



Material Safety Data Sheet

Thermoplastic Road Marking Material – DPI

Thermoplastic Primer

Revision: 02

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Issued by: DPI

Product name: DPI Thermoplastic Primer

Section 1 Identification of the Material and Supplier

Product name: DPI Thermoplastic Primer
Product code: Thermo Primer.
Recommended use: DPI Thermo Primer is used as an intermediate tacky coat between aged bituminous substrate/concrete surfaces and DPI's thermoplastic pavement marking material. This product is normally used in open area, before the application of thermoplastic material to the road surface to improve bonding strength. The application of this product is by brush, roller, and airless spray.
Manufacturer: Dura Products Industries Pty Ltd.
Address: 59 Lincoln Street, Minto, New South Wales 2566, Australia
Telephone: +61 2 9603 6699
Email: info@dpiaustralia.com.au

Section 2 Hazard Identification

Hazard Classification Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS. This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Flammable liquids Category 2

Aspiration Hazard Category 1

Skin Corrosion /Irritation Category 2

Specific Target Organ Toxicity - Single Exposure Category 3

Reproductive Toxicity Category 1



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Specific Target Organ toxicity - repeated exposure Category 2
Hazardous to aquatic environment Short term/Acute Category 2

Label Elements

Signal Word

Danger

Symbols of Product



Hazard Statements

H225: Highly flammable liquid and vapour.
AUH066: Repeated exposure may cause skin dryness or cracking.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H360: May damage fertility or the unborn child.
H373: May cause damage to organs through prolonged or repeated exposure.

GHS Precautionary Statements

P102: Keep out of reach of children.
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P281 Use personal protective equipment as required.
P210: Keep away from heat, sparks, open flames, and hot surfaces. - No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical ventilating, lighting, and other equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260 Do not breathe mist, vapours, spray.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash contacted areas thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing and eye or face protection.
P312: Call a POISON CENTRE or doctor if you feel unwell.



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P362: Take off contaminated clothing and wash before reuse.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
P P331 Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.
P321 Specific treatment (see First Aid Measures on Safety Data Sheet).
P308+P313 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P405: Store locked up.
P402+P404: Store in a dry place. Store in a closed container.
P403+P235: Store in a well-ventilated place. Keep cool.
P501: If they cannot be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

Section 3 Composition/Information on Ingredients

Chemical name	CAS No.	Wt.%
Toluene/Toluol	108-88-3	70 – 90%
Resins (Synthetic Resins)	64742-16-1	10 – 30%

Section 4 First Aid Measures

Inhalation

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.



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Skin contact	If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. This material can be absorbed through the skin with resultant toxic effects. Seek immediate medical assistance.
Eye contact	Flush eyes with large amounts of water until irritation subside. If irritation persists, seek medical attention.
Ingestion	Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance. For advice, contact Poisons Information Centre (phone eg Australia 131 126; New Zealand 0800 764 766).

Section 5 Fire Fighting Measures

Fire Hazards	Highly flammable liquid. The product may form flammable vapour mixtures with air. Flameproof equipment is necessary in all areas where this chemical is being used. Nearby equipment must be earthed. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke. Vapour may travel a considerable distance to source of ignition and flash back. On burning will emit toxic fumes, including those of oxides of carbon.
Fire/Expl. Hazard	Special protective actions for fire-fighters. <ol style="list-style-type: none">1. Alert Fire Brigade and tell them location and nature of hazard.2. Maybe violently or explosively reactive.3. Wear breathing apparatus plus protective gloves.4. Prevent, by any means available, spillage from entering drains or water course.
Extinguishing Media	Non-combustible carbon dioxide, foam, dry chemical powder and water fog.



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Section 6 Accidental Release Measures

- Spill** Eliminate all ignition sources. Remove unnecessary personnel from the affected area. Wear protective equipment as specified for handling. Ensure adequate ventilation. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode.
- Disposal** Avoid release to the environment. For larger spills, cover drains to prevent entry into sewer systems or bodies of water. Collect as much of the spilled material as possible. Place in a closed container approved for disposal in accordance with applicable local/national/international regulations. Dispose to approved landfill.

Section 7 Handling and Storage

- Handling** Avoid skin and eye contact and breathing in vapour. The product may form flammable vapour mixtures with air. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke. Flameproof equipment is necessary in all areas where this chemical is being used. Nearby equipment must be earthed. Vapour may travel a considerable distance to source of ignition and flash back. Take precautionary measures against static discharges. Do not use compressed air for filling, discharging, or handling operations.
- Storage** Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from sources of heat or ignition. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

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Section 8 Exposure Controls/ Personal Protection

Exposure limits

If a component is disclosed in Section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Chemical name	CAS No.	TWA (ppm)	TWA (mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Notices	Notes
Toluene	108-88-3	50	191	150	574	Sk	

Source: Australia Exposure Standards

Engineering controls

Use in well ventilated areas to vapour build up. Use mechanical and/or natural ventilation to ensure that vapour levels are maintained below the recommended exposure standard. DPI Thermoplastic Primer should not be used by anyone not formally trained in safe handling procedures.

Personal Protection



Respiratory protection: Where engineering controls or work practices do not control exposure to the required standard, it is advisable to wear a Dust/Mist Respirator (Class P1) complying to AS 1716. Positive pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Skin protection:

For potentially moderate exposures: Wear general protective gloves, eg. light weight rubber gloves.

For potentially heavy exposures: Wear chemical protective gloves, eg. PVC and safety footwear

Eye protection: Safety glasses with side-shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.



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Other protective equipment: Eyewash stations, safety showers, ventilation systems.

Hygienic practices: When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Wash hands before breaks and immediately after handling the product. Handle in accordance with industrial hygiene and safety practice.

Section 9 Physical and Chemical Properties

Appearance:	Slightly turbid syrupy solution
Odour:	Characteristic odour
Odour	Threshold: No Data Available
Evaporation Rate:	Fast
pH:	Not Applicable
Viscosity:	No Data Available
Solubility in Water:	Immiscible
Melting/Freezing Point:	No Data Available
Molecular weight:	No Data Available
Specific Gravity:	0.87
Boiling Point:	110C
Flash Point: >	4C
Vapour Pressure:	No Data Available
Vapour Density:	Heavier than air
Flammability :	Flammable
Upper Explosive Limits:	No Data Available
Lower Explosive Limits:	No Data Available
Autoignition temperature:	No Data Available
Decomposition temperature:	No Data Available
VOC:	No Data Available

Section 10 Stability and Reactivity

Stability: Stable under recommended storage conditions

Conditions to Avoid: Avoid exposure to heat, sources of ignition, and open flame. Avoid build-up of static electricity.

Incompatibility: Incompatible with oxidising agents. Incompatible with nitric acid, sulphuric acid, chlorine, and nitrogen tetroxide



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Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Possibility of Hazardous Decomposition Products: Carbon oxides, CO₂, CO.

Section 11 Toxicological Information

Ingestion	Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is showing signs of central system depression (like those of drunkenness) there is greater likelihood of the patient breathing in vomit and causing damage to the lungs. Breathing in vomit may lead to aspiration pneumonia (inflammation of the lung).
Eye	Direct contact may cause irritation.
Skin	Contact with skin will result in irritation and have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis and be absorbed through the skin with resultant adverse effects.
Inhalation	Breathing in vapour may produce respiratory irritation and can result in headaches, dizziness, drowsiness, and possible nausea. Breathing in high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness. Breathing in high concentrations may result in an irregular heartbeat and prove suddenly fatal.
Chronic Hazards	Evidence indicates that repeated or prolonged exposure to this chemical could result in central nervous system disorders.



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Section 12 Ecological Information

For Aromatic Substances Series: Environmental Fate: Large, molecularly complex polycyclic aromatic hydrocarbons, or PAHs, are persistent in the environment longer than smaller PAHs. Atmospheric Fate: PAHs are 'semi-volatile substances' which can move between the atmosphere and the Earth's surface in repeated, temperature-driven cycles of deposition and volatilization. Terrestrial Fate: BTEX compounds have the potential to move through soil and contaminate ground water, and their vapors are highly flammable and explosive. Ecotoxicity - Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus.

Section 13 Disposal Considerations

Do not puncture or incinerate even when empty.

Waste treatment methods

Refer to Waste Management Authority. Dispose of material through a licensed waste contractor. Advise flammable nature. Normally suitable for incineration by an approved agent.

Section 14 Transport Information

Label required:



HAZCHEM:	3YE
Land transport (ADG) UN number	1866
Packing group	II
UN proper shipping name	Resin Solution
Environmental hazard	No relevant data
DG Class	Class 3.2



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Section 15 Regulatory Information

Toluene (108-88-3) is found on the following regulatory lists: "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Maritime Dangerous Goods Requirements (IMDG Code)", "Australia Customs (Prohibited Exports) Regulations 1958 - Schedule 9 Precursor substances - Part 2", "Australia Illicit Drug Reagents/Essential Chemicals - Category III", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "OSPAR List of Chemicals for Priority Action", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index", "United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances - Table II", "Australia GHS Hazardous Chemical Information List (Draft)", "Australia Exposure Standards", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)", "Fisher Transport Information", "IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards", "Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes", "Australia Therapeutic Goods Administration (TGA) Substances that may be used in Listed medicines", "Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "International Fragrance Association (IFRA) Standards Prohibited", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "OECD List of High Production Volume (HPV) Chemicals", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "Australia Inventory of Chemical Substances (AICS)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix I", "International Society of Automotive Engineers (SAE) Declarable Substances Chemical List - ARP9536", "Belgium Federal Public Service Mobility and Transport, Regulations concerning the International Carriage of Dangerous Goods by Rail - Table A: Dangerous Goods List - RID 2013 (Dutch)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (Aquatic habitat)", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water", "Sigma- Aldrich Transport Information", "OECD Existing Chemicals Database", "UNECE - Kiev Protocol on Pollutant Release and Transfer Registers - Annex II", "Australia High Volume Industrial Chemical List (HVICL)", "Australia - Australian Capital Territory- Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm - Domestic water supply quality", "Australia National Pollutant Inventory", "International Air Transport Association (IATA) Dangerous Goods Regulations", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "Australia Hazardous chemicals which may require Health Monitoring", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Hazardous Substances Information System - Consolidated Lists", "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (AQUA/1 to 6 - non-pesticide anthropogenic organics)", "Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List", "United Nations List of Precursors and Chemicals Frequently used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control (Red List) - Table II", "Acros Transport Information", "IMO IBC Code Chapter 17: Summary of minimum requirements", "Joint FAO/WHO Expert Committee on Food Additives (JECFA) - Compendium of Food Additive Specifications- Extraction solvents", "Australia - Australian Capital Territory - Environment Protection Regulation Ambient environmental standards (Domestic water supply - organic compounds)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6", "Australia Standard



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for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 7" Contact Dura Products Industries for more information.

Section 16 Other Information

Disclaimer:

Dura Products Industries Pty Ltd makes no representation as to the completeness and accuracy of the data contained in this data sheet. It is the user's obligation to evaluate and use this product safely and to comply with all Local, State and Federal regulations and laws. Dura Products Industries Pty Ltd shall not be responsible for loss, damage or injury resulting from reliance upon or failure to adhere to any recommendations or information contained herein, from abnormal use of the material or from any hazard inherent in the nature of the material.

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