

# MSDS

Material Safety Datasheets

**WORMALD®**



# SAFETY DATA SHEET

NAF S-III

## SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	NAF S-III	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 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
Not Applicable	Not Applicable	Not Applicable

### MIXTURE

Chemical Identity of the Ingredients	Common Name / Synonyms	CAS Number
2, 2 Dichloro-1, 1, 1-Trifluoroethane (HCFC 123)	4.75 %	306-83-2
Isopropenyl-1Methyl cyclohexene	3.75 %	5989-27-5
Chlorodifluoromethane (HCFC 22)	82 %	75-45-6
2 Chloro 1, 1, 1, 2-Tetrafluoromethane	9.5 %	2837-89-0

## SECTION 4: FIRST AID MEASURES

Description of Necessary First Aid Measures	EYE CONTACT	Immediately flush eyes with plenty of water for at least 20 minutes while holding lids open. If redness, itching or a burning sensation develops, get medical attention. Treat for frostbite if necessary.
	SKIN CONTACT	Wash the material off the skin with copious amounts of soap and water for at least 15 minutes. If redness, itching or a burning sensation develops, get medical attention. Treat for frostbite if necessary. Do not give adrenaline/epinephrine.
	INHALATION	Remove the victim to fresh air. If cough or other respiratory symptoms occur, consult medical personnel. If not breathing give artificial respiration, preferably mouth to mouth. If breathing is difficult, give oxygen. Consult medical personnel.
	INGESTION	Ingestion is not likely to occur since this material is a gas at room temperature.
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	Thermal decomposition at temperatures above 500°C, forming hydrogen fluoride and hydrogen chloride. These by-products have a sharp irritating odour. They are dangerous in low concentrations, and in sufficient concentrations can result in personal death or injury.
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	If material is released/spilled, evacuate area and ventilate to outside atmosphere. Cool or remove hot metal surfaces or sources of non-extinguished flames.
Methods and Materials for Containment and Clean Up	See Above

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	Not Available	Biological Limit Controls	Not available
Engineering Controls	Gas cylinders are equipped with pressure and temperature relief devices	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	Citrus odour
pH	Not available	Vapour Pressure	825 kPa @ 20°C
Vapour Density (air = 1)	3.2	Boiling Point / Range	-38.3°C
Freezing / Melting Point (specify)	Not available	Solubility in Water	0.84% by weight @ 25°C
Specific Gravity or Density	1.2 @ 25°C	Flash Point	Not applicable – gas is an extinguishing agent
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	Active metals, aluminium dust and fires involving metal hydrides.	Hazardous Decomposition Products	Thermal decomposition at temperatures above 500°C, forming hydrogen fluoride and hydrogen chloride. These by-products have a sharp irritating odour. They are dangerous in low concentrations, and in sufficient concentrations can result in personal injury or death.
Hazardous Reactions	Polymerization will not occur		

SECTION 11: TOXICOLOGICAL INFORMATION		
Health Effects From the Likely Routes of Exposure	EYE CONTACT	Liquid form of this material can produce chilling sensations and discomfort.
	SKIN CONTACT	Evaporation of liquid from the skin can produce chilling sensations. Frostbite may occur.
	INHALATION	Vapour is heavier than air and can cause suffocation by reducing oxygen available for breathing. Breathing very high concentrations of vapour can cause light-headedness, giddiness, shortness of breath, and may lead to narcosis, cardiac irregularities, unconsciousness or even death.
	INGESTION	Ingestion is not likely to occur since this material is a gas at room temperature.
Acute Overexposure	Dizziness, impaired coordination, reduced mental activity, and cardiac effects can occur. Unconsciousness or even death in high concentration with longer exposures..	
Chronic Overexposure	None known when occupational exposures are below the TLV.	

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 3163	UN Proper Shipping Name	NAF S-III
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.	NAF S-III is an approved gas which is listed in Australian Standard AS ISO 14520. NAF S-III also has Australian ActivFire approval listing as a fire extinguishing agent.

SECTION 16: OTHER INFORMATION	
Date of Preparation	February 2013

END OF SDS

**Contact Us**

**Australia** Phone: 133 166  
**New Zealand** Phone: 0800-4-WORMALD  
**Fiji** Phone: 336 1455



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