delayed / Immediate Effects:	No known symptoms.

#### Additional Information

Classified based on available data

## 12. ECOLOGICAL INFORMATION

- 12.1 Toxicity
  - No data available.

# 12.2 Persistence and degradability No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

# No data available.

12.6 Other adverse effects

No data available.

## 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

#### Product

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

# Contaminated Packaging

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

## 14. TRANSPORT INFORMATION

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.

## 14.1 UN-Number

Does not meet the criteria for classification as hazardous for transport.

## 14.2 UN proper shipping name

Does not meet the criteria for classification as hazardous for transport.

# 14.3 Transport hazard class(es)

Does not meet the criteria for classification as hazardous for transport.

#### 14.4 Packaging group

Does not meet the criteria for classification as hazardous for transport.

## 14.5 Environmental hazards

Does not meet the criteria for classification as hazardous for transport.

#### 14.6 Special precautions for users

Does not meet the criteria for classification as hazardous for transport.

## Additional Transport Information

Does not meet the criteria for classification as hazardous for transport.

# 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

TSCA (Toxic Substances Control Act): Not applicable. SARA 313: Not applicable. SARA 311/312: Not applicable. CERCLA Reportable Quantity: Not applicable. California Proposition 65:

## 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been made for this product.

## 16. OTHER INFORMATION

## Further Information

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This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists.

End of safety data sheet