From:	Morales, Fernando - NRCS, Albuquerque, NM
To:	Kadas, Steve - NRCS, Albuquerque, NM; Ford, Roger - NRCS, Albuquerque, NM; Sanchez, Clifford - NRCS, Albuquerque, NM
Subject:	FW: Norwesco Contact Notification
Date:	Thursday, December 06, 2012 1:16:22 PM
Attachments:	ASTM Water 14Aug2012.pdf

Here is the email from Norwesco. I send it to you all in the event that I lose the email and that there be backup copies.

FMM

From: Kevin Crutchley [mailto:Kevin.Crutchley@norwesco.com]
Sent: Monday, October 22, 2012 7:51 AM
To: Morales, Fernando - NRCS, Albuquerque, NM
Subject: FW: Norwesco Contact Notification

Mr. Morales, pls see our engineers question below.

Thank you,

Kevin Crutchley
Customer Service
NORWESCO
Phone 866.446.8809
Fax 866.470.6763
Kevin.crutchley@norwesco.com

Kevin,

Fernando is probably referring to the attached statement written by me.

He lists three standards -- ASTM, NSF, and FDA. Is he requiring tanks to meet all three or one of the three, or what?

Our tanks do not meet all of the requirements of ASTM D 1998-06. That standard requires that every tank be filled with water prior to shipping (which we don't do), and that a specimen of material from each tank be tested for low temperature impact (which we don't do). There is also a specific requirement for markings which is more detailed than our normal practice.

If NSF 61 is an acceptable standard, all vertical tanks from 22 through 15000 gallons manufactured at Hanford are listed as meeting this standard.

Our resins meet the FDA 21 177.1520 standard.

From: fernando.morales@nm.usda.gov [mailto:fernando.morales@nm.usda.gov]
Sent: Tuesday, October 16, 2012 5:27 PM
To: literature
Subject: Norwesco Contact Notification

Customer Contact Info

fernando morales
USDA-NRCS
6200 jefferson ne
albuquerque, nm 897106

Phone:
Fax:
Email: fernando.morales@nm.usda.gov

Business Description

Other: Specify Below

Tank will ship to

NM

What the tank will be used for

Catalog Requests

General Comments

Hello, I need to get a list of PE vertical tanks that meet all the requirements set forth in ASTM D-1998-06, NSF 61, FDA 21 177.1520. Many tanks I have asked about only meet the resin requirements of ASTM D-1998, However I need tanks that meet/are certified all of ASTM D-1998. Thank you for your help.

Web Site Comments

No comment.

NORWESCO

August 14, 2012

To Whom it May Concern:

This is to confirm that the following Norwesco products meet the wall thickness requirements of ASTM D-1998 when used for storage of water with a specific gravity of 1.0:

BLACK PART NUMBER	GREEN PART NUMBER	DESCRIPTION
40702	40863	305 Gallon Water Tank
40703	40864	550 Gallon Water Tank
40892	41686	1000 Gallon Water Tank
40704	40865	1100 Gallon Water Tank
40627	40866	1550 Gallon Water Tank
40631	40867	2500 Gallon Water Tank, 95" Diameter
42040	42039	2500 Gallon Water Tank, 102" Diameter
40635	40868	3000 Gallon Water Tank, 95" Diameter
42042	42604	3000 Gallon Water Tank, 102" Diameter
40641	40870	5000 Gallon Water Tank. 102" Diameter
40943	41377	5000 Gallon Water Tank, 141" Diameter
42411		6500 Gallon Vertical Tank, Black
43132	43179	10000 Gallon Vertical Tank, 22" Lid

These Norwesco water tanks are manufactured from resin that meets the impact test criteria in ASTM D-1998. Each Norwesco water tank is marked with a serial number that can be traced to the date and location of manufacture, and each tank has a label indicating the capacity and part number.

The listed Norwesco water tanks are each furnished with a 2" polyproplyene bulkhead fitting near the bottom, and a 1-1/2" polyproplyene bulkhead fitting near the top. These fittings comply with the fittings requirements of ASTM D-1998.

This is not a guarantee, and does not supersede or modify the standard Norwesco warranty.

Jerry Paulson
VP Engineering

NORWESCO, INC.
4365 Steiner Street • P. O. Box 439 • St. Bonifacius, MN 55375-0439 • Tel 952-446-1945 • Fax 952-446-8808

NORWESCO

TO WHOM IT MAY CONCERN:

This is to confirm that Norwesco water tanks are manufactured from resin that meets the impact test criteria in ASTM D 1998. Each Norwesco water tank is marked with a serial number which can be traced to the date and location of manufacture, and each tank has a label indicating the capacity and part number.

Jerry Paulson
VP Engineering

NORWESCO, INC.
4365 Steiner Street • P. O. Box 439 • St. Bonifacius, MN 55375-0439 • Tel 952-446-1945 • Fax 952-446-8808

ExxonMobil Chemical Company
Baytown Technology & Engineering Complex
P.O.Box 5200
Baytown, Texas 77522-5200

ExxonMobil Chemical

August 31, 2006

As requested, on behalf of ExxonMobil Chemical Canada and/or ExxonMobil Chemical Company a Division of Exxon Mobil Corporation, we are pleased to inform you of the FDA status of the following olefin copolymer product:

HD 8660.29

This product complies with FDA regulation 21 CFR 177.1520 (Olefin polymers), paragraph (c)3.1a, and may be used as articles or components of articles intended for use in contact with food, except for articles used for packing or holding food during cooking, with these restrictions:

- the finished article must be at least 2 U.S. gallons (7.6 liters) in volume if in contact with fatty food types III IV-A, V, VII-A & IX as described in table 1 of §176.170(c) of this chapter .
- the finished article may contact food only under Conditions of Use D through G described in Table 2 of 21 CFR 176.170(c), at temperatures not in excess of 150°F.

The manufacturer of any food contact article containing an olefin copolymer has the responsibility to ensure that the finished article complies with any food packaging regulations applicable to the specific end-use for which it is manufactured.

This product has been submitted for review by Health Canada's Health Products and Food Branch KS file 01072001 Letter Michel Pelletier to S. J. Potlock November 5, 2001.(attached)

If you have any questions or need additional information, please contact me on (281) 834-1302.

Sincerely yours,

Regina L. White
Product Stewardship & Regulatory Affairs

ExxonMobil Chemical

ExxonMobil HDPE

HD 8660

Rotational Molding Resin

Description

HD 8660 is a high density hexene copolymer designed to offer superior toughness and stiffness. This resin is ideally suited for applications that require the optimum balance of low temperature toughness, creep resistance, stiffness, ESCR, and tear properties.

Applications

- Large Agricultural Tanks
- Intermediate Bulk Containers
- Industrial Products

Additive Package	Form	Stabilizer
HD 8660.29	Pellet	Long Term UV 8 Stabilization
HDP8660.29	35 US Mesh Powder	Long Term UV 8 Stabilization

Resin Properties	Test Based On[3]	Typical Value / Unit
Melt Index	ASTM D 1238	2 g/10 min
Density	ASTM D 4883	0.942 g/cm^3
Melting Point	ASTM D 3418	129 (264) °C (°F)

Molded Properties[1]		
Tensile Strength at Yield[2]	ASTM D 638	20.3 (2,950) MPa (psi)
Tensile Yield Elongation	ASTM D 638	16.2 %
Flexural Modulus 1% Secant	ASTM D 790 Procedure B	888 (129,000) MPa (psi)
Impact Strength @ - 40°C	ARM	
1/8” (3.17 mm) thickness		108 (80) J (ft-lbs$_f$)
1/4" (6.35 mm) thickness		244 (180) J (ft-lbs$_f$)
Environmental Stress Crack Resistance, F_{50}	ASTM D 1693 Condition. A	
	100% Igepal	550 hr
	10% Igepal	48 hr
Deflection Temperature	ASTM D 648	
@ 66 psi (455 Kpa)		67 (153) °C (°F)
@ 264 psi (1820 Kpa)		41 (106) °C (°F)

1. All physical properties were measured on 3 mm. rotomolded samples unless a different value is shown, except for ESCR, which was measured on compression molded samples.
2. Tensile testing was conducted at a crosshead speed of 50 mm/min. The tensile strength reported refers to the maximum stress reached during the test.
3. Test procedures may be modified to accommodate operating conditions or facility limitations.

HD 8660 grade can - in principle - be used in food contact applications in the USA (FDA) and in Canada (HPB). Migration or use limitations may apply. Please contact your ExxonMobil Chemical representative for more detailed information and/or actual compliance certification documents for the specific grade of interest.

Revised March 2006