

# SAFETY DATA SHEET

HFC-227ea (FM200)

SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER			
Product Name	HFC-227ea	Other Names	FM200, FE-227
Recommended Use	Fire protection agent for total flooding of rooms containing electrical equipment such as computer rooms as well as flammable liquid storage and Class A risks such as records rooms and libraries.		
Supplier Name	Wormald	Address	Unit 1, 2-8 South Street Rydalmere, NSW 2116 AUSTRALIA
Telephone No.	133 166	Emergency Telephone No.	133 166 or 000
		Date Prepared	February 2013

SECTION 2: HAZARDS IDENTIFICATION			
Hazard Classification	DANGEROUS GOODS. NON HAZARDOUS SUBSTANCE		
DG Class	2.2	Hazchem Code	2RE

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS		
SUBSTANCE		
Chemical Identity of the Pure Substance	Common Name / Synonyms	CAS Number
Heptafluoropropane	HFC-227ea, FM200, FE227, R227	431-89-0

SECTION 4: FIRST AID MEASURES		
Description of Necessary First Aid Measures	EYE CONTACT	Flush with water immediately for 15 minutes. Get medical attention.
	SKIN CONTACT	Remove clothes. Wash skin with soap and water. If frostbite occurs get medical attention.
	INHALATION	Remove person to fresh air and get medical attention.
	INGESTION	Not applicable.
Medical Attention and Special Treatment	Treat symptomatically	

SECTION 5: FIRE FIGHTING MEASURES			
Suitable Extinguishing Media	This product is non flammable. Use fire-extinguishing media appropriate for surrounding materials.	Hazards From Combustion Products	Decomposition by elevated temperatures may generate hazardous decomposition products common to other CFCs, HCFCs or HBFCs. These can include hydrogen fluoride, carbon monoxide and carbon dioxide.
Special Protective Precautions and Equipment for Fire Fighters	Wear full protective equipment and a self-contained breathing apparatus Keep containers cool with water spray. Containers may rupture when heated Fire exposed containers may vent contents through pressure relief devices.	Hazchem Code	2RE

SECTION 6: ACCIDENTAL RELEASE MEASURES	
Emergency Procedures	Evacuate the area and ventilate. Do not enter areas where high concentrations may exist without appropriate protective equipment including a self-contained breathing apparatus.
Methods and Materials for Containment and Clean Up	Not applicable – agent is a gas

SECTION 7: HANDLING AND STORAGE	
ODS & SGG Requirements	As detailed in Fire Protection Industry (ODS & SGG) Board Code of Practice for the reduction of emissions of ozone depleting & synthetic green house gas fire extinguishing agents, section 9 "Handling and Storage of ODS & SGG Extinguishing Agents"
Precautions for Safe Handling	Protect cylinders from physical damage, do not drag, roll, slide or drop. When moving cylinders use cylinder trolley, cage etc specifically designed to transport cylinders. Do not move cylinders without safety cap in place to prevent damage to valve.
Conditions for Safe Storage, Including any Incompatibilities	Do not store near incompatible materials. Keep cylinders away from combustible materials and sources of heat and ignition Keep cylinders below 50°C in a well ventilated place free from conditions likely to encourage corrosion. Cylinders shall be suitably restrained to prevent falling or toppling.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION					
National Exposure Standards	Substance	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
	FM200	Not available	6.0	Not available	Not available
Engineering Controls	Gas cylinders are equipped with pressure and temperature relief devices	Biological Limit Controls		Not available	
Personal Protection Equipment	Safety boots, safety glasses with side shields, gloves and self-contained breathing apparatus				

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES			
Appearance	Colourless liquefied compressed gas.	Odour	No odour
pH	Not available	Vapour Pressure	405 kPa @ 21°C
Vapour Density (air = 1)	6.04	Boiling Point / Range	-16.4°C
Freezing / Melting Point (specify)	-131°C	Solubility in Water	0.026
Specific Gravity or Density	1.46	Flash Point	None
Upper and Lower Flammable (explosive) Limits in Air	Not explosive	Ignition Temperature	Does not ignite

SECTION 10: STABILITY AND REACTIVITY			
Chemical Stability	Stable under normal conditions of handling and use.	Conditions to Avoid	Direct sunlight, temperatures above 50 degrees C
Incompatible Materials	Powdered metals and strong alkalis, oxidizers or reducing agents are not compatible with HFC-227ea.	Hazardous Decomposition Products	Thermal decomposition may produce the following: Hydrogen fluoride, carbon monoxide and carbon dioxide.
Hazardous Reactions	Polymerization will not occur		

SECTION 11: TOXICOLOGICAL INFORMATION			
Health Effects From the Likely Routes of Exposure	EYE CONTACT	May cause discomfort	
	SKIN CONTACT	May cause frostbite	
	INHALATION	May cause difficulty in breathing	
	INGESTION	Not applicable, as HFC-227ea is a gas.	
Acute Overexposure	Contact with the liquid or cold gas may cause frostbite. Has a central nervous systems effect.		
Chronic Overexposure	In cases of severe exposure, narcosis may develop.		

SECTION 12: ECOLOGICAL INFORMATION	
Ecotoxicity	Not available
Mobility	Not available
Persistence and Degradability	Not available
Bioaccumulative Potential	Not available
Environmental Fate (Exposure)	Not readily biodegradable

SECTION 13: DISPOSAL CONSIDERATIONS	
Disposal Methods and Containers	The disposal of this product must be completed in a way that prevents emissions to the atmosphere in accordance with Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995.

SECTION 14: TRANSPORT INFORMATION			
UN Number	UN 3296	UN Proper Shipping Name	Heptafluoropropane
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 Australian health, safety and environmental legislation.	HFC-227ea is an approved gas which is listed in Australian Standard AS ISO 14520 it also has an ActivFire approval listing as a fire extinguishing agent. HFC-227ea is a Greenhouse Gas and is subject to the provisions of the Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995

SECTION 16: OTHER INFORMATION	
Date of Preparation	February 2013

END OF SDS

**Contact Us**

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