



# BCS – Information

## Supported Products Manual

Classifies and lists the products supported by QuantityWare BCS at the time of document publication

## Notes

The latest version of this documentation can be found in the QuantityWare [Knowledge Base](#). All documentation is kept current for the combinations of latest BCS release with the latest supported SAP Oil, Gas, & Energy release. For all currently supported combinations see [Note #000086 "Support and Release \(Lifecycle\) details"](#) page 2, "Release Lifecycle".

Your release level can be determined via:

`"/o/QTYW/COCKPIT" -> "Cockpit" -> "Support Package Level"` or

`"/o/QTYW/COCKPIT_GAS" -> "Cockpit" -> "Support Package Level"`

## Version History

Version	Date	Description
00	2017-08-02	Initial version
01	2017-11-10	Editorial revision
02	2019-09-25	Editorial revision
03	2021-09-20	S/4HANA 2020 / 2020_EX validity confirmed. Modern QW document style applied
04	2022-07-06	Editorial revision & addition of hydrogen quantity conversions support
05	2023-04-04	Editorial revision & addition of natural gas – hydrogen mixture quantity conversions support
06	2023-11-30	BCS 30A CSP03 / 30B CSP02 editorial revision – inclusion of detailed products list - examples
07	2024-01-10	Support of industrial gases nitrogen, carbon dioxide, hydrogen sulfide
08	2024-01-23	Support of all of the pure natural gas components from high pressure compression factor standards

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# 1. Bulk Calculations - Petroleum (BCP)

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BCP covers:

- All crude petroleum and its products, that are present in the liquid phase (state) at ISO standard reference conditions, specified in ISO 91:2017(E) Annex B “Standard reference conditions”.

***The ISO standard reference conditions are 101.325 kPa and 15 °C.***

In general, this covers crude petroleum, products (incl. asphalt/bitumen<sup>1</sup>) and lubricants.

- Liquid hydrocarbons (LPG/NGL) and similar light products (e.g., butadiene, hydrogen carriers like anhydrous ammonia etc.), having a vapor pressure greater than atmospheric pressure at 15 °C, for which the standard reference pressure shall be the equilibrium pressure at 15 °C standard reference temperature.
- All biofuel products (e.g., bioethanol, biodiesel etc.), that are present in the liquid phase (state) at ISO standard reference conditions, specified in ISO 91:2017(E) Annex B “Standard reference conditions”.
- All bulk petrochemical products (e.g., industrial aromatic hydrocarbons etc.), that are present in the liquid phase (state) at ISO standard reference conditions, specified in ISO 91:2017(E) Annex B “Standard reference conditions”.
- All additional bulk chemical and alternate fuel products (methanol, MTBE, etc.), that are present in the liquid state at ISO standard reference conditions, specified in ISO 91:2017(E) Annex B “Standard reference conditions”.

For all products falling into one of these categories, QuantityWare already offers or plans to offer implementations of quantity conversion standards, depending on the availability of national/international measurement standards and customer requirements. For a detailed list of standards supported with BCP, read the [“BCP Supported Standards Manual”](#) . Read the [Supported Products FAQ](#) for support of specific products.

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<sup>1</sup> [Asphalt/bitumen](#) may be present as a highly viscous / semi-solid product at ISO conditions.

## 2. Bulk Calculations – Gas (BCG)

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BCG covers:

- All dry natural gases, hydrogen blended natural gases of any ratio, natural-gas substitutes, and similar products (e.g. biogas), that are present in the gaseous phase (state) at ISO standard reference conditions, as specified in ISO 13443 First edition –1996-12-15 (last confirmation 2020)<sup>2</sup>.

***The standard reference conditions are 101.325 kPa and 15 °C.***

By this definition, LNG (liquefied natural gas) is also included in the product definition range.

- Liquid hydrocarbons (NGL/LPG), having a vapor pressure greater than atmospheric pressure at 15 °C, for which the standard reference pressure shall be the equilibrium pressure at 15 °C standard reference temperature.
- 100% Hydrogen (H<sub>2</sub>) gas (high- and low-pressure regime), which is - due to its nature - present in the gaseous phase (state) at ISO standard reference conditions.
- Industrial gases, that are available as components in supported high pressure compression factor calculation standards

For all products falling into one of these categories, QuantityWare already offers or plans to offer implementations of quantity conversion standards, depending on the availability of national/international measurement standards and customer requirements. For a detailed list of standards supported with BCG, read the [“BCG Supported Standards Manual”](#) . Read the [Supported Products FAQ](#) for support of specific products.

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<sup>2</sup> For “Wet gas”, refer to [Note 000059](#) for further details of specific support

### 3. Compliance & Transparency – Petroleum (CTP)

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CTP covers:

- All crude petroleum and its products, that are present in the liquid phase (state) at ISO standard reference conditions, specified in ISO 91:2017(E) Annex B “Standard reference conditions”.

***The ISO standard reference conditions are 101.325 kPa and 15 °C.***

In general, this covers crude petroleum, products (incl. asphalt/bitumen<sup>3</sup>) and lubricants.

- Liquid hydrocarbons (LPG/NGL) and similar light products (e.g., butadiene, hydrogen carriers like anhydrous ammonia etc.), having a vapor pressure greater than atmospheric pressure at 15 °C, for which the standard reference pressure shall be the equilibrium pressure at 15 °C standard reference temperature.
- All biofuel products (e.g., bioethanol, biodiesel etc.), that are present in the liquid phase (state) at ISO standard reference conditions, specified in ISO 91:2017(E) Annex B “Standard reference conditions”.
- All bulk petrochemical products (e.g., industrial aromatic hydrocarbons etc.), that are present in the liquid phase (state) at ISO standard reference conditions, specified in ISO 91:2017(E) Annex B “Standard reference conditions”.
- All additional bulk chemical and alternate fuel products (methanol, MTBE, etc.), that are present in the liquid state at ISO standard reference conditions, specified in ISO 91:2017(E) Annex B “Standard reference conditions”.

For all products falling into one of these categories, QuantityWare already offers or plans to offer implementations of quantity conversion standards, depending on the availability of national/international measurement standards and customer requirements. For a detailed list of standards supported with CTP, read the [“CTP Supported Standards Manual”](#) . Read the [Supported Products FAQ](#) for support of specific products.

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<sup>3</sup> [Asphalt/bitumen](#) may be present as a highly viscous / semi-solid product at ISO conditions.

## 4. Compliance & Transparency – Gas (CTG)

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CTG covers:

- All dry natural gases, hydrogen blended natural gases of any ratio, natural-gas substitutes, and similar products (e.g. biogas), that are present in the gaseous phase (state) at ISO standard reference conditions, as specified in ISO 13443 First edition –1996-12-15 (last confirmation 2020)<sup>4</sup>.

***The standard reference conditions are 101.325 kPa and 15 °C.***

By this definition, LNG (liquefied natural gas) is also included in the product definition range.

- Liquid hydrocarbons (NGL/LPG), having a vapor pressure greater than atmospheric pressure at 15 °C, for which the standard reference pressure shall be the equilibrium pressure at 15 °C standard reference temperature.
- 100% Hydrogen (H<sub>2</sub>) gas (high- and low-pressure regime), which is - due to its nature - present in the gaseous phase (state) at ISO standard reference conditions.
- Industrial gases, that are available as components in supported high pressure compression factor calculation standards

For all products falling into one of these categories, QuantityWare already offers or plans to offer implementations of quantity conversion standards, depending on the availability of national/international measurement standards and customer requirements. For a detailed list of standards supported with CTG, read the [“CTG Supported Standards Manual”](#) . Read the [Supported Products FAQ](#) for support of specific products.

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<sup>4</sup> For “Wet gas”, refer to [Note 000059](#) for further details of specific support



## Appendix A. Supported Products - Example List

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In this appendix, a list of products is given, which are supported by QuantityWare BCS. This list is not necessarily complete and is not sorted alphabetically.

If your product is not listed here or if you cannot map your specific product to one of the products listed in this Appendix, check with [QuantityWare Support](#) if your product is supported.

You may also read the [Supported Products FAQ](#).



The product list in this Appendix is cited in part from:

“THE USE OF THE PETROLEUM MEASUREMENT TABLES – Manual of Petroleum Measurement Standards, Chapter 11.1, American Petroleum Institute, Revised October 1995” and API MPMS Chapter 11.1 – 2004

The [BCP & BCG Supported Standards Manuals](#) contain a mapping of the supported products to the supported measurement standards.

## A.1. Crude Oil

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Crude oils of any origin globally are generally supported. Read the [BCP Supported Standards Manual](#) for details.

## A.2. Dry Natural Gas

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All dry natural gases are supported – including high pressure pipeline and storage scenarios. Read the [BCG Supported Standards Manual](#) for details and chemical composition ranges. For wet gases, read the [Wet Gas Support FAQ](#).

## A.3. Hydrogen Gas

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Read the [BCG Hydrogen FAQs](#) for details.

## A.4. Dry Natural Gas Mixtures with Hydrogen

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Read the [BCG Hydrogen Mixtures FAQ](#) for details.

## A.5. LPG and NGL

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Read the [BCP Supported Standards Manual](#) or the [BCG Supported Standards Manual](#) for details.

Read the [NGL/LPG FAQ](#) for product specification details.

## A.6. LNG

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All globally used LNG calculation scenarios are supported. Read the [BCG Supported Standards Manual](#) for details.

## A.7. Industrial Gases

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Industrial gases

- nitrogen,
- carbon dioxide
- carbon monoxide

- hydrogen sulfide
- hydrogen
- oxygen
- helium
- argon

are supported. Read the [Industrial Gases FAQ](#) for important details.

## A.8. Refined Products

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### A.8.1. Gasoline

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Motor gasoline and unfinished gasoline are supported. Read the [BCP Supported Standards Manual](#) for details. Examples:

- premium gasoline
- gasoline
- unleaded gasoline
- motor spirit
- clear gasoline
- low lead gas
- motor gasoline
- catalyst gas
- alkylate
- catalytic cracked gasoline
- naphtha
- reformulated gasoline
- aviation gasoline

## A.8.2. Jet Fuels

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Read the [BCP Supported Standards Manual](#) for details:

- jet fuel A
- jet kerosene
- aviation jet A
- kerosene
- aviation turbine fuel
- Stoddard solvent
- white kerosene
- JP-2
- JP-8

## A.8.3. Fuel Oils

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Read the [BCP Supported Standards Manual](#) for details:

- No. 6 fuel oil
- fuel oil PA
- low sulfur fuel
- LT (low temperature) fuel oil
- fuel oil
- fuel oil LLS (light low sulfur)
- No. 2 furnace oil
- furnace oil
- auto diesel
- gas oil
- No. 2 burner fuel
- diesel fuel

- heating fuel
- premium diesel

## A.9. Lubricating Oils

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Read the [BCP Supported Standards Manual](#) for details.

## A.10. Waxy Crudes

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Certain ranges are supported. Read the [BCP Supported Standards Manual](#) for details.

## A.11. Natural and Drip Gasolines

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Certain ranges can be calculated. Read the [BCP Supported Standards Manual](#) for details.

## A.12. Reformulated Fuels

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Read the [BCP Supported Standards Manual](#) for details

## A.13. MTBE

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Read the [BCP Supported Standards Manual](#) for details.

## A.14. JP-4

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Read the [BCP Supported Standards Manual](#) for details.

## A.15. Pure Compounds

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- Pure paraffinic compounds (C5+) - Read the [BCP Supported Standards Manual](#) for details
- Non-paraffinic pure compounds (C5+) - Read the [BCP Supported Standards Manual](#) for details

## A.16. Gasohol

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Read the [BCP Supported Standards Manual](#) for details

## A.17. Ethanol Fuel Mixtures

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Read the [BCP Supported Standards Manual](#) for details.

## A.18. Biofuels

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Read the [BCP Supported Standards Manual](#) for details.

## A.19. Cyclohexane and Industrial Aromatic Hydrocarbons

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Read the [BCP Supported Standards Manual](#) for details.

## A.20. Asphalt & Bitumen

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Read the [BCP Supported Standards Manual](#) for details

## A.21. Emulsified Asphalt

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Read the [BCP Supported Standards Manual](#) for details

## A.22. Anhydrous Ammonia

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Read the [BCP Supported Standards Manual](#) for details

## A.23. Road Tars

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Read the [BCP Supported Standards Manual](#) for details

## A.24. Bio Diesel

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Read the [BCP Supported Standards Manual](#) for details

## A.25. Ethanol

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Read the [BCP Supported Standards Manual](#) for details

## A.26. Propylene

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Read the [BCP Supported Standards Manual](#) for details

## A.27. Butadiene

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Read the [BCP Supported Standards Manual](#) for details.

## A.28. Other Bulk Chemicals

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Read the [BCP Supported Standards Manual](#) for details

## Legal Notices

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