

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS

(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)

As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by **Ward Tank & Heat Exchanger Corp., 6670 E. W.T. Harris Boulevard, Charlotte, North Carolina, 28215**
(Name and address of Manufacturer)
2. Manufactured for **Evonik Degussa Corporation, PO Box 868, Theodore, Alabama, 36590**
(Name and address of Purchaser)
3. Location of Installation **Evonik Degussa Corporation, 4201 Degussa Rd., Theodore, Alabama, 36590**
(Name and address)
4. Type **Vertical** **WC-9195** **N/A** **2015-WC-9195 Rev. 5** **5180** **2016**
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (Year built)
5. ASME Code, Section VIII, Division 1 **2013/ N/A** **N/A** **N/A**
(Edition and Addenda, if applicable (date)) (Code Case numbers) (Special service per UG-120(d))
6. Shell: **SA240 316** **.375"** **0 in** **4' (ID)** **7'**
(Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) (Length overall)

Body Flanges on Shells													
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting				
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

7. Seams: **1** **Spot** **85%** **N/A** **N/A** **3** **Spot** **85%** **1**
(Long. (welded, dbl., sngl., lap, butt)) (R.T. (spot or full)) (Eff., %) (H.T. temp) (Time, hr) (Girth. (welded, dbl., sngl., lap, butt)) (R.T. (spot or full)) (Eff., %) (No. of courses)

8. Heads: (a) Material **SA240 316** (b) Material **SA240 316**
(Spec. no., grade) (Spec. no., grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	Top	.1875"	0	48"	3	N/A	N/A	N/A	N/A	Concave
(b)	Bottom	.1875"	0	48"	3	N/A	N/A	N/A	N/A	Concave

Body Flanges on Heads													
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting				
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material	
(a)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

9. MAWP **45 psi** **15 psi** at max. temp. **482 °F** **482 °F**
(Internal) (External) (Internal) (External)
- Min. design metal temp. **-20 °F** at **FVI/45** Hydro, pneu., or comb. test pressure **HYDRO at 56 psi**
- Proof test **N/A**

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Temperature Transmitter	1	1.5	150# RFWN	SA312 TP316	SA182 F316	.145"	0		Welded	Welded	Shell
Emergency Relief, Press. Transmitter	2	1"	150# RFWN	SA312 TP316	SA182 F316	.133"	0		Welded	Welded	Head
Manway w/Cover & Davit	1	24"	150# RFWN	SA240 316	SA182 F316	.375"	0		Welded	Welded	Shell
Level switch high, level switch high	2	3"	150# RFWN	SA312 TP316	SA182 F316	.216"	0		Welded	Welded	Head
Mount for L3	1	4"	150# RFWN	SA312 TP316	SA182 F316	.237"	0		Welded	Welded	Head
Process Vapor Outlet	1	4"	150# RFWN	SA312 TP316	SA182 F316	.237"	0		Welded	Welded	Head
Level Transmitter	1	3"	150# RFWN	SA312 TP316	SA182 F316	.216"	0		Welded	Welded	Head
Level Gage Top & Bottom	2	2"	150# RFWN	SA312 TP316	SA182 F316	.154"	0		Welded	Welded	1-Head, 1-Shell
Drain	1	2"	150# RFWN	SA312 TP316	SA182 F316	.154"	0	SA240 316	Welded	Welded	Head
Process Liquid Inlet	1	1"	150# RFWN	SA312 TP316	SA182 F316	.133"	0		Welded	Welded	Shell
Process Vapor Inlet	2	3"	150# RFWN	SA312 TP316	SA182 F316	.216"	0	SA240 316	Welded	Welded	Shell

11. Supports: Skirt **No** Lugs **N/A** Legs **N/A** Other **(4) Support Lugs** Attached **Shell/Attached**
(Yes or no) (Number) (Number) (Describe) (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors, have been furnished for the following items of the report:
N/A
(Name of part, item number, Manufacturer's name and identifying stamp)

The customer is responsible for the pressure relief device as per UG-125a.

CERTIFICATE OF SHOP/FIELD COMPLIANCE

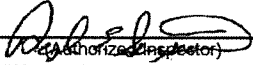
We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. "U" Certificate of Authorization Number 18365 expires February 17, 2017.

Date 02/22/2016 Co. name Ward Tank & Heat Exchanger Corp. Signed 
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Ward Tank & Heat Exchanger Corp. at 6670 E. W.T. Harris Boulevard, Charlotte, North Carolina, 28215
 I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut, of Hartford, CT

have inspected the component described in this Manufacturer's Data Report on February 22, 2016 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 02/22/2016 Signed  Commissions 10652AB, NC1206
(Authorized Inspector) [National Board (incl. endorsements)]

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FABRICATED & CERTIFIED BY
WARD TANK & HEAT EXCHANGER CORP. CHARLOTTE, N.C.

RT-4

SHELL	MAWP: 7.5 PSI @ 482 °F
JKT./TUBE SIDE	MAWP: --- PSI @ --- °F
SHELL	MDMT: -29 °F @ 7.5 PSI
JKT./TUBE SIDE	MDMT: --- °F @ --- PSI

TEST PRESS.	SHELL: 93 PSI	JKT./TUBE SIDE: --- PSI
MFGR. S.N.	WC-9195	YR. BUILT: 2015
CUSTOMER	EVONIK CORP. - THEODORE AL	
P.O. NO.	4700898293	DATE: 1/2/15
NOMENCLATURE	NON-O2 CONTAINING PO	
EQUIP. NO.	V-9452	
	48 IN OD X 84 IN	

SHELL MAWP 7.5 PSI @ 482 °F
 SHELL MDMT -29 °F @ 7.5 PSI
 FW/S TO BARG
 SHIPPING WT. 1542 KG
 TEST AT 4354 KG