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DAVID R. FRISCH, P.L.S.  
MARK A. MORTON, P.E.  
JASON D. MEYER, P.E.

November 26, 2012

Mr. Wes Weaver, President  
Weaver Construction Management, Inc.  
3679 South Huron Street, Suite 404  
Englewood, CO 80110

*Via Email to: wes@weavercm.com*  
*No Hard Copy to Follow*

Re: Harold D. Thompson Regional Water Reclamation Facility (HDTRWRF)  
Lower Fountain Metropolitan Sewage Disposal District (LFMSDD)

Dear Wes:

Reference is made to your shop submittal identified as follows:

Submittal No.:	12346-001A
Date of Submittal:	November 20, 2012
Title:	Casework, Color Chart, Fume Hood
Specification Section:	12346 – Laboratory Casework
Manufacturer:	Thermo Fisher Scientific; Haldeman-Homme, Inc.; Fisher Hamilton; WaterSaver Faucet Co.

The referenced submittal has been stamped "**No Exception Taken**", "**Make Corrections Noted**", "**Revise and Resubmit**" and "**Submit Specified Item**". Our comments are as follows:

1. Fume Hood: Specification Section 11610-Fume Hood, Paragraph 2.1., has numerous categories (A. through H.) that should be addressed in the shop submittal. Some of those categories have been addressed and others have not. We will itemize them as follows:

Section 11610, Paragraph 2.1., A. through H.:

A. Size: **No Exception Taken**

B. Auxiliary Air Bench Hood: **No Exception Taken** and **Revise and Resubmit**

1. Exhaust blower: Additional Supplemental Review Comments Item 10.c. by WCMI states, "...the exhaust fan for the fume hood is being provided by the HVAC subcontractor...and has been approved under submittal 15800-21." **No Exception Taken**
2. Supply blower: It is not apparent in review of the shop submittal if the supply blower is being provided and more particularly, if a supply blower with an approximate air flow of 600 ICFM is being provided. **Revise and Resubmit**

C. Assembly to consist of...: Both items 1. and 2. under Paragraph 2.1.C. have been satisfactorily addressed. **No Exception Taken**

- D. Modified epoxy resin working surface: Information addressing Items 1., 2. and 3 of this paragraph have not been provided. **Revise and Resubmit**
  - E. Vertical sliding sash...:
    - 1. In a prior conversation with a representative with WCMI, we were told a fixed sash was being provided. Based upon the shop submittal received, it appears the inclusion of the sash cables, sash guides, pulley assemblies and sash pull would indicate it is an adjustable sash. We take no exception to the adjustable sash whis is per specification; however, we request the shop submittal address item 2. under Paragraph 2.1.E.
  - F. Factory Installed Service Accessories: Information addressing each of the items noted has not been provided. Address those items where information was not included in the submittal. **Revise and Resubmit**
  - G. All electrical wiring...: See notes below regarding the pre-wired fume hood.
  - H. Fume Hood Faucet: See notes below regarding the fume hood faucet.
  - I. Design Basis: As noted in the prior shop submittal response letter, we request the shop submittal provide adequate information to determine if the proposed model meets or exceeds the Model 54L630 requested in the project specifications. Adequate information should be provided in the shop submittal to make this determination.
- 2. Sheet H10.01, Lab Work Casework Details: A reference is made for the fixture product to Sheet H50.01. H50.01 is the WaterSaver Faucet Co. eyewash. It would appear the reference should be made to Sheet H50.02. **Make Corrections Noted**
  - 3. Sheets H10.02, H10.03 and H10.04: **No Exception Taken**
  - 4. Sheet H20.01: **Make Corrections Noted**
    - a. We request Option No. 8, Label Holders, be checked to have a label holder on: One each door/one each drawer head – stainless steel.
  - 5. Sheet H25.01: **No Exception Taken**
  - 6. Sheet H25.02, Epoxy Countertop: **Submit Specified Item**
    - a. In shop submittal response letter, dated November 1, 2012, we took no exception to the epoxy countertop proposed for use. Based upon further research, the lab countertop does not come with the integral molded back and end splashes as specified in project Specification Section 12346. We request the manufacturer/supplier provide documentation on how the separate pieces will be sealed in perpetuity, precluding any migration of moisture/liquid between the countertop and backsplash components.
    - b. On November 27, 2012, WCMI provided supporting documentation from the supplier/manufacturer regarding the backsplash. We have attached a copy of the electronic

Mr. Wes Weaver  
November 26, 2012  
Page 2

mail response from the supplier and the product data for the 2-part epoxy resin adhesive to be used. **No Exception Taken**

7. Sheet H30.01, H40.01: **No Exception Taken**
8. Sheet H50.01, WaterSaver Co. Eyewash, Model SSBF909: **Make Corrections Noted**
  - a. The showerhead should be stainless steel.
  - b. The unit should include a drench hose kit with vacuum breaker.
9. Sheet H50.02, Lavatory Mixing Faucet: **Make Corrections Noted**
  - a. The mixing faucet is to have a removable strainer. The shop submittal does not indicate there is a strainer on the Model L412VB-BH.
  - b. The remainder of the proposed unit appears to be an acceptable laboratory mixing faucet.
10. Sheets H60.01, H60.02, H60.03 and H70.01: **No Exception Taken**
11. Sheet H81.01,: **Make Corrections Noted**
  - a. The section shown in the partial floor plan reference Sheets H90.01 through H90.05. The section should reference H91.01 through H91.05.
12. Sheets H91.01, H91.02, H91.03, H91.04 and H91.05: **No Exception Taken**

Please call if you should have any questions.

Sincerely,



David R. Frisch, P.L.S.

DRF/kmw  
Attachments

ec (w/attachments):

Mr. Jim Heckman, Manager, LFMSDD, [jfmanager@lfmsdd.org](mailto:jfmanager@lfmsdd.org)  
Ms. Cindy Murray, Office Manager, Fountain Sanitation District, [fsdistrict@fsd901.org](mailto:fsdistrict@fsd901.org)  
Mr. Jeff Burst, Project Supt., Weaver Construction Management, Inc., [jeff@weavercm.com](mailto:jeff@weavercm.com)  
Mr. John Jacob, Project Mgr., Weaver Construction Management, Inc., [john@weavercm.com](mailto:john@weavercm.com)  
Mr. Adam Roeder, Weaver Construction Management, Inc., [aroeder@weavercm.com](mailto:aroeder@weavercm.com)  
Ms. Leslie Brown, Weaver Construction Management, Inc., [leslie@weavercm.com](mailto:leslie@weavercm.com)

cc (letter only): Mr. Jerry Miller, Resident Project Representative, GMS, Inc.



X-Original-To: drfrisch@gmsengr.com  
Delivered-To: drfrisch@gmsengr.com  
From: John Jacob <john@weavercm.com>  
To: Dave Frisch <drfrisch@gmsengr.com>  
Subject: FW: 24785 - Harold D. Thompson WPF - Counter top back splash  
Thread-Topic: 24785 - Harold D. Thompson WPF - Counter top back splash  
Thread-Index: Ac3MLK7xcltq+r++ROqqSSEOeVZ+GQAorDag  
Date: Tue, 27 Nov 2012 18:52:24 +0000  
Accept-Language: en-US  
X-MS-Has-Attach: yes  
X-MS-TNEF-Correlator:  
x-originating-ip: [10.0.5.147]  
Mailarmory-Level: \*  
Mailarmory-Category: clean (1)  
Mailarmory-Filter-Date: Tue, 27 Nov 2012 11:52:35 -0700 (MST)  
Mailarmory-Details: U2FsdGVKX18Zydr26iun1J0K33/8THXgKdjnMgidY3z72W37ss2ZDqpO+xwtXsoc/3cuHEDsSuBxJ/PvdzTkxw==

Dave,

See below and attached epoxy resin product data provided by Holdeman-Homme. Holdeman-Homme is planning to supply and install an applied back splash for the casework in the operations building. The backsplash will be installed by using a two part epoxy adhesive which is the same material used for joining the counter tops. Below Holdeman-Homme is confirming that this application will provide a tight seal that will benefit the Owner. WCM does not take exception to the use of an applied backsplash.

Let me know if you have any questions.

Thank you,  
John

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**From:** Chris Ferguson [mailto:CFerguson@HALDEMANHOMME.com]  
**Sent:** Monday, November 26, 2012 4:20 PM  
**To:** John Jacob  
**Subject:** RE: 24785 - Harold D. Thompson WPF - Counter top back splash  
**Importance:** High

John,

Our process for applying an applied Backsplash and Side splash involves the same 2-Part Epoxy adhesive mix used for the joints in the countertops. We ensure a complete seal the entire run of the splashes. Thus, the splashes will have the same durable seal as the joints and will preclude any migration of moisture between the splashes and the countertop. This has been successfully accomplished in many labs in which we have used the applied splash in lieu of the integral splash.

Should you have any questions or concerns, please contact me.

Thanks John!



Chris Ferguson | Project Manager  
Haldeman-Homme, Inc.  
Office: (303) 867-0493 | Cell: (303) 526-8939

"Exceeding Customer Expectations since 1924"

Visit us at [www.haldemanhomme.com](http://www.haldemanhomme.com) and [www.hhbestlab.com](http://www.hhbestlab.com)  
*Haldeman Homme / Anderson Ladd is The MASMS 2011 Outstanding Vendor Contributor Award Winner for outstanding dedication and commitment to educational facilities.*  
Arkansas - Colorado - Illinois - Indiana - Iowa - Minnesota - Nebraska - Nevada - New Mexico  
North Dakota - Oklahoma - South Dakota - Texas - Utah - Wisconsin - Wyoming

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**From:** John Jacob [mailto:john@weavercm.com]  
**Sent:** Monday, November 26, 2012 1:34 PM  
**To:** Chris Ferguson  
**Subject:** FW: Counter top back splash

Chris,

Below is a response I received from the engineer regarding the applied backslash. The engineer will be fine with the applied as long as you provide documentation that it will be sealed. The engineer will address this in his review comments of the fume hood and shower re-submittal which we should have back in the next couple of days. Please call me with questions.

John

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**From:** Dave Frisch [mailto:drfrisch@gmsengr.com]  
**Sent:** Monday, November 26, 2012 10:45 AM  
**To:** John Jacob  
**Subject:** Counter top back splash

John

I will be requesting the manufacturer/supplier to SUBMIT SPECIFIED ITEM on the backsplash. They need to provide documentation and assurance that the seal between the counter-top and the backsplash will preclude any migration of moisture between the two in perpetuity.

If they are confident in their product they should be able to do that.

I will try to get through the rest of this today and get it back to you.

dave

David R. Frisch, PLS  
GMS, Inc., Consulting Engineers  
phone: 719-475-2935  
fax: 719-475-2938  
cell: 719-640-9692



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Content-Type: application/pdf; name="31607 - Transmittal - 2 (Weaver Constr.)"

- Smooth On Product Data.pdf"

Content-Description: 31607 - Transmittal - 2 (Weaver Constr.) - Smooth On  
Product Data.pdf

Content-Disposition: attachment; filename="31607 - Transmittal - 2 (Weaver"

Constr.) - Smooth On Product Data.pdf"; size=1167233;

creation-date="Tue, 27 Nov 2012 18:34:46 GMT";

modification-date="Tue, 27 Nov 2012 18:32:13 GMT"



[31607 - Transmittal - 2 \(Weaver.pdf\)](#)



**HALDEMAN-HOMME, INC**

6200 S. Syracuse Way, Unit 120, Greenwood Village, Colorado 80111  
Telephone: (303) 237-1333 FAX: (303) 237-0518

**LETTER OF TRANSMITTAL - #002**

To: Weaver Construction Management, Co Date: 11/27/12  
3679 S. Huron Street, Suite 404 HHI Emanage #: 24785  
Englewood, CO 80110-3498 Project Name: Harold D. Thompson WRF

Attn: John Jacob – Project Manager

Enclosed:	Submitted For:	Sent Via:
<input type="checkbox"/> Prints	<input checked="" type="checkbox"/> Approval	<input type="checkbox"/> UPS
<input type="checkbox"/> Architectural Plans	<input type="checkbox"/> For Your Use	<input type="checkbox"/> Next Day / Overnight Delivery
<input type="checkbox"/> Specifications	<input type="checkbox"/> As Requested	<input type="checkbox"/> U.S. Mail
<input type="checkbox"/> Samples	<input type="checkbox"/> Review and Comment	<input type="checkbox"/> Certified Mail
<input checked="" type="checkbox"/> Product Data	<input type="checkbox"/> Submit Copies for Distribution	<input type="checkbox"/> FAX
<input type="checkbox"/> Operating Manuals	<input type="checkbox"/> Record	<input type="checkbox"/> Hand Delivery
<input type="checkbox"/> Test Results	<input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Email
<input type="checkbox"/> Other:		<input type="checkbox"/> Other:

Copies	Dated	Spec Section	Description
1		12346	Smooth-On 2-Part Epoxy Resin Adhesive – Product Data & MSDS.

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Should you have any questions, please contact me. Thanks John!

**Haldeman Homme Action Taken:**  
 Approved     Approved as Noted     Make Corrections     Revise & Resubmit     Acknowledged

Copy To: File From: Chris Ferguson – Project Manager  
Haldeman-Homme, Inc.



### PRODUCT OVERVIEW

Smooth-On PC-3® Laboratory Table Top Cement is a two-component, black epoxy resin compound designed to join, bond and caulk sections of laboratory counters and tables. This epoxy resin cement is heavily filled and will adhere to vertical surfaces without sagging. It cures at room temperature with extremely low shrinkage. PC-3® contains no volatile organic compounds (VOC's) or solvents. It is chemically stable and bonds strongly to natural and artificial stones, most metals, glass, wood and to thermosetting resins such as polyester, phenolic and epoxy. PC-3® is available in pint units (2.5 lbs.) or quart units (5.0 lbs.) and is sold in case quantities only. A case of pints contains six units and a case of quarts contains 3 units.

### TECHNICAL OVERVIEW

Mix Ratio: 1A : 1B by weight or volume

Mixed Viscosity: Paste

Specific Gravity/Volume: 1.4 / 20 cu. in./lb.

Working Life: 20 minutes (100 g at 73°F/23°C)

Handling time: 2 hours (0.010 in/0.0254 cm film)

Color: Black

Barcol 935 Hardness: 75 (after 24 hours)

Tensile Strength, psi: 3,000 (ASTM D638-84)

Flexural Strength, psi: 5,000 (ASTM D790-87)

Linear Shrinkage: .003 in/in

Compressive Yield, psi: 5,000 (ASTM D695-84)

Tensile Shear Adhesion to CR Steel, psi: 3,000 (ASTM D1002-72)

\* All values measured after 7 days at 73°F/23°C

### PROCESSING RECOMMENDATIONS

**PREPARATION...Safety** - Use in a properly ventilated area ("room size" ventilation). Wear safety glasses, long sleeves and rubber gloves to minimize contamination risk.

**Store and use material at room temperature (73°F/23°C).** This product has a limited shelf life and should be used as soon as possible.

Any surface to which the PC-3® will be applied should also be at least 73°F/23°C. Sand surface and wipe clean with fast drying solvent (such as acetone) prior to applying PC-3®. Surface must be clean, dry, and free of all contaminants such as oil, grease, water, dust, etc. Mask adjacent areas with masking tape, then strip tape off as soon as installation is completed. Remove excess or unwanted cement with solvent before it sets.

**Because no two applications are quite the same, a small test application to determine suitability for your project is recommended if performance of this material is in question.**

### MEASURING & MIXING...

**Measuring & Mixing** - It is important that Parts A & B be mixed accurately in equal amounts. Excess amounts of either Part A or B will cause improper curing of the material. After dispensing equal amounts of Parts A & B, mix thoroughly for 5 minutes, making absolutely sure that you scrape the sides and bottom of the mixing container several times. If you notice streaks in the mixed material, it is not mixed thoroughly enough. Normal cure time is 24 hours.

### Safety First!

The Material Safety Data Sheet (MSDS) for this or any Smooth-On product should be read prior to use and is available upon request from Smooth-On. All Smooth-On products are safe to use if directions are read and followed carefully. **Keep Out of Reach of Children**

**BE CAREFUL** - PC-3® Part A is irritating to the eyes and skin. Avoid prolonged or repeated skin contact to prevent possible sensitization. Use only with adequate ventilation. If contaminated, flush eyes with water for 15 minutes and seek medical attention. Remove from skin with waterless hand cleaner, then soap and water. Read MSDS before using. PC-3® Part B causes burns to the eyes, may burn the skin and cause sensitization. Vapors irritate the respiratory tract. If contaminated, flush eyes with water for 15 minutes and seek medical attention. Remove from skin with soap and water. Use only with adequate ventilation. During the dismantling of a laboratory counter installation, care must be taken to avoid the inhalation of any dust from the epoxy cement or the counter top material itself. The method for removal is to heat up the PC-3® cement to about 130° - 150° F (hot water temperature) using flameless heat gun, then cutting away the joints with a putty knife or scraper blade. The epoxy is very "rubbery" when hot and cuts easily. If any sanding or sawing is performed, proper respiratory protection is mandatory.

**IMPORTANT** - The information contained in this bulletin is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained from the use thereof, or that any such use will not infringe upon a patent. User shall determine the suitability of the product for the intended application and assume all risk and liability whatsoever in connection therewith.



Call Us Anytime With Questions About Your Application.

Toll-free: (800) 762-0744 Fax: (610) 252-6200

The new [www.smooth-on.com](http://www.smooth-on.com) is loaded with information about mold making, casting and more.





# Material Safety Data Sheet

PC Series

MSDS No. 203

Date of Preparation: September 27, 2010

Revision: 0007

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** PC Series Epoxy

**General Use:** Epoxy Adhesive

**Manufacturer:** Smooth-On Inc., 2000 St. John St., Easton PA 18042  
Phone (610) 252-5800, FAX (610) 252-6200

**Emergency Contact:** Chem-Tel  
Domestic 800-255-3924  
International 813-248-0585

## Section 2- Hazards Identification

Europe

Canada



HMIS	
H	1
F	1
R	1

Xi: Irritant N: Dangerous for the environment

### Information pertaining to particular dangers

**R36/38:** Irritating to eyes and skin.

**R43:** May cause sensitization by skin contact.

**R51/53:** Toxic to aquatic organisms may cause long term adverse effects in the aquatic environment.

Classified according to Articles 6 & 7 of Directive 1999/45/EC

## Section 3 - Composition / Information on Ingredients

Component	ACGIH TWA	OSHA PEL	Hazard Designation	Weight Percent (%)
Diglycidyl Ether of Bisphenol A CAS Number: 25068-38-6 EINECS Number: 500-033-5	None Established	None Established	Xi  N	50-60%
Triphenyl Phosphite CAS Number: 101-02-0 EINECS Number: 202-908-4	None Established	None Established	Xi  N	5-10%

## Section 4 - First Aid Measures

**Inhalation:** Remove source(s) of contamination and move victim to fresh air.

**Eye Contact:** Flush eyes with plenty of water. If irritation persists, seek medical attention.

**Skin Contact:** In case of skin contact, wash thoroughly with soap and water; remove contaminated clothing and launder before reuse.

**Ingestion:** Do not induce vomiting unless instructed by a physician. Contact physician immediately.

**After first aid, get appropriate in-plant, paramedic, or community medical support.**

### Section 5 - Fire-Fighting Measures

**Flash Point:** >485 °F (252 °C)

**Flash Point Method:** PMCC

**Flammability Classification:** Non-Flammable

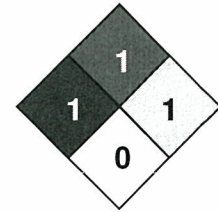
**Extinguishing Media:** Foam, Dry Chemical, and Carbon Dioxide

**Unusual Fire or Explosion Hazards:** None

**Hazardous Combustion Products:** Oxides of Nitrogen and Carbon, Acids and Aldehydes when burned.

**Fire-Fighting Instructions:** Do not release runoff from fire control methods to sewers or waterways.

**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure-demand or positive-pressure mode.



### Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Dike and contain spill; absorb or scrape up excess into suitable container for disposal. Stop or reduce discharge if it can be done safely.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

### Section 7 - Handling and Storage

**Handling Precautions:** Minimize breathing of vapors and avoid prolonged or repeated contact with skin. Wear proper protective equipment. If ventilation is not sufficient, wear proper respiratory equipment. Use good general housekeeping procedures.

**Storage Requirements:** Store in cool dry, well-ventilated area.

### Section 8 - Exposure Controls / Personal Protection

**Respiratory Protection:** Follow OSHA respirator regulations 29 CFR 1910.134 and European Standard EN 149; wear an MSHA/NIOSH or European Standard EN149 approved respirator. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas

**Protective Clothing/Equipment:** Wear chemically protective gloves, boots, and aprons to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.



**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics



**Section 9 - Physical and Chemical Properties**

<b>Physical State:</b>	<b>Water Solubility:</b> negligible
<b>Odor:</b> mild odor	<b>Boiling Point:</b> None
<b>Vapor Pressure:</b> None (Polymeric Resin)	<b>Freezing/Melting Point:</b> Not Established
<b>Vapor Density (Air=1):</b> None	<b>Evaporation Rate:</b> None
<b>Specific Gravity (H<sub>2</sub>O=1, at 4 °C):</b> 1.40	<b>Viscosity:</b> Paste

**Section 10 - Stability and Reactivity**

**Stability:** These products are stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** Strong oxidizing agents, strong Lewis or mineral acids.

**Conditions to Avoid:** Mixing with Amines under uncontrolled conditions.

**Hazardous Decomposition Products:** Thermal oxidative decomposition can produce: Oxides of Nitrogen and Carbon, Acids and Aldehydes when burned.

**Section 11- Toxicological Information**

LC50 Oral	LC50 Dermal
Rat: >5000 mg/kg	Rabbit: 20,000 mg/m <sup>3</sup>

**Section 12 - Ecological Information**

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10mg/L in the most sensitive species tested). Toxicity to aquatic species occurs at concentrations above material's water solubility.

**Fish Acute & Prolonged Toxicity**

LC50, fathead minnow (Pimephales promelas), 96 h: 3.1 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, water flea Daphnia magna, 48 h, immobilization: 1.4 - 1.7 mg/l

Toxicity to Micro-organisms

IC50; bacteria, Growth inhibition, 18 h: > 42.6 mg/l

**Section 13 - Disposal Considerations**

**Disposal:** These materials must be disposed of in accordance with applicable local regulations.

**Section 14 - Transport Information**

DOT	IATA	IMDG
Not Regulated	Not Regulated	<b>Shipping Name:</b> ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin) UN #: 3082 Hazard Class: 9 Label: <b>Marine Pollutant</b>



## Section 15 - Regulatory Information

### United States EPA Regulations:

**US TSCA Inventory Status (40 CFR 710):** All components of these products are listed on the TSCA inventory.

**California Proposition 65:** These products do not intentionally contain any chemicals which have been identified by the state of California to cause cancer, birth defects or other reproductive harm.

### Canadian Regulations;

WHMIS Identification: **D2B**

CDSL/NDL (Canadian Domestic Substance List/Non Domestic Substance List): **Listed on CDSL**



### Labeling according to EEC Directive

Risk Phrases	Symbol(s) Required for EU Label	Safety Phrases
<p><b>R36/38:</b> Irritating to eyes and skin.</p> <p><b>R43:</b> May cause sensitization by skin contact.</p> <p><b>R51/53:</b> Toxic to aquatic organisms may cause long term adverse effects in the aquatic environment.</p>	 <b>Xi: Irritant</b>   <b>N: Dangerous for the environment</b>	<p><b>S26:</b> In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</p> <p><b>S36/37/39:</b> Wear suitable protective clothing, gloves and eye and face protection.</p> <p><b>S45:</b> In case of accident or if you feel unwell, seek medical advice</p> <p><b>S61:</b> Avoid release to the environment. (See MSDS).</p>

## 16 - Other Information

**Disclaimer:** The information contained in this MSDS is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Directive 1907/2006/EEC (REACH). Hazard symbols and risk phrases are based on maximum listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) or the European Union (EU/EEC) directive 1907/2006/EEC and are considered trade secrets under US Federal Law (29CFR and 40CFR), Canadian Law (Health Canada Legislation), and European Union Directives.



# Material Safety Data Sheet

PC Series

MSDS No. 203

Date of Preparation: September 27, 2010

Revision: 0007

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** PC-B

**General Use:** Epoxy Adhesive

**Manufacturer:** Smooth-On Inc., 2000 St. John St., Easton PA 18042

Phone (610) 252-5800, FAX (610) 252-6200

**Emergency Contact:** Chem-Tel

Domestic 800-255-3924

International 813-248-0585

## Section 2- Hazards Identification

Europe



Xi: Irritant

Canada



HMIS	
H	2
F	1
R	1

### Information pertaining to particular dangers

**R36/38:** Irritating to eyes and skin.

**R43:** May cause sensitization by skin contact.

Classified according to Articles 6 & 7 of Directive 1999/45/EC

## Section 3 - Composition / Information on Ingredients

Component	ACGIH TWA	OSHA PEL	Hazard Designation	Weight Percent (%)
Tetraethylene Pentamine CAS Number: 112-57-2 EINECS Number: 203-986-2	None Established	None Established	Xi  C	1-3%
2,4,6 Tri(dimethyl)phenol CAS Number: 90-72-2 EINECS Number: 202-013-9	None Established	None Established	Xn	1-3%

## Section 4 - First Aid Measures

**Inhalation:** Remove source(s) of contamination and move victim to fresh air.

**Eye Contact:** Flush eyes with plenty of water. If irritation persists, seek medical attention.

**Skin Contact:** In case of skin contact, wash thoroughly with soap and water; remove contaminated clothing and launder before reuse.

**Ingestion:** Do not induce vomiting unless instructed by a physician. Contact physician immediately.

**After first aid, get appropriate in-plant, paramedic, or community medical support.**



### Section 5 - Fire-Fighting Measures

**Flash Point:** >485 °F (252 °C)

**Flash Point Method:** PMCC

**Flammability Classification:** Non-Flammable

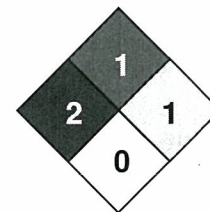
**Extinguishing Media:** Foam, Dry Chemical, and Carbon Dioxide

**Unusual Fire or Explosion Hazards:** None

**Hazardous Combustion Products:** Oxides of Nitrogen and Carbon, Acids and Aldehydes when burned.

**Fire-Fighting Instructions:** Do not release runoff from fire control methods to sewers or waterways.

**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure-demand or positive-pressure mode.



### Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Dike and contain spill; absorb or scrape up excess into suitable container for disposal. Stop or reduce discharge if it can be done safely.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

### Section 7 - Handling and Storage

**Handling Precautions:** Minimize breathing of vapors and avoid prolonged or repeated contact with skin. Wear proper protective equipment. If ventilation is not sufficient, wear proper respiratory equipment. Use good general housekeeping procedures.

**Storage Requirements:** Store in cool dry, well-ventilated area.

### Section 8 - Exposure Controls / Personal Protection

**Respiratory Protection:** Follow OSHA respirator regulations 29 CFR 1910.134 and European Standard EN 149; wear an MSHA/NIOSH or European Standard EN149 approved respirator. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas

**Protective Clothing/Equipment:** Wear chemically protective gloves, boots, and aprons to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.



**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics



**Section 9 - Physical and Chemical Properties**

<b>Physical State:</b>	<b>Water Solubility:</b> negligible
<b>Appearance and Odor:</b> Tan Paste; ammonia odor	<b>Boiling Point:</b> None
<b>Vapor Pressure:</b> <1 @ 25°C	<b>Freezing/Melting Point:</b> None Determined
<b>Vapor Density (Air=1):</b> No Data	<b>Evaporation Rate:</b> None Determined
<b>Specific Gravity (H<sub>2</sub>O=1, at 4 °C):</b> 1.5	
<b>Viscosity (poise):</b> Paste	

**Section 10 - Stability and Reactivity**

**Stability:** This product is stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** Strong oxidizing agents, strong Lewis or mineral acids.

**Conditions to Avoid:** Mixing with Amines under uncontrolled conditions.

**Hazardous Decomposition Products:** Thermal oxidative decomposition can produce: Oxides of Nitrogen and Carbon, Acids and Aldehydes when burned.

**Section 11- Toxicological Information**

Not Determined

**Section 12 - Ecological Information**

None Established

**Section 13 - Disposal Considerations**

**Disposal:** This material must be disposed of in accordance with applicable local regulations.

**Section 14 - Transport Information**

DOT	IATA	IMDG
Not Regulated	Not Regulated	Not Regulated

**Section 15 - Regulatory Information**

**United States EPA Regulations:**

**US TSCA Inventory Status (40 CFR 710):** All components of this product are listed on the TSCA inventory.

**California Proposition 65:** This product does not intentionally contain any chemicals which have been identified by the state of California to cause cancer, birth defects or other reproductive harm.

### Section 15 - Regulatory Information (continued)

#### Canadian Regulations;

WHMIS Identification: **D2B**

CDSL/NDL (Canadian Domestic Substance List/Non Domestic Substance List): **Listed on CDSL**



#### Labeling according to EEC Directive

Risk Phrases	Symbol(s) Required for EU Label	Safety Phrases
<p><b>R36/38:</b> Irritating to eyes and skin.</p> <p><b>R43:</b> May cause sensitization by skin contact.</p>	 <b>Xi: Irritant</b>	<p><b>S26:</b> In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</p> <p><b>S36/37/39:</b> Wear suitable protective clothing, gloves and eye and face protection.</p> <p><b>S45:</b> In case of accident or if you feel unwell, seek medical advice.</p>

### 16 - Other Information

**Disclaimer:** The information contained in this MSDS is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Directive 1907/2006/EEC (REACH). Hazard symbols and risk phrases are based on maximum listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) or the European Union (EU/EEC) directive 1907/2006/EEC and are considered trade secrets under US Federal Law (29CFR and 40CFR), Canadian Law (Health Canada Legislation), and European Union Directives.