

SAFETY DATA SHEET

Primer PR20 – Plastic Primer

1. Identification

- 1.1 Identification of the substance or preparation:**
Product Name: Primer PR20 Plastic Primer, PR20L0100
Description: Adhesion promoter
- 1.2 Use of substance or preparation:**
Adhesion promoter for plastics
- 1.3 Company undertaking identification:**
Fixtech Pty Ltd – Fixtech Marine Solutions
1/20 Export Drive
Molendinar, Queensland 4214
Tel. : +61 7 5530 1099
Fax : +61 7 5530 1322
Email: info@fixtech.com.au
- 1.4 Emergency telephone:**
+61 7 5530 1099

2. Composition/information on ingredients

Substance/Mixture: Colourless liquid paint

Hazardous Components Composition

Substance name	CAS No.	Classification	Contents
Toluene	108-88-3	H225 Highly flammable liquid and vapour	60-90%
Xylene	001330-20-7	H226 Flammable liquid and vapour	10-30%
Modified polypropylene polymer	68609-36-9	Confidential. Classified as non-hazardous	1-20%
Ethyl benzene	100-41-4	H225 Highly flammable liquid and vapour	1-10%
Additives	Confidential	Not classified	<1%

3. Hazardous identification

Classified as a Hazardous Chemical according to the classification by Safe Work Australia. Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

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Classification of substance

Signal word **DANGER**



GHS02

Flammable liquid Cat.2
Aspiration Hazard Cat.1

H225 Highly flammable liquid and vapour
H304 May be fatal if swallowed and enters airways



GHS08

Reproductive toxicity Cat.2

Specific target organ toxicity
(repeated exposure) Cat.2

H361 Suspected of damaging the unborn child
H362 May cause harm to breast fed children
H373 May cause damage to organs (central nervous system, Kidneys)
through prolonged or repeated exposure



GHS07

Skin irritation Cat.2
Specific target organ toxicity
(single exposure) Cat.3

H315 Causes skin irritation
H336 May cause drowsiness or dizziness
(respiratory tract irritation, narcotic effects)

GHS Label Elements, including precautionary statements:

General

P101 If medical advice is needed have product container or label at hand
P102 Keep out of reach of children
P103 Read label before use

Preventative:

P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P210 Keep away from heat/sparks/open flames/hot surfaces-No smoking
P233 Keep container tightly closed
P240 Ground/bond container and receiving equipment

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P241	Use explosion proof electrical/ventilating/lighting/equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P260	Do not breath dust/fume/gas/mist/vapour/spray
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash thoroughly after handling
P270	Do not eat, drink, or smoke when using this product
P271	Use only in a well ventilated area
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal equipment as required

Response:

P301+P310	IF SWALLOWED: Immediately call a poison centre or doctor
P302+P352	IF ON SKIN: Wash with plenty of soap and water
P303+P361+P353	IF ON SKIN: (or hair): Remove/take off all contaminated clothing immediately. Rinse skin with water/shower
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing
P308+P313	If exposed or concerned: Get medical advice/attention
P312	Call a poison centre or doctor if you feel unwell
P321	Specific treatment (see First Aid Measures on the SDS)
P331	DO NOT induce vomiting
P332+P313	If skin irritation occurs: Get medical advice/attention
P337+P313	If eye irritation persists: Get medical Advice/attention
P362	Take off contaminated clothing and wash before reuse
P391	Collect spillage

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed and cool
P405	Store locked up

Disposal:

P502	Dispose of contents/container in accordance with local regulations
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Other Hazards which do not result in classification:

Acute toxicity (Inhalation, vapours) – category 4, Warning H332 Harmful if inhaled.
Serious eye damage/eye irritation – category 2B, Warning H320 Causes eye irritation.
Respiratory/skin sensitization - Unknown Germ cell mutagenicity –Unknown

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Carcinogenicity – Unknown

Hazardous to the aquatic environment (acute) – Category 1, H400 Very toxic to aquatic life.

Hazardous to the aquatic environment (long term) – Category 1, H410 Very toxic to aquatic life with long lasting effects.

4. First aid measures

After inhalation:

If inhaled, remove person immediately from contaminated area to fresh air. Keep at rest. Apply artificial respiration if not breathing. Seek immediate medical attention.

Skin contact:

If skin or hair contact occurs, remove contaminated clothing and flush affected skin/hair with water, followed by washing with soap and water if available. If symptoms develop, seek medical attention.

Eye contact:

If eye contact occurs, hold eyelids apart and flush eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.

After ingestion:

Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention. If vomiting occurs, keep head below hips to prevent aspiration. Monitor for the next 6 hours for delayed symptoms such as fever, shortness of breath, chest congestion or continued coughing or wheezing. If any of these conditions occur, seek immediate medical attention.

Symptoms caused by exposure:

Inhalation:

Harmful by inhalation. Inhalation of mists or vapours may result in irritation to mucous membranes and respiratory tract and result in headaches, dizziness, difficulty in breathing, and possible nausea. Exposure to large concentrations can produce central nervous system depression, which can lead to dizziness, loss of coordination, impaired judgement and if exposure is prolonged potentially unconsciousness. Solvent abuse and noise interaction in the work environment may cause hearing loss.

Skin contact:

Harmful in contact with skin. Symptoms may include burning sensation, redness, and/or blisters.

Eye contact:

Risk of serious damage to eyes. Eye contact may cause stinging, redness, blurring, tearing, severe pain and possible permanent corneal damage. Vapour may be irritating to the eyes and eye tissue. Visual system

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disturbances may be experienced as reduced ability to discriminate between colours.

Ingestion:

Ingestion of any amount of this product may cause nausea, vomiting, and irritation to the gastrointestinal tract. Small amounts of liquid aspirated into the respiratory system during ingestion or vomiting may cause bronchopneumonia or pulmonary oedema.

Aggravated medical condition:

Pre-existing medical conditions of the following organs or organ systems may be aggravated by exposure to this material: Auditory system; Central nervous system (CNS); Respiratory system; Eyes; Skin; Visual system; and kidneys.

5. Fire fighting measures

Suitable extinguishing equipment:

Use carbon dioxide, dry chemical, alcohol resistant foam or standard foam. Do not use water jet except to cool nearby containers. This material likely to float on water causing it to be potentially transported for a considerable distance away from the source.

Specific Hazards arising from the substance:

Highly flammable liquid and vapour. May form flammable vapour/air mixtures. Flameproof equipment is necessary in the area where this chemical is used. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches etc) must be eliminated both in and near the work area. Do NOT smoke. Nearby equipment must be earthed. Electrical requirements for work areas should be assessed according to Australian Standard AS3000. Flashback along the vapour trail may occur over a considerable distance. Runoff to sewer may create fire or explosion hazard.

Under fire conditions this product may emit acrid fumes including carbon monoxide and carbon dioxide.

Special protective equipment and precautions for fire fighters:

Heating can cause expansion or decomposition leading to violent rupture of containers. Keep containers cool with water spray. On burning or decomposing material may emit toxic fumes. Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Use water spray to disperse vapours. This product should be prevented from entering drains and watercourses. Hazchem code 3YE.

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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear appropriate personal protective equipment and clothing to minimise skin/eye exposure and inhalation of vapours. For small spills, wipe up with clean absorbent rags or paper towels. Collect and seal used absorbent in a labelled container for appropriate disposal. For large spills, shut off any sources of ignition and stop any leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. Spilt material likely to be slippery, so avoid accidents by cleaning up immediately. Work up-wind or increase ventilation. Use absorbent (soil, sand or other inert material) and a spark-free shovel.

Do not use gloves made from the following materials: butyl rubber, natural rubber, neoprene rubber, polyethylene, polyvinyl chloride.

Environmental precautions:

If possible contain the spill. Place inert absorbent material (soil, sand, or other inert material) onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container and seal for disposal. Do not dilute material. Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact Environmental Protection Authority, or your local Waste Management Authority.

Dangerous Goods – Initial Emergency Response Guide No: 14.

7. Handling and storage

Precautions for Safe Handling:

Highly flammable liquid. Avoid skin and eye contact. Avoid inhalation of vapour, mist, or aerosols. Wear suitable protective clothing (eg. long sleeves and trousers or long coveralls, and safety shoes), appropriate chemical resistant gloves and eye/face protection (goggles or face shield) when mixing and using this substance. Use only in designated areas with adequate ventilation. Keep containers closed when not in use. Ensure a high level of personal hygiene is maintained when using this product, that is always wash hands after handling, and before eating, drinking, smoking or using the toilet facilities. Do not use near ignition sources or sparks. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge such as during pumping. Do NOT use compressed air for filling, discharging, or handling operations. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur. Do not pressurise, cut, heat or weld containers as they may contain hazardous residues. Prevent the build up of mists or vapours in the work atmosphere. A risk assessment of the local conditions of use will help determine appropriate controls for safe handling, storage, and disposal of this material.

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Conditions for Safe Storage, Including Any Incompatibilities:

Highly flammable liquid for storage and handling purposes. Vapour is heavier than air. Keep container tightly closed and store in a dry, cool, well-ventilated area, out of direct sunlight. Store away from foodstuffs. Avoid sparks, flames and other ignition sources. Store well away from any sources of ignition and incompatible materials described in Section 10. Handle containers with care. Inspect containers regularly for deficiencies such as damage or leaks. Open containers slowly in order to control possible pressure release. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. For information on the design of an appropriate store-room, refer to the Australian Standard AS1940-The storage and handling of flammable and combustible liquids. Reference should also be made to all Local, State and Federal regulations to ensure regulatory compliance. Beware of potential accumulation of vapour/liquid in pits and confined spaces.

8. Exposure controls/personal protection

Exposure control measures:

No exposure value assigned for this specific material by the National Occupational Health and Safety Commission (NOHSC), Australia or the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour. However, the available exposure limits for the ingredients are listed below:

National Occupational Health and Safety Commission (NOHSC) Australian Exposure standards:

Substance	TWA		STEL		Notices
Toluene	50 ppm	191 mg/m ³	150 ppm	574 mg/m ³	Skin
Xylene	80 ppm	350mg/m ³	150 ppm	655 mg/m ³	
Ethyl benzene	100 ppm	434 mg/m ³	125 ppm	543 mg/m ³	

Revised IDLH Toluene 500ppm, xylene 900ppm, ethyl benzene 800ppm.

No other ingredients listed under the revised IDLH guidelines.

New Zealand Occupational Safety and Health Service (OSH) Workplace Exposure Standards:

Substance	TWA		STEL		Notices
Toluene	50 ppm	188 mg/m ³			Skin
Xylene	50 ppm	217 mg/m ³			
Ethyl benzene	100 ppm	434 mg/m ³	125 ppm	534 mg/m ³	

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week. STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

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‘Sk’ or ‘Skin’ Notice: Absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur. ‘Sen’ Notice: Respiratory and/or skin sensitiser.

Biological Monitoring

Substance name: toluene (CAS 108-88-3)

Determinant: hippuric acid in urine

BEI®: 1.6g/g hippuric acid as creatinine in urine

Sampling time: end of shift.

Determinant: toluene in venous blood

BEI®: 0.02mg/l

Sampling time: prior to last shift of workweek.

Determinant: toluene in urine

BEI®: 0.03mg/l

Sampling time: end of shift.

Determinant: o-cresol in urine

BEI®: 0.3mg/g creatinine (with hydrolysis)

Sampling time: end of shift.

Substance name: Xylene

Determinant: Methylhippuric acids in urine

BEI®: 1.5g/g creatinine

Sampling time: end of shift

Source: American Conference of Industrial Hygienists (ACGIH). BEI – Biological Exposure Index. Note. No ingredients are listed as requiring health monitoring in the SWA’s Model Work Health and Safety Regulations, (Revised Jan 2014) and so do not have an allocated Biological Limit Value.

Appropriate engineering controls:

Provide sufficient ventilation to keep local airborne levels below the exposure limits. Where vapours or mists are generated, particularly in enclosed areas, and where natural ventilation is inadequate, an explosion-proof exhaust ventilation system is required. Refer to AS1940- The storage and handling of flammable and combustible liquids and AS/NZS 2430.3.1:2004: Classification of hazardous areas – examples of area classification – General, for further information concerning ventilation requirements.

Individual protection measures:

Eye and face protection: Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual

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circumstances i.e. methods of handling and engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian Standard AS/NZS 1337 – Eye Protectors for Industrial Applications.

Skin protection: Wear gloves of impervious material such as nitrile rubber for intermittent contact. Final choice of appropriate gloves will vary according to individual circumstances ie. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS2161.1- Occupational protective gloves – Selection, use and maintenance.

Wear appropriate clothing (eg. long coveralls) including chemical resistant apron where clothing is likely to be contaminated. It is advisable that a local supplier of personal protective clothing is consulted regarding the choice of material.

Respiratory protection: If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable organic vapour filter should be used. Reference should be made to Australian Standard AS/NZS 1715 – Selection, use and maintenance of Respiratory Protective Devices; and AS/NZS 1716 – Respiratory Protective Devices, in order to make any necessary changes for individual circumstances (eg. half-face filter mask with Type “A” filter material may be suitable).

Thermal hazards: Highly flammable under ambient conditions. Prevent vapour accumulation. May give off irritating or toxic fumes (or gases) in a fire. May ignite due to static electricity in certain circumstances.

9. Physical and Chemical Properties

9.1 General information:

Physical Form:	Liquid
Colour:	Colourless
Odour:	Characteristic pungent solvent odour
Freezing/Melting point:	-95°C
Boiling Point:	110°C (230°F)
Vapour Pressure:	3.5 kPa (20°C)
Relative Density:	0.9
Flash Point:	4°C
pH:	Not available
Flammability Limits:	1.2%-7.1% by vol.
Vapour Density:	3.1°C (air=1)
Viscosity:	50-100 MPa.s
Non-volatile content:	1-10% w/w
Auto ignition temp:	480°C
Evaporation rate:	6.1°C (n-butyl acetate=1)
Solubility:	Insoluble

Note: Based on Toluene
The above information is not intended for use in preparing product specifications

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10. Stability and reactivity

Reactivity:

Stable under normal conditions of storage and handling.

Chemical stability:

This material is thermally stable when stored and used as directed. Store in a cool place to maximise shelf life.

Possibility of hazardous reactions:

Toluene forms explosive reaction with 1,3-dichloro-5,5-dimethyl-2,4-imidazolididione; dinitrogen tetraoxide; concentrated nitric acid, sulfuric acid + nitric acid; AgClO₄; BrF₃; Uranium hexafluoride; and sulfur dichloride. Also forms an explosive mixture with tetranitromethane.

Conditions to avoid:

Avoid elevated temperatures, heat, direct sunlight, open flames or other sources of ignition such as sparks, static discharges. Prevent vapour and static charge accumulation. Product can ignite due to static discharge.

Incompatible materials:

Strong oxidising agents, corrosives.

Hazardous decomposition products:

Toxic fumes, smoke, oxides of carbon and nitrogen, incomplete combustion products

11. Toxicological information

Acute toxicity	Oral or inhalation – Cat.4 Warning LD50 (oral, rat): >2000 mg/kg (*Toluene). Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal LD50 (dermal, rabbit): > 2000 mg/kg* LC50 (4 hours, vapour inhalation, rat): >20mg/l*. Classified as harmful by the European Commission. High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Skin corrosion/ irritation	Causes skin irritation. *Category 2, Warning.
Serious eye damage/irritation	*Category 2B. Warning. Causes eye irritation.
Respiratory or skin sensitisation	Inhalation of vapours or mists may cause irritation to the respiratory system. Sensitisation of respiratory system or skin unknown.
Germ cell mutagenicity	*Unknown. No data available
Carcinogenicity	*Classification not possible

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Reproductive toxicity	*Category 1A, Danger. May damage fertility or the unborn child.
Specific Target Organ Toxicity (STOT)- single exposure	*Category 1 (central nervous system) Danger. Causes damage to organs. Category 3 (respiratory tract irritation) Warning. May cause respiratory irritation or may cause drowsiness or dizziness.
Specific Target Organ Toxicity (STOT)- repeated exposure	*Category 1(respiratory system, nervous system, kidney) Danger. Causes damage to organs through prolonged or repeated exposure. Solvent abuse and noise interaction in the work environment may cause hearing loss.
Aspiration hazard	*Category 1, Danger. May be fatal if swallowed and enters airways.

***Based on toluene.**

Note. Exposure to very high concentrations of similar materials has been associated with irregular heart rhythms and cardiac arrest. Abuse of product vapours should be avoided.

12. Effects on the environment

Avoid contaminating waterways.

Ecotoxicity:

Hazardous to the aquatic environment (acute) Category 1. Toxic to aquatic life. Based on 96 hours LC50 (fish) >1mg/L, <= 10mg/L (*toluene).

LC50 (aquatic crustacean) >10mg/L, <= 100mg/L*

LL50 (algae/aquatic plants) >100mg/L*. Note, other ingredients known to be very toxic to aquatic life.

Note. * based on toluene.

Persistence and degradability:

Hazardous to the aquatic environment (long term). This product has unknown compliance with international biodegradability criteria. Toluene is readily biodegradable over 10-day window.

Bio-accumulative potential:

No data on formulated product. Toluene does not bio accumulate significantly.

Mobility in soil:

If product enters soil, it will be highly mobile and may contaminate groundwater.

Other adverse effects:

Unknown.

13. Disposal considerations

Disposal of spilled or waste material must be carried out in accordance with the relevant local and national government regulations. Advise flammable nature of contents. Empty containers may contain flammable

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residues and vapour that may be harmful or explosive. Do not puncture, cut or weld empty containers. Ensure that empty packaging is allowed to vent safely away from sparks or other potential ignition sources. Do not reuse empty containers without appropriate hazardous waste cleaning or reconditioning.

Special Conditions for Disposal:

This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product must be disposed as a hazardous chemical in accordance with the local regulatory authority.

14. Transport information

1. UN Number	1263
2. UN Proper Shipping Name	Paint or Paint related material
3. Australian Dangerous Goods Class	3
4. Australian Dangerous Goods Packing Group	II
5. Hazchem code	3YE

Special Precautions:

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods (IMDG code) for transport by sea.

IMDG Marine Pollutant- status unknown

Refer to Section 7 Handling and Storage for special conditions and precautions.

15. Regulatory information

Australia:

Classified as a hazardous chemical according to the GHS criteria of Safe Work Australia. Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). **Classified as Dangerous Goods** according to the Australian Code for the Transport of Dangerous Goods by Road and Rail, and the New Zealand standard NZS5433: Transport of Dangerous Goods on Land.

Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB76): 14

Poisons Schedule Classified according to the SUSMP as: S6.

New Zealand:

Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum degrees of Hazard) Regulations 2001.

All components of this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or exempted. Group standard:

Additives, Process Chemicals and Raw Materials (Flammable) Group Standard 2006.

HSNO Approval Number

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HSR002495

Hazard Category
Harmful, Flammable.

Australia (AICS)

All components of this product are listed on the Australian Inventory of Chemical Substances (AICS).

The toluene/xylene component is not subject to the following international agreements:

Montreal Protocol (ozone depleting substances)

The Stockholm Convention (Persistent Organic Pollutants)

The Rotterdam Convention (Prior Informed Consent).

Toluene/xylene is subject to the following international agreements:

Basel Convention (Hazardous waste) – organic solvents excluding halogenated solvents.

International Convention for the Prevention of Pollution from Ships (Marpol), Annex II- Noxious Liquid Substances carried in Bulk.

16. Other information

Acronyms

AICS: Australian Inventory of Chemical Substances

CAS Number: Chemical Abstracts Service Number

Hazchem Code: Emergency action code that provides information to emergency services.

UN Number: United Nations Number

Important Note:

This data completes the technical datasheet for use, but does not replace it. The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. Data quoted is typical for the product, but does not constitute a specification, and is based on the most accurate information available to Fixtech P/L at the time of writing. All information contained herein is given in good faith, but is subject to change without notice.

The data does not signify any warranty with regards to the products properties