

**PRODUCT NAME MEDICAL EQUANOX**

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

**Supplier Name** COREGAS PTY LTD  
**Address** 66 Loftus Rd, Yennora, NSW, AUSTRALIA, 2161  
**Telephone** (02) 9794 2223  
**Fax** (02) 9794 2221  
**Emergency** 1300 657 070  
**Email** info@coregas.com  
**Web Site** http://www.coregas.com/  
**Synonym(s)** 50822002 - MSDS NUMBER  
**Use(s)** MEDICAL APPLICATIONS  
**MSDS Date** 08 August 2008

**2. HAZARDS IDENTIFICATION**

**NOT CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA**

**CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

<b>UN No.</b>	3156	<b>DG Class</b>	2.2	<b>Subsidiary Risk(s)</b>	5.1
<b>Pkg Group</b>	None Allocated	<b>Hazchem Code</b>	2S	<b>EPG</b>	2B1

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Ingredient	Formula	CAS No.	Content
NITROUS OXIDE	N2O	10024-97-2	50%
OXYGEN	O2	7782-44-7	50%

**4. FIRST AID MEASURES**

**Eye** Exposure is considered unlikely.  
**Inhalation** If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.  
**Skin** Exposure is considered unlikely. Skin irritation is not anticipated.  
**Ingestion** For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). Due to product form and application, ingestion is considered unlikely.  
**Advice to Doctor** Treat symptomatically

**5. FIRE FIGHTING MEASURES**

**Flammability** Non flammable - oxidising agent. Oil/grease can spontaneously ignite at low temperatures in oxygen enriched atmospheres. Many other materials, which do not burn in air, will vigorously burn in pure oxygen.  
**Fire and Explosion** Non flammable gas. Temperatures in a fire may cause cylinders to rupture and internal pressure relief devices to be activated. Call fire brigade. This product will vigorously support combustion. Do not approach cylinders suspected to be hot. Remove cool cylinders from the path of the fire if safe to do so. Ensure working area is well ventilated before re-use Notify the nearest BOC centre that you will be returning a faulty cylinder. Residual product

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will be disposed of when the cylinder is returned.

**Extinguishing** Non flammable. Use water fog to cool containers from protected area.

**Hazchem Code** 2S

### 6. ACCIDENTAL RELEASE MEASURES

**Spillage** If the cylinder is leaking, eliminate all potential ignition sources and evacuate area of personnel. Inform manufacturer/supplier of leak. Wear appropriate PPE and carefully move it to a well ventilated remote area, then allow to discharge. Do not attempt to repair leaking valve or cylinder safety devices.

### 7. STORAGE AND HANDLING

**Storage** Do not store near sources of ignition or incompatible materials. Cylinders should be stored below 45°C in a secure area, upright and restrained to prevent cylinders from falling. Cylinders should also be stored in a dry, well ventilated area constructed of non-combustible material with firm level floor (preferably concrete), away from areas of heavy traffic and emergency exits.

**Handling** Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Stds	Ingredient	Reference	TWA		STEL	
			ppm	mg/m3	ppm	mg/m3
	Nitrous oxide	NOHSC (AUS)	25.0	45.0	--	--

**Biological Limits** No biological limit allocated.

**Engineering Controls** Do not inhale gas. Use in well ventilated areas. In poorly ventilated areas, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

**PPE** Wear leather gloves and safety glasses. Where an inhalation risk exists, wear self Contained Breathing Apparatus (SCBA) Respirator and an Air-line respirator.



### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	COLOURLESS GAS	<b>Solubility (water)</b>	NOT AVAILABLE
<b>Odour</b>	ODOURLESS	<b>Specific Gravity</b>	NOT AVAILABLE
<b>pH</b>	NOT AVAILABLE	<b>% Volatiles</b>	NOT AVAILABLE
<b>Vapour Pressure</b>	NOT AVAILABLE	<b>Flammability</b>	NON FLAMMABLE
<b>Vapour Density</b>	NOT AVAILABLE	<b>Flash Point</b>	NOT RELEVANT
<b>Boiling Point</b>	NOT AVAILABLE	<b>Upper Explosion Limit</b>	NOT RELEVANT
<b>Melting Point</b>	NOT AVAILABLE	<b>Lower Explosion Limit</b>	NOT RELEVANT
<b>Evaporation Rate</b>	NOT AVAILABLE	<b>Autoignition Temperature</b>	NOT AVAILABLE

### 10. STABILITY AND REACTIVITY

**Material to Avoid** Oil and grease can spontaneously ignite at low temperatures in oxygen enriched atmospheres. Many other materials, which do not burn in air, will vigorously burn in pure oxygen. Nitrous oxide will react with powerful reducing agents such as phosphine, stannous chloride and hydrogen. Ensure that all materials and lubricants in contact with this product are oxygen compatible.

**Decomposition** May evolve toxic gases if heated to decomposition.

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## 11. TOXICOLOGICAL INFORMATION

<b>Health Hazard Summary</b>	Anaesthetic - non irritating gas. Nitrous oxide passes into all gas containing spaces in the body faster than nitrogen passes out, thus it should not be used with any condition where its expansion might be dangerous. May induce vomiting in susceptible individuals. Epidemiological studies suggest an increased risk of spontaneous abortion and low birth weight in off-spring in female workers employed in operating theatres and dental surgeries. These findings are controversial.
<b>Eye</b>	Non irritant.
<b>Inhalation</b>	Non irritant - anaesthetic. After prolonged use nitrous oxide may inactivate vitamin B12, resulting in megaloblastic changes in bone marrow. Exceptionally heavy occupational exposure and addiction may result in myeloneuropathy and sub-acute combined degeneration. This would require levels in excess of 5,000ppm to frequent (more than once every two days) exposure to analgesic concentrations.
<b>Skin</b>	Non irritant.
<b>Ingestion</b>	Ingestion is considered unlikely due to product form.
<b>Toxicity Data</b>	NITROUS OXIDE (10024-97-2) LC50 (Inhalation): 1068 mg/m3 (rat)

## 12. ECOLOGICAL INFORMATION

<b>Environment</b>	Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.
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## 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal</b>	Cylinders should be returned to the manufacturer or supplier for disposal of contents.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION

<b>Transport</b>	Ensure cylinder is separated from driver and that outlet of relief device is not obstructed.
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### CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<b>Shipping Name</b>	COMPRESSED GAS, OXIDIZING, N.O.S.			
<b>UN No.</b>	3156	<b>DG Class</b>	2.2	<b>Subsidiary Risk(s)</b> 5.1
<b>Pkg Group</b>	None Allocated	<b>Hazchem Code</b>	2S	<b>EPG</b> 2B1
<b>IATA</b>				
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<b>UN No.</b>	3156	<b>DG Class</b>	2.2	<b>Subsidiary Risk(s)</b> 5.1
<b>Pkg Group</b>	None Allocated			
<b>IMDG</b>				
<b>Shipping Name</b>	COMPRESSED GAS, OXIDIZING, N.O.S.			
<b>UN No.</b>	3156	<b>DG Class</b>	2.2	<b>Subsidiary Risk(s)</b> 5.1
<b>Pkg Group</b>	None Allocated			

## 15. REGULATORY INFORMATION

<b>Poison Schedule</b>	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
<b>AICS</b>	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

<b>Additional</b>	APPLICATION METHOD: Gas regulator and demand flow control to mask or mouthpiece.
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**Information**

**ABBREVIATIONS:**

ADB - Air-Dry Basis.  
BEI - Biological Exposure Indice(s)  
CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.  
CNS - Central Nervous System.  
EINECS - European INventory of Existing Commercial chemical Substances.  
IARC - International Agency for Research on Cancer.  
M - moles per litre, a unit of concentration.  
mg/m3 - Milligrams per cubic metre.  
NOS - Not Otherwise Specified.  
NTP - National Toxicology Program.  
OSHA - Occupational Safety and Health Administration.  
pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).  
ppm - Parts Per Million.  
RTECS - Registry of Toxic Effects of Chemical Substances.  
TWA/ES - Time Weighted Average or Exposure Standard.

**HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**Report Status**

This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Material Safety Data Sheet ('MSDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this MSDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this MSDS.

**Prepared By**

Risk Management Technologies  
5 Ventnor Ave, West Perth  
Western Australia 6005  
Phone: +61 8 9322 1711  
Fax: +61 8 9322 1794  
Email: info@rmt.com.au  
Web: www.rmt.com.au

**MSDS Date:** 08 August 2008

**End of Report**