

PRODUCT NAME SILANE

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) 20831007 - 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

R17 Spontaneously flammable in air.

SAFETY PHRASES

S1/2 Keep locked up and out of reach of children.
 S18 Handle and open container with care.
 S24/25 Avoid contact with skin and eyes.
 S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
 S7/9 Keep container tightly closed and in a well ventilated place.

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

UN No.	2203	DG Class	2.1	Subsidiary Risk(s)	None Allocated
Pkg Group	None Allocated	Hazchem Code	2SE	EPG	2B2

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
SILANE	H4-Si	7803-62-5	100%

4. FIRST AID MEASURES

Eye	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poison Information Centre or a doctor, or for at least 15 minutes.
Inhalation	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.
Skin	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.
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
First Aid Facilities	Eye wash facilities and safety shower are recommended.

5. FIRE FIGHTING MEASURES

Flammability	Highly flammable. May spontaneously ignite in air. May evolve silicon and hydrogen when heated to decomposition. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot lights, mobile phones etc. when handling.
Fire and Explosion	Highly 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. Remove cool cylinders from the path of the fire. Evacuate the area if unable to keep cylinders cool.
Extinguishing	Stop flow of gas if safe to do so, such as by slowly closing the cylinder valve.
Hazchem Code	2SE

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. Also store removed from halogens.
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
	Silicon tetrahydride	NOHSC (AUS)	5.0	6.6	--	--

Biological Limits	No biological limit allocated.
Engineering Controls	Maintain adequate ventilation. Confined areas (eg. tanks) should be adequately ventilated or gas tested. Flammable/explosive vapours may accumulate in poorly ventilated areas. Maintain vapour levels below the recommended exposure standard.
PPE	Wear safety boots, leather gloves and safety glasses. Where an inhalation risk exists, wear an Air-line respirator or self Contained Breathing Apparatus (SCBA).

PRODUCT NAME **SILANE**



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	COLOURLESS GAS	Solubility (water)	INSOLUBLE
Odour	PUNGENT ODOUR	Specific Gravity	NOT AVAILABLE
pH	NOT AVAILABLE	% Volatiles	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE	Flammability	HIGHLY FLAMMABLE
Vapour Density	NOT AVAILABLE	Flash Point	NOT AVAILABLE
Boiling Point	-112°C	Upper Explosion Limit	NOT AVAILABLE
Melting Point	-185°C	Lower Explosion Limit	NOT AVAILABLE
Evaporation Rate	NOT AVAILABLE	Autoignition Temperature	NOT AVAILABLE

10. STABILITY AND REACTIVITY

Material to Avoid Incompatible with oxidising agents, acids, heat and ignition sources. Do not use natural rubber flexible hoses. Also incompatible (potentially violently) with oxygen, halogens and metal halides.

Decomposition May evolve silicon and hydrogen when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary Asphyxiant gas - irritant. Considered toxic although little is known of the effects due to its spontaneous flammability in air. Acute exposure may result in hydrolysis of silane in the body tissues would form silicic acid or hydrated silica. Hydrolysis of silane in the body forms silicic acid or hydrated silica.

Eye Irritant vapour. Injury to eyes may occur if wearing contact lenses.

Inhalation Irritating vapour. Headaches, nausea and irritation of the respiratory tract may occur following inhalation.

Skin Irritant. Contact may result in irritation.

Ingestion Ingestion is considered unlikely due to product form.

Toxicity Data SILANE (7803-62-5)
LC50 (Inhalation): 9600 ppm/4 hours (rat)

12. ECOLOGICAL INFORMATION

Environment 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.

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.



PRODUCT NAME **SILANE**

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

Shipping Name	SILANE, COMPRESSED			Subsidiary Risk(s)	None Allocated
UN No.	2203	DG Class	2.1	EPG	2B2
Pkg Group	None Allocated	Hazchem Code	2SE		

IATA

Shipping Name	SILANE, COMPRESSED			Subsidiary Risk(s)	None Allocated
UN No.	2203	DG Class	2.1		
Pkg Group	None Allocated				

IMDG

Shipping Name	SILANE, COMPRESSED			Subsidiary Risk(s)	None Allocated
UN No.	2203	DG Class	2.1		
Pkg Group	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 regulator of suitable pressure and flow rating fitted to cylinder valve with low pressure distribution 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/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.

PRODUCT NAME SILANE

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