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PPG Industries

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Kevin J. Fay, Director,
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Sanitized

NT-08-0018

313122

U.S. ENVIRONMENTAL PROTECTION AGENCY

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NANOSCALE MATERIALS STEWARDSHIP PROGRAM DATA SUBMISSION FORM

Total number of pages in the Form

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15

When completed send this form to

U.S. E.P.A. DOCUMENT CONTROL OFFICER (7407M) 1200 PENNSYLVANIA AVE. NW WASHINGTON, D.C. 20460 ATTN: NANOSCALE MATERIALS STEWARDSHIP PROGRAM

This form has been developed for optional use by participants in the U.S. EPA's Nanoscale Materials Stewardship Program (NMSP). This form is based on the standard Premanufacture Notice (PMN) form (EPA FORM 7710-25), with many of the pages in this form adapted directly from the PMN form, irrelevant sections removed, and additional pages seeking nanoscale materials-specific information inserted, along with specific instructions.

Paperwork Reduction Act Notice: The public reporting and record keeping burden for this collection is estimated to average about 154.3 hours per response for the Basic NMSP, and 2,500 hours for the In-Depth NMSP, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information to: Director, Collection Strategies Division (Mail Code 2822T), U.S. Environmental Protection Agency, Washington, DC 20460. Include the OMB control number above in any correspondence, but do not submit the form or report to this address.

GENERAL INSTRUCTIONS

- As much of this form is adapted from the PMN form, it may be instructive to refer to the "Instruction Manual for Reporting Under the TSCA §5 New Chemicals Program" (available from the Toxic Substances Control Act (TSCA) Information Service, 202-554-1404, or 202-554-5603(fax) or at http://www.epa.gov/opptintr/newchems/pubs/pmnmforms.htm). Where referencing these instructions might be helpful in completing this form, EPA directs you to the "PMN Form Instructions Manual."
Having based this form on the PMN form, the form structure is geared more towards the manufacturer or importer of the chemical substance as opposed to others who may participate in the NMSP, such as researchers. EPA recognizes that not everyone will have all of the information identified in this form available to them.
For purposes of completing this form, you should consider "manufacture, process or use" to also capture activities related to the development of a chemical substance and researchers should provide information in that context to the extent that it is available. Researchers may not, however, have the detailed use information described in Part I or the detailed manufacturing, processing, and use operations information described in Part II. If you decide to use the form, please remember that you do not have to complete a section if it is not applicable.
This form is optional for NMSP participants. It was developed in an effort to help participants identify the type of information that would be of interest and provide a simplified mechanism for submitting that information. You do not have to use this form. You may report to EPA in any format you choose.
To the extent practicable, EPA has included instructions to help you complete the form. Please use the form as a guide to determine what data is available for reporting to EPA. EPA encourages participants to provide as much information as possible, including why information is not available.
Please provide the information requested in this form to the extent it is known or reasonably ascertainable. Particularly as related to the health and environmental effects of the manufacture, processing, distribution in commerce, use, or disposal of the substance, all test data in your possession or control and a description of all other known data should be provided. Reasonable estimates or modeling data may be given in the absence of actual data. Standard literature citations may be submitted for data in the open scientific literature. If the data do not appear in the open literature, please submit a copy of the complete test data report (written in English). Clearly identify whether test data is on the substance, on an analog, or from models.
Any answer may be left blank or filled with "N/A," if the information is not available, or the question is not applicable. IT IS NOT NECESSARY TO DO ADDITIONAL TESTING IN ORDER TO COMPLETE THIS FORM.
Attach additional sheets as needed. Label each continuation sheet with the corresponding section heading. List all attachments including data and optional information on page 15.
Only one nanoscale material should be submitted per form.
Any information may be claimed as confidential. To assert a claim on the form, mark (X) the confidential box next to the information claimed as confidential. To assert a claim in an attachment, circle or bracket the information claimed as confidential. If information is claimed as confidential, a sanitized version (including attachments) should be provided. For additional instructions on claiming information as confidential, refer to the PMN Form Instructions Manual. Submission of confidential information on this form constitutes consent for disclosure of the information to EPA contractors under the security procedures used in handling information submitted under TSCA.

Company Sanitized

TSCA CONFIDENTIAL BUSINESS INFORMATION DOES NOT CONTAIN NATIONAL SECURITY INFORMATION (E.O. 12958)

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NOTICES

- Participation in and submission of data to the EPA under this program is voluntary.
- Use of this form by program participants is also voluntary.
- Participation in and submission of data to EPA under this program does not imply an intent to manufacture or import the nanoscale material for a commercial purpose.
- Completion and submission of this form to EPA under the NMSP does not satisfy any requirement under 40 CFR part 720 to submit a PMN or under 40 CFR part 721 to submit a Significant New Use Notice. For information on PMN submissions, see <http://www.epa.gov/opptintr/newchems/index.htm>. If you have any questions about the TSCA Inventory status of the nanoscale materials you may be manufacturing or importing, EPA encourages you to consult with EPA before beginning any commercial activities. If you have or intend to submit a PMN to EPA, you may ask EPA to include that submission under the NMSP and do not need to submit a duplicate copy of the PMN to EPA under the NMSP.

TEST DATA

Available hazard and exposure test data would be most useful if the physical/chemical properties of the nanoscale material relevant to assessing test results are obtained at the initiation of testing. Additional relevant information on preparation of the nanoscale material for administration and storage history of the material between production and administration will assist in interpretation. When possible, interpret data in the context of accompanying positive and negative nanoscale substance control data from the same test system. **Indicate which of the following data are included in this submission:**

- Physical / Chemical properties
 Health
 Environmental effects
 Test data not in the possession or control of the submitter
 Structure / activity relationships effects
 Environmental fate
 Other

Mark (x) if any of the provided data is claimed as confidential.

HOW LONG DID IT TAKE YOU TO COMPLETE THIS FORM?

Please provide an estimate of the amount of time in work hours it took you to complete this form. EPA estimates that it could take up to 154.3 burden hours for someone to complete this form in its entirety, including time to review instructions, search existing data sources, gather and maintain the data needed, and complete and review the collection of information. Your estimate will help inform the Agency's evaluation of the use of this optional form and the Agency's estimates.

Hours:

NA

COMMENTS

Please provide feedback or suggests you may have about this optional form.

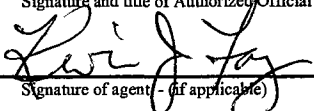
Mark (X) this box if you attach a continuation sheet.

SUBMITTERS STATEMENT

1. All information provided in this form is accurate as of the date of submission.
2. I understand that this is not a PMN, and as such, does not satisfy any requirement under 40 CFR part 720 to submit a PMN.
3. I am primarily a (select one): Manufacturer
 Importer
 Researcher
 Other Participant (specify):

Mark X in this box if you are willing to allow EPA to forward this data, including confidential portions, to other government entities. If release of data is limited, please list entities with whom you would allow EPA to share data. EPA will contact you before releasing any data.

Please Mark (X) in the "Confidential" box next to the signature you claim as confidential

Signature and title of Authorized Official (Original Signature Required)	Date	Confidential
	24 July 2008	
Signature of agent - (if applicable)	Date	

Part I -- GENERAL INFORMATION

Section A -- SUBMITTER IDENTIFICATION

Confidential

Mark (X) the "Confidential" box next to any subsection you claim as confidential.

1a. Person Submitting Notice (in U.S.)	Name of authorized official Kevin Fay		Position Global Director Product & Supply Chain Stewardship			
	Company PPG INDUSTRIES, INC.					
	Mailing Address (number and street) 4325 Rosanna Drive					
	City, State, ZIP Code Allison Park, PA 15101					
b. Agent (if applicable)	Name of authorized official		Position			
	Company					
	Mailing address (number and street)					
	City, State, ZIP Code		Telephone	Area Code		Number
c. If you are submitting this notice as part of a joint submission, mark (X) this box. <input type="checkbox"/>						
Joint Submitter (if applicable)	Name of authorized official		Position			
	Company					
	Mailing address (number and street)					
	City, State, ZIP Code		Telephone	Area Code		Number
2. Technical Contact (in U.S.)	Name Collette Pustay		Position Sr. Product Stewardship Associate			
	Company PPG INDUSTRIES, INC.					
	Mailing address (number and street) 4325 Rosanna Drive					
	City, State, ZIP Code Allison Park, PA 15101		Telephone	Area Code 412		Number 492-5411

Voluntary NanoMaterial Product Stewardship Report

PPG Industries - Andaro™ HC Tints

General/Identifying Information

The Andaro™ HC ("High Chroma") line of liquid tints are used to provide unique colors for a wide variety of coatings manufactured by PPG for industrial use. [REDACTED]

[REDACTED] Those pigments include, but are not limited to the following.

CAS #	Generic Name	TSCA Inventory Name
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

The resulting tints are blended into [REDACTED] coatings by PPG. There are currently no sales of these tints to outside companies. The finished coatings products that use the tints are all sold under the PPG name, for industrial use only. Current customers for the final coatings include motorcycle, consumer electronics and appliance markets globally. The tints are under evaluation by automotive OEM and automotive parts and accessory manufacturers. Approximately 28% of the tints containing these nano-pigments are in coatings intended for application in the United States. The remaining quantities are exported.

All resins used for pigment stabilization are either listed on the TSCA inventory or qualified as exempt from listing in accordance with 40 CFR 723.250. [REDACTED]

Production, Processing and Use Information

[REDACTED]
[REDACTED]
[REDACTED]

Pigments are received from the manufacturer in paper bags, often inside corrugated cardboard boxes. The operator dons appropriate personal protective equipment (PPE) including safety glasses, nitrile gloves and particulate/organic vapor respirator. The liquid resin and solvent are added to the premix tank under a high speed disperser (cowles unit) in a ventilated area. The pigment bags are cut open with a utility knife and the correct pigment is added slowly to the premix. The paste is allowed to mix at high speed for sufficient time to allow the pigment to wet. [REDACTED]

[REDACTED] The paste is then taken to a media mill where final dispersion is completed.

A metal lid is placed on the tank. An opening for the agitator and mill recycle line exists on the tank. A small hinged hatch on the lid is available for observation or sampling by the operator. The bottom outlet of tank is connected to the air operated diaphragm pump. This pump circulates the material into the mill chamber and back out into the holding tank. [REDACTED]

[REDACTED].] QA results are compared with product specifications. At times additional milling is required to meet all standards.

Once the batch has been approved the product is packaged. A filter bag is placed on the bottom outlet of the tank and the product is filled into five gallon or one gallon containers. [REDACTED]

[REDACTED] These containers of tint are shipped to a PPG Facility that will use them in the final coating product.

The liquid Andaro tint is mixed into the final coating product by addition to its batch tank. The final coating product goes through routine QA testing. This QA testing may include spray application of the coating onto a metal or plastic panel to test color. Once approved, the final coating batch can be filled into totes, drums, five gallon pails or one gallon containers depending on the customer.

The concentration of the nano-pigments in the final coating vary from application to application, [REDACTED]. The typical industrial customer will apply the coatings containing these tints by spray application. The transfer efficiency of the spray application varies by applicator and equipment.

Exposure Information & Risk Management Practices

Manufacture of the nano-pigments occurs in a closed loop system. The first operator with potential exposure to the tint containing the nano-pigments is during quality sampling at the estimated endpoint for the batch. Off line testing takes approximately 30 minutes, but actual operator exposure to open tint container and cleanup of the glassware is only 15 minutes.

During routine system cleaning, the equipment is flushed with solvent and resin to push out the majority of the residual paste. Depending on production needs, a complete tear down of the equipment can occur once per month. This procedure can take up to eight hours, when the equipment is disassembled and tinted residue is wiped from the equipment by the operator. Products are "campaigned" as much as possible to minimize the need for cleanup.

All activities occur in areas with local ventilation. The equipment used is dedicated to Andaro™ production. The operator wears gloves for all work as well as flame-retardant uniforms and safety glasses. The operator also wears a respirator and apron if handling pigments. Designation of required PPE for manufacturing and processing operations involving these tints are based on hazard evaluations of standard pigment and solvent components.

Solvent [REDACTED] is used for cleanup of equipment and work area. Paper towels are used for wiping and drying. Liquid wastes are drummed and sent to PPG's Energy Recovery Unit (ERU) at Circleville, OH. Solid wastes are sent to a RCRA-approved landfill.

Our company maintains a "zero-discharge" policy for hazardous waste. Thus, no amount of nanosubstance will be released to any POTW. Any waste streams that contain the nanosubstance are managed as hazardous waste according to PPG procedures and policies. PPG's Energy Recovery Unit (ERU) at our Circleville, Ohio location is a rotary kiln unit that has been designed to treat, through incineration and energy recovery, the majority of our company's hazardous waste. Thus, waste is reduced to a small fraction of its original volume and the energy value of the waste is recovered in the form of steam to help meet the total energy requirements of the manufacturing plant.

Pollution Prevention Information

[REDACTED]. Aesthetics are the primary advantages of using the Andaro™ HC tints. The final products have unique color properties that arise from much higher transparency and higher chromaticity than standard tints.

Physical and chemical properties

- Vapor pressure
 - Vapor pressure is that of solvent in carrier resin. [REDACTED]
- Density
 - Density of Andaro tints varies by product. [REDACTED]
- Solubility [in H2O or Solvents]
 - [REDACTED]
- MP
 - N/A
- BP
 - [REDACTED]
- Spectra
 - N/A
- Flammability
 - N/A
- Crystal Structure
 - N/A
- Agglomeration state/dispersion state
 - Attachment 1

Material Safety Data Sheets

- [REDACTED] - 2855-L4952 Blue 60 [REDACTED] Nanotint
- [REDACTED] - 6610-P2998 Perylene Maroon

Attachment 1

PPG Industries - Andaro™ HC Tints

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MATERIAL SAFETY DATA SHEET



SECTION 1 - PRODUCT AND COMPANY INFORMATION

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

EMERGENCY PHONE NUMBERS (412) 434-4515 (U.S.)
(24 hours/day):

(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: (412) 492-5200 (ALLISON PARK, PA) 8:00 a.m. - 5:00 p.m. EST
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

Product ID: 2855-14952 (0809)
PRODUCT NAME: BLUE 60 NANOTINT FOR
SYNONYMS: None
ISSUE DATE: 12/12/2006
EDITION NO.: 1
CHEMICAL FAMILY: MIXTURE

EMERGENCY OVERVIEW:

CAUSES EYE IRRITATION. MAY CAUSE SLIGHT SKIN IRRITATION. VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. MAY CAUSE IRRITATION AND/OR ALLERGIC RESPIRATORY REACTION IN LUNGS. MAY BE HARMFUL IF SWALLOWED. This product is not expected to present any unusual hazards under fire or spill conditions. Read entire MSDS before use.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
PETROLEUM DISTILLATES 64741-65-7	0.5-1.5	X

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:

Causes eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:

May cause slight skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:

Skin absorption not expected to occur.

INHALATION:

Vapor and/or spray mist may be harmful if inhaled. May cause irritation and/or allergic respiratory reaction in lungs.

INGESTION:

May be harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS

Avoid long-term and repeated contact. Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:

Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:

Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:

Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:

Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASHPOINT: 201 Degrees F (94 Degrees C)

FLASHPOINT TEST METHOD:

Pensky-Martens Closed Cup

UEL: Not Available.

LEL: Not Available.

AUTOIGNITION TEMPERATURE:

Not Available.

EXTINGUISHING MEDIA:

Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or universal aqueous film forming foam) designed to extinguish NFPA Class IIIB combustible liquid fires.

PROTECTION OF FIREFIGHTERS:

Water spray may be ineffective. Water spray may be used to cool closed containers that are exposed to extreme heat. If water is used, fog nozzles are preferable. Firefighters should wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Closed containers may explode or burst (due to the build-up of steam pressure) when exposed to extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:

If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

STORAGE:

Protect from freezing.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:

Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:

Wear safety glasses with side shields.

SKIN/GLOVES:

Wear protective clothing. Gloves should be constructed of: neoprene rubber or nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.

RESPIRATOR:

Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS

If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit (1989 Vacated values); IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Absorption; R-Respirable Dust] Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES (FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	1.074
PHYSICAL STATE:	Liquid
Percent Solids:	32.29
Percent Volatile by Volume:	73.510
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	17.5 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the chemical family and any solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	41
BOILING POINT OR RANGE:	185- 450Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	8.95 (U.S.) / 10.7 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:

This product is normally stable and will not undergo hazardous reactions.

CONDITIONS TO AVOID:

None Known.

INCOMPATIBLE MATERIALS:

Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.

HAZARDOUS POLYMERIZATION:

None Known.

HAZARDOUS DECOMPOSITION PRODUCTS:

- Carbon monoxide - Carbon dioxide - Traces of isocyanate - Oxides of nitrogen - Hydrogen cyanide - Lower molecular weight polymer fractions

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

CHRONIC TOXICITY

Ingredient Target Organ/Chronic Effects:

- Brain - Central nervous system - Lung

Mutagenicity Toxicity:

This has not been tested for this product.

Reproductive Toxicity:

This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS

Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE

Mobility: No information available.

Biodegradation: No information available.

Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL

Hydrolysis: No information available.

Photolysis: No information available.

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Product ID: 2855-14952 (0809)
PRODUCT NAME: BLUE 60 H2O NANOTINT FOR

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.

Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: NOT AVAILABLE
NOS Technical Name: NOT AVAILABLE
Hazard Class: N.A.
Subsidiary Class(es): N.A.
UN Number: N.A.
Packing Group: N.A.

USA - RQ Hazardous Substances: NOT AVAILABLE
USA-RQ Hazardous Substance: NOT AVAILABLE
Threshold Ship Weight:
Marine Pollutant Name: NOT AVAILABLE

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS

U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.

FEDERAL REGULATIONS

US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
PETROLEUM DISTILLATES 64741-65-7	0.5-1.5	Not Listed	Not Listed	Not Listed

SARA 311/312

Health (acute): Yes
Health (chronic): No
Fire (flammable): No
Pressure: No
Reactivity: No

WHMIS HAZARD CLASS: - Class D, Division 2, Subdivision A

STATE/PROVINCIAL REGULATIONS

Additional Information

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems

NFPA Rating: 2 10

HMIS Rating: 2 10

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe,
*=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department

REASON FOR REVISION: Date. Edition.

Updated MSDS format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

2855-14952000000 (00438191.001)(12/12/06)
061211, 000, 0809

*** END OF MSDS ***

MATERIAL SAFETY DATA SHEET



SECTION 1 - PRODUCT AND COMPANY INFORMATION

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

EMERGENCY PHONE NUMBERS (412) 434-4515 (U.S.)
(24 hours/day):

(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
0532-83889090 (China)

TECHNICAL INFORMATION: 1-800-245-2590 (CLEVELAND, OH) 8:00 a.m. - 5:00 p.m. EST
PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST
Product ID: 6610-P2998 (0806-F1)
PRODUCT NAME: R6438 PERYLENE MAROON
SYNONYMS: None
ISSUE DATE: NOT AUTHORIZED
EDITION NO.: NOT AUTHORIZED
CHEMICAL FAMILY: Acrylic

EMERGENCY OVERVIEW:

Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone. CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE ABSORBED THROUGH THE SKIN. VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT. MAY BE HARMFUL IF SWALLOWED.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
N-BUTYL ACETATE 123-86-4	40 - 70	X

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes severe eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
May be absorbed through the skin.

INHALATION:
Vapor and/or spray mist may be harmful if inhaled. Vapor irritates eyes, nose, and throat.

INGESTION:
May be harmful if swallowed.

SIGNS & SYMPTOMS OF OVEREXPOSURE:

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS

Avoid long-term and repeated contact. Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. An ingredient in this product has caused fetal toxicity in experimental animals. The significance of these findings for humans is unknown. The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

SECTION 4 - FIRST AID MEASURES

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASHPOINT: 40 Degrees F (4 Degrees C)

FLASHPOINT TEST METHOD:

Pensky-Martens Closed Cup

UEL: Not Available.

LEL: 1.7

AUTOIGNITION TEMPERATURE:

Not Available.

EXTINGUISHING MEDIA:

Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IB flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

PROTECTION OF FIREFIGHTERS:

Fire-fighters should wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:

Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

STORAGE:

Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IB flammable liquids.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:

Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:

Wear chemical-type splash goggles and full face shield when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.

SKIN/GLOVES:

Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: butyl rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.

RESPIRATOR:

Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS

If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
N-BUTYL ACETATE 123-86-4	40 - 70	150 PPM	200 ppm	150 ppm	200 ppm

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
N-BUTYL ACETATE 123-86-4	40 - 70	150 ppm	200 ppm	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit (1989 Vacated values); IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin=Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Absorption; R-Respirable Dust] Additional Information Not applicable.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES (FORMULA VALUES, NOT SALES SPECIFICATIONS)

SPECIFIC GRAVITY:	.991
PHYSICAL STATE:	Liquid
Percent Solids:	34.75
Percent Volatile by Volume:	73.430
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	7.8 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor characteristic of the solvents listed in Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	100
BOILING POINT OR RANGE:	244 - 262Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-octanol/water):	Not Applicable.
WEIGHT PER GALLON:	8.26 (U.S.) / 9.9 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:

This product is normally stable and will not undergo hazardous reactions.

CONDITIONS TO AVOID:

None Known.

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One PPG Place
Pittsburgh, PA 15272

Product ID: 6610-P2998 (0806-F1)
PRODUCT NAME: R6438 PERYLENE MAROON

INCOMPATIBLE MATERIALS:

Avoid contact with strong alkalis, strong mineral acids, or strong oxidizing agents.

HAZARDOUS POLYMERIZATION:

None Known.

HAZARDOUS DECOMPOSITION PRODUCTS:

- Carbon monoxide - Oxides of nitrogen - Carbon dioxide

USA-RQ Hazardous Substance NOT AVAILABLE

Threshold Ship Weight:

NOT AVAILABLE

Marine Pollutant Name:

NOT AVAILABLE

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
N-BUTYL ACETATE 123-86-4	40 - 70	10.77 g/kg	17.60 g/kg	Not Available

CHRONIC TOXICITY

Ingredient Target Organ/Chronic Effects:

- Brain - Central nervous system - Lung - Fetotoxin

Mutagenicity Toxicity:

This has not been tested for this product.

Reproductive Toxicity:

This has not been tested for this product.

SUPPLEMENTAL HEALTH INFORMATION:

SECTION 12 - ECOLOGICAL INFORMATION

POTENTIAL ENVIRONMENTAL EFFECTS

Ecotoxicity: No Information Available.

ENVIRONMENTAL FATE

Mobility: No information available.

Biodegradation: No information available.

Bioaccumulation: No Information Available.

PHYSICAL/CHEMICAL

Hydrolysis: No information available.

Photolysis: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.

Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: NOT AVAILABLE

NOS Technical Name: NOT AVAILABLE

Hazard Class: N.A.

Subsidiary Class(es): N.A.

UN Number: N.A.

Packing Group: N.A.

USA - RQ Hazardous Substances: NOT AVAILABLE

SECTION 15 - REGULATORY INFORMATION

INVENTORY STATUS

U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA inventory reporting requirements.

FEDERAL REGULATIONS

US Regulations

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
N-BUTYL ACETATE 123-86-4	40 - 70	5000 lbs	Not Listed	Not Listed

SARA 311/312

Health (acute): Yes

Health (chronic): No

Fire (flammable): Yes

Pressure: No

Reactivity: No

WHMIS HAZARD CLASS: - Class B, Division 2 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B

STATE/PROVINCIAL REGULATIONS

Additional Information

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program *Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

SECTION 16 - OTHER INFORMATION

Hazard Rating Systems

NFPA Rating: 2 30

HMIS Rating: 2 30

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department

REASON FOR REVISION: Date. Edition.

Updated MSDS format.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

6610-P2998001002 (00517731.001)(05/28/08)
080310, 001, 0806

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Product ID: 6610-P2998 (0806-F1)
PRODUCT NAME: R6438 PERYLENE MAROON

*** END OF MSDS ***