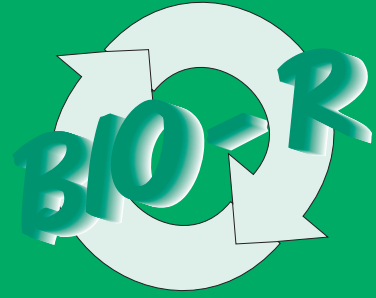


# RELEASE AGENT FOR CONCRETE FORMWORK

# BIO-R



## TECHNICAL DATA

### 1.0 DESCRIPTION

BIO-R is a diesel-free, biodegradable concrete release agent which reacts with the alkaline products of setting cement to form insoluble soaps. These soaps prevent any bond developing between the concrete and formwork and ensure a clean, even, blemish free surface with minimum voids.

BIO-R has been formulated to provide users with a diesel-free, non-water based release agent providing the same release properties as other premium release agents such as DISCRETE.

BIO-R does not affect the natural bonding characteristics of paint, plaster, and other cementitious coatings. Prior to painting, wash the surface with water containing a little detergent, or brush down thoroughly.

### 2.0 ADVANTAGES & BENEFITS

#### User and Environment

BIO-R is simple to use, biodegradable, and free of sulphur and aromatics.

BIO-R is non-toxic when proper handling procedures and precautions are followed.

BIO-R contains no petroleum and is therefore safer to handle and use on a daily basis than other release agents.

BIO-R is free from Diesel meaning less complaints regarding clothing contamination and reduced odour when sprayed.

BIO-R aquatic toxicity is essentially insignificant meaning less damage to the environment if BIO-R is spilt or accidentally released into soil or water. BIO-R will degrade by about 85% in water after 28 days.

BIO-R flash point is over 100°C and is therefore not restricted for transport or storage.

#### Concrete Release

Helps produce a clean release with a minimum of voids.

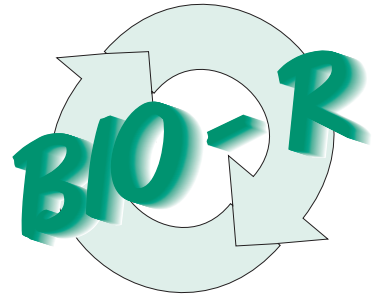
Maintains the surface of steel moulds.

Increases the life of wooden forms and prevents rust on steel forms.

Will not stain or discolour concrete when correctly applied (see precautions).

Ready to use as supplied.

Is not water based, and will therefore not wash off forms when exposed to showers or light rain.



# BIO-R

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## TECHNICAL DATA Continued

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### 3.0 PHYSICAL PROPERTIES

3.1 Colour	Transparent golden
3.2 Specific Gravity	approximately 0.85
3.3 Flash Point	> 100°C (Closed Cup Flash Point (ASTM D93))
3.4 Viscosity	Very low (Sprayable)
3.5 Toxicity	Non toxic when used as directed.
3.6 D.G. Classification	Not Regulated
3.7 Shelf Life	Unlimited in original sealed containers
3.8 Coverage	Timber Formwork.....up to 19m <sup>2</sup> /litre Metal Formwork.....up to 40m <sup>2</sup> /litre

### 4.0 USES

BIO-R is effective on all types of moulds and formwork (except polystyrene, latex and some plastics - check before use as BIO-R may soften or melt some plastics/rubber). BIO-R may be sprayed daily onto mixers, hoist buckets, wheelbarrows and all other equipment and machinery on which concrete may adhere to keep the concrete soft and easily removed.

### 5.0 APPLICATION

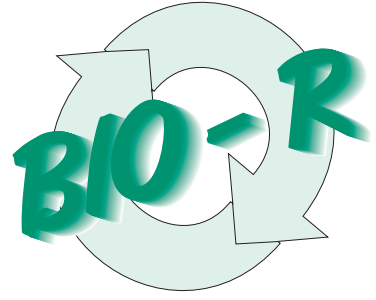
- 5.1 Preferably by spray which will permit the rates of coverage to be obtained. Brush application may also be employed but the material should be well brushed out to obtain the most economic and effective results. Do not atomise the product - apply using low pressure airless spray in the form of fine droplets. Wear personal protective gear including eye protection (if spraying) and overalls. Avoid skin contact (wear gloves and barrier cream on exposed skin). Do not breathe vapours/mists when spraying - use in a well ventilated area.
- 5.2 Being a chemical release agent, BIO-R does not rely for its effectiveness on quantity, and is still active although the formwork may appear dry. Do not over apply to new and porous wood.
- 5.3 Formwork is best treated before being erected, thus avoiding contamination of reinforcement. Should reinforcement become coated with BIO-R by accident, it should be painted with cement slurry to react with the BIO-R and this slurry should be brushed off immediately before the concrete is poured.
- 5.4 BIO-R should be applied to the formwork prior to each use, but once applied, can be exposed to normal weather conditions for up to two weeks in the case of timber forms and up to three weeks in the case of steel forms. On exposure for longer periods than these, or if subjected to rain, dirt or dust, a further application of BIO-R should be made. Check formwork before pouring concrete.



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# BIO-R

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## TECHNICAL DATA Continued

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### 6.0 PACKAGING

4, 20 and 210 litres.

### 7.0 SAFETY & PRECAUTIONS

Read labels before use.

BIO-R is not recommended for tilt-up or sandwich type release. Refer to the DISCRETE data sheet for these types of release.

For non-standard concrete mixes, including those with special admixtures, pigments and other additives, test for release properties and final appearance.

Marks (including polishing or cleaning marks on steel forms, dents, etc.), contamination, etc. present on the form may show on the concrete surface once the concrete is released. Ensure the formwork is clean and free from contamination and surface defects before use and between uses.

DO NOT over apply. Wipe up any puddles or excess material.

DO NOT use on plastic or similar forms without first testing for compatibility as BIO-R may cause softening or damage to these types.

Refer to Material Safety Data Sheet for handling and first aid information.



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