1. Identification of the substance/preparation and of the company/undertaking

Product name Prematek MS Hardener Slow

Product code 240464

Intended use of the substance/preparation
Coating for professional use

Company/Undertaking Identification

Producer/Supplier	DuPont Australia Ltd
Street/Box	7 Eden Park Drive
Nat.-Code/Postal code/City	Macquarie Park NSW 2113, Australia
Telephone	(02) 9923 6111
Telefax	(02) 9923 6011

Product Information

Telephone	(02) 9923 6111

Emergency Information

Medical Emergency Phone	1800 674 415
Transportation Emergency Phone	(02) 9923 6275

For further information, please also consult our Internet site
http://www.spieshecker.com

2. Hazards identification

Hazardous Substance. Dangerous Goods.

Human health hazards
Classification : Harmful; Irritant; sensitizing; dangerous for the environment; Flammable;
Flammable. Harmful by inhalation. Irritating to respiratory system and skin. May cause sensitization by inhalation and skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Special hazard instructions for humans and environment
Do not breathe vapour/spray.
Avoid contact with skin.
Wear suitable gloves.
In case of insufficient ventilation, wear suitable respiratory equipment.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Avoid release to the environment. Refer to special instructions/ Safety data sheets.

3. Composition/information on ingredients

Chemical characterization
Mixture of synthetic resins and solvents

Hazardous components

CAS-No.	Chemical Name	Concentration	Classification
28182-81-2	Hexamethylene diisocyanate, oligomers	35.00 - < 45.00 %	Xi; R43
64742-95-6	solvent naphtha (petroleum), light arom. (<0,1% benzene)	15.00 - < 20.00 %	R10 Xi; R37 N; R51/53 Xn; R65 R66 R67 NotaH NotaP

CAS-No.	Chemical Name	Concentration	Classification
123-86-4	n-butyl acetate	10.00 - < 12.50 %	R10 R66 R67
95-63-6	1,2,4-trimethylbenzene	7.00 - < 10.00 %	R10 Xn; R20 Xi; R36/37/38 N; R51/53
1330-20-7	xylene	7.00 - < 10.00 %	R10 Xn; R20/21 Xi; R38
98516-30-4	ethoxypropyl acetate	3.00 - < 5.00 %	R10 R67
108-65-6	2-methoxy-1-methylethyl acetate	3.00 - < 5.00 %	R10 Xi; R36
111-76-2	2-butoxyethanol	2.50 - < 3.00 %	Xn; R20/21/22 Xi; R36/38
108-67-8	mesitylene	1.00 - < 2.00 %	R10 Xi; R37 N; R51/53
103-65-1	n-propylbenzene	1.00 - < 2.00 %	R10 Xn; R65 Xi; R37 N; R51/53
100-41-4	ethylbenzene	1.00 - < 2.00 %	F; R11 Xn; R20
98-82-8	cumene	0.25 - < 0.50 %	R10 Xn; R65 Xi; R37 N; R51/53

Additional advice
See full text of R-phrases in chapter 16.

4. First aid measures

General advice
When symptoms persist or in all cases of doubt seek medical advice. Never give anything by mouth to an unconscious person.

Inhalation
Avoid inhalation of vapour or mist. Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

Skin contact
Do NOT use solvents or thinners. Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. If skin irritation persists, call a physician.

Eye contact
Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek medical advice.

Ingestion
If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting. Keep at rest.

5. Fire-fighting measures

Hazardous combustion products
Fire will produce dense black smoke containing hazardous combustion products (see heading 10). Exposure to decomposition products may be a hazard to health.

Fire and Explosion Hazards
Flammable liquid. Vapours may form explosive mixtures with air. Remove all sources of ignition.

Suitable extinguishing media
Universal aqueous film-forming foam, Carbon dioxide (CO2), Dry chemical, Water spray.

Extinguishing media which shall not be used for safety reasons
High volume water jet

Special Protective Equipment and Fire Fighting Procedures
Wear as appropriate: Full protective flameproof clothing. Wear self contained breathing apparatus for fire fighting if necessary. In the event of fire, cool tanks with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Additional advice
Cool closed containers exposed to fire with water spray.

Additional information
Hazchem : 3Y

6. Accidental release measures

Personal precautions
Keep in a well-ventilated place. Keep away from sources of ignition. Comply with safety directives (see chapters 7 and 8). Do not inhale vapours.

Environmental precautions
Do not let product enter drains. Notify the respective authorities in accordance with local law in the case of contamination of rivers, lakes or waste water systems.

Methods for cleaning up
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts), concentrated (d : 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts), water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to local regulations (see section 13).

7. Handling and storage

Handling
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used.

Safe handling advice
Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Preparation may charge electrostatically: always use grounded leads when transferring from one container to another. Operators should wear antistatic footwear and clothing. No sparking tools should be used. Avoid skin and eye contact. Do not breathe vapours or spray mist. Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8. Comply with the health and safety at work laws. If material is a coating, do not sand, flame cut, braze or weld dry coating without an appropriate respirator or appropriate ventilation, and gloves.

Advice on protection against fire and explosion
Solvent vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Never use pressure to empty container: container is not a pressure vessel. Always keep in containers of same material as the original one.

Storage
Requirements for storage areas and containers
Observe label precautions. Store between 5 an 25°C in a dry, well ventilated place away from sources of heat, ignition and direct

sunlight. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Advice on common storage
Store separately from oxidizing agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Precautions should be taken to avoid exposure to atmospheric humidity or water. Evolution of CO2 in closed containers causes overpressure and produces a risk of bursting.

Additional information on storage conditions

Precautions should be taken to avoid exposure to atmospheric humidity or water. Humid air and/or water will produce carbon dioxide which will pressurize the container. Open drum carefully as content may be under pressure.

8. Exposure controls/personal protection

Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used.

Additional technical information on the plant
Provide adequate ventilation. Air-fed protective respiratory equipment must be worn by spray operator even when good ventilation is provided.

National occupational exposure limits

CAS-No.	Chemical Name	Values	Control Parameters	Basis
28182-81-2	Hexamethylene diisocyanate, oligomers			no exposure standard allocated
64742-95-6	solvent naphtha (petroleum), light arom. (<0,1% benzene)			no exposure standard allocated
123-86-4	n-butyl acetate	STEL	950 mg/m3	NOHSC:1003(2003)
			200 ppm	NOHSC:1003(2003)
		TWA	713 mg/m3	NOHSC:1003(2003)
			150 ppm	NOHSC:1003(2003)
95-63-6	1,2,4-trimethylbenzene	TWA	25 ppm	NOHSC:1003(2003)
1330-20-7	xylene	STEL	655 mg/m3	NOHSC:1003(2003)
			150 ppm	NOHSC:1003(2003)
		TWA	350 mg/m3	NOHSC:1003(2003)
			80 ppm	NOHSC:1003(2003)
98516-30-4	ethoxypropyl acetate			no exposure standard allocated
108-65-6	2-methoxy-1-methylethyl acetate	STEL	822 mg/m3	NOHSC:1003(2003)
			150 ppm	NOHSC:1003(2003)
		TWA	274 mg/m3	NOHSC:1003(2003)
			50 ppm	NOHSC:1003(2003)
111-76-2	2-butoxyethanol	TWA	121 mg/m3	NOHSC:1003(2003)
			25 ppm	NOHSC:1003(2003)
108-67-8	mesitylene	TWA	25 ppm	NOHSC:1003(2003)
103-65-1	n-propylbenzene			no exposure standard allocated
100-41-4	ethylbenzene	STEL	543 mg/m3	NOHSC:1003(2003)
			125 ppm	NOHSC:1003(2003)
		TWA	434 mg/m3	NOHSC:1003(2003)
			100 ppm	NOHSC:1003(2003)
98-82-8	cumene	STEL	375 mg/m3	NOHSC:1003(2003)
			75 ppm	NOHSC:1003(2003)
		TWA	125 mg/m3	NOHSC:1003(2003)
			25 ppm	NOHSC:1003(2003)

Protective equipment

Personal protective equipment should be worn to prevent contact with eyes, skin or clothing.

Respiratory protection
For spraying: air-fed respirator. For operations other than spraying: in well ventilated areas, air-fed respirators could be replaced by a combination of charcoal filter and particulate filter mask.

Hand protection
The breakthrough time of gloves is unknown for the product itself. The glove material given is recommended on basis of the substances in the preparation.

Chemical Name	Glove material	Glove thickness	Break through time
solvent naphtha (petroleum), light arom. (<0,1% benzene)	Viton (R) ®	0.7 mm	30 min
n-butyl acetate	Viton (R) ®	0.7 mm	10 min
	Nitrile rubber	0.33 mm	30 min
xylene	Nitrile rubber	0.33 mm	30 min
	Viton (R) ®	0.7 mm	480 min
2-butoxyethanol	Viton (R) ®	0.7 mm	480 min
	Nitrile rubber	0.33 mm	480 min

The protective glove should be checked in each case for their work specific suitability (e.g. mechanical stability, product compatibility, and anti-static properties). When the intended use is for spray application a nitrile glove of the chemical resistance group 3 (e.g. Dermatril® glove) is to be used. After contamination, the glove has to be changed. If immersing the hands into the product is not avoidable (e.g. maintenance work) a butyl or fluorocarbon rubber glove should be used. When skin exposure may occur to materials specified in section 3 of this SDS, advice should be sought from the glove supplier as to appropriate type to use with this product and the permeation breakthrough times. Care should be taken when working with sharp edged articles as these can easily damage the gloves and make them ineffective. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Damaged gloves or those showing signs of wear should be replaced immediately.

Eye protection
Wear protective eyewear for protection against solvent spatter.

Skin and body protection
Wear suitable protective clothing. Personnel should wear antistatic clothings made of natural fiber or of high temperature resistant synthetic fiber.

Hygiene measures
Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use organic solvents!

Environmental exposure controls
Do not let product enter drains. For ecological information refer to section 12.

9. Physical and chemical properties

Appearance

Form: liquid Colour: clear

Important physical and chemical information

	Value	Method
Flash point	24 °C	
Autoignition temperature	407 – 463 °C	DIN 51794
Boiling point/boiling range	125 – 170 °C	
Lower explosion limit	0.9 %	
Upper explosion limit	12.3 %	
Vapour pressure	4.1 hPa	
Relative density	0.98 g/cm^3	DIN 53217/ISO 2811
Water solubility	moderate	
Viscosity (23 °C)	Not applicable.	ISO 2431-1993

Solvent separation test	< 3%	ADR/RID
Content of volatile components (including water)	61.1%	Basis Vapour pressure >= 0.01 kPa
pH	Not applicable.	

10. Stability and reactivity

Stability
Stable

Conditions to avoid
Stable under recommended storage and handling conditions (see section 7).

Materials to avoid
Keep away from oxidising agents and strongly acid or alkaline materials. Amines and alcohols cause exothermic reactions. Preparation reacts slowly with water resulting in evolution of CO2. Evolution of CO2 in closed containers causes overpressure and produces a risk of bursting.

Hazardous decomposition products
When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen as well as hydrogen cyanide, amines, alcohols and water.

11. Toxicological information

General observations
There is no data available on the product. See sections 3 and 15 for details.

Practical experience
Based on the properties of the isocyanate components and considering toxicological data on similar products, the following applies: This formulation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability. Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Through skin resorbtion, solvents can cause some of the effects described here. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage. Components of the product may be absorbed into the body through the skin. Contains Hexamethylene diisocyanate, oligomers. May produce an allergic reaction.

Toxicity Test Type	Value	Time	Species
Hexamethylene diisocyanate, oligomers			
Oral LD50	1,000 mg/kg		rat
Dermal LD50	5,000 mg/kg		rabbit
Inhalation LC50	137 mg/m3	4 h	rat
solvent naphtha (petroleum), light arom. (<0,1% benzene)			
Oral LD50	< 5 g/kg		rat
Dermal LD50	> 4 ml/kg		rat
Inhalation LD50	> 3,670 mg/kg	8 h	rat
n-butyl acetate			
Oral LD50	> 5,000 ml/kg		rat
Dermal LD50	> 5,000 ml/kg		rabbit
Inhalation LC50	> 6,335 ppm	4 h	rat
1,2,4-trimethylbenzene			
Oral LD50	5,000 mg/kg		rat
Inhalation LC50	18,000 mg/m3	4 h	rat
xylene			
Oral LD50	4,300 mg/kg		rat
Dermal LD50	> 1,700 mg/kg		rabbit
Inhalation LC50	5,000 ppm	4 h	rat
ethoxypropyl acetate			
Oral LD50	4,755 mg/kg		rat
2-methoxy-1-methylethyl acetate			
Oral LD50	8.5 g/kg		Female Rat
Dermal LD50	> 5 g/kg		rabbit
Inhalation LC50	> 4,345 ppm	6 h	Male Rat
2-butoxyethanol			
Oral LD50	1,746 mg/kg		rat
Dermal LD50	435 mg/kg		rabbit

Inhalation LC50	> 450 ppm	4 h	rabbit
mesitylene			
Oral LD50	24,000 mg/kg		rat
Inhalation LC50	24 mg/l	4 h	rat
n-propylbenzene			
Oral LD50	6,040 mg/kg		rat
Inhalation LD50	> 9,999 ppm	2 h	rat
ethylbenzene			
Oral LD50	3,500 mg/kg		rat
Dermal LD50	17.8 g/kg		rabbit
Inhalation LC50	4,000 ppm	4 h	rat
cumene			
Oral LD50	1,400 mg/kg		rat
Dermal LD50	10,578 mg/kg		rabbit
Inhalation LC50	39 mg/l	4 h	rat

12. Ecological information

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses. Product does not contain any organic halogens.

Acute toxicity aquatic invertebrates

Chemical Name	Species	Type	Exposure time	Value		Method
solvent naphtha (petroleum), light arom. (<0,1% benzene)	Daphnia	EC50	24 h	170	mg/l	
1,2,4-trimethylbenzene	Daphnia	LC50	48 h	6	mg/l	
mesitylene	Daphnia	EC50	48 h	6	mg/l	
n-propylbenzene	Daphnia	EC50	24 h	2	mg/l	
cumene	Daphnia	EC50	24 h	1.4	mg/l	

Acute and extended toxicity of fishes

Chemical Name	Species	Type	Exposure time	Value		Method
solvent naphtha (petroleum), light arom. (<0,1% benzene)	Brachydanio rerio (zebra fish)	LC50	96 h	10	mg/l	
1,2,4-trimethylbenzene	Oncorhynchus mykiss (rainbow trout)	EC50	96 h	9.22	mg/l	
mesitylene	Carassius auratus (goldfish)	LC50	96 h	12.5	mg/l	
cumene	Oncorhynchus mykiss (rainbow trout)	LC50	96 h	2.7	mg/l	

Toxicity with aquatic plants

Chemical Name	Species	Type	Exposure time	Value		Method
solvent naphtha (petroleum), light arom. (<0,1% benzene)	Algae	EC50	72 h	10	mg/l	
cumene	green algae (type not specified)	IC50	72 h	2.6	mg/l	

Mobility
No information available.

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Persistence and degradability
No information available.

Bioaccumulative potential
No information available.

13. Disposal considerations

Incinerate or otherwise dispose of waste material in accordance with local regulations. The product should not be allowed to enter drains, water courses or the soil. Do not incinerate in closed containers.

14. Transport information

Transport in accordance with the requirements of the Carriage of Dangerous Goods by Road and Rail (Classifications, Packaging and Labeling), ADG for road, IMDG for sea and ICAO/IATA for air transport.

ADG (Land transport)

Proper shipping name:	PAINT
UN-Number:	1263
Hazard Class:	3
Subsidiary Hazard Class:	Not applicable.
Packing group:	III
Hazchem:	3Y

IMDG (Sea transport)

Proper shipping name:	PAINT
UN-Number:	1263
Hazard Class:	3
Subsidiary Hazard Class:	Not applicable.
Packing group:	III
Marine Pollutant:	P (solvent naphtha (petroleum), light arom. (<0,1% benzene))
EmS:	F-E,S-E

ICAO/IATA (Air transport)

Proper shipping name:	PAINT
UN-Number:	1263
Hazard Class:	3
Subsidiary Hazard Class:	Not applicable.
Packing group:	III

15. Regulatory information

Symbol and indicating of hazard

Xn	Harmful
N	Dangerous for the environment
Contains	Hexamethylene diisocyanate, oligomers 35.00 - < 45.00 %; solvent naphtha (petroleum), light arom. (<0,1% benzene) 15.00 - < 20.00 %.

R-phrase(s)

R10	Flammable.
R20	Harmful by inhalation.
R37/38	Irritating to respiratory system and skin.
R42/43	May cause sensitization by inhalation and skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

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S23	Do not breathe vapour/spray.
S24	Avoid contact with skin.
S37	Wear suitable gloves.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S61	Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Contains isocyanates. See information supplied by the manufacturer.

SUSDP Poison Schedule: Poison schedule 6.

New Zealand Poison Schedule:

16. Other information

Full text of R phrases with no. appearing in section 3

R10	Flammable.
R11	Highly flammable.
R20	Harmful by inhalation.
R20/21	Harmful by inhalation and in contact with skin.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R36	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
R36/38	Irritating to eyes and skin.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R42/43	May cause sensitization by inhalation and skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Sources of key data used to compile the datasheet:
1. National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition (NOHSC:2011(2003))
2. Approved Criteria for Classifying Hazardous Substances (NOHSC:1008(1999))
3. List of Designated Hazardous Substances (NOHSC:10005(1999))
4. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment (NOHSC:1003(1995))
5. Australian Dangerous Goods Code, No. 6 (National Road Transport Commission)
6. Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP)
7. National Code of Practice for the Labelling of Workplace Substances ((NOHSC:2012 (1994))

Further information
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Report version

1.0

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