



**HOW TO FIND VOC INFORMATION  
FOR COATING OPERATIONS**

# WHAT INFORMATION DO I NEED TO FIND?

To complete a permit application for a coating operation, you must first find Volatile Organic Compound (VOC) information for all components in each coating you plan to use.

Each component has the following information:

**VOC Actual** – sometimes labeled ‘Material VOC’, ‘Total VOC’, or ‘Emitted VOC’

**VOC Regulatory** – sometimes labeled ‘VOC content less water and exempt compounds’, ‘VOC as applied’, or ‘VOC EPA Method 24’

**Percent Water and Exempt Compounds**

A complete application will have at least *two* of the above *three* pieces of information for EACH component used in the coating operation

# WHERE CAN I FIND VOC INFORMATION?

The manufacturer of your coatings will usually have a variety of sources to find VOC information:

**Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS)**

**Product Data Sheets (PDS)**

**Environmental Data Sheets (EDS)**

**Product Label**

**Manufacturer's Website**

**Manufacturer's Technical Support Department**

# MATERIAL SAFETY DATA SHEETS (MSDS) OR SAFETY DATA SHEETS (SDS)

MATERIAL SAFETY DATA SHEET				
N41B620 20 00		DATE OF PREPARATION Apr 29, 2013		
<b>SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION</b>				
<b>PRODUCT NUMBER</b> N41B620				
<b>PRODUCT NAME</b> SEAGUARD® 1000 Marine Enamel, Black				
<b>MANUFACTURER'S NAME</b> THE SHERWIN-WILLIAMS COMPANY 101 Prospect Avenue N.W. Cleveland, OH 44115				
Telephone Numbers and Websites				
Regulatory Information	(216) 566-2902	www.paintdocs.com		
Medical Emergency	(216) 566-2917			
Transportation Emergency*	(800) 424-9300			
*For Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)				
<b>SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS</b>				
% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
41	64742-88-7	Mineral Spirits ACGIH TLV OSHA PEL	100 PPM 100 PPM	2 mm
0.2	136-52-7	Cobalt 2-Ethylhexanoate ACGIH TLV OSHA PEL	Not Available Not Available	
0.6	14808-60-7	Quartz ACGIH TLV OSHA PEL	0.025 mg/m3 as Resp. Dust 0.1 mg/m3 as Resp. Dust	
1	1333-86-4	Carbon Black ACGIH TLV OSHA PEL	3.5 MG/M3 3.5 MG/M3	
<b>SECTION 3 — HAZARDS IDENTIFICATION</b>				

‘MSDS’ and ‘SDS’ refer to the same document. It contains a material’s ingredient information, as well as ways to safely handle and store the material.

A MSDS or SDS typically also contains the VOC information you need. Start with this document. If a MSDS doesn’t already come with the product when you purchase it, contact the manufacturer.

# MATERIAL SAFETY DATA SHEETS (MSDS) OR SAFETY DATA SHEETS (SDS)

The *'Physical and Chemical Properties'* section of a MSDS or SDS will typically have VOC information. This is usually Section 9.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES			
PRODUCT WEIGHT	7.89 lb/gal	945 g/l	
SPECIFIC GRAVITY	0.95		
BOILING POINT	300 - 395 °F	148 - 201 °C	
MELTING POINT	Not Available		
VOLATILE VOLUME	54%		
EVAPORATION RATE	Slower than ether		
VAPOR DENSITY	Heavier than air		
SOLUBILITY IN WATER	Not Available		
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>			
	3.49 lb/gal	418 g/l	Less Water and Federally Exempt Solvents ←
	3.49 lb/gal	418 g/l	Emitted VOC ←
SECTION 10 — STABILITY AND REACTIVITY			
STABILITY — Stable			
CONDITIONS TO AVOID			

VOC information can also be found in MSDS or SDS sections like:

*'Regulatory Information'* - usually Section 15 or 16

*'Composition/Ingredient Information'* - typically found at the beginning of a MSDS or SDS

*'Other Information'* - typically found at the end of a MSDS or SDS

# PRODUCT DATA SHEETS (PDS)

A PDS is a document that gives an in-depth description of coating characteristics and its potential uses.

VOC information can typically be found in sections like 'Product Characteristics'.

If your coating has more than one component, the PDS is typically a great resource of VOC information for the mixture



**Protective  
&  
Marine  
Coatings**

**SEAGUARD® 1000  
MARINE ENAMEL**

**N41-620 SERIES**

Revised: February 12, 2013 9.47

**PRODUCT INFORMATION**

PRODUCT DESCRIPTION	RECOMMENDED USES																														
<p><b>SEAGUARD 1000 MARINE ENAMEL</b> is a fast drying, patented modified alkyd rust inhibitive high gloss marine enamel. Seaguard 1000 Marine Enamel has excellent non-yellowing characteristics and superior color and gloss retention on exterior exposure. Specifically formulated to withstand Marine and coastal environments. For both interior and exterior applications.</p> <ul style="list-style-type: none"> <li>Corrosion resistant</li> <li>Excellent color and gloss retention</li> <li>Low odor</li> </ul>	<p>For atmospheric use on interior and exterior exposed marine surfaces such as commercial ocean craft, trim and decks, coastal structures and properly primed wood, Iron and Steel, Aluminum and Galvanizing.</p> <ul style="list-style-type: none"> <li>Deck Houses</li> <li>Handrails</li> <li>Machinery and Equipment</li> <li>Ladders</li> <li>Topside Areas</li> <li>Logo Equipment</li> <li>Freeboard</li> </ul>																														
PRODUCT CHARACTERISTICS	PERFORMANCE CHARACTERISTICS																														
<p><b>Finish:</b> High gloss 85+ Units @ 60° angle</p> <p><b>Colors:</b> Wide range of color availability</p> <p><b>Volume Solids:</b> 50% ± 2%, may vary by color</p> <p><b>Weight Solids:</b> 63% ± 2%, may vary by color</p> <p><b>VOC (EPA Method 24):</b> &lt;420 g/L; 3.5 lb/gal</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Test Name</th> <th>Test Method</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td><b>Abrasion Resistance</b></td> <td>ASTM D4060</td> <td>54 grams</td> </tr> <tr> <td><b>Direct Impact Resistance</b></td> <td>ASTM G14</td> <td>80 lbs</td> </tr> <tr> <td><b>Dry Heat Resistance</b></td> <td>ASTM D2485</td> <td>300°F (149°C), paint film yellows but remains protective and intact</td> </tr> <tr> <td><b>Exterior Durability</b></td> <td></td> <td>Excellent</td> </tr> <tr> <td><b>Flexibility</b></td> <td>ASTM D522</td> <td>1/8" bend</td> </tr> <tr> <td><b>Pencil Hardness</b></td> <td>ASTM D3363</td> <td>2 - 4 H</td> </tr> <tr> <td><b>Reverse Impact Resistance</b></td> <td>ASTM G14</td> <td>10 lbs</td> </tr> <tr> <td><b>Salt Fog Resistance</b></td> <td>ASTM B117, 500 hours</td> <td>Passes</td> </tr> <tr> <td><b>Wet Heat Resistance (non-immersion)</b></td> <td></td> <td>100°F (38°C)</td> </tr> </tbody> </table>	Test Name	Test Method	Results	<b>Abrasion Resistance</b>	ASTM D4060	54 grams	<b>Direct Impact Resistance</b>	ASTM G14	80 lbs	<b>Dry Heat Resistance</b>	ASTM D2485	300°F (149°C), paint film yellows but remains protective and intact	<b>Exterior Durability</b>		Excellent	<b>Flexibility</b>	ASTM D522	1/8" bend	<b>Pencil Hardness</b>	ASTM D3363	2 - 4 H	<b>Reverse Impact Resistance</b>	ASTM G14	10 lbs	<b>Salt Fog Resistance</b>	ASTM B117, 500 hours	Passes	<b>Wet Heat Resistance (non-immersion)</b>		100°F (38°C)
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Meets the requirements of:  
**CAN/CSG 1.64 For Canada DND**

# ENVIRONMENTAL DATA SHEETS (EDS)

## ENVIRONMENTAL DATA SHEET

(Certified Product Data Sheet)

Date of Preparation  
Dec 30, 2014

20 00 [3634]

### PRODUCT NUMBER

N41B620

### PRODUCT NAME

SEAGUARD® 1000 Marine Enamel, Black

### MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY  
101 Prospect Avenue N.W.  
Cleveland, OH 44115

This document includes all data required by 40 CFR 63.801(a) for a Certified Product Data Sheet under criteria specified in 40 CFR 63.805(a). All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

Product Weight 7.89 lb/gal Specific Gravity 0.95 FLASH POINT 100 °F PMCC  
Hazard Category (for SARA 311.312) [ Acute | Chronic | Fire ]

### Volatile Ingredients

Chemical / Compound	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Med. Aliphatic Hydrocarbon Solvent 64742-88-7	N	N	N	N	41	51

### Regulated Compounds

	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Cobalt Compound	N	N	Y	N	0.1	

### Volatile Organic Compounds (follows U.S. EPA VOC Data Sheet)

A.	Coating Density	7.89 lb/gal	945 g/l
B.	Total Volatiles	44.2 % by wt.	54.5 % by vol.
C.	Federally exempt solvents:	Water	0.0 % by wt. 0.0 % by vol.
D.	Organic Volatiles	44.2 % by wt.	54.5 % by vol.
E.	Percent Non-Volatile	55.8 % by wt.	45.5 % by vol.
F.	VOC Content	3.49 lb/gal 418 g/l	total
	1. 3.49 lb/gal 418 g/l	less exempt solvents	
	2. 7.67 lb/gal 919 g/l	of solids	
	0.79 lb/lb 0.79 kg/kg	of solids	

### Hazardous Air Pollutants (Clean Air Act, Section 112(b))

Volatile HAPS 0.00 lb/gal 0.000 kg/l  
0.00 lb/gal 0.000 kg/l of solids  
0.00 lb/lb 0.00 kg/kg of solids

### Air Quality Data

Density of Organic Solvent Blend  
6.40 lb/gal

An EDS is a document that gives information in regards to environmental considerations such as air quality, water quality, and toxic waste disposal.

If a manufacture supplies an EDS, there is a good chance it will have the VOC information you need.

## WHAT IF THESE DOCUMENTS DON'T HAVE THE VOC INFORMATION I NEED?

If the documents supplied by the manufacturer do not contain the VOC information necessary to complete your application, you must contact the manufacturer. Use:

- The product label
- The contact information at the top of a supplied document
- The manufacturer's website

Representatives for the manufacturer that can help supply VOC information include:

- Chemists
- Product/Customer Service Engineers
- Environmental Health Personnel