

MATERIAL SAFETY DATA SHEET

Product Name: Contraclean

MSDS Date Created: 02 December, 2014

	Manufacturer	Australian Supplier:	New Zealand Supplier:
Name:	Stryker Instruments	Stryker Australia	Stryker New Zealand
Address:	4100 E.Milham Ave. Kalamazoo, MI USA 49001-6197	8 Herbert St, St Leonards, NSW, Australia, 2065	515 Mt Wellington Highway, Auckland, New Zealand, 1060
Phone No:	+269-232-7700	+61 02 9467 1000	+64 09 573 1890
Fax No:	+800 999 3811	+61 02 9467 1010	+64 09 573 1891

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name **Contractclean**
Synonym(s) STRYKER LUBRICANT CAN • TPS LUBRICANT • TPS UNIVERSAL DRILL ATTACHMENT LUBRICANT
Use(s) LUBRICANT

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EMERGENCY	+800 424 9300	13 11 26	0800 764 766

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO HAZARDOUS SUBSTANCES [CLASSIFICATION] REGULATIONS 2001. NOT CLASSIFIED AS A HAZARDOUS SUBSTANCE ACCORDING TO THE SAFE WORK AUSTRALIA CRITERIA.

HSNO CLASSIFICATION

6.1E Substances that are acutely toxic.
9.1C Substances that are harmful in the aquatic environment.

HAZARD STATEMENT

H303 May be harmful if swallowed.
H412 Harmful to aquatic life with long lasting effects.

PREVENTION STATEMENT

P102 Keep out of reach of children (applies only where the substance is available to the general public).
P103 Read label before use (applies only where the substance is available to the general public).
P273 Avoid release to the environment. This statement does not apply where this is the intended use.

RESPONSE STATEMENT

P101 If medical advice is needed, have product container or label at hand (applies only where the substance is available to the general public).
P312 Call the emergency contact listed above or doctor/physician if you feel unwell.

DISPOSAL STATEMENT

P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided.

CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO LAND TRANSPORT RULE:DANGEROUS GOODS 2005; NZS 5433:2007, UN, IMDG OR IATA; AND THE ADG CODE

UN No.	1950	DG Class	2.2	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Hazchem Code	2YE	EPG	2D1

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Content
1,1,1,2-TETRAFLUOROETHANE (HFC 134A)	811-97-2	90-99%
NON HAZARDOUS INGREDIENTS	Not Available	1-10%

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 emergency contact listed above or a doctor, or for at least 15 minutes.

Inhalation If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator where an inhalation risk exists. Apply artificial respiration if not breathing.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by the emergency contact listed above or a doctor.

Ingestion For advice, contact the emergency contact listed above or a doctor (at once). If swallowed, do not induce vomiting.

Advice to Doctor Treat symptomatically

First Aid Facilities Eye wash facilities should be available.

5. FIRE FIGHTING MEASURES

Flammability Non flammable. May evolve toxic gases (carbon oxides, hydrogen fluoride, hydrocarbons) when heated strongly.

Fire and Explosion Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

Extinguishing Prevent contamination of drains or waterways.

Hazchem Code 2YE

6. ACCIDENTAL RELEASE MEASURES

Spillage If cans/containers are punctured (bulk), use personal protective equipment. Clear area of all unprotected personnel. Ventilate area where possible. Collect and allow to discharge outdoors. Contain spillage, then cover / absorb spill with non-combustible absorbant material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

7. STORAGE AND HANDLING

Storage Store in a cool, dry, well ventilated area, removed from oxidising agents, alkalis, active metals, metal powders, heat or ignition sources and foodstuffs. Aerosol containers may explode if exposed to excessive heat (> 50°C). Ensure containers are adequately labelled and protected from physical damage when not in use. Also store removed from acids.

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
	1,1,1,2-Tetrafluoroethane (HCF 134a)	WES (NZ)	1000	--	--	--

Engineering Controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE Wear splash-proof goggles and butyl or neoprene or latex gloves. When using large quantities or where heavy contamination is likely, wear: nitrile or viton (R) gloves and coveralls. Where an inhalation risk exists, wear: a Type A-Class P1 (Organic gases/vapours and Particulate) respirator. At high vapour levels, wear: an Air-line respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	CLEAR COLOURLESS LIQUID (AEROSOL DISPENSED)	Solubility (Water)	INSOLUBLE
Odour	SLIGHT ODOUR	Specific Gravity	1.202
pH	7 to 8	% Volatiles	> 90 %
Vapour Pressure	NOT AVAILABLE	Flammability	NON FLAMMABLE
Vapour Density	NOT AVAILABLE	Flash Point	NOT RELEVANT
Boiling Point	-16°C	Upper Explosion Limit	NOT RELEVANT
Melting Point	NOT AVAILABLE	Lower Explosion Limit	NOT RELEVANT
Evaporation Rate	NOT AVAILABLE		
Autoignition Temperature	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	Incompatible with oxidising agents (eg. hypochlorites), alkalis/ alkali earth metals. Also incompatible with acids (eg. nitric acid).
Hazardous Decomposition Products	May evolve toxic gases if heated to decomposition.
Polymerization	Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Asphyxiant - narcotic. This product may present a hazard with direct eye contact, prolonged skin contact or with vapour inhalation at high levels. Individuals with impaired cardiovascular function, especially those with a history of cardiac arrhythmias, are advised to avoid exposure.
Eye	Low irritant. Contact may result in irritation, lacrimation and redness.
Inhalation	Irritant - asphyxiant. Over exposure may result in respiratory irritation, coughing, nausea, dizziness and headache. High level exposure may result in dizziness, breathing difficulties and anaesthesia, cardiac arrhythmias, pulmonary oedema and unconsciousness at very high levels.
Skin	Low irritant. Prolonged or repeated contact may result in mild irritation.
Ingestion	Ingestion is considered unlikely due to product form.
Toxicity Data	1,1,1,2-TETRAFLUOROETHANE (HFC 134A) (811-97-2) LC50 (Inhalation): 1500 g/m ³ /4 hour (rat) TCLo (Inhalation): 5000 ppm/6 hour/2 years intermittently (rat)

12. ECOLOGICAL INFORMATION

Environment	1,1,1,2-Tetrafluoroethane has been shown to be an ozone depleting substance. Release of such fluorocarbons into the environment should therefore be minimised.
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13. DISPOSAL CONSIDERATIONS

Waste Disposal	For small amounts absorb contents with sand or similar and dispose of to an approved landfill site. Do not puncture or incinerate aerosol cans. Contact the manufacturer for additional information.
Legislation	Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION



CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO LAND TRANSPORT RULE:DANGEROUS GOODS 2005; NZS 5433:2007, UN, IMDG OR IATA; AND ADG CODE

Shipping Name	AEROSOLS				
UN No.	1950	DG Class	2.2	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Hazchem Code	2YE	EPG	2D1

IATA

Shipping Name	AEROSOLS				
UN No.	1950	DG Class	2.2	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated				

IMDG

Shipping Name	AEROSOLS				
UN No.	1950	DG Class	2.2	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Not a Marine Pollutant			

15. REGULATORY INFORMATION

Approval Code HSR002518

Group Name Aerosols (Non-hazardous) Group Standard 2006

HSNO Controls Refer to the ERMA website for more information: www.ermanz.govt.nz

Inventory Listings **NEW ZEALAND: NZIoC (New Zealand Inventory of Chemicals)**
All components are listed on the NZIoC or are exempt

AUSTRALIA: AICS (Australian Inventory of Chemical Substances)
All components are listed on the AICS or are exempt

16. OTHER INFORMATION

Additional Information ASPHYXIANTS (1): When present in the atmospheres in high concentrations, asphyxiants reduce the oxygen concentration by displacement. Atmospheres deficient in oxygen do not provide adequate sensory warning of danger and most simple asphyxiants are odourless. Therefore it is not appropriate to recommend an exposure standard for each asphyxiant, but to maintain oxygen concentrations. However, some asphyxiants may be given an exposure standard due to the potential for narcotic effects at high concentrations or an explosion hazard.

ASPXYIANTS (2): There is a significant hazard associated with workers entering poorly ventilated areas (eg. tanks) where oxygen may be deficient. An air supplied breathing apparatus may be required if adequate ventilation is not ensured. Refer to AS/NZS 2865 - Safe Working in a Confined Space.

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 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 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.

Revision History

Revision	Description
1.0	Initial MSDS Creation

END OF MSDS