



## 1. Identification of the substance/mixture and of the company/undertaking

**Product name** 222S Mid-Coat Adhesion Promoter

**Product code** 222S

**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.dupont.com>

## 2. Hazards identification

Hazardous Substance. Dangerous Goods.

**Human health hazards**

Classification : Toxic to Reproduction Category 3; Harmful; Irritant; dangerous for the environment; Highly flammable; Highly flammable. Harmful by inhalation and in contact with skin. Irritating to eyes and skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child.

**Special hazard instructions for humans and environment**

Keep away from sources of ignition - No smoking. Do not breathe vapour/spray. Take precautionary measures against static discharges. Wear suitable protective clothing and gloves. In case of insufficient ventilation, wear suitable respiratory equipment. 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
108-88-3	toluene	35.00 - < 45.00 %	F; R11 Repr.Cat.3; R63 Xn; R48/20 R65 Xi; R38 R67
67-64-1	acetone	15.00 - < 20.00 %	Xi; R36 R66 R67 F; R11
1330-20-7	xylene	12.50 - < 15.00 %	R10 Xn; R20/21 Xi; R38



CAS-No.	Chemical Name	Concentration	Classification
142-82-5	heptane (mixture of isomers)	7.00 - < 10.00 %	F; R11 Xn; R65 Xi; R38 R67 N; R50/53
71-36-3	n-butanol	7.00 - < 10.00 %	R10 Xi; R37/38 Xn; R22 R67 Xi; R41
100-41-4	ethylbenzene	3.00 - < 5.00 %	F; R11 Xn; R20
141-78-6	ethyl acetate	2.00 - < 2.50 %	F; R11 Xi; R36 R66 R67
67-63-0	propan-2-ol	2.00 - < 2.50 %	F; R11 Xi; R36 R67
110-54-3	n-hexane	0.25 - < 0.50 %	F; R11 Xi; R38 R48/20 N; R51/53 Repr.Cat.3; R62 Xn; R65 R67
108-87-2	methylcyclohexane	0.20 - < 0.25 %	Xn; R65 N; R51/53 Xi; R38 F; R11 R67

**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 (CO<sub>2</sub>), 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 : 3YE

## 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. Clean preferably with a detergent; avoid use of solvents.

## 7. Handling and storage

**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 and 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 and strongly alkaline and strongly acidic materials.

**8. Exposure controls/personal protection****Additional technical information on the plant**

Provide adequate ventilation. This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

**National occupational exposure limits**

CAS-No.	Chemical Name	Values	Control Parameters	Basis
108-88-3	toluene	STEL	574 mg/m <sup>3</sup> 150 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
		TWA	191 mg/m <sup>3</sup> 50 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
67-64-1	acetone	STEL	2,375 mg/m <sup>3</sup> 1,000 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
		TWA	1,185 mg/m <sup>3</sup> 500 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
1330-20-7	xylene	STEL	655 mg/m <sup>3</sup> 150 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
		TWA	350 mg/m <sup>3</sup> 80 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
142-82-5	heptane (mixture of isomers)	STEL	2,050 mg/m <sup>3</sup> 500 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
		TWA	1,640 mg/m <sup>3</sup> 400 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
71-36-3	n-butanol	TWA	20 ppm	NOHSC:1003(2003)
100-41-4	ethylbenzene	STEL	543 mg/m <sup>3</sup> 125 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
		TWA	434 mg/m <sup>3</sup> 100 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
141-78-6	ethyl acetate	STEL	1,440 mg/m <sup>3</sup> 400 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
		TWA	720 mg/m <sup>3</sup> 200 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
67-63-0	propan-2-ol	STEL	1,230 mg/m <sup>3</sup> 500 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
		TWA	983 mg/m <sup>3</sup> 400 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
110-54-3	n-hexane	TWA	72 mg/m <sup>3</sup> 20 ppm	NOHSC:1003(2003) NOHSC:1003(2003)
108-87-2	methylcyclohexane	TWA	1,610 mg/m <sup>3</sup> 400 ppm	NOHSC:1003(2003) NOHSC:1003(2003)

**Protective equipment**

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

**Respiratory protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**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
xylene	Nitrile rubber	0.33 mm	30 min



Chemical Name	Glove material	Glove thickness	Break through time
	Viton (R) <sup>®</sup>	0.7 mm	480 min
n-butanol	Viton (R) <sup>®</sup>	0.7 mm	480 min
	Nitrile rubber	0.33 mm	480 min
ethyl acetate	Nitrile rubber	0.33 mm	10 min
	Viton (R) <sup>®</sup>	0.7 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<sup>®</sup> 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	-12 °C	
Ignition temperature	215 °C	DIN 51794
Boiling point/boiling range	56 °C	
Lower explosion limit	1 %	
Upper explosion limit	12.8 %	
Vapour pressure	64.2 hPa	
Relative density	0.85 g/cm <sup>3</sup>	DIN 53217/ISO 2811
Water solubility	appreciable	
Viscosity (23 °C)	Not applicable.	ISO 2431-1993
Solvent separation test	< 3%	ADR/RID
Content of volatile components (including water)	94.2%	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, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

**Hazardous decomposition products**

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

**11. Toxicological information****General observations**

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

**Practical experience**

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 resorption, 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.

Toxicity Test Type	Value	Time	Species
toluene			
Oral LD50	3,000 mg/kg		rat
Dermal LD50	4,000 mg/kg		rabbit
Inhalation LC50	5,300 ppm		mouse
acetone			
Oral LD50	5,800 mg/kg		rat
Dermal LD50	20 g/kg		rabbit
Inhalation LC50	50.1 g/m <sup>3</sup>	8 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
heptane (mixture of isomers)			
Oral LD50	= 5,000 mg/kg		mouse
Dermal LD50	2,000 mg/kg		rabbit
Inhalation LC50	103,000 mg/m <sup>3</sup>	4 h	rat
Intravenous LD50	222 mg/kg		mouse
n-butanol			
Oral LD50	790 mg/kg	8 h	rat
Dermal LD50	3,400 mg/kg	8 h	rabbit
Inhalation LC50	8,000 ppm	4 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
ethyl acetate			
Oral LD50	5,600 mg/kg		rat
Dermal LD50	> 20 ml/kg		rabbit
Inhalation LC50	29.4 mg/l	4 h	rat
propan-2-ol			
Oral LD50	> 2,000 mg/kg		rat
Dermal LD50	> 2,000 mg/kg		rabbit
Inhalation LC50	> 5,000 ppm	8 h	rat
Percutaneous LD50	13,000 ml/kg		rabbit
n-hexane			
Oral LD50	= 25 g/kg		rat
Dermal LD50	= 3,000 mg/kg		rabbit
Inhalation LC50	48,000 ppm	4 h	rat
methylcyclohexane			
Oral LD50	2,250 mg/kg		rat
Dermal LD50	86.7 g/kg		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 organic linked halogens contributing to AOX.

**Acute toxicity aquatic invertebrates**



Chemical Name	Species	Type	Exposure time	Value	Method
heptane (mixture of isomers)	Daphnia	LC50	24 h	10 mg/l	
methylcyclohexane	Daphnia	LC50	72 h	6 mg/l	

**Acute and extended toxicity of fishes**

Chemical Name	Species	Type	Exposure time	Value	Method
heptane (mixture of isomers)	Oncorhynchus mykiss (rainbow trout)		4 days	15 ppm	
heptane (mixture of isomers)	Lepomis macrochirus (Bluegill sunfish)		1 days	2,990 ppm	
n-hexane		LC50	96 h	1 mg/l	

**Toxicity with aquatic plants**

Chemical Name	Species	Type	Exposure time	Value	Method
n-hexane	Algae	LC50	0	1 mg/l	

**Mobility**

No information available.

**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: II  
Hazchem: 3YE**IMDG (Sea transport)**

Proper shipping name: PAINT

UN-Number: 1263  
Hazard Class: 3  
Subsidiary Hazard Class: Not applicable.  
Packing group: II  
Marine Pollutant: N  
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: II

## 15. Regulatory information

### Symbol and indication of hazard.

F	Highly flammable
Xn	Harmful
N	Dangerous for the environment
Contains	toluene 35.00 - < 45.00 %; xylene 12.50 - < 15.00 %; n-butanol 7.00 - < 10.00 %.

### R-phrase(s)

R11	Highly flammable.
R20/21	Harmful by inhalation and in contact with skin.
R36/38	Irritating to eyes and skin.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63	Possible risk of harm to the unborn child.

### S-phrase(s)

S16	Keep away from sources of ignition - No smoking.
S23	Do not breathe vapour/spray.
S33	Take precautionary measures against static discharges.
S36/37	Wear suitable protective clothing and gloves.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S61	Avoid release to the environment. Refer to special instructions/ Safety data sheets.

### Standard for the Uniform Scheduling of Drugs and Poisons.

Schedule 5

## 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.
R22	Harmful if swallowed.
R36	Irritating to eyes.
R37/38	Irritating to respiratory system and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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.
R62	Possible risk of impaired fertility.
R63	Possible risk of harm to the unborn child.
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

Version	Changes
2.0	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16

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