

Note: 000095

Overview

Number	000095
Description	Dehydrated Ethanol Calculation - Customer Solution Example
Version	1 from 12.06.2020
Status	Released to Customer
Language	EN
Responsible	Markus Seng
Product	BCP
Category	Consulting & Configuration

Symptom

For your [MQCI DCF](#) ethanol conversion group, you wish to enter two additional input parameters for the quantity conversions

1. the weight % fraction of pure ethanol in your ethanol product
2. the absolute density of pure ethanol - 0.78924 g/ml (= 789.24 kg/m³) @ 20 °C

such that the system calculates, in addition to the existing [UoM](#) in your UoM group, the liter @ 20 °C value of pure ethanol. That calculation shall be based on the following formula:

Volume @ 20 °C (pure ethanol) [L]

= weight of product [kg] × weight fraction (pure ethanol) ÷ absolute density (pure ethanol) [kg/L]

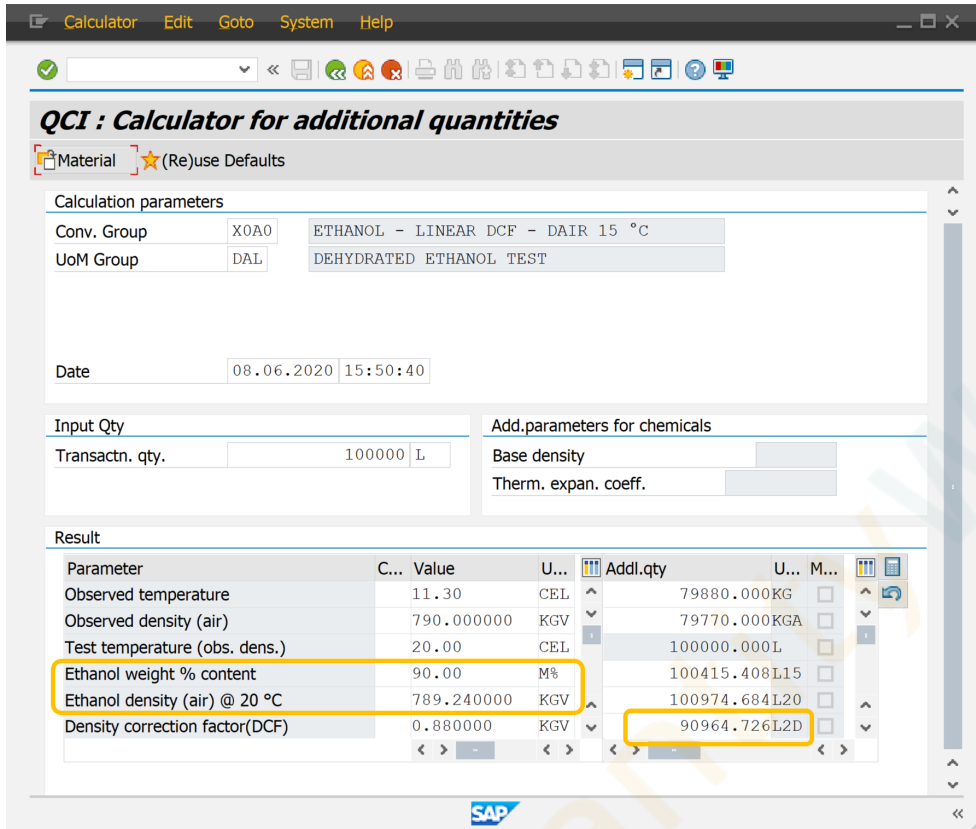
Cause

Customer requirement - Legal authorities requirement

Solution

This solution may only be implemented with the support of a QW-Certified consultant.

Depending on your business process design and configuration (e.g. TSW ticketing, delivery processing ...) you may include this calculation step into your DCF MQCI conversion group configuration, by extending the BCP crude oil [MQCI conversion group](#) with a customer specific ABAP function. That function performs that calculation for one dedicated (new) UoM (e.g. L2D):



QCI : Calculator for additional quantities

Material: (Re)use Defaults

Calculation parameters

Conv. Group	X0A0	ETHANOL - LINEAR DCF - DAIR 15 °C
UoM Group	DAL	DEHYDRATED ETHANOL TEST

Date: 08.06.2020 15:50:40

Input Qty: Transactn. qty. 100000 L

Add.parameters for chemicals

Base density:

Therm. expan. coeff.:

Result

Parameter	C...	Value	U...	Addl.qty	U...	M...
Observed temperature		11.30	CEL	79880.000	KG	
Observed density (air)		790.000000	KGV	79770.000	KGA	
Test temperature (obs. dens.)		20.00	CEL	100000.000	L	
Ethanol weight % content		90.00	M%	100415.408	L15	
Ethanol density (air) @ 20 °C		789.240000	KGV	100974.684	L20	
Density correction factor(DCF)		0.880000	KGV	90964.726	L2D	

With this note, QuantityWare releases a general consultancy-based solution example containing:

- Two example function modules (ABAP code), which you may plug into your existing conversion group configuration
- an example UoM L2D configuration - specific to those function modules
- configuration steps how to integrate the customer functions into existing DCF configurations

Certified QuantityWare BCP consultants have access to such a DCF calculation model extension example via the Support Portal.

Transport Reference

No SAP-based transport

Validity

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