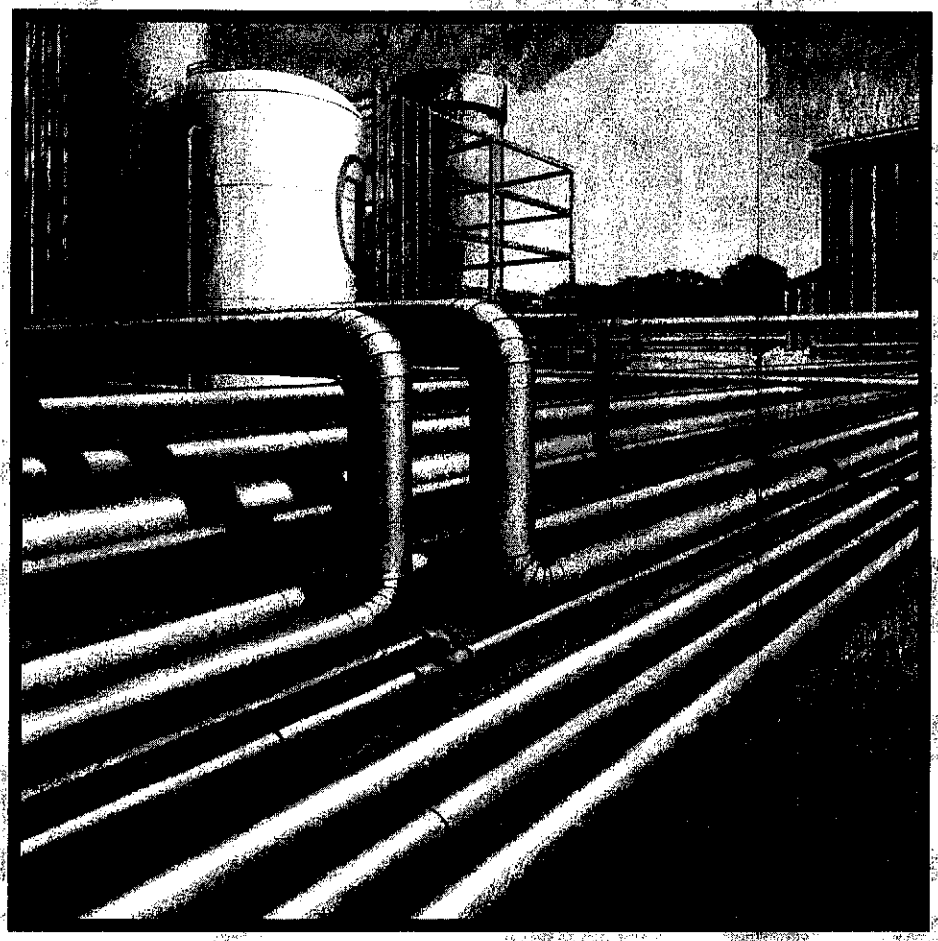
STEEL PIPE

WHEATLAND TUBE

Standard Pipe
A53 CW and ERW



Wheatland Tube
JMC STEEL GROUP

Standard Pipe
A53 CW and ERW

Wheatland Tube is known as a leader in the standard pipe industry. We've been producing tube and pipe for more than 75 years and our reputation for quality and durability is unmatched. We're the only full-line producer of continuous welded and electric resistance weld 1/4" to 12" pipe, and we set the standards worldwide for hot dip galvanized products.

We produce from 1/4" to 12" Nominal sizes and stock 1/8" to 12" pipe sizes in a variety of ASTM standards so we can meet all of your requirements.

Wheatland offers over 350 different combinations of finish, end treatments and lengths on our standard pipe. We're strategically located and carry a large inventory so we can ship quickly to satisfy your delivery schedules.

We're the only CW producer in the North America.

Hot-Dipped Galvanized

Our standard process is to galvanize to the ASTM A53 requirements.

Surface and End Finishes

Surface Finishes: black, passivate, galvanized, uncoated, pickled and oiled, pickled, bare and soluble oil.

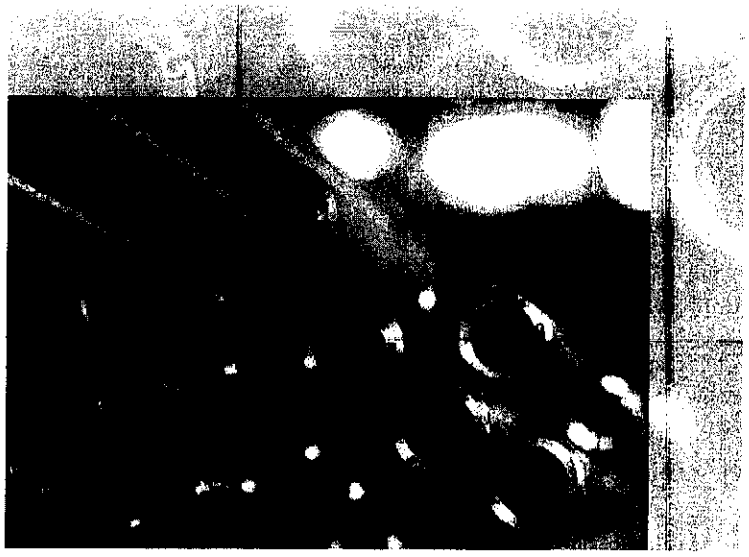
End Finishes: plain ends, roll groove, cut groove, threaded and coupled, and threads only (one or both ends).

Choose From a Full Line of Standard Pipe

ASTM A53 is used for mechanical and low pressure applications and in ordinary uses in steam, water, gas and air lines. It can be formed and welded. Our products include:

A53 Continuous Welded Pipe

- Type F, Grade A
- Black, Passivate, Bare, Pickled and Oiled, and Hot-dipped Galvanized
- Sizes: 1/2" – 4"
- Standard and Extra Heavy
- MIC Shield Coatings Compatible with CPVC



- UL Listed; FM Approved : NSF61
- Suitable for Welding, Threading, Grooving and Bending
- Produced to ASTM A53A 53M, Federal Specification WW-P404 and ASME B36.10M

Hydrostatic Testing

Hydrostatic test pressures for plain-end pipe are indicated below.

NPS	Standard Weight -PSI	Extra Strong Weight -PSI
1/2 through 1	1500	1500
1-1/4 -1-1/2	2000	2000
2 through 3	2500	2500
3 1/2 -4	2800	2800

Tensile Requirements

Tensile Strength, min. 48,000 psi
Yield Strength, min. 30,000 psi
Elongation in 2" Refer to A 53 table x 4.1, latest revisions - ASTM A53/A 53M

Bending Test - Less than NPS 2"

	Degree of Bend	Diameter of Mandrel
Standard	90°	12 x outside pipe diameter
Close Coiling	90°	8 x outside pipe diameter

Flattening Test - NPS 2 ½" and Greater

As a test for quality of the weld, position the weld at 90° from the direction of force and flatten until the OD is ¾ of the original outside diameter. No cracks shall occur along the inside or outside surface of the weld.

Dimensions and Weight Chart - ASTM A 53 Type E

STANDARD (SCHEDULE 40) BLACK PLAIN END			
Nominal Size	O.D. Inches	Nominal Wall	Weight/Lb. Ft.
2"	2.375	.154	3.66
2-1/2"	2.875	.203	5.80
3"	3.500	.216	7.58
4"	4.500	.237	10.88
5"	5.563	.258	14.63
6"	6.625	.280	18.99
8"	8.625	.322	28.58
10"	10.750	.365	40.52
12"	12.750	.375	49.61

A53 Electric-Resistance Welded Type E, Grade B

- Black and hot-dipped galvanized
- Nominal Sizes: Schedule 40 2" - 12"
- UL Listed; FM Approved
- Suitable for welding, threading and grooving
- Produced to ASTM A 53/53M, Federal Specification WW-P404 and ASME B36.10M.

Hydrostatic Testing and Nondestructive Electric Testing

Hydrostatic inspection test pressures for plain-end pipe are listed in Table X 2.2 of the A53/A 53M specification. Test pressures shall be maintained for a minimum of five seconds.

Nondestructive electric testing of the weld seam is required on each length of ERW pipe NPS 2 and larger.

Tensile Requirements

Tensile Strength, min. 60, 000 psi
Yield Strength, min. 35,000 psi

Bending Test (Cold)

	For NPS 2 and under
Degree of Bend	90°
Diameter of Mandrel	12 x outside pipe diameter

Flattening Test

As a test for ductility of the weld for pipe 2-1/2" NPS and larger, position the weld at 0° and alternately at 90° to the direction of force and flatten until the OD is 2/3 of the original outside diameter. No cracks shall occur along the inside or outside surface of the weld.

All of our facilities have quality systems in place. At a minimum, they're registered to ISO 9001:2008 Quality Management Systems.

Dimensions and Weight Chart - ASTM A53 Type F

BLACK PLAIN END					
Nominal Size	OD Inches	Sch. 40		Sch. 80	
		Wall Inches	Weight Lb./Ft.	Wall Inches	Weight Lb./Ft.
1/2"	0.84	0.109	0.85	0.147	1.09
3/4"	1.05	0.113	1.13	0.154	1.48
1"	1.315	0.133	1.68	0.179	2.17
1-1/4"	1.66	0.14	2.27	0.191	3
1-1/2"	1.9	0.145	2.72	0.2	3.63
2"	2.375	0.154	3.66	0.218	5.03
2-1/2"	2.875	0.203	5.8	0.276	7.67
3"	3.5	0.216	7.58	0.3	10.26
3-1/2"	4	0.226	9.12	0.318	12.52
4"	4.5	0.237	10.8	0.337	15

Standard Pipe Schedule 40 - ASTM A53 Grades A and B

NPS Designator	DN Designator	Outside Diameter		Inside Diameter		Wall Thickness		Nominal Weight (Mass) per unit Length			
		(Inches)	(mm)	(Inches)	(mm)	(Inches)	(mm)	Plain End (lb/ft)	Plain End (kg/m)	Threads & Couplings (lb/ft)	Threads & Couplings (kg/m
1/8"	6	0.405	10.3	0.269	6.8	0.068	1.73	0.24	0.37	0.25	0.37
1/4"	8	0.540	13.7	0.364	9.2	0.088	2.24	0.43	0.63	0.43	0.63
3/8"	10	0.675	17.1	0.493	12.5	0.091	2.31	0.57	0.84	0.57	0.84
1/2"	15	0.840	21.3	0.622	15.8	0.109	2.77	0.85	1.27	0.86	1.27
3/4"	20	1.050	26.7	0.824	20.9	0.113	2.87	1.13	1.69	1.14	1.69
1"	25	1.315	33.4	1.049	26.6	0.133	3.38	1.68	2.50	1.69	2.50
1-1/4"	32	1.660	42.2	1.380	35.1	0.140	3.56	2.27	3.39	2.28	3.40
1-1/2"	40	1.900	48.3	1.610	40.9	0.145	3.68	2.72	4.05	2.74	4.04
2"	50	2.375	60.3	2.067	52.5	0.154	3.91	3.66	5.44	3.68	5.46
2-1/2"	65	2.875	73.0	2.469	62.7	0.203	5.16	5.80	8.63	5.85	8.67
3"	80	3.500	88.9	3.068	77.9	0.216	5.49	7.58	11.29	7.68	11.35
3-1/2"	90	4.000	101.6	3.548	90.1	0.226	5.74	9.12	13.57	9.27	13.71
4"	100	4.500	114.3	4.026	102.3	0.237	6.02	10.8	16.07	10.92	16.23
5"	125	5.563	141.3	5.047	158.2	0.258	6.55	14.63	21.77	14.90	22.07
6"	150	6.625	168.3	6.065	154.1	0.280	7.11	18.99	28.26	19.34	28.58
8"	200	8.625	219.1	7.981	202.7	0.322	8.18	28.58	42.55	29.35	43.73
10"	250	10.750	273.0	10.020	254.5	0.365	9.27	40.52	60.29	41.49	63.36
12'	300	12.750	323.8	12.000	304.8	0.375	9.52	49.61	73.78	51.28	76.21

Extra Heavy Pipe Schedule 80 - ASTM A53 Type A

NPS Designator	DN Designator	Outside Diameter		Inside Diameter		Wall Thickness		Nominal Weight (Mass) per unit Length			
		(Inches)	(mm)	(Inches)	(mm)	(Inches)	(mm)	Plain End (lb/ft)	Plain End (kg/m)	Threads & Couplings (lb/ft)	Threads & Couplings (kg/m
1/8"	6	0.405	10.3	0.215	5.5	0.095	2.41	0.31	0.47	0.32	0.46
1/4"	8	0.540	13.7	0.302	7.7	0.119	3.02	0.54	0.80	0.54	0.80
3/8"	10	0.675	17.1	0.423	10.7	0.126	3.20	0.74	1.10	0.74	1.10
1/2"	15	0.840	21.3	0.549	13.9	0.147	3.73	1.09	1.62	1.09	1.62
3/4"	20	1.050	26.7	0.742	18.8	0.154	3.91	1.48	2.20	1.48	2.21
1"	25	1.315	33.4	0.957	24.3	0.179	4.55	2.17	3.24	2.19	3.25
1-1/4"	32	1.660	42.2	1.278	32.5	0.191	4.85	3.00	4.47	3.03	4.49
1-1/2"	40	1.900	48.3	1.500	38.1	0.200	5.08	3.63	5.41	3.65	5.39
2"	50	2.375	60.3	1.939	49.3	0.218	5.54	5.03	7.48	5.08	7.55
2-1/2"	65	2.875	73.0	2.323	59.0	0.276	7.01	7.67	11.41	7.75	11.52
3"	80	3.500	88.9	2.900	73.7	0.300	7.62	10.26	15.27	10.35	15.39
3-1/2"	90	4.000	101.6	3.364	85.4	0.318	8.08	12.52	18.63	12.67	18.82
4"	100	4.500	114.3	3.826	97.2	0.337	8.56	15.00	22.32	15.20	22.60
5"	125	5.563	141.3	4.813	122.3	0.375	9.52	20.80	30.94	21.04	31.42
6"	150	6.625	168.3	5.761	146.3	0.432	10.97	28.60	42.56	28.88	43.05
8"	200	8.625	219.1	7.625	193.7	0.500	12.70	43.43	64.64	44.00	65.41

Permissible Variations - ASTM A53 Grades A and B Pipe

Permissible Variations for ASTM A53 Grades A and B Pipe			
	O.D.	Over	Under
Outside Diameter	NPS 1/8 to 1-1/2 DN 6 to 40	1/64" (0.4mm)	1/64" (0.4mm)
	NPS 2 and up DN 50 and up	1%	1%
Wall Thickness at Any Point		--------	12.50%
Weight		10%	10%

Mechanical Properties

Grade A: Yield 30,000 (205 Mpa) psi minimum Tensile: 48,000 psi (330 Mpa) minimum

Grade B: Yield 35,000 (240 Mpa) psi minimum Tensile: 60,000 psi (415 Mpa) minimum

JMC *Steel Group*
Pipe and Tube Solutions

Corporate Office
3201 Enterprise Parkway
Suite 150
Beachwood, OH 44122
Ph: 216.910.3700
info@jmcsteelgroup.com
jmcsteelgroup.com

Wheatland *Tube*
JMC STEEL GROUP

700 South Dock Street
Sharon, PA 16146
Ph: 800.257.8182
Fax: 724.346.7260
info@wheatland.com
wheatland.com

Wheatland produces a full line of standard pipe — A53 CW and ERW pipe, lance pipe and seamless pressure pipe. We're the industry leader in hot-dip galvanized pipe, and we offer more than 350 different combinations of finish, end treatments and length on our standard pipe.

All Wheatland manufacturing locations' quality management systems are certified to ISO 9001:2008 requirements.

For more information contact Wheatland's Pipe Product at (888) 442-8880 email: info@wheatland.com or visit our website at www.wheatland.com.

Made in America

Wheatland Tube Company

1 Council Avenue P.O. Box 608
Wheatland, PA 16161-0608
800.257.8182

www.wheatland.com

Wheatland ASTM A 53 Schedule 40 and Schedule 80 Pipe

Wheatland Steel Pipe is made by specialists who understand that it's the small details that make the difference between average products and superior products. At the Wheatland Plant, most department heads and foremen have been employed in some phase of pipe manufacturing for 25 or more years.

This kind of specialization, experience and knowledge pays off...in workable, threadable, uniform pipe. Delivered clean. Delivered promptly.

Wheatland specializes in manufacturing welded steel pipe in 1/2 through 4 nominal sizes. Available inventory in 1/8 to 12 pipe sizes produced to various ASTM standards is maintained to meet your pipe requirements.

Care, pride and personal concern are bonus features that go into every inch of Wheatland Pipe. Don't settle for less.

Make sure it's quality. Make sure it's Wheatland.

Standard Pipe Schedule 40 ASTM A 53 Grades A and B

NPS Designator	DN Designator	Outside Diameter		Inside Diameter		Wall Thickness		Nominal Weight (Mass) per unit Length			
		(Inches)	(mm)	(Inches)	(mm)	(Inches)	(mm)	Plain End (lb/ft)	Plain End (kg/m)	Threads & Couplings (lb/ft)	Threads & Couplings (kg/m
1/8	6	0.405	10.3	0.269	6.8	0.068	1.73	0.24	0.37	0.25	0.37
1/4	8	0.540	13.7	0.364	9.2	0.088	2.24	0.43	0.63	0.43	0.63
3/8	10	0.675	17.1	0.493	12.5	0.091	2.31	0.57	0.84	0.57	0.84
1/2	15	0.840	21.3	0.622	15.8	0.109	2.77	0.85	1.27	0.86	1.27
3/4	20	1.050	26.7	0.824	20.9	0.113	2.87	1.13	1.69	1.14	1.69
1	25	1.315	33.4	1.049	26.6	0.133	3.38	1.68	2.50	1.69	2.50
1-1/4	32	1.660	42.2	1.380	35.1	0.140	3.56	2.27	3.39	2.28	3.40
1-1/2	40	1.900	48.3	1.610	40.9	0.145	3.68	2.72	4.05	2.74	4.04
2	50	2.375	60.3	2.067	52.5	0.154	3.91	3.66	5.44	3.68	5.46
2-1/2	65	2.875	73.0	2.469	62.7	0.203	5.16	5.80	8.63	5.85	8.67
3	80	3.500	88.9	3.068	77.9	0.216	5.49	7.58	11.29	7.68	11.35
3-1/2	90	4.000	101.6	3.548	90.1	0.226	5.74	9.12	13.57	9.27	13.71
4	100	4.500	114.3	4.026	102.3	0.237	6.02	10.80	16.07	10.92	16.23
5	125	5.563	141.3	5.047	158.2	0.258	6.55	14.63	21.77	14.90	22.07
6	150	6.625	168.3	6.065	154.1	0.280	7.11	18.99	28.26	19.34	28.58
8	200	8.625	219.1	7.981	202.7	0.322	8.18	28.58	42.55	29.35	43.73
10	250	10.750	273.0	10.020	254.5	0.365	9.27	40.52	60.29	41.49	63.36
Standard Pipe											
12[1]	300	12.750	323.8	12.000	304.8	0.375	9.52	49.61	73.78	51.28	76.21

Note[1] NPS 12 dimensions are for standard wall pipe, not schedule 40.

Product Type and Specification:
Standard welded pipe is produced in 1/2 to 6 trade sizes. Wheatland pipe is produced to ASTM A 53 Grades A and B, A 501, and A 589 Type II, API 5L and Federal Specification WW-P404. All pipe threads conform to ANSI B1.20.1. Merchant couplings comply with ASTM A 865.

Specifications and descriptions are accurate as known at time of publication and subject to change without notice.

Wheatland ASTM A 53 Grades A & B Schedule 40 Pipe

Wheatland Tube Company

1 Council Avenue P.O. Box 608
Wheatland, PA 16161-0608
800.257.8182

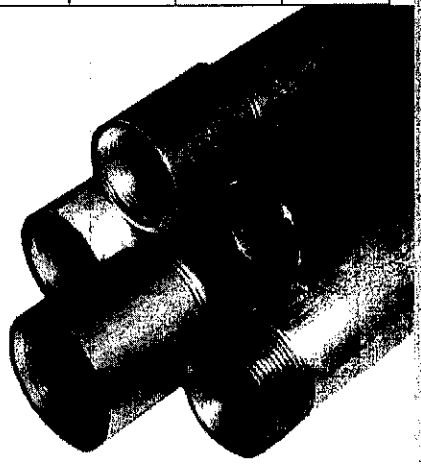
www.wheatland.com

Extra Heavy Pipe Schedule 80 ASTM A 53 Grade A

NPS Designator	DN Designator	Outside Diameter		Inside Diameter		Wall Thickness		Nominal Weight (Mass) per unit Length			
		(Inches)	(mm)	(Inches)	(mm)	(Inches)	(mm)	Plain End (lb/ft)	Plain End (kg/m)	Threads & Couplings (lb/ft)	Threads & Couplings (kg/m
1/8	6	0.405	10.3	0.215	5.5	0.095	2.41	0.31	0.47	0.32	0.46
1/4	8	0.540	13.7	0.302	7.7	0.119	3.02	0.54	0.80	0.54	0.80
3/8	10	0.675	17.1	0.423	10.7	0.126	3.20	0.74	1.10	0.74	1.10
1/2	15	0.840	21.3	0.549	13.9	0.147	3.73	1.09	1.62	1.09	1.62
3/4	20	1.050	26.7	0.742	18.8	0.154	3.91	1.48	2.20	1.48	2.21
1	25	1.315	33.4	0.957	24.3	0.179	4.55	2.17	3.24	2.19	3.25
1-1/4	32	1.660	42.2	1.278	32.5	0.191	4.85	3.00	4.47	3.03	4.49
1-1/2	40	1.900	48.3	1.500	38.1	0.200	5.08	3.63	5.41	3.65	5.39
2	50	2.375	60.3	1.939	49.3	0.218	5.54	5.03	7.48	5.08	7.55
2-1/2	65	2.875	73.0	2.323	59.0	0.276	7.01	7.67	11.41	7.75	11.52
3	80	3.500	88.9	2.900	73.7	0.300	7.62	10.26	15.27	10.35	15.39
3-1/2	90	4.000	101.6	3.364	85.4	0.318	8.08	12.52	18.63	12.67	18.82
4	100	4.500	114.3	3.826	97.2	0.337	8.56	15.00	22.32	15.20	22.60
5	125	5.563	141.3	4.813	122.3	0.375	9.52	20.80	30.94	21.04	31.42
6	150	6.625	168.3	5.761	146.3	0.432	10.97	28.60	42.56	28.88	43.05
8	200	8.625	219.1	7.625	193.7	0.500	12.70	43.43	64.64	44.00	65.41

Wheatland ASTM A 53 Grade A Schedule 80 Pipe

Permissible Variations for ASTM A 53 Grades A and B Pipe			
	O.D.	Over	Under
Outside Diameter	NPS 1/8 to 1-1/2 DN 6 to 40	1/64" (0.4mm)	1/64" (0.4mm)
	NPS 2 and up DN 50 and up	1%	1%
Wall Thickness at Any Point		--------	12.5%



ASTM A 53 Grades A and B: Black and Galvanized Pipe is manufactured for ordinary use in steam, water,gas, and air lines. UL Listed and FM Approved, sizes 1" through 6" nominal, for use in Fire Sprinkler Pipe Applications.

Mechanical Properties

Grade A: Yield 30,000 [205 Mpa] psi minimum Tensile: 48,000 psi [330 Mpa] minimum

Grade B: Yield 35,000 [240 Mpa] psi minimum Tensile: 60,000 psi [415 Mpa] minimum

For additional information or to order , contact our pipe department at 800.257.8182,
Fax: 724.346.7260, e-mail info@wheatland.com

WHEATLAND TUBE COMPANY

Wheatland, PA 16161
Main Plant (724) 342-6851

Dear Customer:

Enclosed is a Wheatland Tube Company Material Safety Data Sheet for the pipe products that you purchase. It is the continuing policy of Wheatland Tube Company to provide to our customers, health, safety and environmental protection information that is appropriate for handling and utilizing our products.

These Material Safety Data Sheets contain information that is valuable to your employee health and safety program and may be required to be in your possession by the Federal OSHA Hazard Communication Standard or other right-to -know legislation. It is important that your facility hazard communication coordinator, industrial hygiene or safety personnel receives this information so that it can be communicated to those employees having contact with these products.

A revised Material Safety Data Sheet will be forwarded to you when significant changes of the information contained therein necessitate publication of an updated copy.

Addendum 2 lists the most commonly used rust preventative or protective coatings that are applied to products requiring such treatment, if a coating is not specified by you. This addendum is available upon request. This addendum lists the coatings which are applied and the manufacturer's identification and address. This information will be provided to enable you to obtain a Material Safety Data Sheet directly from the manufacturer or supplier for the rust preventative or coating that is applied to the product that you purchase. Material Safety Data Sheets for specified coatings should also be requested from the manufacturer or supplier of the coating. This procedure will make it possible for the manufacturer or supplier to send copies of Material Safety Data Sheets directly to you, as a user of that product, when revised MSDS'S are produced.

Also contained in the package is a label that can be reproduced or the information contained therein extracted for label-producing purposes.

Hazard Communication Programs are of the utmost importance to Wheatland Tube Company. We believe this information will be very beneficial to your Hazard Communication Program and we welcome any inquiries regarding additional information that you may require.

GREG MAURER
DIVISION MANAGER TECHNICAL SERVICES AND QUALITY ASSURANCE
Direct Line (724) 342 6851 x 1250
Fax (724) 346 7158

WHEATLAND TUBE COMPANY
MATERIAL SAFETY DATA SHEET

Original Issue Date: 11/01/85 MSDS #268

Revision Date:				
	06/05/90 #2	02/05/99 #5	09/26/03 #8	12/19/05 #11
	08/24/92 #3	06/28/99 #6	04/13/05 #9	10/05/07 #12
	06/15/95 #4	11/08/01 #7	09/21/05 #10	

EMERGENCY TELEPHONE NUMBER - Main Plant (724) 342-6851
CONTACT: Gregory L. Maurer (724) 342-6851 ext. 1250

I. IDENTIFICATION

PRODUCT NAME: CBW Pipe-ERW Pipe-Carbon Steel, ASTM STANDARD A 53, A 135, A 501, A 513, A 589, A 733, A 795, A 618, A 865, F1043, F1083,API STANDARD 5A, 5L, A106
UL STANDARD 6, 797, 1242, Wheatland Product MLT, MEGA-FLOW, MEGA-THREAD, WLS, WST, GC, WT-40, WT-30, WT-20

COMMON NAMES: Standard Pipe, Schedule 40, Fence Pipe, Mechanical Tubing and Pipe, Schedule 10, Plumbing Pipe, Sprinkler Pipe, Water Pipe, Line Pipe, Gas Pipe, Steam Pipe, Extra Heavy Pipe, Schedule 80, R & D, Rigid Conduit, EMT, IMC, Couplings, Fittings, Nipples and Coupling Stock.

CAS NO. 65997-19-5 Manufacturer: Wheatland Tube Company

1 Council Avenue
Wheatland, PA 16161

4435 South Western Blvd
Chicago, IL 60609

8200 Frazier-Pike Road
Little Rock, AR 72206

200 Clark Street
Sharon, PA 16146

901 Dietz Road
Warren, Ohio 44438

II. INGREDIENTS AND RECOMMENDED OCCUPATIONAL EXPOSURE LIMITS

Note: steel products under normal conditions do not present an inhalation, ingestion, or contact health hazard (see section VI).

BASE METAL, ALLOYING ELEMENTS AND METAL COATINGS	% WEIGHT	EXPOSURE LIMITS OSHA PEL	ACGIH TLV
Base Metal: Iron (1309-37-1 as iron-oxide fume)	98-99	10 mg/M^3 for iron oxide fume	5 mg/M^3 for iron oxide fume
Alloying Elements:			
Carbon (7440-44-0)	0.02 - .25	15 mg/M^3-total dust PNOR 5 mg/M^3 RF - PNOR	None Established
Manganese (7439-96-5)	0.15 - 1.40	(c) 5 mg/M^3	0.2 mg/M^3
Phosphorus (7723-14-0)	0.010 - .080	None for inorganic phosphates	None for inorganic phosphates
Sulfur as SO_2 (7446-09-5)	0.005 - .120	13 mg/M^3	5.2 mg/M^3 13 mg/M^3 (s)
Copper (7440-50-8)	< .15	1.0 mg/M^3-dust, 0.1 mg/M^3 fume	1.0 mg/M^3 dust, 0.2 mg/M^3 - fume
Nickel (7440-02-0)	< .12	1.0 mg/M^3	0.2 mg/M^3 insoluble inorganic compounds
Chromium (7440-47-3)	< .12	1.0 mg/M^3	0.05 mg/M^3
Vanadium as V_2O_5 (1314-62-1)	< .10	0.05 mg/M^3 – dust (c) 0.1 mg/M^3 – fume	(c) 0.05 mg/M^3 – dust, (c) 0.05 mg/M^3 – fume
Metallic Coating*			
Zinc	.070-6.0	15 mg/M^3-total	10 mg/M^3-total
(1314-13-2 as zinc oxide)		ZnO dust	ZnO dust
		5 mg/M^3	2 mg/M^3
		Respirable ZnO	Respirable ZnO
		Dust & fume	Dust & fume
		5 mg/M^3	(s) 10 mg/M^3

(c) denotes "ceiling limit" which is not to be exceeded at any time
(s) denotes Short Term Exposure Limit (STEL)
RF denotes Respirable Fraction
PNOR – Particulates Not Otherwise Regulated
Varnish coating may be used; See Addendum II

*Galvanized pipe only.

NOTE: All commercial metals contain small amounts of various elements in addition to those specified. These small quantities, frequently referred to as "trace" or "residual" elements, generally originate in the raw materials used.

III. PHYSICAL DATA

MELTING POINT		Appearance and Odor:
Base Metal:	2750 F	Metallic Gray
Metallic Coating:	800-900F	No Odor

IV. FIRE AND EXPLOSION HAZARD DATA

Steel products in the solid state present no fire or explosion hazard and do not contribute to the combustion of other products.

V. REACTIVITY DATA

Stable under normal conditions of use, storage and transport. Will react with strong acid to liberate hydrogen. At temperatures above the melting point of the coating, galvanized pipe may liberate zinc fumes.

VI. HEALTH HAZARD DATA

HMIS CODE: H = 1, F = 0, R = 0

NOTE: Steel products under normal conditions do not present an inhalation, ingestion, or contact health hazard. However, operations such as burning, welding, sawing, brazing, grinding, and possibly machining, etc. which result in elevating the temperature of the product to or above its melting point or results in the generation of airborne particulate, may present health hazards.

EFFECTS OF OVEREXPOSURE

MAJOR EXPOSURE HAZARD
INHALATION

Chronic inhalation of high concentration of iron oxide fumes or dusts may lead to a benign pneumoconiosis. Inhalation of high concentrations of ferric oxide may possibly enhance the risk of lung cancer development in workers exposed to pulmonary carcinogens.

The inhalation of high concentrations of freshly formed oxide fumes and dusts of Manganese, Copper, Lead and/or Zinc in the respirable particle size range can cause an influenza-like illness termed metal fume fever. Typical symptoms last 12 to 48 hours and are characterized by metallic taste in the mouth, dryness and irritation in the throat, followed by weakness, muscle pain, fever and chills.

EMERGENCY AND FIRST AID PROCEDURES

For overexposure to airborne fumes and particulate, remove exposed person to fresh air. If breathing is difficult or has stopped, administer artificial respiration or oxygen as indicated. Seek medical attention promptly. Treat metal fume fever by bed rest and administer a pain and fever reducing medication. Seek medical attention.

VII. SPILL OR LEAK PROCEDURES

NOT APPLICABLE TO STEEL IN THE SOLID STATE.

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY

NIOSH/MSHA-approved dust and fume respirators should be used to avoid excessive inhalation of particulate. Appropriate respirator selection depends on the magnitude of exposure.

SKIN:

Protective gloves should be worn as required for welding, burning, or handling operations.

EYE:

Use safety glasses or goggles as required for welding, burning, sawing, brazing, grinding, or machining operations.

VENTILATION:

Local exhaust ventilation should be provided when welding, burning, sawing, brazing, grinding, or machining to prevent excessive dust or fume exposure.

OTHER PROTECTIVE EQUIPMENT:

Depending upon the conditions of use and specific work situations, additional protective equipment and/or clothing may be required to control exposures.

IX. SPECIAL PRECAUTIONS

Operations with the potential for generating high concentrations of airborne particulate should be evaluated and controlled as necessary. Avoid breathing metal fumes and/or dusts.

OTHER COMMENTS:

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: individuals with chronic respiratory disorders (i.e.: asthma, chronic bronchitis, emphysema, etc.) may be adversely affected by any fume or airborne particulate matter exposure.

This information is taken from sources or based upon data believed to be reliable; however, Wheatland Tube Company makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions.

ADDENDUM 1

In compliance with U.S. Environmental Protection Agency regulations that became effective on January 1, 1989, this addendum is to inform you that the products covered by our Material Safety Data Sheet #268 contains one or more of the below listed chemicals that are subject to reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

Manganese Zinc Nickel

Refer to Addendum 2 of the Material Safety Data Sheet for the CAS numbers and percent by weight for each of the chemicals listed.

Addendum 2 lists the most commonly used rust preventative or protective coatings that are applied to products requiring such treatment, if a coating is not specified by you. This addendum is available upon request from:

GREG MAURER
DIVISION MANAGER TECHNICAL SERVICES AND QUALITY ASSURANCE
Direct Line (724) 342 6851 x 1250
Fax (724) 346 7158

The above referenced law requires certain manufacturers to report annual emissions of specified toxic chemicals and chemical categories. If you are unsure if you must report or, if you require more information, call the EPA Emergency Planning and Community Right-To-Know Hotline (800)535-0202 or (202)479-2449 (in Washington, DC or Alaska).