



## MATERIAL SAFETY DATA SHEET

MSDS No: 30831003

PRODUCT NAME **SULFUR DIOXIDE**

### 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)** 30831003 - MSDS NUMBER  
**Use(s)** CALIBRATION GAS • INDUSTRIAL APPLICATIONS  
**MSDS Date** 09 June 2008

### 2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA

#### RISK PHRASES

R23 Toxic by inhalation.  
R34 Causes burns.

#### SAFETY PHRASES

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).  
S9 Keep container in a well ventilated place.

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

**UN No.** 1079 **DG Class** 2.3 **Subsidiary Risk(s)** 8  
**Pkg Group** None Allocated **Hazchem Code** 2RE **EPG** 2B1

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
SULPHUR DIOXIDE	S-O2	7446-09-5	100%

# PRODUCT NAME SULFUR DIOXIDE

## 4. FIRST AID MEASURES

<b>Eye</b>	Treatment for cold burns: Immediately flush with tepid water or with sterile saline solution. Hold eyelids apart and irrigate for 15 minutes. Seek medical attention.
<b>Inhalation</b>	If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator or Self Contained Breathing Apparatus (SCBA). Be aware of possible explosive atmospheres. Apply artificial respiration if not breathing. Give oxygen if available.
<b>Skin</b>	Cold burns: Remove contaminated clothing and gently flush affected areas with warm water (30°C) for 15 minutes. Apply sterile dressing and treat as for a thermal burn. For large burns, immerse in warm water for 15 minutes. DO NOT apply any form of direct heat. Seek immediate medical attention.
<b>Ingestion</b>	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.
<b>Advice to Doctor</b>	Adrenaline may be useful in the presence of bronchospasm.
<b>First Aid Facilities</b>	Eye wash facilities and safety shower are recommended.

## 5. FIRE FIGHTING MEASURES

<b>Flammability</b>	Non flammable.
<b>Fire and Explosion</b>	Non flammable. Temperatures in a fire may cause cylinders to rupture. Call fire brigade. Cool cylinders exposed to fire by applying water from a protected location. Do not approach cylinders suspected of being hot.
<b>Extinguishing</b>	Non flammable. Use water fog to cool containers from protected area.
<b>Hazchem Code</b>	2RE

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spillage</b>	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

<b>Storage</b>	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.
<b>Handling</b>	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.

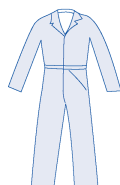
## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Stds	Ingredient	Reference	TWA		STEL	
			ppm	mg/m3	ppm	mg/m3
	Sulphur dioxide	NOHSC (AUS)	2.0	5.2	5.0	13.0

**Biological Limits** No biological limit allocated.

**Engineering Controls** Maintain adequate ventilation. Confined areas (eg. tanks) should be adequately ventilated or gas tested. Maintain vapour levels below the recommended exposure standard.

**PPE** Wear a Type E (Sulphur dioxide) Respirator, leather gloves, coveralls and safety glasses. At high vapour levels, wear an Air-line respirator or self Contained Breathing Apparatus (SCBA).



## 9. PHYSICAL AND CHEMICAL PROPERTIES

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	COLOURLESS GAS	<b>Solubility (water)</b>	SOLUBLE
<b>Odour</b>	PUNGENT ODOUR	<b>Specific Gravity</b>	NOT AVAILABLE
<b>pH</b>	ACIDIC	<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>	-10°C	<b>Upper Explosion Limit</b>	NOT RELEVANT
<b>Melting Point</b>	-72.4°C	<b>Lower Explosion Limit</b>	NOT RELEVANT
<b>Evaporation Rate</b>	NOT AVAILABLE	<b>Autoignition Temperature</b>	NOT AVAILABLE

## 10. STABILITY AND REACTIVITY

**Chemical Stability** Stable under recommended conditions of storage.

**Conditions to Avoid** Avoid shock, friction, heavy impact, heat, sparks, open flames and other ignition sources.

**Material to Avoid** May violently react with strong alkalis and acids. Corrodes most materials when moist.

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

**Hazardous Reactions** Polymerization will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Health Hazard Summary** Toxic - corrosive. Exposure to 150 ppm of sulphur dioxide results in extreme irritation tolerable for minutes only. At 500 ppm, a sense of suffocation. May have fatal consequences as a result of spasm, inflammation and oedema of the larynx and bronchi, chemical pneumonitis and pulmonary oedema. Effects are a result of irritation of the mucous membranes of the upper respiratory gastro-intestinal tract. Chronic bronchic emphysema have been documented. Chronic conjunctivitis may result. Dental degradation noted.

**Eye** Corrosive - irritant. Low temperature evaporating liquid can cause cold burns.

**Inhalation** Corrosive. Can cause severe irritation of the upper and lower respiratory tract.

**Skin** Corrosive. Severe irritant. Low temperature evaporating liquid can cause cold burns.

**Ingestion** Ingestion is considered unlikely due to product form. However, ingestion of liquid may result in burns to the mouth and throat.

**Toxicity Data** SULPHUR DIOXIDE (7446-09-5)  
LC50 (Inhalation): 2520 ppm/1 hour (rat)

## 12. ECOLOGICAL INFORMATION

**Environment** Sulphur dioxide in air is oxidised to sulphuric acid, which is a major component of acid rain. Acid rain has been associated with accelerated leaching of heavy metals from plumbing systems and generally fixed sites such as insoluble deposits and ores, and with bioaccumulation of heavy metals, especially mercury, in fish. Sulphur dioxide is harmful to aquatic life in very low concentrations.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal** Cylinders should be returned to the manufacturer or supplier for disposal of contents.

**Legislation** Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION

**Transport** Ensure cylinder is separated from driver and that outlet of relief device is not obstructed.



**PRODUCT NAME SULFUR DIOXIDE****CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

<b>Shipping Name</b>	SULFUR DIOXIDE				
<b>UN No.</b>	1079	<b>DG Class</b>	2.3	<b>Subsidiary Risk(s)</b>	8
<b>Pkg Group</b>	None Allocated	<b>Hazchem Code</b>	2RE	<b>EPG</b>	2B1

**IATA**

<b>Shipping Name</b>	SULFUR DIOXIDE				
<b>UN No.</b>	1079	<b>DG Class</b>	2.3	<b>Subsidiary Risk(s)</b>	8
<b>Pkg Group</b>	None Allocated				

**IMDG**

<b>Shipping Name</b>	SULFUR DIOXIDE				
<b>UN No.</b>	1079	<b>DG Class</b>	2.3	<b>Subsidiary Risk(s)</b>	8
<b>Pkg Group</b>	None Allocated				

**15. REGULATORY INFORMATION**

**Poison Schedule** 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).

**AICS** All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

**16. OTHER INFORMATION**

**Additional Information** APPLICATION METHOD: Gas withdrawal: regulator of suitable pressure and flow rating fitted to cylinder or manifold with low pressure gas distribution to equipment. Liquid withdrawal with flow and pressure control through vapouriser or direct to specialised equipment.

**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/m<sup>3</sup> - 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.

**PRODUCT NAME SULFUR DIOXIDE**

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:** 09 June 2008

**End of Report**