PM31 Reg. No. 1225-11 1/7

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SEP 02 1992

The BF Goodrich Company
6061 BFGoodrich Boulevard
Jacksonville, FL 32226-3409

Attention: Jack Macko

Subject: Nofoul Rubber Anti-Fouling Rubber
EPA Registration No. 1225-11
Your Submission Dated March 30, 1992

The amendments referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, to update your product labeling and Confidential Statement of Formula are acceptable, provided that you make the following labeling revisions.

1. Delete the heading "General Use" from the label.

2. Move the last sentence of your use directions (i.e., It is a violation of. . . with its labeling) so that it appears immediately below the heading "Directions For Use."

3. Revise the "If Swallowed" statement to read "If swallowed, drink promptly a large quantity of water. Avoid Alcohol. Get medical attention."

4. Revise your Environmental Hazards statement to read "This pesticide is toxic to aquatic organisms including fish and shellfish. Do not apply directly to water by cleaning of equipment or disposal of wastes. Do not allow chips and dust generated during paint removal to enter water. Dispose of paint debris in an approved landfill."

5. Include your EPA registration and Establishment No.s on your Product Bulletin.

6. Your label ingredient statement should show the active at 5.5% and the inerts at 94.5%.

CONCURRENCES								
SYMBOL								
SURNAME								
DATE								

*U.S. Government Printing Office: 1992 — 620-858/40872

Submit five (5) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

John H. Lee
Product Manager 31
Antimicrobial Programs Branch
Registration Division (H7505C)

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BFGOODRICH
NOFOUL® RUBBER
ANTI-FOULING RUBBER

ACTIVE INGREDIENT - 5.5 % BIS(TRI-N-BUTYL TIN) OXIDE
INERT INGREDIENTS - 94.5 %
TOTAL 100%

NET WEIGHT ____ LBS

EPA REGISTRATION No. 1225-11 EPA ESTABLISHMENT No. 1225-FL-01

KEEP OUT OF REACH OF CHILDREN

- DANGER -

Corrosive. Causes skin burns. Wear protective clothing such as gloves, long sleeved cotton shirt, long pants and hat. Causes eye irritation. May be fatal if swallowed. Harmful if absorbed through skin or inhaled. This product may be a dermal sensitizer. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or chips from sanding. Wash thoroughly with soap and water after handling and before eating or smoking. Use with adequate ventilation. While sanding boat surface, wear a mask or a respirator jointly approved by the Mining Enforcement and Safety Administration and the National Institute for Occupational Safety and Health.

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

STATEMENT OF PRACTICAL TREATMENT

DANGER, If Swallowed: Drink promptly a large quantity of egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol. Get medical attention.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

If On Skin: Wash with plenty of soap and water. Get medical attention.

If In Eyes: Flush with plenty of water. Get medical attention if irritation persists.

ACCEPTED
with COMMENTS
In EPA Letter Dated:
SEP 02 1992
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 1225-11

ENVIRONMENTAL HAZARDS

This material is toxic to fish. Do not apply directly to water by cleaning of equipment or disposal of wastes. Do not allow chips and dust generated during paint removal to enter water. Dispose of debris in an approved landfill.

DIRECTIONS FOR USE - General Use

For use in salt water to prevent fouling by marine invertebrates. For use in the production of Sonar Domes and for application to metal or fiberglass hulls. No waiting period is necessary before launching. Apply all NOFOUL® Rubber according to specific contract design specifications during the building process. This process may involve handling the material by touching, pulling, cutting and rolling into place by hand. Use only approved material for production or repair installation of NOFOUL® Rubber. Wash all NOFOUL® Rubber with an approved solvent to rid the surface of all oil, dirt and dust. Work in a well ventilated area. Use only NIOSH/MSA approved respirators, neoprene rubber gloves, safety glasses, face shield, and a disposable protective garment when handling NOFOUL® Rubber. It is a violation of federal law to use this product in a manner inconsistent with its labeling.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal. Store all NOFOUL® materials at 45°-65°F. Avoid direct sunlight or extreme heat. Store in polyester packaging in a well ventilated area.

PESTICIDE DISPOSAL

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Manufactured for:

The BFGoodrich Company
6061 BFGoodrich Boulevard
Jacksonville, Florida 32226-3409
(904) 757-3660

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BFGoodrich
AEROSPACE
Engineered Polymer Products
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Product Bulletin

NOFOUL(R) ANTI-FOULING RUBBER

GENERAL INFORMATION

Our anti-fouling rubber known as NOFOUL(R) is an acoustically transparent NEOPRENE(R) material designed to be used as a protective covering for items that are to be immersed in water where fouling organisms are present. The NEOPRENE(R) rubber is specifically compounded and processed in order to provide a slow release of anti-foulant over a period of years. The result is a highly effective anti-fouling surface which will prevent the attachment and growth of various marine fouling organisms.

NOFOUL(R) anti-fouling rubber has excellent physical properties which are maintained during years of ocean immersion. When adhered to a substrate, NOFOUL(R) anti-fouling rubber is a durable coating which will provide years of effective protection against fouling with minimum release of anti-foulants into the environment. In addition to anti-fouling protection, positive corrosion control and protection against cavitation erosion can be achieved with the installation of NOFOUL(R) anti-fouling rubber.

MPS-5-7/88

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With COMMENTS
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NOFOUL(R) ANTI-FOULING RUBBER APPLICATIONS

NOFOUL(R) anti-fouling rubber can be applied to various types of steel, fiberglass, most plastics, [redacted] NOFOUL(R) anti-fouling rubber gives excellent resistance to cavitation erosion makes it useful for the protection of hydrofoils, rudders, propellers, shafts, struts, [redacted].

NOFOUL(R) anti-fouling rubber can also be custom-engineered for applications requiring the addition of fabric or wire reinforcement, molded into forms for specific applications, and manufactured in various colors for identification purposes (i.e., [redacted], transducer boots, sonar windows).

PRODUCT DESCRIPTION

NOFOUL(R) anti-fouling rubber is available as cured sheet material in roll form and can be applied with various NEOPRENE(R) adhesive systems. However, we recommend that NOFOUL(R) anti-fouling rubber be installed using BFGoodrich's HYDROLOCK™ 100 adhesive system which was specifically formulated to provide maximum bond strength to structures intended for long term immersion.

Mechanical attachment may also be used; however, this method normally exposes both NOFOUL(R) anti-fouling rubber surfaces to water, resulting in reduction of the anti-fouling life.

The anti-fouling rubber's life is proportional to its thickness. Compound 35029 based on .080" thickness installed with one side exposed to the marine environment normally provides effective anti-fouling protection in excess of 5 years. The same compound, when applied .125" thickness, typically provides protection in excess of 12 years.

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Registered under
1225-11

PRODUCT DESCRIPTION (continued)

Appearance	Finish	Dimension	Tolerance
Color:	A. Unbuffed	Thickness	.080"+.010-.005 .225"+.010-.005
Black	B. Buffed	Width	36"+1" 42"+1"
		Net Weight	.080" .56 lbs/sq ft .225" 1.58 lbs/sq ft

NOFOUL(R) anti-fouling rubber can be supplied with both sides buffed, or one side buffed. Optimum adhesion to a substrate will be achieved when the adhesive side of NOFOUL(R) anti-fouling rubber is a buffed surface.

PHYSICAL AND CHEMICAL PROPERTIES

Property	Units	Values
Hardness	Shore A	45 + 5
Specific Gravity		1.34 + 0.02
Tensile Strength	psi	1500 min.
Ultimate Elongation	%	600 min.
Tin Content	%	1.7 min.
300% Modulus	psi	300 min.
Tear Strength	psi	115 min.
Compression Set	%	45 max.
Resilience	%	77 + 5
Brittle Point	°F	-45
Tensile Modulus @ 5% strain	psi	280

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Reviewed under MFA
1225-11

SHELF LIFE/STORAGE

NOFOUL(R) anti-fouling rubber may be stored in excess of 1.5 years.

In order to maximize shelf life, NOFOUL(R) anti-fouling rubber should be stored in temperatures between 35°F - 50°F, wrapped in aluminized MYLAR(R) film with the ends tightly sealed. This will help insure retention of the physical properties of the NEOPRENE(R) rubber stock and retard premature loss of the anti-foulant by volatilization.

In order to obtain the proper adhesion, it is recommended to rebuff previously buffed areas prior to installation when NOFOUL(R) anti-fouling rubber is stored in excess of 90 days.

INSTALLATION AND APPLICATION PROCEDURES

BFGoodrich provides complete installation and repair service world-wide through our dedicated team of field service technicians. Training of your personnel in installation techniques can also be provided by our field service team.

Specific installation information can be obtained by directly contacting BFGoodrich.

PRECAUTIONS IN HANDLING

This material contains Tributyltin oxide (TBTO). It is mandatory that you read attached Material Safety Data Sheet (MSDS) for detailed precautions prior to use.