

AUXILIARIES DEPT.

PRODUCTS COFFEYVILLE, KANSAS

ISSUED: September 1, 1965

PRODUCT	GRADE	SERIAL NUMBER	SPECIFICATIONS		USES	TYPICAL PROPERTIES	
			ASTM	GOVERNMENT		Issued	Reprint
ZINC OXIDE (ZnO)	OZIDE 10R	63			Rubber activator; ceramics; abrasives; agricultural zinc deficiencies; lubricant addi- tives; matches; chemical smokes; floor coverings.	3/1/65	
	OZIDE 20	41	D79-44	TT-P-463a		1/2/63	8/1/64
LEADED ZINC OXIDES (ZnO, PbO, PbSO ₄)	OZLO 12	48	D80-61		Exterior paints	1/2/63	8/1/64
	OZLO 18M	49	D80-61			1/2/63	8/1/64
	OZLO 35		D80-61	TT-P-462A		6/1/63	8/1/64
	OZLO 50		D80-61			6/1/63	8/1/64
	OZLO 55		D80-61			6/1/63	8/1/64
AGRICULTURAL ZINC COMPOUND	NUZIDE 78S	43			Spray application - corrects nutritional zinc deficiencies; fertilizer.	1/2/63	8/1/64
ZINC SULFATE (ZnSO ₄ ·H ₂ O)	360	45			Paint and varnish processing. Alleviate agricultural zinc deficiencies; rayon manufacture; flotation reagent; clarification glue; wood preservation; electro- galvanizing.	3/1/65	
	361-S	46				3/1/65	
	360-G					7/1/65	
	360-F					9/15/64	
BARIUM CARBONATE (BaCO ₃)	75C	30		JAN-B-624	Beet sugar refining; flat wall paints; ceramics; linoleum; brick manufacture to prevent efflorescence; glass manufact- ure; barium titanate; barium ferrites; ammunition.	1/2/63	8/1/64
	50F	31		"		1/2/63	8/1/64
	70F	32		"		1/2/63	8/1/64
	90F	33		"		1/2/63	8/1/64
	135G	34		"		7/1/65	
	145G	36		"		8/1/64	
	45T	35		"		1/2/63	8/1/64
BARIUM MONOHYDRATE (Ba(OH) ₂ ·H ₂ O)		47			Oil additives; plastic stabil- izers and inhibitors; printing inks; water softening.	1/2/63	8/1/64
LITHOPONE (ZnS + BaSO ₄)	PERMOLITH 20L	53	D477-45	TT-P-400	Latex emulsion paints; leather; linoleum; chalks; crayons; rubber; plastics; patching plaster and crack filler; paper filler.	1/2/63	8/1/64
	PERMOLITH 40M	54	"	"		1/2/63	8/1/64
	PERMOLITH 60H	52	"	"		1/2/63	8/1/64
	PERMOLITH W-320	55	"	"		1/2/63	8/1/64
	PERMOLITH W-421	57	"	"		1/2/63	8/1/64
	PERMOLITH 60N	56	"	"		1/2/63	8/1/64
	PERMOLITH 60J		"	"		8/1/64	



SHERWIN-WILLIAMS**PIGMENT****COLOR &****CHEMICAL****DEPARTMENT**

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOISZINC OXIDE
ZnO
OZIDE 10R
Rubber Manufacture

Serial No. 63

Issued March 1, 1965

Miscellaneous Properties

Method

Appearance	White Powder, Grayish Cast	50h
Specific Gravity	5.57	50b
Screen Analysis (Residue 325 Mesh)	0.1% Max.	50f

Chemical Analysis

Zinc Oxide, ZnO, Min.	98.5 %	50A
Lead, Pb, Max.	0.34 %	50K
Copper, Cu, Max.	0.003%	50C
Manganese, Mn, Max.	0.002%	50D
Total Copper Plus Manganese	0.004%	
Cadmium, Cd, Max.	0.005%	50L
Iron, Fe, Max.	0.040%	50B
Sulfur, as SO ₃ , Max.	0.25 %	50P
Water Soluble Salts, Max.	0.5 %	50Q

S40-1-2-63

0007-PMC-000000609

TYPICAL
PROPERTIESAUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOISZinc Oxide
ZnO
OZIDE 10R
For
Rubber Manufacture

Issued March 1, 1965

Miscellaneous Properties

Appearance	White Powder, Grayish Cast
Specific Gravity	5.57
Screen Analysis	
Residue 325 Mesh	0.03%

Chemical Analysis

Zinc Oxide, ZnO	99.1 %
Lead as Pb	0.20 %
Copper, Cu	0.0025%
Manganese, Mn	0.0008%
Cadmium, Cd	0.002 %
Iron, Fe	0.025 %
Sulfur as SO ₃	0.10 %
Water Soluble Salts	0.15 %

SHERWIN-WILLIAMS**PIGMENT,****COLOR &****CHEMICAL****DEPARTMENT**

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOISZINC OXIDE
ZnO
OZIDE 10R B8
Pelletized For
Rubber Manufacturing

Serial No. 51

Issued January 2, 1963
Reprinted August 1, 1964Miscellaneous Properties

		<u>Method</u>
Appearance	White Pellets	50h
Specific Gravity	5.57	50b
Apparent Packed Bulk Density	Approx. 110 lbs./cu.ft.	50f

Chemical Analysis

		<u>Method</u>
Zinc Oxide, ZnO, Min.	98.5 %	50A
Lead, Pb, Max.	0.34 %	50K
Copper, Cu, Max.	0.003%	50C
Manganese, Mn, Max.	0.002%	50D
Total Copper Plus Manganese	0.004%	
Cadmium, Cd, Max.	0.005%	50L
Iron, Fe, Max.	0.040%	50B
Sulfur, S, as SO ₃ , Max.	0.25 %	50P
Water Soluble Salts, Max.	0.50 %	50Q
10% Acetic Acid Insoluble, Max.	1.0 %	50M

0007-PMC-000000611

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ZINC OXIDE
ZnO
OZIDE 10R B8
Pelletized For
Rubber Manufacturing

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance
Specific Gravity
Apparent Packed Bulk Density

White Pellets, Grayish Cast
5.57
Approximately 110 lbs./cu.ft.

Chemical Analysis

Zinc Oxide, ZnO	99.1 %
Lead as Pb	0.20 %
Copper, Cu	0.0025%
Manganese, Mn	0.0008%
Cadmium, Cd	0.002 %
Iron, Fe	0.025 %
Sulfur as SO ₃	0.10 %
Water Soluble Salts	0.15 %
10% Acetic Acid Insoluble	0.60 %



SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ZINC OXIDE
ZnO
OXIDE 22P
For
Paint Pigment

Serial No. 58

Issued June 1, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White Powder	50h
Bulking Value	2.14 gals./100 lbs.	50b
Screen Analysis (Residue 325 Mesh)	0.3% Max.	50f
Color, Min.	85	50i

Chemical Analysis

Method

Zinc Oxide, ZnO, Min.	98.5 %	50A
Lead, Pb, Max.	0.15%	50K

0007-PMC-000000613

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ZINC OXIDE
ZnO
OZIDE 22P
For
Paint Pigment

Issued June 1, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White
Bulking Value	2.14 gals./100 lbs.
Screen Analysis (Residue 325 Mesh)	0.1%
Color Compared to Standard	87

Chemical Analysis

Zinc Oxide, ZnO	99.0 %
Lead, Pb	0.09%

Packaging

Bags, 50 lbs. net

SHERWIN-WILLIAMS

PIGMENT

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ZINC OXIDE

ZnO

OZIDE 20

For

General Usage

Serial No. 41

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White Powder, Grayish Cast	50h
Specific Gravity	5.57	50b
Screen Analysis (Residue 325 Mesh)	0.3% Max.	50f
Color, Min.	60	50i

Chemical Analysis

Method

Zinc Oxide, ZnO, Min.	98.5 %	50A
Lead, Pb, Max.	0.34%	50K

0007-PMC-000000615

SHERWIN-WILLIAMS

**PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT**

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ZINC OXIDE
ZnO
OZIDE 20
For
General Use

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White Powder, Grayish Cast
Specific Gravity	5.57
Screen Analysis (Residue 325 Mesh)	0.05

Chemical Analysis

Zinc Oxide, ZnO	99.0 %
Lead, Pb	0.3 %
Iron, Fe	0.025 %
Manganese, Mn	0.0008%
Cadmium, Cd	0.004 %

0007-PMC-000000616

CSM.

FROM: New York

PC&C

FOR: Salesmen, 2001 - 2008
MMG, OT, JBP, GGS, APA

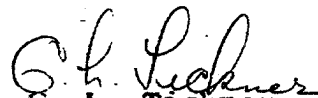
June 4, 1965

Ozlo Leaded Zincs.

There is only one official designation for our leaded zincs.
These are as follows:

Ozlo 12
" 18M
" 35
" 50
" 55

Kindly be sure that only the above designations are used in
the future.


G. L. Tickner

GLT:hb

0007-PMC-000000617

C.S.M.

FROM: New York

PC&C

FOR: Salesmen, 2001 - 2008
MMG, OT, JBP, GGS, APA

June 14, 1965

Zinc Oxide Countertermatches.

I am sure you realize from the level of inquiries we have been getting that domestically produced Zinc Oxide has been in somewhat tight supply and we anticipate that this situation may prevail for some time to come. Because of this the Auxiliaries Department Laboratory in Chicago has put together the attached list of countertermatches which you may use as a guide. Kindly do so before checking with the plant where only general information is required to satisfy the customer.


G. L. Tickner

GLT:hb

Att.

cc: KHW

0007-PMC-000000618



N E S *N W S* LETTER

COMPANY CONFIDENTIAL

NUMBER 20

JUNE 15, 1965

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ZINC OXIDE COUNTERMATCHES

The zinc oxides shown below are the best matches based upon usage. Some specification variations between The Sherwin-Williams zinc oxides and the other proprietary zinc oxides can be expected.

RUBBER GRADES

0007-PMC-000000619

New Jersey Zinc Co.

S-W Counterparts

XX-4	1OR
XX-178	None
XX-203	None
Protox-166	1ORD
Protox-267	None
Protox-167	1ORD
Actox-14	1OR
Actox-16	1ORD
Actox-214	None
Actox-216	None

No match to French process XX-78,
Kadox-15, Kadox-25, Kadox-72, Kadox-215,
Protox-168, Protox-169, Protox-268

Eagle-Picher Co.

S-W Counterparts

No. 310	No match
No. 312	No match
No. 316	1OR
No. 318	No match
No. 320	1OR

American Zinc Sales Co.

S-W Counterparts

ZZZ-55-TT	1ORD
ZZZ-55	None
ZZZ-66	No match
ZZZ-77	No match
Grade 2	1OR

St. Joseph Lead Co.

S-W Counterparts

Black Label 20	No match
Red Label 30	No match
Green Label 42	1OR
Green Label 43	1OR
Red Label 31	1OR
Green Label 42A3	1OR
Black Label 20-21	No match
Green Label 42-21	1ORD
Green Label 12	No match
Green Label 46	No match
Yellow Label 100	1OR

PAINT GRADES

<u>New Jersey Zinc Co.</u>	<u>S-W Counterparts</u>	<u>American Zinc Sales Co.</u>	<u>S-W Counterparts</u>
XX-2	22P	ZZZ-11 Acicular	22P
XX-50	22P	ZZZ-22 Acicular	22P
XX-55	22P	ZZZ-33 Acicular	22P
XX-503	22P	ZZZ-55-L0	22P
XX-505	No match		
XX-600 Acicular	22P		
XX-601 Acicular	22P		
XX-602 Acicular	22P		
XX-631 Acicular, treated	22P		
No match to French process White Seal-7, Green Seal-8, Red Seal-9, Kadox-25, Kadox-515			

<u>Eagle-Picher Co.</u>	<u>S-W Counterparts</u>	<u>St. Joseph Lead Co.</u>	<u>S-W Counterparts</u>
No. 310	No match	Black Label 20	No match
No. 414	22P	Green Label 46	No match
No. 415 Acicular	22P	Green Label 40	22P
No. 417 Acicular	22P	Green Label 45	22P
No. 427 Acicular	22P	Green Label 17	22P
No. 428 Acicular	22P	#911	No match

CERAMIC GRADES

<u>Eagle-Picher Co.</u>	<u>S-W Counterparts</u>	<u>St. Joseph Lead Co.</u>	<u>S-W Counterparts</u>
No. 320	Ozide 20	Red Label 30	No match
No. 330	Ozide 20	Green Label 42	Ozide 20
No. 730 "Denzox"	No match	Green Label 43	Ozide 20
No. 731	No match	Green Label 10	Ozide 20
		Green Label 17	Ozide 20
		Green Label 44	Ozide 20
<u>American Zinc Sales Co.</u>	<u>S-W Counterparts</u>		
ZZZ-88	No match		

MISCELLANEOUS

<u>Eagle-Picher Co.</u>	<u>S-W Counterparts</u>	<u>Royce Chemical Co.</u>	<u>S-W Counterparts</u>
Nuzox #2	Nuzide 78S	Zinc Oxide	10R
<u>New Jersey Zinc Co.</u>	<u>S-W Counterparts</u>	<u>Sipi Metals</u>	<u>S-W Counterparts</u>
Leafox-200	Nuzide 78S	Zinc Oxide	No match
<u>Pacific Smelting (Pasco)</u>	<u>S-W Counterparts</u>	<u>Superior Zinc Corp.</u>	<u>S-W Counterparts</u>
Zinc Oxide	No match	Zinc Oxide	Ozide 20 Ozide 10R
<u>Rohm and Haas Co.</u>	<u>S-W Counterparts</u>	<u>Tennessee Corp.</u>	<u>S-W Counterparts</u>
Zinc Oxide	Ozide 20 Ozide 10R	Secondary Zinc Oxide	Ozide 20

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

12% CO-FUMED
LEADED ZINC OXIDE
OZLO 12

For
General Application

Serial No. 48

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White Powder	40a
Oil Absorption	10 - 13	40b
Color Compared to Standard, Min.	74	40c
325 Mesh Residue (Tyler) Max.	0.2%	40d
Bulking Value	2.12 gals./100 lbs.	40e

Chemical Analysis

Method

Zinc Oxide, ZnO, Min.	86.0%	40A
Lead Sulfate, PbSO ₄	9.9 - 14.3%	40B
Zinc Sulfate, Max.	0.3%	40C

0007-PMC-000000622

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

12% CO-FUMED
LEADED ZINC OXIDE
OZLO 12

For
General Application

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White Powder
Oil Absorption	12
Color Compared to Standard	80
Screen Analysis Residue 325 Tyler	0.1%
Bulking Value	2.12 gals./100 lbs.

Chemical Analysis

Zinc Oxide, ZnO	87.0 %
Lead Sulfate, PbSO ₄	12.0 %
Zinc Sulfate, ZnSO ₄	0.25%

0007-PMC-000000623

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

CO-FUMED
LEADED ZINC OXIDE
OZLO 18M

For
General Application

Serial No. 49

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

		<u>Method</u>
Appearance	White Powder	40a
Oil Absorption	10 - 12	40b
Color Compared to Standard, Min.	75	40c
325 Mesh Residue (Tyler) Max.	0.2%	40d
Bulking Value	2.10 gals./100 lbs.	40e

Chemical Analysis

		<u>Method</u>
Zinc Oxide	80.0 - 82.0%	40A
Monobasic Lead Sulfate	16.5 - 19.5%	40B
Available Lead as PbO	6.0 - 8.0%	40C

0007-PMC-000000624

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

CO-FUMED
LEADED ZINC OXIDE
OZLO 18M

For
General Application

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White Powder
Oil Absorption	10.5
Color Compared to Standard	78
Bulking Value	2.10 gals./100 lbs.
Screen Analysis Residue 325 Mesh, Tyler	0.1%

Chemical Analysis

Zinc Oxide	81.0%
Monobasic Lead Sulfate	18.0%
Available Lead as PbO	7.0%

0007-PMC-000000625

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

35%
LEADED ZINC OXIDE
Ozlo 35
For
General Application

Issued June 1, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White Powder
Oil Absorption	12.5
Color Compared to Standard	85
Screen Analysis Residue 325 Tyler	0.1%
Bulking Value	2.06 gals./100 lbs.

Chemical Analysis

Zinc Oxide	65.0%
Basic Sulfate White Lead	35.0%

Packaging

Bags, 50 lbs. net

0007-PMC-000000626

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

50%
LEADED ZINC OXIDE
OZLO 50
For
General Application

Issued June 1, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White Powder
Oil Absorption	12.5
Color Compared to Standard	85
Screen Analysis Residue 325 Mesh, Tyler	0.1%
Bulking Value	2.02 gals./100 lbs.

Chemical Analysis

Zinc Oxide	50.0%
Basic Sulfate White Lead	50.0%

Packaging

Bags, 50 lbs. net

0007-PMC-000000627

SHERWIN-WILLIAMS

**PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT**

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

55%
LEADED ZINC OXIDE
OZLO 55
For
General Application

Issued June 1, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White Powder
Oil Absorption	12.5
Color Compared to Standard	85
Screen Analysis Residue 325 Tyler	0.1%
Bulking Value	2.00 gals./100 lbs.

Chemical Analysis

Zinc Oxide	45.0%
Basic Sulfate White Lead	55.0%

Packaging

Bags, 50 lbs. net

0007-PMC-000000628

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

Zinc Oxide
ZnO
OZIDE 78S
For
Agricultural Sprays

Serial No. 43

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White Powder, Grayish Cast	50h
Apparent Packed Bulk Density	Approx. 70 lbs./cu.ft.	50j
Screen Analysis (Residue 325 Mesh)	0.3% Max.	50F

Chemical Analysis

Zinc Oxide, ZnO, Min.	98.0 %	50A
Arsenic, As, Max.	0.05%	50F

0007-PMC-000000629

SHERWIN-WILLIAMS

**PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT**

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

Zinc Oxide
ZnO
OZIDE 78S
For
Agricultural Sprays

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White Powder, Grayish Cast
Apparent Packed Bulk Density	Approximately 70 lbs./cu.ft.
Screen Analysis (Residue 325 Mesh)	0.05%

Chemical Analysis

Zinc Oxide, ZnO	98.8 %
Arsenic, As	0.03%

0007-PMC-000000630

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

Zinc Oxide
ZnO
OZIDE 76F
For
Agriculture

Serial No. 44

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance
Apparent Packed Bulk Density

Brown Powder
Approx. 160 lbs./cu.ft.

Method

50h
50j

Chemical Analysis

Zinc Oxide, ZnO, Min.
Zn, Min.

94.5%
76.0%

50A
50A

0007-PMC-000000631

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ZINC SULFATE

$\text{ZnSO}_4 \cdot \text{H}_2\text{O}$

Grade 360

For

General Application

Serial No. 45

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White Granules	60i
Apparent Packed Bulk Density	Approx. 90 lbs./cu.ft.	60j

Chemical Analysis

Method

Zinc as Zn, Min.	36.0 %	60A
Lead as Pb, Max.	0.004%	60B
Copper as Cu, Max.	0.001%	60C
Manganese as Mn, Max.	0.002%	60D
Cadmium as Cd, Max.	0.003%	60E
Iron as Fe, Max.	0.002%	60F
Nickel as Ni, Max.	0.001%	60N
Acid Insoluble, Max.	0.1 %	60Q

0007-PMC-000000632

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ZINC SULFATE
 $\text{ZnSO}_4 \cdot \text{H}_2\text{O}$
Grade 360
For
General Application

Issued March 1, 1965

Miscellaneous Properties

Appearance
Apparent Packed Bulk Density

White Granules
Approximately 90 lbs./cu.ft.

Chemical Analysis

Zinc as Zn	36.0 %
Lead as Pb	0.002 %
Copper as Cu	0.0005 %
Manganese as Mn	0.001 %
Cadmium as Cd	0.001 %
Iron as Fe	0.001 %
Nickel as Ni	0.0005 %
Acid Insoluble	0.08 %
Sodium as Na	Trace %
Magnesium as Mg	0.003 %
Aluminum as Al	0.005 %
Arsenic as As	0.00004 %
Antimony as Sb	0.0001 %
Tin as Sn	Trace, if any
Bismuth as Bi	Trace, if any
Chlorine as Cl	0.015 %
Silica as SiO_2	0.015 %
Chromium as Cr	Trace, if any
Indium as In	Trace, if any

0007-PMC-000000633

SHERWIN-WILLIAMS

PIGMENT

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ZINC SULFATE
 $\text{ZnSO}_4 \cdot \text{H}_2\text{O}$
Grade 361-S
For
General Application

Serial No. 46

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance
Apparent Packed Bulk Density

White Crystalline Powder
Approx. 65 lbs./cu. ft.

60i
60j

Chemical Analysis

Method

Zinc as Zn, Min.
Lead as Pb, Max.
Copper as Cu, Max.
Manganese as Mn, Max.
Cadmium as Cd, Max.
Iron as Fe, Max.
Nickel as Ni, Max.

36.0 %
0.004%
0.001%
0.002%
0.003%
0.002%
0.001%

60A
60B
60C
60D
60E
60F
60N

0007-PMC-000000634

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ZINC SULFATE

$\text{ZnSO}_4 \cdot \text{H}_2\text{O}$

Grade 361-S

For

General Application

Issued March 1, 1965

Miscellaneous Properties

Appearance

Apparent Packed Bulk Density

White Powder

Approximately 65 lbs./cu.ft.

Chemical Analysis

Zinc as Zn	36.3 %
Lead as Pb	0.002 %
Copper as Cu	0.0005%
Manganese as Mn	0.001 %
Cadmium as Cd	0.001 %
Iron as Fe	0.001 %
Nickel as Ni	0.0005%
Chlorine as Cl	0.015 %

0007-PMC-000000635

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ZINC SULFATE
 $\text{ZnSO}_4 \cdot \text{H}_2\text{O}$
Grade 360-F
For
General Application

Issued September 15, 1964

Miscellaneous Properties

Appearance

White, granular

Apparent Packed Bulk Density

104 lbs./cu.ft.

Mesh (Tyler)

%

-20

100

Chemical Analysis

Zn

36.0%

0007-PMC-000000636

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ZINC SULFATE
GRADE 360G
Agriculture

Issued July 1, 1965

Miscellaneous Properties

Appearance

White, granular

Apparent Packed Bulk Density

About 85 lbs./cu.ft.

Screen Analysis

Mesh (Tyler)	%
+ 6	1
+ 8	45
+10	75
+14	90
+20	97
-20	3

Chemical Analysis

Zn

36%

0007-PMC-000000637

SHERWIN-WILLIAMS**PIGMENT****COLOR &****CHEMICAL****DEPARTMENT**

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOISBARIUM CARBONATE
 BaCO_3
Grade 75C
For
General Application

Serial No. 30

Issued January 2, 1963
Reprinted August 1, 1964Miscellaneous PropertiesMethod

Appearance	White	20a
Apparent Packed Bulk Density	Approx. 70 lbs./cu.ft.	20c
Specific Gravity	4.29	20g

Chemical AnalysisMethod

Total Ba + Sr as BaCO_3 , Min.	99.0 %	20A
Total Sulfur as S, Max.	0.10 %	20B
Sulfate Sulfur as S, Max.	0.07 %	20C
Sulfide-Sulfite Sulfur as S, Max.	0.06 %	20D
Iron as Fe, Max.	0.0014%	20E

0007-PMC-000000638

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM CARBONATE

BaCO₃

Grade 75C

For

General Application

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Appearance

White

Apparent Packed Bulk Density

Approx. 70 lbs./cu.ft.

Screen Analysis (through
150 mesh Tyler)

99%

Chemical Analysis

Total Ba + Sr as BaCO ₃	99.3	%
Total Sulfur as S	0.06	%
Sulfate Sulfur as S	0.04	%
Sulfide-Sulfite Sulfur as S	0.03	%
Fe	0.0008	%
SrCO ₃	0.90	%
CaCO ₃	0.16	%
Na ₂ O	Trace	
Al ₂ O ₃	0.09	%
Cl	0.008	%
Acid Insoluble (BaSO ₄ + SiO ₂)	0.30	%

0007-PMC-000000639

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM CARBONATE
 BaCO_3
Grade 50F
For
Ceramics

Serial No. 31

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White	20a
Apparent Packed Bulk Density	Approx. 50 lbs./cu.ft.	20d
Screen Analysis (through 150 mesh Tyler) Min.	99%	20e
Specific Gravity	4.29	20g

Chemical Analysis

Method

Total Ba + Sr as BaCO_3 , Min.	98.5%	20A
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0007-PMC-000000640

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM CARBONATE
 BaCO_3
Grade 50F
For
General Application

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White
Apparent Packed Bulk Density	Approximately 50 lbs./cu.ft.
Screen Analysis through 150 mesh Tyler	99%

Chemical Analysis

Total Ba + Sr as BaCO_3	99.1 %
Total Sulfur as S	0.07 %
Fe_2O_3	0.002%

0007-PMC-000000641

SHERWIN-WILLIAMS

PIGMENT

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM CARBONATE
 BaCO_3
Grade 70F
For
Ceramics

Serial No. 32

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White	20a
Apparent Packed Bulk Density	Approx. 70 lbs./cu.ft.	20d
Screen Analysis (through 150 mesh Tyler) Min.	99%	20e
Specific Gravity	4.29	20g

Chemical Analysis

Method

Total Ba + Sr as BaCO_3 , Min.	98.5%	20A
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0007-PMC-000000642

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM CARBONATE
 BaCO_3
Grade 70F
For
Ceramics

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White
Apparent Packed Bulk Density	Approx. 70 lbs./cu.ft.
Screen Analysis	
Through 150 Mesh, Tyler	99%

Chemical Analysis

Total Ba + Sr as BaCO_3	99.1 %
Total Sulfur as S	0.07 %
Fe_2O_3	0.002%

0007-PMC-000000643

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM CARBONATE
 BaCO_3
Grade 90F
For
Ceramics

Serial No. 33

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

		<u>Method</u>
Appearance	White	20a
Apparent Packed Bulk Density	Approx. 90 lbs./cu.ft.	20d
Screen Analysis (through 150 Mesh Tyler) Min.	99%	20e
Specific Gravity	4.29	20g

Chemical Analysis

		<u>Method</u>
Total Ba + Sr as BaCO_3 , Min.	98.5%	20A

0007-PMC-000000644

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM CARBONATE
 BaCO_3
Grade 90F
For
Ceramics

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White
Apparent Packed Bulk Density	Approx. 90 lbs./cu.ft.
Screen Analysis	
Through 150 Mesh, Tyler	99%

Chemical Analysis

Total Ba + Sr as BaCO_3	99.1 %
Total Sulfur as S	0.07 %
Fe_2O_3	0.002%

0007-PMC-000000645

SHERWIN-WILLIAMS**PIGMENT,****COLOR &****CHEMICAL****DEPARTMENT**

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOISBARIUM CARBONATE
 BaCO_3
Grade 135G
For
Glass Manufacture

Serial No. 34

Issued January 2, 1963
Reprinted August 1, 1964Miscellaneous PropertiesMethod

Appearance	White	20a
Apparent Packed Bulk Density	Approx. 135 lbs./cu.ft.	20d
Screen Analysis (through 150 mesh Tyler) Max.	25%	20e
Specific Gravity	4.29	20g

Chemical AnalysisMethod

Total Ba + Sr as BaCO_3 , Min.	98.5 %	20A
Total Sulfur as S, Max.	0.10 %	20B
Sulfate Sulfur as S, Max.	0.10 %	20C
Sulfide-Sulfite Sulfur as S, Max.	0.01 %	20D
Fe, Max.	0.0014%	20E
Acid Insoluble, Max.	0.70 %	20L

0007-PMC-000000646

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM CARBONATE
 BaCO_3
Grade 135G
For
Glass Manufacture

Issued July 1, 1965

Miscellaneous Properties

Appearance

White

Apparent Packed Bulk Density

Approx. 135 lbs./cu.ft.

Screen Analysis Cumulative,
Tyler

+ 20	0%
+ 28	17%
+ 48	55%
+100	75%
+150	80%
-150	20%

Chemical Analysis

Total Ba + Sr as BaCO_3	98.8	%
Total Sulfur as S	0.07	%
Sulfate Sulfur as S	0.07	%
Sulfide-Sulfite Sulfur as S	0.002	%
Fe	0.0008	%
SrCO_3	0.90	%
CaCO_3	0.16	%
Na_2O	Trace	%
Al_2O_3	0.09	%
Cl	0.008	%
Acid Insoluble	0.50	%

0007-PMC-000000647

SHERWIN-WILLIAMS**PIGMENT,****COLOR &****CHEMICAL****DEPARTMENT**

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOISBARIUM CARBONATE
 BaCO_3
Grade 145G
For
Glass Manufacture

Serial No. 36

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous PropertiesMethod

Appearance	White	20a
Apparent Packed Bulk Density	Approx. 145 lbs./cu.ft.	20d
Screen Analysis (through 150 mesh Tyler) Max.	25%	20e
Specific Gravity	4.29	20g

Chemical AnalysisMethod

Total Ba + Sr as BaCO_3 , Min.	98.5 %	20A
Total Sulfur as S, Max.	0.10 %	20B
Sulfate Sulfur as S, Max.	0.10 %	20C
Sulfide-Sulfite Sulfur as S, Max.	0.01 %	20D
Fe, Max.	0.0014%	20E
Acid Insoluble, Max.	0.70 %	20L

0007-PMC-000000648

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM CARBONATE
 BaCO_3
Grade 145G
For
Glass Manufacture

Issued August 1, 1964

Miscellaneous Properties

Appearance	White
Apparent Packed Bulk Density	Approx. 145 lbs./cu.ft.
Screen Analysis, Cumulative, Tyler	
+ 14	5%
+ 20	10%
+ 28	35%
+ 48	60%
+ 100	75%
+ 150	80%
- 150	20%

Chemical Analysis

Total Ba + Sr as BaCO_3	98.8 %
Total Sulfur as S	0.07 %
Sulfate Sulfur as S	0.07 %
Sulfide-Sulfite Sulfur as S	0.002 %
Fe	0.0008 %
SrCO_3	0.90 %
CaCO_3	0.16 %
Na_2O	Trace
Al_2O_3	0.09 %
Cl	0.008 %
Acid Insoluble	0.50 %

0007-PMC-000000649

SHERWIN-WILLIAMS

PIGMENT

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM CARBONATE

BaCO₃

Grade 45T

Special Fine Grade For
General Use

Serial No. 35

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White	20a
Particle Size	Fisher No. 1.60, Max.	20c
Apparent Packed Bulk Density	Approx. 55 lbs./cu.ft.	20d
Specific Gravity	4.29	20g

Chemical Analysis

Method

BaCO ₃ , Min.	99.2 %	20A
Total Sulfur as S, Max.	0.10 %	20B
Sulfate Sulfur as S, Max.	0.070%	20C
Sulfide-Sulfite Sulfur as S, Max.	0.050%	20D
Iron as Fe, Max.	0.001%	20E

0007-PMC-000000650

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM CARBONATE
 BaCO_3
Grade 45T
Special Fine Grade
For General Use

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Appearance
Particle Size
Apparent Bulk Density

White
Fisher No. 1.15 - 1.60
Approx. 55 lbs./cu.ft.

Chemical Analysis

BaCO_3
Total Sulfur as S
Sulfate Sulfur as S
Sulfide-Sulfite Sulfur as S
Iron as Fe

99.5 %
0.086 %
0.064 %
0.027 %
0.0008%

SHERWIN-WILLIAMS**PIGMENT****COLOR &****CHEMICAL****DEPARTMENT**

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOISBARIUM MONOHYDRATE
 $\text{Ba}(\text{OH})_2 \cdot \text{H}_2\text{O}$
For
General Application

Serial No. 47

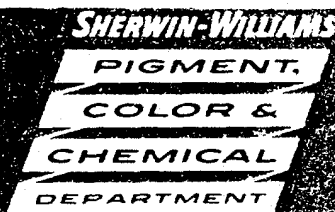
Issued January 2, 1963
Reprinted August 1, 1964Miscellaneous PropertiesMethod

Appearance	White Dry Flakes	10a
Apparent Packed Bulk Density	Approx. 80 lbs./cu.ft.	10b

Chemical Analysis

Ba as BaO, Range	78.5 - 80.5%	10A
BaSO ₄ , Max.	0.12	10B
BaCO ₃ , Max.	0.9	10C
Cl, Max.	0.02	10D
as BaCl ₂ Max.	0.06%	
S, Max.	0.01	10E
as BaS Max.	0.05	
Fe, Max.	0.003	10F

0007-PMC-000000652



TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

BARIUM MONOHYDRATE
 $\text{Ba}(\text{OH})_2 \cdot \text{H}_2\text{O}$
For
General Application

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White Dry Flakes
Apparent Packed Bulk Density	Approximately 80 lbs./cu.ft.

Chemical Analysis

Total Barium (weak acid soluble)	71.7 %
as BaO	80.0 %
$\text{Ba}(\text{OH})_2 \cdot \text{H}_2\text{O}$	98.2 %
as BaO	79.5 %
BaSO_4	0.08 %
BaCO_3	0.7 %
Cl	0.005%
S as Sulfide	0.001%
as BaS	0.009%
Fe	0.002%

SHERWIN-WILLIAMS

PIGMENT

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
Grade 20L
For
General Accounts

Serial No. 53

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption, Min.	12	30c
Water Soluble Matter, Max.	0.2 %	30d
Moisture and other Volatile Matter, Max.	0.1 %	30e

Chemical Analysis

Method

Zinc Sulfide, ZnS, Min.	28.0%	30A
Zinc Oxide, ZnO, Max.	0.4%	30B
Barium Sulfate, Min.	95.0% of Remainder	30C

0007-PMC-000000654

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
Grade 20L
Low Oil Absorption

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White
Total Residue, 325 Mesh	0.10%
Oil Absorption	13
Water Soluble Matter	0.10%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%

Chemical Analysis

Zinc Sulfide, ZnS	28.5%
Zinc Oxide, ZnO	0.2%
Barium Sulfate, Min.	95.0% of Remainder

0007-PMC-000000655

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
Grade 40M
For
General Accounts

Serial No. 54

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	Fine White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption, Min.	14	30c
Water Soluble Matter, Max.	0.2%	30d
Moisture and Other Volatile Matter, Max.	0.1%	30e

Chemical Analysis

Method

Zinc Sulfide, ZnS, Min.	28.0%	30A
Zinc Oxide, ZnO, Max.	0.4%	30B
Barium Sulfate, Min.	95.0% of Remainder	30C

0007-PMC-000000656

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
Grade 40M
Medium Oil Absorption

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White
Total Residue, 325 Mesh	0.10%
Oil Absorption	15
Water Soluble Matter	0.10%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%

Chemical Analysis

Zinc Sulfide, ZnS	28.5%
Zinc Oxide, ZnO	0.2%
Barium Sulfate, Min.	95.0% of Remainder

0007-PMC-000000657

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
Grade 60H
For
General Accounts

Serial No. 52

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption, Min.	15	30c
Water Soluble Matter, Max.	0.2 %	30d
Moisture and Other Volatile Matter, Max.	0.1 %	

Chemical Analysis

Method

Zinc Sulfide, ZnS, Min.	28.0%	30A
Zinc Oxide, ZnO, Max.	0.4%	30B
Barium Sulfate, Min.	95.0% of Remainder	30C

0007-PMC-000000658

SHERWIN-WILLIAMS
PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
Grade 60H
High Oil Absorption

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White Powder
Total Residue, 325 Mesh	0.10%
Oil Absorption	16
Water Soluble Matter	0.10%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%

Chemical Analysis

Zinc Sulfide, ZnS	28.5%
Zinc Oxide, ZnO	0.2%
Barium Sulfate, Min.	95.0% of Remainder

0007-PMC-000000659

SHERWIN-WILLIAMS

PIGMENT

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
Grade W-320
Water Wetting

Serial No. 55

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption, Min.	16	30c
Water Soluble Matter, Max.	0.2 %	30d
Moisture and Other Volatile Matter, Max.	0.1 %	30e

Chemical Analysis

Method

Zinc Sulfide, ZnS, Min.	28.0%	30A
Zinc Oxide, ZnO, Max.	0.4%	30B
Barium Sulfate, Min.	95.0% of Remainder	30C

0007-PMC-000000660

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
Grade W-320
Water Wetting

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White Powder
Total Residue, 325 Mesh	0.10%
Water Soluble Matter	0.18%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%
Oil Absorption	16

Chemical Analysis

Zinc Sulfide, ZnS	28.5%
Zinc Oxide, ZnO	0.2%
Barium Sulfate, Min.	95.0% of Remainder

0007-PMC-000000661

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
Grade W-421
Water Dispersible

Serial No. 57

Issued January 2, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Method

Appearance	White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption	15	30c
Moisture and Other Volatile Matter, Max.	0.1 %	30e

Chemical Analysis

Method

Zinc Sulfide, ZnS, Min.	28.0%	30A
Zinc Oxide, ZnO, Max.	0.4%	30B
Barium Sulfate, Min.	95.0% of Remainder	30C

0007-PMC-000000662

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
Grade W-421
Water Dispersible

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White
Total Residue, 325 Mesh, Max.	0.10%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%

Chemical Analysis

Zinc Sulfide, ZnS	28.5%
Zinc Oxide, ZnO	0.2%
Barium Sulfate, Mfr.	95.0% of Remainder

0007-PMC-000000663

SHERWIN-WILLIAMS**PIGMENT****COLOR &****CHEMICAL****DEPARTMENT**

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOISPERMOLITH
LITHOPONE
Grade 60N
Non-Reactive

Serial No. 56

Issued January 2, 1963
Reprinted August 1, 1964Miscellaneous PropertiesMethod

Appearance	White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption, Min.	12	30c
Water Soluble Matter, Max.	0.2 %	30d
Moisture and Other Volatile Matter, Max.	0.1 %	30e

Chemical AnalysisMethod

Zinc Sulfide, ZnS, Min.	28.0 %	30A
Zinc Oxide, ZnO, Max.	0.10%	30B
Barium Sulfate, Min.	95.0 % of Remainder	30C

0007-PMC-000000664

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
Grade 60N
Non-Reactive

Issued January 2, 1963
Reprinted August 1, 1964

Miscellaneous Properties

Appearance	White
Total Residue, 325 Mesh	0.10%
Oil Absorption	12
Water Soluble Matter	0.10%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%

Chemical Analysis

Zinc Sulfide, ZnS	28.5 %
Zinc Oxide, ZnO	0.06%
Barium Sulfate, Min.	95.0 % of Remainder

SHERWIN-WILLIAMS

PIGMENT,
COLOR &
CHEMICAL
DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

PERMOLITH
LITHOPONE
GRADE 60J
Hydrophobic

Issued August 1, 1964

Miscellaneous Properties

Appearance

Total Residue, 325 Mesh, Max.

Bulking Value

Moisture

White Powder

0.01%

2.79 gals./100 lbs.

0.03%

Chemical Analysis

Zinc Sulfide, ZnS

28.5%

Zinc Oxide

0.2%

Barium Sulfate, Min.

95.0% of Remainder

0007-PMC-000000666

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ARSENIC ACID

H_3AsO_4

BD-1124

Regular Clarified Grade

Serial No. 60

Issued June 1, 1963

Reprinted August 1, 1964

Miscellaneous Properties

Appearance

Liquid water white to light
green or yellow

Specific Gravity

1.90- 2.00

Pounds per Gallon

15.85 - 16.70

Method

70a

70b

70c

Chemical Analysis

Arsenic Acid, H_3AsO_4

74.86 - 79.16%

70A

Arsenic Acid Calc. to As_2O_5

69.6 - 64.1%

70A

Arsenous Oxide, As_2O_3 , Max.

0.75%

70B

Nitric Acid, HNO_3

None

70C

0007-PMC-000000667

SHERWIN-WILLIAMS

PIGMENT

COLOR &

CHEMICAL

DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ARSENIC ACID

H_3AsO_4

BD-1124

Regular Clarified Grade

Miscellaneous Properties

Issued January 2, 1963
Reprinted August 1, 1964

Appearance

Liquid water white to light green
or yellow

Specific Gravity
Pounds per Gallon

1.95
16.273

Chemical Analysis

Arsenic Acid, H_3AsO_4
Calc. to As_2O_5

77.0 %
62.35 %

Arsenous Oxide, As_2O_3

0.50 %

Nitric Acid, HNO_3

None

Copper as Cu

0.0135%

Lead as Pb

0.0445%

Iron as Fe

0.0175%

Aluminum as Al

0.0030%

Antimony as Sb

0.3700%

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

SPECIFICATION

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ARSENIC ACID
 H_3AsO_4
BD-1083
Special Grade

Serial No. 59

Issued June 1, 1963

Reprinted August 1, 1964

Miscellaneous Properties

		<u>Method</u>
Appearance	Liquid water white to very slight green	70a
Specific Gravity	1.95 - 2.05	70b
Pounds per Gallon	16.27 - 17.10	70c

Chemical Analysis

Arsenic Acid, H_3AsO_4	77.00 - 81.20%	70A
Calc. to As_2O_5	62.4 - 65.8%	70A
Arsenous Oxide, As_2O_3 , Max.	0.35%	70B
Nitric Acid, HNO_3	None	70C
Copper as Cu, Max.	0.001%	70D
Lead as Pb, Max.	0.010%	70E
Iron as Fe, Max.	0.010%	70F
Aluminum as Al, Max.	0.001%	70G
Antimony as Sb, Max.	0.100%	70H

SHERWIN-WILLIAMS

PIGMENT,

COLOR &

CHEMICAL

DEPARTMENT

TYPICAL PROPERTIES

AUXILIARIES DEPARTMENT
CHICAGO 28, ILLINOIS

ARSENIC ACID

H_3AsO_4

BD-1083

Special Grade

Miscellaneous Properties

Issued January 2, 1963
Reprinted August 1, 1964

Appearance
Specific Gravity
Pounds per Gallon

Water white to very slight green
2.00
16.69

Chemical Analysis

Arsenic Acid, H_3AsO_4	79.16 %
Arsenic Acid Calc. to As_2O_5	64.10 %
Arsenous Oxide As_2O_3	0.25 %
Nitric Acid, HNO_3	None
Copper as Cu	0.0009%
Lead as Pb	0.0039%
Iron as Fe	0.0023%
Aluminum, as Al	0.0007%
Antimony as Sb	0.0900%

0007-PMC-000000670