

MATERIAL SAFETY DATA SHEET

Novec 1230

SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER			
Product Name	Novec 1230	Other Names	None
Recommended Use	Fire protection agent for total flooding of rooms containing electrical equipment such as computer rooms as well as flammable liquid storages and Class A risks such as records rooms and libraries.		
Supplier Name	Redetec limited	Address	Unit 1, The Village, Trafford Park Manchester, M17 1JX, England
Telephone No.	0870 240 7094	Emergency Telephone No.	0870 240 7094
		Date Prepared	February 2008

SECTION 2: HAZARDS IDENTIFICATION			
Hazard Classification	DANGEROUS GOODS. NON-HAZARDOUS SUBSTANCE		
Safety Phrase(s)	Not available	Risk Phrase(s)	Not available

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS			
SUBSTANCE			
	Chemical Identity of the Pure Substance	Common Name / Synonyms	CAS Number
	1, 1, 1, 2, 2, 4, 5, 5, 5 - Nonfluoro-4-(Trifluoromethyl)-3-Pentatone	Novec 1230	756-13-8
MIXTURE			
	Chemical Identity of Ingredients	Proportion of Ingredients	CAS Number
	Not applicable	Not applicable	Not applicable

SECTION 4: FIRST AID MEASURES		
Description of Necessary First Aid Measures	EYE CONTACT	Flush eyes with large amounts of water. If signs / symptoms persist, get medical attention.
	SKIN CONTACT	Wash affected area with soap and water. If signs / symptoms develop, get medical attention.
	INHALATION	If signs / symptoms develop, remove person to fresh air.
	INGESTION	Do not induce vomiting. Give person two glasses of water. Never give anything by mouth to an unconscious person. If signs / symptoms develop, get medical attention.
Medical Attention and Special Treatment	Not available	
Aggravated Medical Conditions Caused by Exposure	Not available	

SECTION 5: FIRE FIGHTING MEASURES			
Suitable Extinguishing Media	Novec 1230 is a fire extinguishing agent.	Hazards From Combustion Products	Hydrogen fluoride, carbon monoxide and carbon dioxide during combustion.
Special Protective Precautions and Equipment for Fire Fighters	Wear full protective equipment and a self-contained breathing apparatus.	Hazchem Code	2RE

SECTION 6: ACCIDENTAL RELEASE MEASURES	
Emergency Procedures	Not available
Methods and Materials for Containment and Clean Up	If Novec has been spilt, evacuate the area and open doors and windows. Novec will evaporate.

SECTION 7: HANDLING AND STORAGE	
Precautions for Safe Handling	Protect the cylinder from damage. Handle in well-ventilated areas.
Conditions for Safe Storage, Including any Incompatibilities	Store in a cool, dry, well-ventilated area away from incompatible materials. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION			
National Exposure Standards	Not available	Biological Limit Controls	No biological limit allocated
Engineering Controls	Keep container in a well ventilated area.	Personal Protection Equipment	Safety glasses, gloves, a self-contained breathing apparatus.

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions of handling and use	Conditions to Avoid	Direct sunlight, ultraviolet light
Incompatible Materials	Strong bases, amines, alcohols	Hazardous Decomposition Products	Hydrogen fluoride, carbon monoxide and carbon dioxide during combustion.
Hazardous Reactions	Not available		

SECTION 11: TOXICOLOGICAL INFORMATION

Health Effects From the Likely Routes of Exposure	EYE CONTACT	Not expected to result in significant irritation.	
	SKIN CONTACT	Not expected to result in significant irritation.	
	INHALATION	Prolonged or repeated exposure, above recommended guidelines, may be absorbed following inhalation and cause adverse health effects.	
	INGESTION	No adverse effects are expected from swallowing.	
Acute Overexposure	This product, when used under reasonable conditions and in accordance with the 3M directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.		
Chronic Overexposure	Prolonged or repeated exposure, above recommended guidelines, may cause: Liver Effects: signs / symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.		

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	NOTE: Hydrolysis is not expected to be a significant degradation pathway. Product is highly insoluble in water and volatile, and use as a clean extinguishing agent would not typically result in releases to aquatic environments. Photolytic half-life: 3-5 days. Persistent photolytic degradation product: Trifluoroacetic acid. Global Warming potential (GWP): 1, zero Ozone Depleting Potential (ODP).		
Mobility	Not available	Environmental Fate (Exposure)	Not available
Bioaccumulative Potential	Not available	Persistence and Degradability	Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal Methods and Containers	Combustion products will include HF. Facility must be capable of handling halogenated materials.
Special Precautions for Landfill or Incineration	Not available

SECTION 14: TRANSPORT INFORMATION

UN Number	UN 3163	UN Proper Shipping Name	Novoc 1230
Class and Subsidiary Risk	D. G. Class 2.2	Packing Group	Packing Group III
Special Precautions for User	None	Hazchem Code	2RE

SECTION 15: REGULATORY INFORMATION

The regulatory status of a material (including its ingredients) under relevant UK health, safety and environmental legislation.	Novoc 1230 has UK approval listing as a fire extinguishing agent.
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SECTION 16: OTHER INFORMATION

Date of Preparation	February 2008
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END OF MSDS