

Note: 000080

Overview

Number	000080
Description	Support of ASTM D1550-18 Butadiene - ASTM D2962 Compliance Confirmation
Version	1 from 06.03.2019
Status	Released to Customer
Language	EN
Responsible	Markus Seng
Product	BCP
Category	Advanced Development

Symptom

1. ASTM D1550 has been issued as a new version in 2018. When compared to the previous versions, the weight calculation defined in Table 3 of these historical versions has been cancelled and reference is made to API MPMS 11.5.2. This change requires a new MQCI implementation function set of ASTMD1550-2018.
 2. ASTM D2962-10 has been reapproved and issued under the new designation ASTM D2962-10(2019) in January 2019. This reapproval is documented after application of this note in the Petroleum Measurement Cockpit (PMC) online documentation, in the Print Tables Section.
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Cause

Periodic ASTM Measurement Standards approval and revision process.

Solution

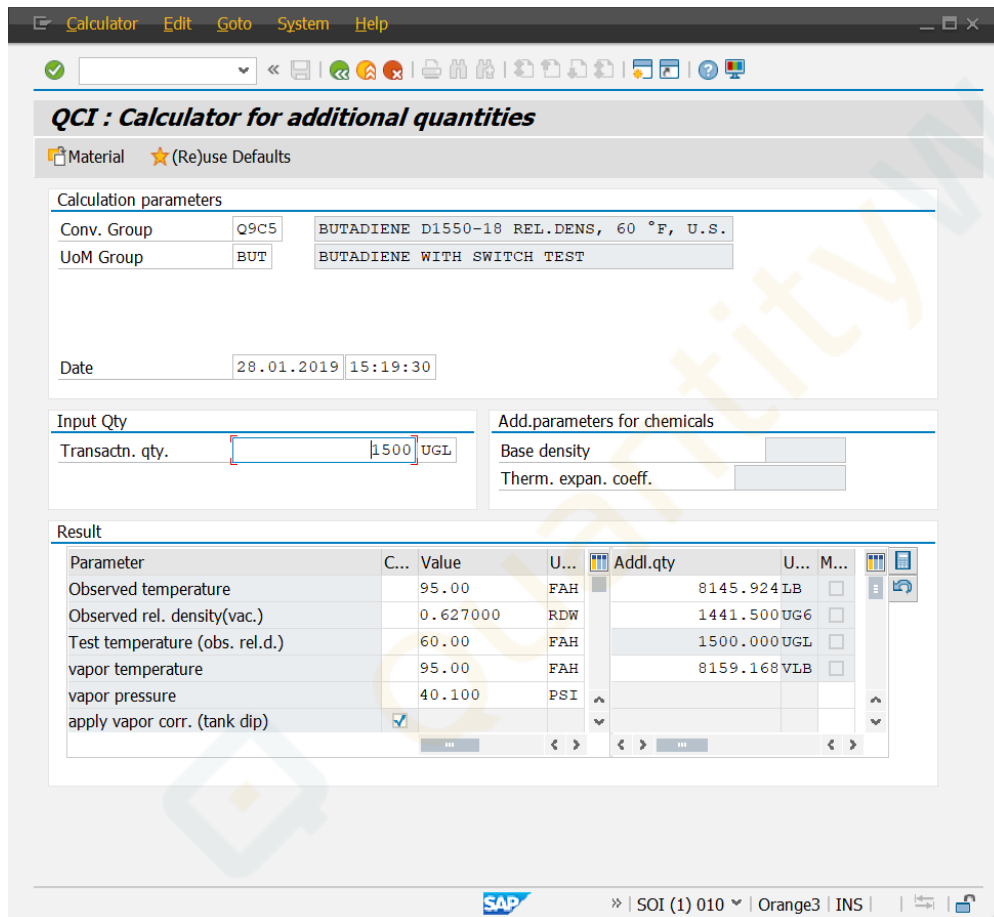
1. For ASTM D1550-2018, the new MQCI implementation set is delivered with this note. In detail, five

new MQCI sequence functions are delivered:

- /QTYW/MQCI_BCP_BUT_PAR_CHECK
- /QTYW/MQCI_CALCULATE_D1550_18
- /QTYW/MQCI_BCP_CALC_TOT_VOL2
- /QTYW/US_LIQVA2_OBS_TO_ALT_QUA
- /QTYW/MQCI_SET_CTPL_TANK_VAPOR (only required if LPG vapor space calculation model has to be connected)

In order to harmonize the user experience, a new Butadiene MQCI model has been developed as well, such that the proven BCS 3.0 LPG models may be connected to ASTM D1550 MQCI conversion groups and/or the known LPG control parameters may be utilized. A new MQCI Butadiene ASTM D1550-2018 template conversion group Q9C5 will be delivered with BCS 3.0 CSP02. Customers requiring earlier support may contact their certified BCP consultant.

As a reference, the new configuration is documented down below:



QCI : Calculator for additional quantities

Material (Re)use Defaults

Calculation parameters

Conv. Group	Q9C5	BUTADIENE D1550-18 REL.DENS, 60 °F, U.S.
UoM Group	BUT	BUTADIENE WITH SWITCH TEST

Date: 28.01.2019 15:19:30

Input Qty

Transactn. qty. 1500 UGL

Add.parameters for chemicals

Base density

Therm. expan. coeff.

Result

Parameter	C...	Value	U...	Addl.qty	U...	M...
Observed temperature		95.00	FAH	8145.924	LB	
Observed rel. density(vac.)		0.627000	RDW	1441.500	UG6	
Test temperature (obs. rel.d.)		60.00	FAH	1500.000	UGL	
vapor temperature		95.00	FAH	8159.168	VLB	
vapor pressure		40.100	PSI			
apply vapor corr. (tank dip)		<input checked="" type="checkbox"/>				

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Table View Edit Goto Selection Utilities(M) System Help

Change View "SAP QCI - MQCI Model Function Sequence (FSQ)": Overview

New Entries

Dialog Structure

- QCI Conversion Group Maint
 - SAP QCI - MQCI Model Fun
 - Link Reading Group to Cor
 - Assign Additional Units to
 - Assign Set ID for Physical I
 - SAP QCI - MQCI Documen

Conversion group	FSQ	Function module name	Function module ty...
Q9C5	1	/QTYW/MQCI_CALL_BCP	5
Q9C5	2	/QTYW/MQCI_CON_TDICH_VAC_DNTYP	7
Q9C5	5	/QTYW/CHECK_PARAM_RANGES	9
Q9C5	6	/QTYW/MQCI_BCP_BUT_PAR_CHECK	9
Q9C5	15	/QTYW/MQCI_BCP_CONVERT_INPUT_F	5
Q9C5	20	/QTYW/MQCI_CALCULATE_D1550_18	5
Q9C5	21	/QTYW/MQCI_08_RD60_TO_LB_GAL	5
Q9C5	22	/QTYW/MQCI_BCP_CALC_TOT_VOL2	5
Q9C5	25	/QTYW/MQCI_CALCULATE_D1550_18	5
Q9C5		/QTYW/US_LIQA2_OBS_TO_ALT_QUA	5
Q9C5	35	/QTYW/MQCI_ROUND_ALT_QUANTITY	5
Q9C5	40	/QTYW/MQCI_SAP_OVERFLOW_CHECK	5
Q9C5	45	/QTYW/MQCI_SAP_QUANTITY_CHECK	5
Q9C5	90	/QTYW/MQCI_SYNC_EXT_VALUES	C

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Change View "Assign Additional Units to Conversion Group": Overview

New Entries

Dialog Structure

- QCI Conversion Group Maint
 - SAP QCI - MQCI Model Fun
 - Link Reading Group to Cor
 - Assign Additional Units to
 - Assign Set ID for Physical I
 - SAP QCI - MQCI Documen

Conversion group	QCI unit of measure (UoM)	QCI unit description
Q9C5	US_BASE_DENSITY_UOM	Alternate base density UoM
Q9C5	US_BASE_INVVDENS_UOM	Alternate inverse density UoM
Q9C5	US_BASE_MASS_UOM	Alternate base mass UoM
Q9C5	US_BASE_VOLUME_UOM	Alternate base volumeUoM
Q9C5	US_BASE_WEIGHT_UOM	Alternate base weight UoM

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Table View Edit Goto Selection Utilities(M) System Help

Change View "SAP QCI - MQCI Documentation": Details

New Entries

Dialog Structure

- QCI Conversion Group Maint
 - SAP QCI - MQCI Model Full
 - Link Reading Group to Conversion
 - Assign Additional Units to Conversion
 - Assign Set ID for Physical Unit
 - SAP QCI - MQCI Documentation

Conversion grp. **Q9CS**

SAP QCI - MQCI Documentation

MQCI model	ASTM D1550 Butadiene Vapor Alternate Base Model
CTPL standard	ASTM D1550-18, Butadiene
Weight standard	ASTM D1250-08 (API MPMS Chapter 11.5.2, Rel. Dens. 60/60 °F)

One entry chosen

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Table View Edit Goto Selection Utilities(M) System Help

Change View "Reading Group Entries": Overview

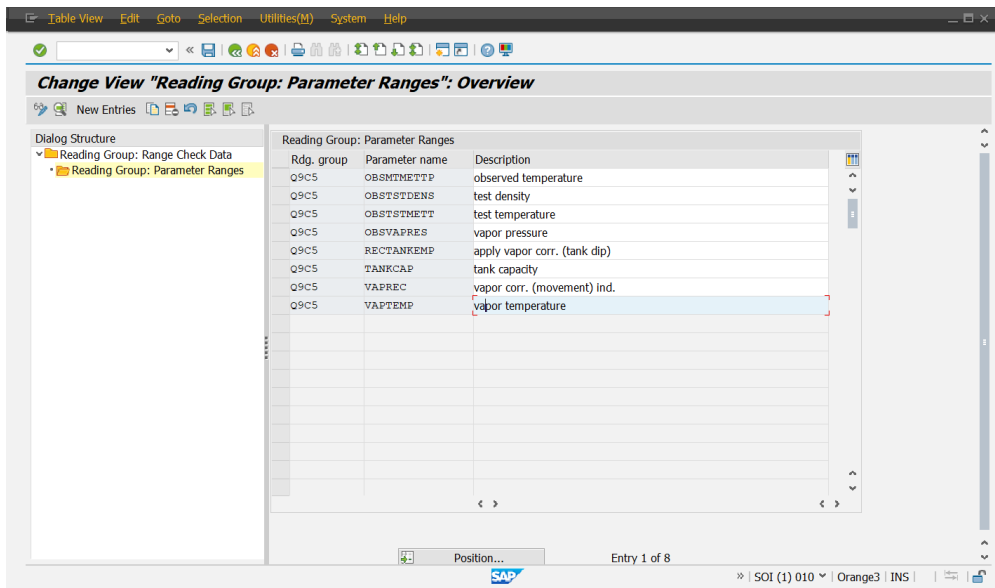
New Entries

Dialog Structure

- Reading Group Definition
 - Reading Group Entries

Rdg.	Par. name	Parameter description	Unit	Sorting	Copy	I/O defaults	I/O transactions	Grp.
Q9CS	BD1CHMP	Base density (lb/gal)	PPG	11	Copy	visible, output	visible, output	
Q9CS	BD1CH_AIR	Base density(air) (lb/gal)	PPG	12	Copy	visible, output	visible, output	
Q9CS	CTPL_O_B	VCF observed to base	VCF	9	Copy	visible, output	visible, output	
Q9CS	OB8MTMETP	Observed temperature	FAH	1	Copy	visible, input,output	visible, input,output	
Q9CS	OB8STSTDRB	Observed rel. density(vac)	RDW	2	Copy	visible, input,output	visible, input,output	
Q9CS	OB8STSTMETT	Test temperature (obs. rel.d.)	FAH	3	Copy	visible, input,output	visible, input,output	
Q9CS	OB8CTAPRES	vapor pressure		5	Copy	visible, input,output	visible, input,output	
Q9CS	OB8CTANKRE	apply vapor corr. (tank dip)		6	Copy	visible, input,output	visible, input,output, as checkbox (char.), no unit (fit)	
Q9CS	STDCDEN	Base density(vac.)	RDW	11	Copy	visible, output	visible, output	
Q9CS	TANKCAP	Tank capacity	UGL	8	Copy	visible, input,output	visible, input,output	
Q9CS	VAPREC	vapor corr. (movement) ind.		7	Copy	visible, input,output	visible, input,output, as checkbox (char.), no unit (fit)	
Q9CS	VAPTEMP	vapor temperature		4	Copy	visible, input,output	visible, input,output	
Q9CS	VOLTOT	Tot. base volume (liq. & vap.)	UG6	10	Copy	visible, output	visible, output	

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Transport Reference

SAP Release	Transport	File Name	Notes
ECC600	QOIK900313	NOTE-00080-30x.SAR	
S/4 HANA	QOIK900313	NOTE-00080-30x.SAR	1610; 1709; 1809

Validity

SAP Release	From SP	To SP	In SP Shipment
ECC600	BCS 3.0 CSP01	BCS 3.0 CSP01	BCS 3.0 CSP02
S/4 HANA	BCS 3.0 CSP00	BCS 3.0 CSP00	BCS 3.0 CSP01