FRASER BROWN & STRATMORE LTD.
Products for Concrete and Construction
185 Rata Street, P O Box 35 136, Naenae, Lower Hutt, New Zealand.
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MATERIAL SAFETY DATA SHEET

IDENTIFICATION

Product: **RETARDÉ M**

Recommended Uses: Paint-on formwork retarder for concrete.

Company Details (NZ Manufacturer)

Company: Fraser Brown & Stratmore Limited

Address: 185 Rata Street, Naenae, Lower Hutt

Contact Details: Ph: 0800 835 699, Fax: 0800 342 737

Emergency Contact: Poisons & Hazardous Chemicals: 0800 POISON / 0800 764766

HAZARDS IDENTIFICATION

The primary exposure routes for this product are inhalation of vapours and prolonged skin contact.

Hazard information:

Flammable liquid and vapour

Toxic to aquatic life.

Harmful. May cause lung damage if swallowed. May be harmful if swallowed.

Causes eye irritation. Repeated exposure may cause skin irritation, dryness or cracking.

Suspected of damaging fertility or the unborn child (contains Xylene)

May be harmful in contact with skin. Harmful if inhaled. Vapours may cause drowsiness and dizziness.

COMPOSITION

Name	CAS Number	Content
Kerosene	Various	~6%
1,2,4-Trimethylbenzene	95-63-6	<2%
Cumene	98-82-8	<1%
Mesitylene	108-67-8	<1%
Xylene, mixture of isomers	1330-20-7	17%
Non-hazardous ingredients	—	to 100%

FIRST AID MEASURES

FIRST AID:

INHALATION: Move victim to fresh air if necessary. Begin artificial respiration if breathing has stopped. Keep at rest and call for medical attention.

SWALLOWED: DO NOT induce vomiting. Give a glass of water. Begin artificial respiration if the victim is not breathing – use mouth to nose and obtain medical attention immediately. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

EYE CONTACT: Immediately flush eye thoroughly with plenty of water for at least 15 minutes or until irritation subsides. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, seek medical attention.

SKIN CONTACT: Remove contaminated clothing. Wash off with plenty of soap and water. If persistent irritation occurs, seek medical attention or contact National Poisons Centre on 0800 746 766. Wash contaminated clothing before reuse.

Treat according to symptoms. Gastric lavage may be indicated if ingested. Do not wait for symptoms to develop. Overexposure can cause central nervous system depression. Dermatitis may result from prolonged or repeated exposure.

FIRE FIGHTING MEASURES

FLASH POINT 24 - 27 degrees C (for Xylene)

UNUSUAL OR EXPLOSIVE HAZARDS: **Flammable/combustible liquid & vapour**. Product is flammable/combustible and will burn when exposed to heat, spark or flame. Use self-contained breathing apparatus and protective clothing. Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity. Fight fire from a safe distance. When mixed with air and exposed to a source of ignition, vapours may burn or explode. Flammable vapours are heavier than air and may travel long distances before igniting/flashing back to the vapour source. Liquid is immiscible with water and will float on water.

SPECIAL FIREFIGHTING PROCEDURES AND UNUSUAL FIRE AND EXPLOSION HAZARDS

Shut off product that may "fuel" a fire if safe to do so. Prevent extinguishing media from escaping into drains and waterways.

EXTINGUISHING MEDIA

Water spray or fog, dry chemical or foam.

HAZARDOUS COMBUSTION PRODUCTS

Carbon dioxide. Carbon monoxide may be evolved if incomplete combustion occurs.

ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN WHEN MATERIAL IS SPILLED OR RELEASED

In case of accidental spill, protective clothing such as overalls should be worn. Wear Neoprene rubber gloves, impervious to chemicals, preferably long, for prolonged contact. Wear rubber boots.

Prevent liquid from escaping to drains and waterways. Contain leaking packaging in a containment drum or area. Prevent vapours from building up in a confined area.

Eliminate all sources of ignition. Shut off source of the spill if safe to do so. Depending on amount spilt, warn occupants of downwind areas of possible fire and explosion hazard. Keep public away from the area. Advise authorities if the liquid has entered a watercourse or sewer or has contaminated soil or vegetation.

If the spill is into water, and of a large quantity, notify the relevant authority.

If on land, contain the spilled liquid with sand or earth. If a large quantity has been spilled, recover by pumping (use a hand pump) or use a suitable absorbent material. If into water, remove the product by skimming or with a suitable absorbent material.

Consultant an expert on disposal of recovered material and ensure conformity to local disposal regulations.

ENVIRONMENTAL INFORMATION

Prevent contamination of soil and water. Product will rapidly degrade in air. Product solvents are expected to biodegrade rapidly, remaining solids will dry once solvents have escaped. If material is allowed to dry on dense substrates, a paint-like film will form. This film should be disposed of as waste in accordance with local regulations.

HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Product is flammable. Do not open or store near open flame, sources of heat or ignition. No smoking. Keep container closed when not in use. Open slowly to control possible pressure increase. Use grounding leads to avoid discharge. Avoid contact with skin and eyes. Use with adequate ventilation; avoid breathing of vapours, especially if product is sprayed. Avoid fine spray mists. Wash thoroughly after handling.

An approved handler is not required for this product.

CONDITIONS FOR SAFE STORAGE

Keep out of reach of children.

Store in a cool location (15-25 degrees C) away from incompatible materials, sources of ignition and direct sunlight. Keep containers tightly closed when not being used. Store locked up.

INCOMPATIBLE MATERIALS

Natural rubber, Butyl Rubber, EPDM, Polystyrene.

EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE STANDARDS

TWA 434 mg/m^3 (100 ppm) highest allowable exposure concentration in an 8-hour day for a 5-day working week (data based on Xylene - mixed isomers).

STEL 651 mg/m^3 (150ppm) for all isomers of Xylene.

ENGINEERING CONTROLS

Avoid breathing vapours. Local exhaust is preferred to keep exposure limits low. Mechanical area wide ventilation is acceptable. If this product is to be used in an area of poor ventilation, a full or half facemask, with a filter suitable to provide protection should be worn. A type "A" filter material is considered suitable. If applied indoors, the area must be well ventilated at all times during and after application and/or a suitable facemask described earlier used.

PROTECTIVE GLOVES & CLOTHING

Protective clothing such as overalls should be worn. Wear gloves, impervious to chemicals, preferably long, for prolonged contact. Wear rubber boots. Remove and launder clothing soaked or soiled with this material before re-use.

EYE PROTECTION

Wear safety glasses.

OTHER PROTECTION

Avoid skin contact.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOUR	Medium viscosity, light yellow liquid with solvent odour.
VAPOR DENSITY (Air = 1)	3.7
BOILING POINT IN DEGS C	135 – 170 degrees C
FLASH POINT	24 – 27 degrees C (based on Xylene)
SPECIFIC GRAVITY	1.125
AUTOIGNITION TEMPERATURE	250 degrees C (based on Xylene)
EXPLOSIVE LIMITS IN AIR	0.6 – 0.7 (based on Solvent Naphtha)
PERCENT VOLATILES	<30%
SOLUBILITY WITH WATER	Slight

STABILITY AND REACTIVITY

STABILITY

Stable.

CONDITIONS TO AVOID

Open flames, sources of heat and ignition. No smoking. Take precautionary measures against static discharges. Earth all equipment. Do not use compressed air for discharging or handling. Avoid contact with skin, eyes and clothing. Do not breathe vapour.

HAZARDOUS COMBUSTION PRODUCTS

No decomposition products except on burning – see "Fire Fighting Measures"

HAZARDOUS REACTIONS

Stable under normal use conditions. Reacts with strong oxidising agents, halogens, molten sulphur.

TOXICOLOGICAL INFORMATION

INGESTION	Ingestion will result in headaches, nausea, dizziness and tracheal burning. Small amounts of liquid aspirated into lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary oedema. Toxicity (oral) >2000 mg/kg (rat) (based on Xylene)
INHALATION	Vapour concentrations above recommended exposure levels may be irritating to the eyes and the respiratory tract and may cause headaches and dizziness. High concentrations could be anaesthetic and have other central nervous system effects. Use adequate ventilation and/or protective equipment. Keep below Worksafe Exposure Standard.
CONTACT	Irritating when in contact with the skin. Moderate systemic toxicity through the skin based on presence of Xylene. May cause skin problems following repeated or prolonged exposure. May be irritating to the eyes/cause discomfort. Prolonged or repeated contact may cause defatting of the skin that can lead to dermatitis. Wear gloves and overalls and eye protection when applying.
CARCINOGENICITY	Not a carcinogen.
MUTAGENICITY	Not a mutagenic hazard.

CHRONIC HEALTH EFFECTS

Repeated or prolonged inhalation may aggravate existing respiratory disorders and cause liver or kidney damage. Xylene suspected of damaging fertility or the unborn child. Wear appropriate protective gear and use in a well-ventilated area.

ECOLOGICAL INFORMATION

Fish toxicity	Toxic: 1 < LC/EC/IC50 <= 10 mg/l
Algae toxicity	Toxic: 1 < LC/EC/IC50 <= 10 mg/l

Toxic to aquatic life. Above data based on Xylene.

OECD Biological degradation	Solvents are readily biodegradable.
Sewerage treatment	Some solvents expected to be removed in wastewater treatment

DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Recover and recycle if possible. Recycle container if possible through a suitably qualified or licensed contractor. Do not reuse packaging for any other purpose. Note that any residues left in the container may constitute an explosion hazard.

Waste material can be disposed of by incineration (preferably at high temperature) by an approved agent according to local regulations. Waste material may also be applied to a suitable substrate and allowed to dry. Dispose of unwanted coating in accordance with local rules. Be aware that local requirements may differ widely depending on location and may in many cases be different from national rules. Do not release to the environment.

TRANSPORT INFORMATION

UN NUMBER	1866
HAZARD CLASS:	3
NZ DANGEROUS GOODS CLASS & SUBSIDIARY RISK	3.1C
PACKAGING GROUP	II
HAZCHEM	3[Y]E
PROPER SHIPPING NAME	RESIN SOLUTION, FLAMMABLE

Dangerous Goods Segregation: Refer to current DG transport code for details. This product is DG class 3, packing group II

REGULATORY INFORMATION

HSNO Approval number:	HSR002662
Group Standard:	Surface Coatings and Colourants (Flammable) Group Standard 2006
HSNO Substance classification	3.1C (flammable – medium hazard), 6.1D (acutely toxic by skin contact) 6.1D (acutely toxic by inhalation), 6.1E (acutely toxic - oral), 6.3A (irritating to skin), 6.4A (irritating to eye), 6.8B (Reproductive toxin), 9.1D (ecotoxic in the aquatic environment)
HSNO Controls	The following site and storage conditions trigger quantities are applicable for this product:

Requirement	Trigger Quantity (quantities greater than the amount listed trigger the requirement)
Location and transit depot test certification	500 L (closed containers greater than 5 L) 1,500 L (closed containers up to and including 5 L) 250 L (open containers)
Hazardous atmosphere zone	100 L (closed containers) 25 L (decanting) 5 L (open occasionally) 1 L (open containers in continuous use)
Fire extinguishers	500 L
Response plans and secondary containment	1,000 L
Signage	1000 L

OTHER INFORMATION

Date of Issue:	July 2011
Supercedes Date:	April 2009

Legend

Warning

Flammable liquid & vapour

Warning

IMPORTANT NOTICE:

The above information is intended for the assistance of end users with respect to health, safety and environmental requirements. Each user should read the MSDS and consider the data in context with how the product will be used/applied. It is based on data and information believed to be reliable but because the conditions under which, and the materials with which our products are used, are beyond our control this information must not be regarded as amounting to legal warranty or as involving any liability on us. No guarantee is expressed or implied regarding the accuracy of the data.