

MATERIAL SAFETY DATA SHEET

1. SUBSTANCE AND COMPANY IDENTIFICATION

PRODUCT NAME	Mono-Coat® E331
PROPER SHIPPING NAME	FLAMMABLE LIQUID, N.O.S. (CONTAINS HYDROCARBON NAPHTHA and N-PROPYL ALCOHOL)
RECOMMENDED USE	Release Agent
COMPANY NAME	Chem-Trend Australia Pty. Ltd.
ADDRESS	32 Cahill Street, Dandenong, Victoria 3175 Australia.
TELEPHONE	(03) 9794 5877
EMERGENCY TELEPHONE	(03) 9794 5877 9a.m. to 5 p.m.
AFTER HOURS EMERGENCY	000 Police or Emergency Services
POISONS CENTRE	13 11 26

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION AUSTRALIA	DANGEROUS GOODS. HAZARDOUS. Classified as Hazardous according to criteria of NOHSC.
POISONS SCHEDULE	AUST: SCHEDULE 5 POISON.
HAZARD CLASSIFICATION NEW ZEALAND	HAZARDOUS. Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
NZ CLASSIFICATION & TYPE	3.1B, 6.1E(asp), 8.3A
RISK PHRASES	R11 Highly Flammable Liquid and vapour R65 Harmful: may cause lung damage if swallowed. R36/38 Irritating to eyes and skin. R41 Risk of serious eye damage R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness
SAFETY PHRASES	S7/9 Keep container tightly closed and in a well ventilated place S16 Keep away from sources of ignition. S23 Do not breathe gas/fumes/vapour/spray. S24/25 Avoid contact with skin and eyes. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S29 Do not empty into drains. S33 Take precautionary measures against static discharge. Use explosion proof electrical equipment and non sparking tools. S36/37 Wear suitable protective clothing and gloves. S39 Wear eye / face protection S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible) S51 Use only in well ventilated areas. S53 Avoid exposure - obtain special instructions before use. S61 Avoid release to the environment, refer to Section 13 of this MSDS for disposal considerations. S62 If swallowed, DO NOT induce vomiting; seek medical advice immediately and show this container or label.

3. COMPOSITION / INFORMATION ON INGREDIENTS

PURE SUBSTANCES	Solvent naphtha (petroleum), light aliphatic	-	50-60%
	n-Propyl Alcohol	71-23-8	20-30%
	Ethyl Alcohol	64-17-5	5-15%
	Glycol Ether	-	1-5%
	Stoddard Solvent	-	<10%
MIXTURE	Other ingredients determined not to be hazardous		Balance

4. FIRST AID MEASURES

WORKPLACE FACILITIES	Eye Wash and normal washroom facilities.
FIRST AID INSTRUCTIONS	<p>Swallowed: If product is swallowed, DO NOT induce vomiting. Seek medical attention immediately.</p> <p>Eye: If product comes in contact with eyes flush with water for at least 15 minutes holding eyes open. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.</p> <p>Skin or hair: If product comes in contact with skin or hair wash with soap and water, remove all contaminated clothing, including watch & shoes. Seek medical attention if irritation develops or persists. Launder clothing before reuse.</p> <p>Inhalation: If adverse effects such as headache, dizziness, tiredness, nausea or vomiting are noted move victim to fresh air. Seek medical attention.</p>

SPECIAL TREATMENT	Advice to Doctor: n-Propanol is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether or not to induce vomiting. Rapid absorption may occur through lungs if aspirated and cause systemic effects. Therefore the decision to induce vomiting or not must be made by a physician; danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. If lavage is performed, suggest endotracheal and/or esophageal control. Exposure may increase "myocardial irritability".
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5. FIRE FIGHTING MEASURES

FIRE HAZARDS	Highly Flammable Liquid. Remove all sources of ignition, heat, sparks and flames. Do not cut, puncture or weld on empty drum because it may contain explosive or harmful vapours.		
FIRE HAZARD PROPERTIES	FLASH POINT	11°C	
	FLAMMABLE LIMITS IN AIR	Lower (LEL): 0.5%	Upper (UEL): 19%
	AUTO IGNITION	Unknown	
	FLAMMABILITY CLASSIFICATION	AUS: Class 3	NZ: Class 3.1B
	HAZARDOUS DECOMPOSITION OR BY-PRODUCTS	Hydrocarbon decomposition products and formaldehyde at elevated temperatures.	
	HAZARDOUS REACTIONS	Reacts with oxidising agents.	
EXTINGUISHING MEDIA	Use foam, carbon dioxide or dry chemical. Do not use direct stream of water.		
HAZCHEM	3(Y)E		
FIRE FIGHTING EQUIPMENT	Fire fighter should wear self contained breathing apparatus (SCBA) when fire fighting in a confined space.		

6. ACCIDENTAL RELEASE MEASURES

SPILLS AND LEAKS	Eliminate all ignition sources. Vapours are heavier than air and may spread long distances or collect in low spots. Wear protective equipment as specified in the PPE section of this MSDS. Stop leak if safe to do so. Dike area to prevent runoff, recover liquid and soak up with absorbent material. Collect absorbed material using non sparking tools. See Section 13 of this MSDS for disposal considerations.
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7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	Highly Flammable. Remove all sources of ignition, heat, sparks and flames. Do not cut, puncture or weld on empty drum because it may contain explosive or harmful vapours. Do not re-use empty container for other materials. Open slowly to control possible pressure release. Take precautionary measures against electrostatic loading, bond and ground all equipment pumping or transferring the product. Use exhaust ventilation as specified in Engineering Controls section of this MSDS. Do not eat, drink or smoke while using this product. Wash your hands after handling this product and before eating, drinking, smoking or using the toilet. Wear PPE as specified in the PPE section of this MSDS.
CONDITIONS FOR SAFE STORAGE	Store in a well ventilated area away from heat and sources of ignition. Do not store at temperatures above 43°C to avoid vapour pressure in closed containers. Keep cool. Store away from strong oxidisers. Store in suitable labelled containers. Have appropriate fire extinguishers available in and near the store area. Keep containers closed when not in use. Store locked up.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (PPE)

EXPOSURE STANDARDS	NAME	TWA		STEL		FOOTNOTE
		ppm	mg/m ³	ppm	mg/m ³	
AUSTRALIAN NOHSC	n-Propyl Alcohol	200	492	250	614	Skin. HSIS
	Ethyl Alcohol	1000	1880			HSIS
	Glycol Ether	50	308			
NEW ZEALAND WES	n-Propyl Alcohol	200	492	250	614	Skin. OSH
	Ethyl Alcohol	1000	1880			OSH
USA OSHA	n-Propyl Alcohol	200	500			
	Ethyl Alcohol	1000	1900			

ENGINEERING CONTROLS	NOHSC Australia has assigned the following exposure standard for Highly Refined Mineral Oil mists – TWA 5mg/m ³ , STEL 10mg/m ³ . Ensure ventilation is adequate to maintain air concentrations below exposure standards. If local exhaust ventilation is used, ensure sufficient air is replaced to compensate the air that has been removed. Vapour is heavier than air and will tend to accumulate in hollows or sumps. DO NOT enter confined spaces where vapours may have collected.
RESPIRATOR TYPE (AS/NZS1716)	Good industrial hygiene practices recommend that engineering controls (such as local and/or mechanical ventilation) be used to reduce environmental concentrations to the permissible exposure level. Respirators may be used when engineering and work practice controls are not technically feasible, when such controls are in the process of being installed, or when they fail and need to be supplemented. If the use of a respirator is necessary use only AS/NZS1716 or AS1715 approved air supplied respirator or an air-purifying respirator.
EYE PROTECTION	Safety glasses with side shields or chemical goggles.
GLOVE TYPE	Impervious gloves (such as neoprene, polyvinyl alcohol, NBR nitrile).
CLOTHING	Appropriate clothing to avoid skin contact (such as overalls, long sleeves, work boots).

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE / ODOUR	Clear fluid / hydrocarbon odour
PH VALUE	Not available
VAPOUR PRESSURE	46mm Hg (ethanol)
VAPOUR DENSITY (Air =1)	>1
BOILING POINT	90°C (initial)
MELTING / FREEZING POINT	Not available
SOLUBILITY IN WATER	Nil
SPECIFIC GRAVITY	0.77
BULK DENSITY	6.42
FLASH POINT	11°C
% VOLATILE BY WEIGHT	90-100%
EVAPOURATION RATE	<1 (ether=1)
ADDITIONAL INFORMATION	Additional information can be found in Section 5 Fire Hazard Properties and in section 10 Stability / Reactivity.

10. STABILITY AND REACTIVITY

STABILITY	Stable
CONDITIONS TO AVOID	None
INCOMPATIBILITY	Store away from strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS	Hydrocarbon decomposition products and formaldehyde at elevated temperatures
HAZARDOUS POLYMERIZATION	Will not occur

11. TOXICOLOGICAL INFORMATION

SYMPTOMS AND HEALTH EFFECTS	<p>Swallowed: May cause gastrointestinal (digestive) tract irritation, nausea, vomiting and diarrhoea. If product is swallowed DO NOT induce vomiting because of the danger of aspiration of the solvent into the lungs, which can be fatal due to chemical pneumonitis.</p> <p>Eye: May cause severe eye irritation. May cause corneal damage, resulting in permanent impairment of vision, even blindness.</p> <p>Skin: Prolonged or repeated contact may defat skin which may cause irritation or dermatitis. Avoid skin contact.</p> <p>Inhalation: Vapour concentrations above the exposure standard may cause stupor, headache, nausea, dizziness, unconsciousness, and may produce adverse effects on vision.</p>
TOXICITY DATA	<p>Target Organ Effects: Overexposure to n-Propyl Alcohol may cause damage to lungs, brain and liver.</p> <p>There is no toxicity data for the product as a mixture, however for the constituents: n-Propanol: LD50 Oral 1870 mg/kg (Rat), LC50 Inhalation 13548 ppm (Rat) 4h. Solvent naphtha (petroleum), light aliphatic: LD50 Oral 5000 mg/kg (Rat), LD50 Dermal 3160 mg/kg (Rabbit). Ethyl alcohol: LD50 Oral 7060 mg/kg (Rat). Glycol ether: LD50 Oral 5230 mg/kg (Rat), LD50 Dermal 9500 mg/kg (Rabbit).</p>

12. ECOTOXICITY INFORMATION

ECOTOXICITY DATA	None available
ENVIRONMENT RISK PHRASES	None allocated

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS	Disposal should be done by an authorised Disposal Management Company.
SPECIAL PRECAUTIONS	Product is highly flammable. New or used mineral oils or solvents must not be allowed to enter the ground, ground water, water course, sewers or drainage systems. Advice may be sought from the Environmental Protection Agency or from an authorised disposal authority.

14. TRANSPORT INFORMATION

UN NUMBER	1993
CLASS	3
PACKING GROUP	II
HAZCHEM	3(Y)E
PROPER SHIPPING NAME	FLAMMABLE LIQUID, N.O.S. (CONTAINS HYDROCARBON NAPHTHA and N-PROPYL ALCOHOL)
TRANSPORT	This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 3 - Flammable Liquids are <u>incompatible</u> in a placard load with any of the following; Class 1, Explosives Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk Class 2.3, Toxic Gases Class 4.2 Spontaneously Combustible Substances Class 5.1 Oxidising Agents and Class 5.2, Organic Peroxides Class 6 Toxic Substances (where the flammable liquid is nitromethane) Class 7 Radioactive Substances.
EPG Number	3A1
IERG Number	14
EmS Number	F-E, S-E

15. REGULATORY INFORMATION

AUSTRALIA	Hazardous according to NOHSC: Harmful. Schedule 5 Poison. Ingredients are AICS listed.
NEW ZEALAND	Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. Lubricants (Flammable) Group Standard 2006.

16. OTHER INFORMATION

REFERENCES	SF-47 6/7/09
DOCUMENT NUMBER	MSDS-0021 6/07/2009