



MATERIAL SAFETY DATA SHEET

Product Name **DRY GLIDE**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name CRC INDUSTRIES (AUST) PTY LIMITED
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Synonym(s) 3040 - PRODUCT CODE • CRC DRY GLIDE
Use(s) DRY FILM LUBRICANT • LUBRICANT
SDS Date 01 Apr 2010

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA

RISK PHRASES

R11 Highly flammable.
R20 Harmful by inhalation.

SAFETY PHRASES

S16 Keep away from sources of ignition - No smoking.
S2 Keep out of reach of children.
S25 Avoid contact with eyes.
S29 Do not empty into drains.
S33 Take precautionary measures against static discharges.

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

UN No.	1950	DG Class	2.1	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Hazchem Code	2Y	EPG	2D1

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
DIMETHYL ETHER	C2-H6-O	115-10-6	30-60%
ETHANOL	C2-H6-O	64-17-5	10-30%
METHYL ETHYL KETONE (MEK)	C4-H8-O	78-93-3	10-30%
TOLUENE	C7-H8	108-88-3	10-30%
4-HYDROXY-4-METHYL-2-PENTANONE (DIACETONE ALCOHOL)	C6-H12-O2	123-42-2	<10%
ISOPROPYL ALCOHOL	C3-H8-O	67-63-0	<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 a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). 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 a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor.
Ingestion	For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. Ingestion is considered unlikely due to product form.
Advice to Doctor	Treat symptomatically

5. FIRE FIGHTING MEASURES

Flammability	Highly flammable. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, pilot lights, heaters, naked lights, mobile phones etc. when handling. Aerosol cans may explode when heated above 50°C.
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	Dry agent, carbon dioxide or foam. Prevent contamination of drains or waterways.
Hazchem Code	2Y

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.
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7. STORAGE AND HANDLING

Storage	Store in a cool, dry, well ventilated area, removed from oxidising agents, acids, alkalis, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Store below 50°C.
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
	Diacetone alcohol	ASCC (AUS)	50	238	75	360
	Dimethyl ether	ASCC (AUS)	400	760	500	950
	Ethanol	ASCC (AUS)	1000	1880	--	--
	Isopropyl alcohol	ASCC (AUS)	400	983	500	1230
	Methyl ethyl ketone (MEK)	ASCC (AUS)	150	445	300	890
	Toluene	ASCC (AUS)	50	191	150	574

Biological Limits	Ingredient	Reference	Determinant	Sampling Time	BEI
	METHYL ETHYL KETONE (MEK)	ACGIH BEI	MEK in urine	End of shift	2 mg/L
	TOLUENE	ACGIH BEI	o-Cresol in urine	End of shift	0.5 mg/L
		ACGIH BEI	Hippuric acid in urine	End of shift	1.6 g/g creatinine

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Ingredient	Reference	Determinant	Sampling Time	BEI
	ACGIH BEI	Toluene in blood	Prior to last shift of workweek	0.05 mg/L

Engineering Controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard. Maintain vapour levels below the recommended exposure standard.

PPE Wear splash-proof goggles and neoprene or nitrile gloves. When using large quantities or where heavy contamination is likely, wear: coveralls. Where an inhalation risk exists, wear: a Type A (Organic vapour) respirator.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	OPAQUE WHITE LIQUID (AEROSOL DISPENSED)	Solubility (Water)	SOLUBLE
Odour	ETHEREAL ODOUR	Specific Gravity	0.84
pH	NOT AVAILABLE	% Volatiles	95 %
Vapour Pressure	45 mm Hg @ 20°C	Flammability	HIGHLY FLAMMABLE
Vapour Density	> 1 (Air = 1)	Flash Point	< 30°C
Boiling Point	77°C (Initial)	Upper Explosion Limit	8.0 %
Melting Point	< 0°C	Lower Explosion Limit	1.0 %
Evaporation Rate	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), acids (eg. nitric acid), alkalis (eg. hydroxides), heat and ignition sources.
Decomposition	May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition.
Hazardous Reactions	Polymerization is not expected to occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Moderate toxicity - irritant. This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. Over exposure to methyl ethyl ketone in combination with certain other solvents (eg n-hexane) may result in peripheral nerve damage. Chronic exposure to some solvents may result in central nervous system (CNS), liver and kidney damage.
Eye	Irritant. Contact may result in irritation, lacrimation, pain, redness and conjunctivitis. May result in burns with prolonged contact.
Inhalation	Irritant. Over exposure may result in irritation of the nose and throat, coughing, loss of appetite, nausea and vomiting. High level exposure may result in breathing difficulties, dizziness, drowsiness, pulmonary oedema and unconsciousness. Chronic exposure may result in kidney, liver and CNS damage.
Skin	Irritant. Contact may result in drying and defatting of the skin, rash and dermatitis. May be absorbed through skin with harmful effects.
Ingestion	Moderate toxicity. Ingestion may result in nausea, vomiting, abdominal pain and drowsiness with large quantities. Aspiration may result in chemical pneumonitis and pulmonary oedema. Ingestion is considered unlikely due to product form.
Toxicity Data	DIMETHYL ETHER (115-10-6)

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LC50 (Inhalation): 308 g/m³ (rat)
ETHANOL (64-17-5)
LC50 (Inhalation): 20000 ppm/10 hours (rat)
LCLo (Inhalation): 21900 ppm (guinea pig)
LD50 (Ingestion): 3450 mg/kg (mouse)
LD50 (Intraperitoneal): 3600 ug/kg (rat)
LD50 (Intravenous): 1440 mg/kg (rat)
LD50 (Subcutaneous): 8285 mg/kg (mouse)
LDLo (Ingestion): 1400 mg/kg (human)
LDLo (Intraperitoneal): 3000 mg/kg (dog)
LDLo (Intravenous): 1600 mg/kg (dog)
LDLo (Skin): 20 g/kg (rabbit)
LDLo (Subcutaneous): 19440 (infant)
TCLo (Inhalation): 20000ppm/7 hours (1-22 days pregnant rat - reproductive)
TDLo (Ingestion): 50 mg/kg (human)
METHYL ETHYL KETONE (MEK) (78-93-3)
LC50 (Inhalation): 23500 mg/kg (rat)
LD50 (Ingestion): 2737 mg/kg (rat)
LD50 (Intraperitoneal): 607 mg/kg (rat)
LD50 (Skin): 6480 mg/kg (rabbit)
TCLo (Inhalation): 100 ppm/5 minutes (Human - eye irritant)
TOLUENE (108-88-3)
LC50 (Inhalation): 400 ppm/24 hours (mouse)
LCLo (Inhalation): 1600 ppm (guinea pig)
LD50 (Ingestion): 636 mg/kg (rat)
LD50 (Skin): 14100 uL/kg (rabbit)
LDLo (Ingestion): 50 mg/kg (human)
TCLo (Inhalation): 50 ppm (man)
TDLo (Ingestion): 400 mg/kg (rat)
4-HYDROXY-4-METHYL-2-PENTANONE (DIACETONE ALCOHOL) (123-42-2)
LD50 (Ingestion): 3950 mg/kg (mouse)
LD50 (Skin): 13500 mg/kg (rabbit)
LDLo (Ingestion): 4653 mg/kg (rabbit)
TCLo (Inhalation): 100 ppm human (eye, headache).
ISOPROPYL ALCOHOL (67-63-0)
LC50 (Inhalation): 16000 ppm/8 hours 16000/8 hours (rat)
LCLo (Inhalation): 12000 ppm/8 hours (mouse)
LD50 (Ingestion): 3600 mg/kg (mouse)
LD50 (Intraperitoneal): 667 mg/kg (rabbit)
LD50 (Intravenous): 1088 mg/kg (rat)
LD50 (Skin): 12,800 mg/kg (rabbit)
LDLo (Ingestion): 3570 mg/kg (human)
LDLo (Intravenous): 1024 mg/kg (dog)
LDLo (Subcutaneous): 6000 mg/kg (mouse)
TDLo (Ingestion): 13 mg/kg (infant)

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 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



Product Name **DRY GLIDE**

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

Shipping Name	AEROSOLS				
UN No.	1950	DG Class	2.1	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Hazchem Code	2Y	EPG	2D1

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 **WORK PRACTICES - SOLVENTS:** Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

AEROSOL CANS may explode at temperatures approaching 50°C.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

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 Safety Data Sheet ('SDS').

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 SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss,

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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 SDS.

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End of Report