

# BIO BLOCK & BIO BLOCK JR. #342301/#342300

## Solid, Slow-Dissolving Bacterial Block



### Features:

- Lasts up to 30 days
- Easy to use - no measuring, no waste
- Suitable for all grease trap sizes
- Eliminates up to 96% of grease trap odors
- Absorbs phosphates and reduces hydrogen sulfide
- Reduces organic solids and sludge buildup
- Improves settling and percolation
- Lowers BOD, TSS, COD & FOG
- Meets the "Purchase of Sustainable Cleaning Products and Materials" criteria under the LEED point management system
- Available as BIO BLOCK (342301) & BIO BLOCK JR. 3 OZ. (342300)



### Description:

BIO BLOCK and BIO BLOCK JR are time-released, solid bacteria blocks that sit on the bottom of grease traps and lift stations. As the block dissolves, the biologicals circulate, digesting grease, feed, fat and sludge. This will make an immediate difference in grease buildup and eliminate odors up to 96%. While the block goes to work in the grease trap, waste becomes more fluid, allowing bacteria to flow more freely throughout the entire system, consuming more waste as it travels.

### Applications:

- Grease Traps
- Wet Wells
- Settling Tanks
- Interceptors
- Ponds & Lagoons
- Holding Tanks
- Lift Stations
- Digesters
- Basins

### Directions:

#### Grease Traps:

1. Determine gallon capacity of grease trap.  
 $\text{Width} \times \text{Depth} \times \text{Height} = \text{Cubic Feet}$   
 $\text{Cubic Feet} \times 7.5 = \text{Gallon capacity}$
2. Normal dosage as below. **For initial application double the dose** to "shock" the system and increase the biofilm to combat the grease immediately.

#### Usage Chart:

Trap Size	Dosage	Approximate Longevity
5-40 gls	1 Bio Block JR	25-30 days*
40-80 gls	2 Bio Block JR	25-30 days*
80-500 gls	1 Bio Block	25-30 days*

*\*Results will vary upon types of food prepared (vegetables and large chunks of meat are harder to digest), temperature, amount of water flow and the trap water pH.*

3. Make sure you always begin with a recently cleaned (or pumped) trap.
4. Place blocks away from inlet, towards the middle. Be sure that the blocks are submerged in the water and are *not* resting in grease. The blocks need water to dissolve. If using more than one block, place in a scattered pattern.
5. For most effective trap, water temperature should be below 150°F. The hotter the water, the quicker the dissolution and the more harm to the biological.

6. After the initial application, do a followup in 2 weeks. This will age the success of the initial application and determine what works best for the specific trap.

At the 2 week checkpoint, look for the following:

- Remaining grease is soft, broken up
  - Odor should be greatly reduced or eliminated
  - Brown foam is present (This is the grease being digested into water and CO<sub>2</sub>)
  - Free flowing water that will appear clearer
  - Check the blocks. If half dissolved, you have correctly dosed the trap to last approximately 1 month. If fully dissolved, the trap to last approximately 1 month. If fully dissolved, dose was too small.
7. Check back in 2 more weeks to make sure the blocks are practically gone and then adjust the recommended dosage accordingly.

#### Lift Stations and Other Areas:

Suspend the block into the treatment area allowing the block to be placed just away from the higher flow areas. A rope may be needed to keep block in place. The block will dissolve as the wastewater washes over it. Higher flows will result in faster degradation of the block.

# BIO BLOCK & BIO BLOCK JR CONTINUED:

## Product Characteristics:

Color:	Green
Odor:	None
Boiling Point:	Not applicable
Melting Point:	Estimated 60°C
Flash Point:	Not applicable
Vapor Pressure:	Not determined/applicable
Solubility (water):	Insoluble
Relative Density:	Not determined
Flammability(solid/gas):	Not determined/applicable
pH Value:	Not determined/applicable
RVOC:	<3%
Storage:	Keep in cool, dry conditions in original containers at no more than 30°C
<b>Transportation Information:</b>	
Proper Shipping Name:	Not available
Hazard Class:	Not available
Identification Number:	Not available

## DOT Placard:

Not available.

## Pictograms:



## Signal Word:

Warning

## Personal Protective Equipment Required:

Not required.



**Bio Block**

## **Common Questions & Answers**

***Q: I use a liquid (or a liquid drip system). How is your product different or better?***

**A:** Bio Block is a solid block that works 24 hours a day 7 days a week. Liquids, or a system that dispenses a liquid enzyme product, do not stay in the trap for long. (This is called “residence time.”) A liquid gets washed out of the trap before it has a chance to be effective. In addition, since the bacteria do not stay in the trap for long, they do not have a chance to build up what is called a “bio film” or protective layer of bacteria, which help counteract any new oils or grease deposits entering the trap. The goal of an effective Grease Trap Maintenance Program is to build up such a film and allow the bacteria sufficient residence time in the trap. Once this is achieved the bacteria will begin to work “downstream” (that is to say in the pipes leading from the trap to the main city water pipes) consuming the grease and fats as they go. Liquids aren’t as effective because they don’t have the ability to multiply like a block. This is extremely important as this is what the city and EPA are watching, if those pipes are clogged due to grease from your restaurant, you can be held financially responsible for the repair or replacement of the pipes!

***Q: How does the cost compare to liquids?***

**A:** There truly is no comparison. Liquids are an inexact application. If your user does not know exactly how much to put in, they may believe that more is better. Our Bio Block is pre-measured. No guessing. No waste. No doubt it’s working!

***Q: How does it work? What happens to the grease?***

**A:** The bacteria multiply and digest the grease They break it down into carbon dioxide (CO<sub>2</sub>) and water (H<sub>2</sub>O). It is environmentally safe, non-toxic and all natural. Good for the environment and good for your bottom-line!

The bacteria spores in the Bio Blocks are similar to seeds. They will remain dormant until they are introduced to water and organic matters. Unlike seeds, spores can return to a dormant state if the water and organic matter run out. This is unlikely to happen in a grease trap.

Bacteria then release specific enzymes to breakdown the organic material in the grease trap. Then the bacteria metabolize the enzymatic byproduct into CO<sub>2</sub> and H<sub>2</sub>O. This process is similar to how the human stomach breaks down food into the useful components our body can use for energy. It is very important to note that Bio Blocks do NOT emulsify the grease as enzyme-only products do. Our bacteria target the organic material in a natural manner and eliminate the grease by converting it to CO<sub>2</sub> and H<sub>2</sub>O.

***Q: I pour other cleaning chemicals down the drain-will that affect the bacteria?***

**A:** Yes and no. Harsh chemicals and other toxins that are poured down the drain will kill most of the bacteria found in the water. The bacteria making up the “bio film” on the walls of the trap will remain intact and unharmed. In addition, since the block is in solid form, the block will be unharmed by such chemicals. Once the water clears the hazardous chemicals, additional healthy bacteria will be released and continue the work. This isn’t the case with a liquid product. All bacteria are killed until the next application. It is recommended to try and avoid this practice if possible.

***Q: Do I really need something for my trap?***

**A :** Yes! Bacteria have proven to be the most effective, least expensive way of handling grease trap issues. With federal and local governments monitoring and fining noncompliant establishments it is better to be safe than sorry. Having a Grease Trap Maintenance Program in place and making Bio Block part of that solution helps to avoid a possible run in with the EPA and face fines and possible closure.

***Q: What is the optimum operating pH for the Bio Block?***

**A:** 4-7

***Q: What is the optimum temperature range for Bio Block?***

**A:** 80°F to 130°F. Although the block will perform in temperatures ranging from 35°F - 150°F, the optimum temperature range is 75°F - 130°F.

***Q: Will Bio Block help me reduce my grease trap / plumbing maintenance costs?***

**A :** Yes! What many users have found is that they have reduced their emergency plumbing calls as well as their general maintenance expenses. Bio Block will not eliminate the need for pumping, but it will reduce the volume of grease that is pumped out and it will reduce the frequency of pumping. Typically, pumpings can be reduced 2-3 times.

***Why do customers need Bio Block?***

***Infrastructure Overload***

***Larger cities & urban sprawl***

More people = More Grease = Potential Municipal Problems

***Sewer systems are strained***

As cities continue to expand, the sewage infrastructure struggles to keep up with expansion. Grease clogging the municipal systems is not acceptable.

***Clean water is becoming a valuable commodity***

Did you ever expect to pay \$2 for a bottle of water? Municipal systems struggle to keep up with water demands across the country. Grease in their system only magnifies the problem.

***Busy lifestyles mean people eat out more often***

As the economy grows and lifestyles allow for more eating out, the supply of grease continues to grow exponentially.

***Grease IS hazardous waste***

In certain areas the EPA has declared grease trap waste a LEVEL 4 hazardous waste. Fines exceeding \$20,000 and jail time is possible.

***Bio Block solves a problem even if the customer is not 100% aware of any financial or legal exposure.***

## ***Product Summary***

Bio Block's specially selected bacteria spores will vegetate (go from a dormant to active) and degrade or digest the available organic waste when introduced into a water medium containing organic waste. These microorganisms are capable of exponential growth - they can double in number every twenty to thirty minutes. The byproducts of this bacteria activity are H<sub>2</sub>O and CO<sub>2</sub>.

By adding Bio Block's strains of bacteria to organic waste, the following beneficial results can be achieved:

- **Reduction of BOD (Biological Oxygen Demand) up to 80%**
- **Reduction of COD (Chemical Oxygen Demand)**
- **Reduction of SS (Suspended Solids)**
- **Foul odors and noxious gases are reduced up to 96%, by eliminating their source (organic waste)**
- **Save on labor & dumping fees**

Bio Block's bacterial concentrates are not genetically engineered or altered; they are naturally occurring-found in soil and water. They were carefully selected because they are:

- **EPA & Health Department Compliant**
- **Environmentally friendly**
- **Safe and Stable**
- **Non-Pathogenic**
- **Non-Toxic**
- **Facultative reproduction every 30 minutes (Capable of growth with or without oxygen)**

## Liquid vs. Bio Block

<i>Liquids</i>	<i>Bio Block</i>
Hand poured or metered	Pre-measured
Pumps and fill lines to maintain	No pumps required
Stays on top layer of fluid/grease in the trap, washing out when water passes through the trap	Sits on the bottom and dissolves slowly while building a biological film on the inside walls of the trap and pipes
Usually made with “live” enzymes that have a shelf life	Spores that have an unlimited shelf life
Many liquid “de-greasers” liquefy the trap to move the grease downstream where it resolidifies	Digests grease and food in trap turning it into carbon dioxide and water
Bleaches/sanitizers can wipe out entire dose of liquids. There is no more bacteria working until another dose is administrated	More resistant to bleaches / sanitizers due to residence time in trap. Works 24 hours a day
Lower biological counts	Consistently higher biological counts than liquids
	Reduces grease in effluent
	Keeps pipes free-flowing to the main sewer
	Reduces plumbing expenses

### *Liquids*

Are no thicker than water. People pay hundreds to thousands of dollars every year on degreasers that are poured or metered down the drains or into the traps. The de-greasers, being just like water, flow right through the trap. There is no substance to make it remain in the trap. Then sanitizers, bleaches and other chemicals enter the drain lines and trap, attacking the biological workings. These are killed off and there are no more biologicals workings to go after the grease until more is poured in, usually the following day.

### *Bio Blocks*

The solid solution. These blocks reside in the trap - they are heavy and sit on the bottom. As they slowly dissolve, the biologicals move slowly from the bottom of the trap to the top, digesting the grease and food. By doing this the strong odors dissipate and the trap becomes more fluid. Blocks are better - By residing in the trap, the blocks are able to build up what is called a bio-film inside the trap and on the inside trap walls. This is where the biologicals work on digesting the grease and food in the trap and work themselves to the sidewalls. So when chemicals and bleaches are washed down the drain, it may kill off some of our biologicals working in the middle of the trap, but would not totally wipe out this bio film. Also, the blocks are in the trap and ready to release more grease-eating agents. Many liquids are emulsifiers - which means they liquefy the grease in the trap and move it downstream where it re-solidifies. This is why many areas are banning the use of “degreasers”. They merely move the grease directly to the waterways.

## General Testing and Application Procedures for Bio Block

1. Determine trap size.

Width x Height x Depth = Cubic Feet

Cubic Feet x 7.5 = Gallon Capacity

2. Normal dosage as specified below. For the initial application, double the dose. This will “shock” the system and increase the biofilm to combat the grease immediately.

Trap Size	Recommended Dosage	Approximate Life
5 - 40 gallons	one SMALL block	25 - 30 days*
40 - 80 gallons	two SMALL blocks	25 - 30 days*
80 - 500 gallons	one MEDIUM block	25 - 30 days*
500 - 1000 gallons**	one LARGE block	25 - 30 days*

\* Results will vary upon types of food prepared (vegetables and large chunks of meat are harder to digest), temperature, amount of water flow and the trap water pH.

\*\* For traps larger than 1000 gallons, one LARGE block per 1000 gallons is recommended.

3. Check on cleaning (pumper) schedule of the restaurant/kitchen. Make sure you always begin with a recently cleaned (or pumped) trap.

4. Place blocks away from the inlet, towards the middle. Be sure that the blocks are submerged in the water and are *not* resting in grease. The blocks need water to dissolve. If using more than one block, place the blocks in a scattered pattern.

5. For the most effective trap, the water temperature should be below 150°F. This will only be an issue with indoor or under-the-sink traps. The hotter the water, the quicker the dissolution and the more harm to the biologicals.

6. After the initial application, do a follow up in two (2) weeks. Since there are a variety of traps and a variety of applications, it is not an exact science. The purpose of the two (2) week follow up is to gauge the success of the initial application and to determine what works best for the specific trap.

At the two-(2) week checkpoint, you will want to look for the following:

- Remaining grease is soft, broken up.
- Odor should be greatly reduced or eliminated.
- A frothy brown foam is present. (This is the grease being digested into water and CO<sub>2</sub>)
- Free flowing water that will appear clearer.
- Check the blocks. If they are 1/2 dissolved, then you have correctly dosed the trap to last approximately 1 month. If they are gone, you have underdosed. If they have hardly dissolved, there is a problem and you should contact Pro Chem.

7. Check back in two (2) more weeks. Make sure the blocks are practically gone, and then adjust the recommended dosage accordingly.

# SAFETY DATA SHEET

## 1. Product and Company Identification

<b>PRODUCT NUMBER:</b>	3423	<b>COMPANY PHONE:</b>	1-800-241-8180
<b>PRODUCT NAME:</b>	BIO BLOCK	<b>EMERGENCY TELEPHONE:</b>	1-800-535-5053
<b>PRODUCT DESCRIPTION:</b>	Solid Slow-Dissolving Bacterial Block	<b>INFOTRAC:</b>	1-800-535-5053
<b>COMPANY INFORMATION:</b>	<b>PRO CHEM, INC.</b> 1475 Bluegrass Lakes Parkway Alpharetta, GA 30004		

## 2. Hazards Identification

<b>GHS CLASSIFICATION:</b> Contains small amounts of chemicals that are hazardous to health and the environment but in quantities too small to constitute any practical risks to health or the environment. Acute Toxicity, Oral: Category 4 Skin Sensitization: Category 1	<b>SIGNAL WORD:</b> <b>WARNING</b>	<b>SYMBOL:</b>	
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### HAZARD STATEMENTS:

H302: Harmful if swallowed.  
H317: May cause allergic skin reaction.

### PRECAUTIONARY STATEMENTS:

**Prevention:** P102: Keep out of reach of children.  
P264: Wash hands thoroughly after handling.  
P280: Wear suitable gloves.  
**Response:** Skin Sensitization 1  
P301+310: If swallowed, call physician.  
P302+P352: If on skin, wash with plenty of water.  
P332+P313: If rash occurs, seek medical attention.  
**Disposal:** P501: Dispose of contents to an approved waste disposal plant.

## 3. Composition / Information on Ingredients

### CHEMICAL IDENTIFICATION:

BIO BLOCK is designed to reduce grease.

### FORM/SHAPE:

Block weighs approximately 80-90 g or 220-230 g.

### CAS NUMBER:

Not applicable since the product is a preparation.

### EINECS/ELINCS #:

Not applicable since the product is a preparation.  
The product is a complex mixture of substances of which the following have been classified as presenting a health or environmental hazard or as having an occupational exposure limit within the meaning of the Directive 67/548/EEC or 1999/45/EC

Level 9%	CAS NR	EC NR	Substance:
< 1%	n/a	n/a	Bacteria
25-35%	8052-48-0	n/a	Soap
25-35%	7757-82-6	n/a	Sodium Sulfate
25-35%	25322-68-3	n/a	Poly Ethylene Glycol

## 4. First Aid Measures

### EMERGENCY OVERVIEW

**GENERAL:** No specific acute effects or symptoms are known.

**EYES:** Possibility of eye contact limited. In the event, wash thoroughly with water or approved eyewash.

**SKIN:** Wash off with soap and water.

### INHALATION:

No acute effects expected. If person is feeling unwell, remove to fresh air.

### INGESTION:

Possibility of ingestion limited due to product form and difficulty to chew and ingest. In the event of ingestion, rinse mouth thoroughly with water.

## 5. Fire-Fighting Measures

### SUITABLE FIRE EXTINGUISHING MEDIA:

Use extinguishing media appropriate for the surrounding fire. Water spray, fog or mist. Dry chemicals, sand etc.

### EXPOSURE HAZARDS:

Thermal decomposition or burning may release a variety of products ranging from simple hydrocarbons to toxic/irritating gases including carbon monoxide and carbon dioxide. Full protective clothing should be worn before a confined fire space is entered. Self-contained breathing apparatus should be worn.

## 6. Accidental Release Measures

No special requirements for accidental release required. Apply good housekeeping practices.

## 7. Handling and Storage

### SAFE HANDLING:

Follow normal good-housekeeping practices. Keep away from direct flames.

### SAFE STORAGE & INCOMPATIBILITIES:

Keep in cool, dry conditions in original containers at no more than 30°C.

## 8. Exposure Controls/Personal Protection

### PERSONAL PROTECTIVE EQUIPMENT:

**Eye/Face Protection:** None required.

**Skin Protection:** Although unexpected, avoid prolonged skin contact. Use chemically resistant gloves as needed.

**Respiratory Protection:** None required under normal usage.

**Occupational Exposure limit:** Not established.

## 9. Physical & Chemical Properties

<b>Color:</b>	Green.	<b>Flammability(solid/gas):</b>	Not determined/applicable.
<b>Odor:</b>	None.	<b>Vapor Density:</b>	Not determined/applicable.
<b>Odor Threshold:</b>	Not determined.	<b>Vapor Pressure:</b>	Not determined/applicable.
<b>pH Value:</b>	Not determined/applicable.	<b>Relative Density:</b>	Not determined.
<b>Melting Point:</b>	Estimated 60°C.	<b>Solubility (water):</b>	Insoluble.
<b>Boiling Point:</b>	Not applicable.	<b>Auto-Ignition Temp:</b>	Not applicable.
<b>Flash Point:</b>	Not applicable.	<b>Decomposition Temp:</b>	Not determined/applicable.
<b>Evaporation Rate:</b>	Not applicable.	<b>Partition Coeff(n-octanol/water):</b>	Not determined.
<b>RVOC:</b>	<3%.	<b>UEL:</b>	Not determined.
		<b>LEL:</b>	Not determined.

## 10. Stability & Reactivity Information

### CHEMICAL STABILITY:

Normally stable.

### CONDITIONS TO AVOID:

Avoid extreme heat and naked flames.

### INCOMPATIBLE MATERIALS:

Strong oxidizing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS:

None under normal storage conditions.

## 11. Toxicological Information

### PRIMARY ROUTE OF ENTRY:

**Eyes:** No practical risk of adverse health effects.

**Skin:** No practical risk of adverse health effects.

**Inhalation:** Prolonged exposure to volatile ingredients is unlikely to cause irritation or other adverse health effects.

**Ingestion:** No practical risk of adverse health effects.

### ACUTE TOXICITY:

Ingredients include a small quantity of volatile fragrance chemicals which may contain small amounts of substances that are harmful if swallowed and/or irritating to the eyes and skin.

### CHRONIC EFFECTS:

None are known.

## 12. Ecological Information

No specific information has been established regarding the product. However according to the conventional method of Directive 99/45/EC the product is classified as harmful to aquatic organisms, or causing long-term effects in the aquatic environment.

### ECOTOXICITY:

N/A

### PERSISTENCE AND DEGRADABILITY:

N/A

### BIOACCUMULATIVE POTENTIAL:

N/A

### MOBILITY IN SOIL:

N/A

### OTHER ADVERSE EFFECTS:

N/A

## 13. Disposal Consideration

### DISPOSAL INSTRUCTIONS:

Dispose of in accordance with Local Authority requirements e.g. for used product, as household waste.

## 14. Transportation Information

### PRODUCT IS NOT REGULATED AS HAZARDOUS

### DOT CLASSIFICATIONS:

Nonhazardous.

### UN-NUMBER:

Not available.

### UN PROPER SHIPPING NAME:

Not available.

**TRANSPORT HAZARD CLASS:**

Not available.

**PACKING GROUP:**

Not available.

**MARINE POLLUTANT:**

Not available.

**SPECIAL PRECAUTIONS WITH TRANSPORT:**

Not available.

**15. Regulatory Information****Classification, Packaging and Labeling according to Directive 99/45/EC****SIGNAL WORD:**

WARNING

**HAZARD PHASES:**

H302: Harmful if swallowed.

H317: May cause allergic skin reaction.

**PICTOGRAMS:**

Exclamation mark

**PRECAUTIONARY PHRASES:**

P102: Keep out of reach of children.

P264: Wash hands thoroughly after handling.

P280: Wear suitable gloves.

P301+310: If swallowed, call physician.

P302+P352: If on skin, wash with plenty of water.

P332+P313: If rash occurs, seek medical attention.

P501: Dispose of contents to an approved waste disposal plant.

**16. Other Information****DISCLAIMER:**

To the best of our knowledge, information contained herein is accurate. However, there is no assumption of liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard, which exists. The information contained in this SDS was obtained from current and reliable sources; however, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product, which may not be covered by this SDS. The user is responsible for full compliance.

**PREVENTION**

- Keep out of the reach of children
- Wear suitable gloves
- Wash hands thoroughly after handling

**DISPOSAL**

- Dispose of contents to an approved waste disposal plant

**RESPONSE**

- If swallowed, call physician
- If on skin, wash with plenty of water
- If rash occurs, seek medical attention

**PRÉVENTION**

- Tenir hors de portée des enfants
- Porter des gants de protection
- Se laver les mains soigneusement après manipulation

**DISPOSITION**

- Éliminer le contenu dans usine de déchets

**RÉPONSE**

- En cas d'ingestion: appeler immédiatement un médecin
- En cas de contact avec la peau: laver abondamment à l'eau
- En cas d'irritation: appeler immédiatement un médecin

Contains fragrance

**WARNING  
ATTENTION**



- Harmful if swallowed.
- May cause allergic skin reaction.
- Nocif en cas d'ingestion.
- Peut provoquer une allergie cutanée.



**Pro Chem, Inc.**  
 1475 Bluegrass Lakes Parkway  
 Alpharetta, GA 30004  
 (800) 241-8180  
 www.procheminc.com

**BIO BLOCK**

INGREDIENTS: May Contain: Sodium Sulfate (CAS# 7757-82-6),  
 Polyethylene Glycol (CAS# 5322-68-3), Industrial Soap (CAS# N/A),  
 Bacterial Cultures/Spores (CAS# N/A)



ITEM NUMBER

DATE

**6x4  
 Inner & Master  
 Box Label**