

BFGoodrich

The BFGoodrich Company
Geon Vinyl Division
6100 Oak Tree Boulevard
Cleveland, Ohio 44131
216-447-6000

AN 6183

August 27, 1992

Chris Steele
Drinking Water Additives Program
NSF International (NSF)
3475 Plymouth Road
P.O. Box 130140
Ann Arbor, Michigan 48113-0140

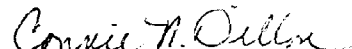
Dear Mr. Steele:

I am enclosing a completed TDRS-A form for Geon 87431 Blue 440.

The composition of Geon 87431 Blue 440 is confidential to BFGoodrich and therefore subject to the generic secrecy agreement signed by BFGoodrich and the National Sanitation International, October 24, 1979.

Sincerely,

THE BFGOODRICH COMPANY


Connie N. Dillon
Regulatory and Data
System Specialist

0827-3/jp

Enclosure

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TOXICOLOGY DATA REVIEW SUBMISSION - FORM A
NSF International (NSF)
STANDARD 61: DRINKING WATER SYSTEM COMPONENTS
(CONFIDENTIAL INFORMATION)

FOR ASSISTANCE: 1-800-252-6010
From 9am to 4pm Eastern Time

TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIAL DESIGNATED BELOW. Please return form within 30 days or call for assistance.

I. IDENTIFICATION INFORMATION

Company name B. F. GOODRICH COMPANY (THE) Company contact MR. JOSEPH C. KELLEY
Address 6100 OAK TREE BOULEVARD Telephone Number (216) 447-6567
CLEVELAND, OH 44131 FAX Number (216) 447-6245
Plant name All plants (see attached) Plant contact _____
Address _____ Telephone Number () _____
_____ FAX Number () _____

If more than one plant location, append to this form a list of each plant location and plant contact.

1. Product name GEON 87431 BLUE 440
Trade designation _____
If applicable, please specify other names under which you wish to Certify this product _____

Category* and Function** codes for this product or material (see below).

a. Category _____ Additional categories _____
b. Function _____ Additional functions _____
c. Other, please specify _____

2. Virtually identical products or materials (Attach justification).

Product name/Trade designation	Category(s)	Function(s)
_____	_____	_____
_____	_____	_____
_____	_____	_____

Category (Code)
Pipes and Related Products (PIPE)
Protective (Barrier) Materials (PML)
Joining and Sealing Materials (JASM)
Process Media (PRM)
Mechanical Devices (MCH)
Mechanical Plumbing Devices (MPD)

**Function (Code)
Adsorption (ADS)
Aeration (ABR)
Bladders/Liners/Diaphragms (BLD)
Chelation (CEL)
Chemical Feeders (CHF)
Disinfection Generators (DRG)
Electrical Wires (ELW)
Filtration (FLT)

**Function (Code)
Fittings (FIT)
Fluxes (FLX)
Gaskets/Sealing Materials (GSK)
Hoses/Tubing (HOS)
Ion Exchange (IXR)
Joining Materials (JNG)
Lubricants (LUB)
Oxidation (OXI)

**Function (Code)
Paints/Coatings (PMT)
Pipes (PIP)
Pumps (PMP)
Screens (SCR)
Switches and Sensors (SWS)
Valves and Related Fittings (VRF)
Water Treatment Devices (WTD)
Well Casting (WCS)
Other (OTH)

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II. FORMULATION INFORMATION

Analysis of the applicant's product will be conducted to identify potential contaminants to drinking water. The analytical tests selected will be determined in part from the information provided below. List ALL components of the formulation and related information as follows:

- In column (1) place an I, R, or P corresponding to ingredient (basic chemical constituents), Reactant (catalysts, initiators, etc.), or Processing aid (mold releasers, suspension solvents, filling aids, cutting fluids, etc.)
- In columns (2) and (3) provide the chemical name and CAS number respectively of each entry placed in column (1).
- In column (4) include the parts by weight (%) of each component and the acceptable tolerances, e.g., 38% +/- 1%.
- In columns (5) and (6), for each chemical identified, list the Trade Name and respective supplier. It is IMPORTANT that you identify EVERY supplier of the chemical used at your facility.
- Attach analytical methods for determining the level of each chemical, if available.

If this is a multi-part system, (e.g., epoxy coatings) the formulation for each part must have its components shown individually.

PLEASE NOTE: The applicant will avoid designs in the application process if the information is accurate and complete. Please attach additional sheets if necessary.

I, R, P (1)	Chemical Description (2)	CAS No. (3)	Parts by Weight (% or ppm) (4)	Trade Name (5)	Supplier (6)
	Geon 87431 Blue 440				
	PVC Resin	9002-86-2	89.405%	Geon 103 FPF-76	BFGoodrich
	Tin Thioglycolate	25168-24-5	2.86	Thermolite 31 Super	Elf Atochem North America
	BD/MA/Styrene	25053-09-2	2.68	Paraloid K1-680	Rohm and Haas Company
	EA/MMA Copolymer	9010-88-2	1.43	Paraloid K-120N	Rohm and Haas Company
	Titanium Dioxide	13463-67-7	1.788	TI-Pure R-100	Dupont & Company
	Copper Phthalocyanine	147-14-8	.22	Hellogen Blue K-6911D	BASF Corp.
	Paraffin Wax	64742-61-4	.447	Aristowax 165PMD	Hoechst Celanese Corp. Rheochem Mfg. Frank B. Rose Co. Witco Chemical Co. Henkel Corp.
	Eutyl Stearate	123-95-5	1.16	Emerest 2326	

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1. Is the product $\bar{X}$ manufactured or mined?

a. If mined, is it purified? YES _____ NO _____

If YES, how?

Is it ground or mixed to a homogeneous mixture? YES NO

b. If manufactured or synthesized, provide the following:

Please provide separate attachments as necessary.

Manufactured:

1. Process description Made on a bosh extruder or CM line (continuous mixture)

2. Literature and/or patent reference for the process

Synthesized:

1. Recognized name of synthesis:

2. Literature and/or patent reference for synthesis method:

3. Purification procedure

4. Provide the analytical procedure for the analysis of your product. Provide either a literature reference or a written procedure

5. Molecular weight (molecular weight distribution for polymers).

6. Itemize the reaction products of initiators, stabilizers, and catalysts used in the manufacture or synthesis of your product.

c. ☒ Product is shipped in bulk containers.

Product is handled/packaged by a single use (dedicated) system.

☒ Product is handled/packaged by a multiple use (non-dedicated) system.

If multiple products are handled, show other products handled by the system:

2. Are any recycled or reprocessed materials used in this product? ☐ YES ☐ NO. If yes, provide a separate attachment describing how impurities and lot-to-lot variations are controlled.

3. Itemize below, known or suspected impurities in the product including, but not limited to, unreacted starting materials, by-products, low molecular weight polymers, etc. If available, provide literature reference(s) or written procedure(s) for the identification of impurities in your product and starting materials.

[illegible]

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IV. MIGRATION/EXTRACTION INFORMATION (Standard 61 Products)

1. Has the water solubility of the product been determined?

☐ YES ☒ NO

If yes, what is the solubility? _____ @ _____ Temperature and _____ pH

2. Have tests been run on your product to examine migration/extraction of a MATERIAL(s) or IMPURITY(s) from your product into water? ☒ YES ☐ NO

If the answer is yes, please append the complete report(s) for every component or impurity studied, including a copy of the analytical method or a literature reference to the method.

3. ☒ If the product, for which the application is submitted, is a tank, pipe, fitting, device, or other similar product, and ☒ if the water contact surface is coated or sealed, then provide the following information:

- Indicate the coating or sealant and the method of application. Attach application, curing and use instructions. _____
- Indicate the anticipated service life of the coating or sealant (e.g., 6 months, 5 years, etc.) and the testing procedures used to determine the life. _____
- Attach information, data, and/or reports indicating anticipated permeability/leaching characteristics of the coating or sealant. If any coating or sealant is currently Certified by NSF under Standard 61, indicate which one(s).

V. HEALTH EFFECTS

Analysis of the Applicant's product will be conducted to identify potential contaminants to the drinking water. Laboratory values of contaminant concentrations will be normalized to "at-the-tap" values. Those contaminants for which the Environmental Protection Agency has not established a Maximum Contaminant Level (MCL) may require additional toxicity testing according to the guidelines of NSF Standards 60/61, Appendix A. Information you provide (as attachments to this form) regarding your knowledge of specific toxicology studies will expedite the applicant's Certification and may alleviate the need for additional toxicity testing.

1. Toxicology Studies: As an attachment to this form, please provide a detailed list of all known published and unpublished toxicology studies (acute, subchronic, chronic, mutagenicity, teratogenicity, reproductive, carcinogenicity, epidemiology, etc.) relevant to your product, materials, ingredients, and/or impurities. For each reference include:
- Name of specific material, ingredient, or impurity addressed by the study.
 - Type of study (Ames, Sister Chromatid Exchange, etc.).
 - Complete reference: (author[s], title, source, volume, pages, year).
 - Summary of study results (include all treatment-related effects; provide your opinion, with justification, for any results you feel should be discounted; attach complete reports, if desired).

____ (Check if no knowledge of toxicity data exists within your company related to this Listing application.)

2. A toxicology literature search provided by your company may expedite the toxicology review and minimize costs to the applicant for obtaining toxicology data. For each literature search appended to this form, itemize as described below:

Database	_____	_____	_____
File #	_____	_____	_____
Keywords	_____	_____	_____
Date	_____	_____	_____

____ (Check if no literature search has been, or will be, conducted by your company.)

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3. If any product, material, ingredient, and/or impurity contributed to the drinking water as a result of your product should, in your opinion, either be exempt from toxicology evaluation (e.g., non-migratory, no residual, etc.) or should be evaluated in light of previous regulatory clearance (e.g., 21 CFR, EPA National Primary Drinking Water Regulations, etc.), please complete below:

Product, material, ingredient, or impurity	Complete Reference	Justification (provide documentation) or opinion
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

VI. ATTACHMENTS AND SIGNATURE

List Attachments to this form _____ No. of pages _____

I hereby certify that the information provided is accurate and complete, and that I, and the Company I represent, know of no reason the product/material described herein should not be used in contact with drinking water.

X Signature Connie N. Dillon Date 8/28/92

Typed or printed name Connie N. Dillon

Position/Title Regulatory and Data System Specialist

Company The BFGoodrich Company

Phone 216/447-7831 Telex _____ FAX 216/447-6459

The following authorization is OPTIONAL. It in no way authorizes NSF to share the information with other Applicants. Authorized NSF staff ONLY will be allowed access to this information. By completing this authorization, this Form A may be used to support the referenced ingredient/material/product as part of another applicant's package.

I give NSF permission to use the information contained in this TDRS Form A as a basis for reviewing/accepting other products which use this specific ingredient/material/product covered by this application.

Optional Authorization _____

WHERE TO MAIL? Insert the completed form in an envelope marked "CONFIDENTIAL BUSINESS INFORMATION," seal in an outer envelope, and return to:

VIA U.S. MAIL:
 Additives Toxicology Group
 NSF International (NSF)
 PO Box 130140
 Ann Arbor, MI 48113-0140

VIA COURIER SERVICE:
 Additives Toxicology Group
 NSF International (NSF)
 3475 Plymouth Road
 Ann Arbor, MI 48105

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Plant Locations:

Avon Lake
Moore and Walker Roads
P.O. Box 134
Avon Lake, OH 44012
Tele: 216/933-0100
Fax: 216/933-0231

Calvert City
Hwy. 1523 Industrial Loop
P.O. Box 527
Calvert City, KY 42029
Tele: 502/395-4151
Fax: 502/395-3267

Deer Park
Tidal Road
P.O. Box 900
Deer Park, TX 77536
Tele: 713/930-9400
Fax: 713/930-9465

Henry
Route 1
P.O. Box 15
Henry, IL 61537
Tele: 309/364-2311
Fax: 309/364-9447

LaPorte
2400 Miller Cutoff Road
LaPorte, TX 77571
Tele: 713/476-8000
Fax: 713/476-8009

Long Beach
2104 E. 223rd St.
Carson, CA 90745
Mailing Address:
P.O. Box 9077
Long Beach, CA 90810
Tele: 310/513-7100
Fax: 310/513-7125

Louisville
4200 Bells Lane
Louisville, KY 40211
Mailing Address:
P.O. Box 32950
Louisville, KY 40232
Tele: 502/772-5900
Fax: 502/772-5772

Pedricktown
Porcupine Rd & Rte 130
P.O. Box 400
Pedricktown, NJ 08067
Tele: 609/299-5400
Fax: 609/299-8431

Plaquemine
Rt. 988 River Road, N.
P.O. Box 578
Plaquemine, LA 70764
Tele: 504/387-3151
Fax: 504/687-6215

Terre Haute
3100 N. 35th Street
Terre Haute, IN 47804
Tele: 812/466-4204
Fax: 812/466-9200

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