MATERIAL SAFETY DATA SHEET — Carbon Dioxide

SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER			
Product Name	Carbon Dioxide	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 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
CO_2	Carbon Dioxide	124-38-9
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	Immediately flush eyes with plenty of water for 15 minutes whilst holding lids open. If redness, itching or burning occurs get medical attention.
	SKIN CONTACT	Wash material off skin wit copious amounts of water and soap for at least 15 minutes. If redness, itching or burning occurs get medical attention.
	INHALATION	Call doctor. If victim is conscious, move to uncontaminated area to breath fresh air. Keep warm and quiet. If victim is unconscious, move to uncontaminated area and give assisted respiration. Continued treatment should be symptomatic and supportive.
	INGESTION	Not applicable.
Medical Attention and Special Treatment	See above.	
Aggravated Medical Conditions Caused by Exposure	Respiratory problems.	

SECTION 5: FIRE FIGHTING MEASURES			
Suitable Extinguishing Media	This is an extinguishing agent	Hazards From Combustion Products	None
Special Protective Precautions and Equipment for Fire Fighters	Rescuers should not enter an oxygen deficient atmosphere without using self-contained full face positive pressure breathing equipment.	Hazchem Code	2TE

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	
Precautions for Safe Handling	Protect the cylinder from damage. Handle in well-ventilated areas.
Conditions for Safe Storage, Including any Incompatibilities	Store in cool, dry, well ventilated areas out of direct sunlight and away from heat and ignition sources. Do not expose ay cylinder part to temperatures about 55°C, store upright on a level, fireproof floor, secure in position and protected from damage. Full cylinders stored separately from empties.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards	Substance	ES-TWA		ES-STEL	
		ppm	mg/m^3	ppm	mg/m^3
	Carbon dioxide	5000	9000	30000	54000

Engineering Controls	Keep cylinder in a well ventilated area.	Biological Limit Controls	Not available
Personal Protection Equipment	Chemical goggles, gloves, full cover overalls and safety footwear.		

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Straw yellow clear liquid	Odour	Mild sweet odour
pH	Not available	Vapour Pressure	5090 kPa @ 15°C
Vapour Density (air = 1)	1.873 kg/m^3	Boiling Point / Range	-78.5°C
Freezing / Melting Point (specify)	Not available	Solubility in Water	1.716 m^3/kg
Specific Gravity or Density	1.53	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	None
Incompatible Materials	Not applicable	Hazardous Decomposition Products	None
Hazardous Reactions	None		

SECTION 11: TOXICOLOGICAL INFORMATION

Health Effects From the Likely Routes of Exposure	EYE CONTACT	The liquid form of this material can produce chilling sensations and discomfort and also frostbite.
	SKIN CONTACT	Evaporation of liquid from skin can produce chilling sensations. Frostbite can occur. Avoid carbon dioxide snow (dry ice).
	INHALATION	Carbon dioxide is an asphyxiant. Effects of oxygen deficiency (below 6 %) are as follows: convulsive movements, possible respiratory collapse and death.
	INGESTION	Not a likely route of entry.
Acute Overexposure	Contact can produce chilling sensations, light headedness, giddiness, shortness of breath, muscular tremors and weakness, and acrocyanosis. Also unconsciousness or even death.	
Chronic Overexposure	Prolonged exposure to an oxygen deficient atmosphere (below 18 % oxygen) may affect the heart and nervous system.	

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	Not available	Persistence and Degradability	Not available
Mobility	Not available	Environmental Fate (Exposure)	Not available
Bioaccumulative Potential	Not available		

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal Methods and Containers	Dispose of in compliance with local, state or Commonwealth regulations that may be in force.
Special Precautions for Landfill or Incineration	None

SECTION 14: TRANSPORT INFORMATION

UN Number	UN 1013	UN Proper Shipping Name	Carbon Dioxide
Class and Subsidiary Risk	D. G. Class 2.2	Packing Group	Packing Group III
Special Precautions for User	None	Hazchem Code	2TE

SECTION 15: REGULATORY INFORMATION

The regulatory status of a material (including its ingredients) under relevant Australian health, safety and environmental legislation.	Carbon dioxide is an approved gas which is listed in Australian Standard AS 4214.

SECTION 16: OTHER INFORMATION

Date of Preparation	February 2008

END OF MSDS

Contact Us
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