

BTV40

**MATERIAL SAFETY DATA SHEET****Product: Vincon® C-219-A****Manufacturers Name: Saint-Gobain  
Performance Plastics****Address:**  
2664 Gilchrist Rd.  
Akron, Ohio 44305**Emergency Telephone Number:****Call ChemTel:**

1-800-255-3924 USA

1-813-248-0585 International

Date Prepared: 9/26/06

**SECTION 1 - IDENTITY**

- 1.1 Common Name (used on label): Vincon® C-219-A  
1.2 Chemical Name.....: N/A  
1.3 Chemical Family.....: Polyvinyl Chloride/Compounded organic polymer  
1.4 Formula.....: The specific chemical identity of the ingredients is considered a trade secret.

In reference to 40CFR, Section 313, part 372, community right to know, we classify Vincon® Tubing as an "Article" and therefore not subject to notification requirements.

**SECTION 2 - HAZARDOUS INGREDIENTS**

- 2.1 Principal Hazardous Component(s) (Chemical & Common Names)  
Threshold Limit Value

a. Di-2-Ethylhexyl Phthalate (DOP or DEHP) 5mg/m<sup>3</sup>

- 2.2 Principal Non-Hazardous Component(s) (Chemical & Common Names) Threshold  
Limit Value

All additives are physically bound in the manufacturing process and are not expected to create any hazard when the product is used in accordance with normal manufacturing and industrial hygiene practice and by following the guidelines on this sheet.

**SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS  
(Fire & Explosion Data)**

- 3.1 Boiling Point.....: N/A  
3.2 Specific Gravity (H<sub>2</sub>O=1).....: 1.21  
3.3 Vapor Pressure.....: 7 X 10<sup>-8</sup> mm Hg, 20°C  
3.4 Percent Volatile by Volume.....: N/A  
3.5 Vapor Density (Air=1).....: N/A  
3.6 Evaporation Rate.....: N/A  
3.7 Solubility in Water.....: Negligible  
3.8 Melting Point.....: N/A  
3.9 Appearance and Odor.....: Clear tubing; Slight odor.  
3.10 Flash Point.....: 500°F (260°C)  
Form #N0123.1

N/E = Not Established, N/A = Not Applicable, N/R = Not Required, N/D = Not Determined

**MATERIAL SAFETY DATA SHEET****Product: Vincon® C-219-A**

- 3.11 Flammable Limits in Air by  
Volume.....: Lower: N/A Upper: N/A
- 3.12 Auto-Ignition Temperature...: N/A
- 3.13 Extinguisher Media.....: Water
- 3.14 Special Fire Fighting Procedures: Fire fighters should wear full protective clothing including a self-contained breathing apparatus.
- 3.15 Unusual Fire & Explosion  
Hazards.....: None Known

**SECTION 4 - PHYSICAL HAZARDS**

- 4.1 Stability.....: Stable: X Unstable:  
Conditions to Avoid.....: Temperatures above 300°F will slowly  
decompose the tubing material resulting in the  
liberation of HCl gas.
- 4.2 Incompatibility.....: None known
- 4.3 Hazardous Decomposition  
Products.....: When forced to burn, PVC compounds will  
mainly contribute CO, CO<sub>2</sub>, and HCl as gases.
- 4.4 Hazardous Polymerization....: May Occur: Will Not Occur: X  
Conditions to Avoid.....: None Known

**SECTION 5 - HEALTH HAZARDS**

- 5.1 Threshold Limit Value.....: N/E
- 5.2 Sign & Symptoms of Exposure:  
1. Acute Overexposure.....: Toxicological testing has not been conducted  
with this material.  
Route of Entry:  
Eye Contact: See Inhalation  
Skin Contact: See Inhalation  
Inhalation: At temperatures above 300°F,  
fumes may be emitted  
that are irritating to respiratory  
tract, eyes, or skin of sensitive  
people.
- Ingestion: N/A
2. Chronic Overexposure...: None Known

Form #N0123.1

N/E = Not Established, N/A = Not Applicable, N/R = Not Required, N/D = Not Determined

**MATERIAL SAFETY DATA SHEET****Product: Vincon® C-219-A****5.3 Medical Conditions Generally**

Aggravated by Exposure...: There are no data available which address medical conditions which are generally recognized as being aggravated by exposure to this product.

**5.4 Chemical Listed as Carcinogen or Potential Carcinogen.....:**

National Toxicology Program:

Yes: No:

I.A.R.C. Monographs:

Yes: No:

OSHA:

Yes: Suspected No:

CALIF. PROP. 65:

Yes: DEHP

**5.5 OSHA Permissible Exposure**

Limit.....:

5 mg/m<sup>3</sup> TWA**5.6 ACGIH Threshold Limit Value:**5 mg/m<sup>3</sup> TWA, 10 mg/m<sup>3</sup> STEL**5.7 Other Exposure Limit Used...:**

Unknown

**5.8 Emergency & First-Aid**

Procedures.....:

Inhalation: If irritation occurs, remove

affected

individual from area, refer to

physician.

Eyes: N/A

Skin: N/A

Ingestion: N/A

**SECTION 6 - SPECIAL PROTECTION INFORMATION****6.1 Respiratory Protection.....:**

N/R

**6.2 Ventilation.....:**

Local Exhaust: N/R

Mechanical-General: N/R

Mechanical-Special: N/R

Mechanical-Other: N/R

**6.3 Protective Gloves.....:**

N/R

**6.4 Eye Protection.....:**

N/R

**6.5 Other Protective Clothing**

or Equipment.....:

Not Necessary

Form #N0123.1

**MATERIAL SAFETY DATA SHEET****Product: Vincon® C-219-A****SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES**

- 7.1 Precautions to be taken in  
Handling & Storage.....: Store cool and dry.
- 7.2 Other Precautions.....: N/A
- 7.3 Steps to be Taken in Case Material  
is Released or Spilled.....: N/A
- 7.4 Waste Disposal Methods.....: According to Local, State and Federal  
Regulations.

**SECTION 8 - OTHER INFORMATION**

- 8.1 Transportation Information...: DOT Shipping Name: N/A  
DOT Hazard Class: N/A  
DOT Label(s): N/A  
UN/NA Number: N/A  
Placards: None  
IATA: N/A  
IMO IMDG-Code: N/A  
European Class:  
RID (OCTI): N/A  
ADR (ECE): N/A  
RAR (IATA): N/A

8.2 The information and recommendations set forth herein are taken from sources believed to be accurate as of the date hereof, however, Saint-Gobain Performance Plastics Corporation makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability to any user thereof.

Form #N0123.1

# FLEXIBLE PVC TUBING

## FORMULATION C-219-D2

### TECHNICAL DATA

#### TYPICAL PHYSICAL PROPERTIES

Property	ASTM Method	Value or Rating
Durometer Hardness (Shore A), 15s	D2240-02	67
Tensile Strength, psi (MPa)	D412-98	2,450 (16.9)
Ultimate Elongation, %	D412-98	400
Tensile Stress @ 100% Elongation, psi (MPa)	D412-98	1000 (6.9)
Tear Resistance, lb-f/inch (kN/m)	D1004-94	180 (31.5)
Compression Set	D395-02	65
Constant Deflection, % @ 158°F (70°C) for 22 hours	Method B	
Brittle Temperature, °F (°C)	D746-98	-45 (-43)
Specific Gravity	D792-00	1.21
Water Absorption, % 24 hrs at 73°F (23°C)	D570-98	0.12
Maximum Recommended Operating Temperature °F (°C)	-	165 (74)
Color	-	Black

Unless otherwise noted, all tests were conducted at room temperature (73°F). Values shown were determined on 0.075" thick extruded strip or 0.075" thick molded ASTM plaques or molded ASTM durometer buttons.

#### RELATIVE CHEMICAL RESISTANCE PROPERTIES\*

Acids			Bases			Salts	Alcohols	Ketones
conc.	med.	weak	conc.	med.	weak			
F	E	E	E	E	E	E	F	U
Aliphatic Hydrocarbons		Aromatic Hydrocarbons	Halogenated Hydrocarbons		Sunlight Aging	Oxygen	Ozone	
U		U	U		F	E	E	

E = Excellent F = Fair U = Unsatisfactory

\*All tests conducted at room temperature.

#### Product Characteristics:

Opacity	Opaque
FDA Approved for Food Contact	Yes
Odor	None
Taste	None

**SAINT-GOBAIN**  
PERFORMANCE PLASTICS  
Saint-Gobain Performance Plastics Corporation  
2864 Glenview Road, Akron, OH 44308  
330-788-8240 • 800-788-1574 • 330-788-8885  
www.tygon.com



**IMPORTANT:** It is the user's responsibility to ensure the suitability and safety of Saint-Gobain Performance Plastics tubing for all intended uses. Laboratory and clinical tests must be conducted in accordance with applicable regulatory requirements in order to determine the safety and effectiveness for use of tubing in any particular application.

For a period of 6 months from the date of first sale, Saint-Gobain Performance Plastics Corporation warrants this product to be free from defects in materials and workmanship. Our only obligation will be to replace any portion proving defective, or at our option to refund the purchase price thereof. User assumes all other risk, if any, including the risk of injury, loss or damage, direct or consequential, arising out of the use, misuse, or inability to use this product. THIS WARRANTY IS IN LIEU OF THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. No deviation is authorized.

SAINT-Gobain Performance Plastics Corporation assumes no obligations of liability for any advice furnished by it, or for results obtained with respect to these products. All such advice is given and accepted at the buyer's risk.

©2007/04 Saint-Gobain Performance Plastics Corporation Printed in U.S.A.