

# TIERS:Transport Integrated & Enhanced Reporting Solution

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## General Presentation

Tiers is the new common reporting solution dedicated to Transportation at Solvay group for both Legacies processes and SAP ERP Systems (PF1 and RCS), offering consolidated view capabilities at the Group level.

## Access

Access to the Tiers Application has to be requested (See [Getting an account](#)).

Access is managed at company level, which you will need to precise when requesting the access :

## Perimeter

Currently the WBP Tiers Application contains data coming from the PF1 and WP1 ERP server.

## Data update

The data is **updated daily** around ~5 am Paris Time.

## Queries

|   | Description                                      | Technical Name                        |
|---|--|---------------------------------------|
| 1 | <a href="#">CO2 Emissions</a>                    | <a href="#">BW_QRY_MVSDTR01_0013</a>  |
| 2 | <a href="#">Shipment events</a>                  | <a href="#">BW_QRY_MVSDTR002_0001</a> |
| 3 | <a href="#">Shipment status and events</a>       | <a href="#">BW_QRY_MVSDTR01_0012</a>  |
| 4 | <a href="#">Shipment costs vs invoices</a>       | <a href="#">BW_QRY_MVSDTR01_0011</a>  |
| 5 | <a href="#">Shipment costs detailed analysis</a> | <a href="#">BW_QRY_MVSDTR01_0010</a>  |

| CO2 Emissions   | Shipment events                    | Shipment status and events          | Shipment costs vs invoices                                | Shipment costs detailed analysis                       | Shared Axis |
|---|------------------------------------|-------------------------------------|---|--|-------------|
| <b>Organization</b> : Company / GBU / Plant / Site / Transportation planning point  |                                    |                                     |   |  |             |
| <b>Geographic</b> : Shipment departure / Destination point (and associated type of points)<br>Departure country / Destination country |                                    |                                     |   |  |             |
| <b>Time</b> : Actual completion date / YYYY / YYYY-MM / YYYY-QQ<br>Planned completion date<br>Actual shipment start / End             |                                    |                                     |   |  |             |
| <b>Shipment</b> : Shipment type / Shipping type / Forwarding agent<br>Shipping condition (from shipment or if empty, from delivery)   |                                    |                                     |   |  |             |
|   | <b>Event type</b>                  | <b>Route</b>                        | <b>PO number</b>  | <b>TIERS</b> (3 <sup>RD</sup> part)<br><b>Material</b> | Ratios      |
| CO2 Footprint   | Number of events<br>Event duration | Volumetry<br>leadtimes,<br>OTD, OTS | Cost accruals, Detailed condition value<br>Invoiced value |  |             |
| Total gross weight  |                                    | Quantities (net / gross)            |   |  |             |
|   |                                    | Total gross weight                  |   |  |             |
|   |                                    | # containers, # handling units      |   |  |             |
|   |                                    | Average distance                    | Total distance  |  |             |
|   |                                    |                                     |   |  |             |

| Navigational attribute                   | Definition   | Examples / comments :   |
|--|--|---|
| 3rd party - Location                     | City from the 3rd party  | CHICAGO, ST GERONS...   |
| 3rd Party (Cust/Vend)                    | Ship to Customer (outbound) or Vendor (inbound)  | See MD tab  |
| 3rd party TR zone                        | Transportation zone from the 3rd party   | PF1 : 2-50R,2-52R...<br>RCS : 0000380200, 0000680200...   |
| 3rd Party Type                           | CUST (Customer) or VEND (vendor)   | cust / vend   |
| BFC GBU                                  | GBU associated to the shipment : from transported material when possible, or from delivery (sales axis) or from cost center (purchasing axis).         |   |
| Company code                             | Fiscal company name that organise the shipment   | 6005, ZFR3...   |
| Company zone                             |  |   |
| Condition type                           | Price conditions used for calculating accrual value  | RCS : Z500-Preliminary segment FCL, Z030-waiting time...<br>PF1 : ZUB9-Flatrate/country DH...                       |
| Del DG class                             | Dangerous Good Class   | 1, 2, 3, 5, 2, 6, 1...  |
| Del DG UN number                         | UN Dangerous Good identification number  | 1090, 2821 ...  |
| Del Distribution Channel                 | Distribution channel from the delivery document  |   |
| Delivery Item                            |  | MD shared in OBAS application   |
| Delivery Number                          |  |   |
| Event actual end date                    | Actual end date  | Day   |
| Event actual start date                  | Actual start date  | Day   |
| Event reason deviation                   | Detailed reason for the event  | PF1 : BE, DT, EQ...   |
| Event type                               | Type of event  | PF1 : ZFOCUSLOAD, ZFOCUSDEL...  |
| Forward agent                            | Forwarding agent to who we assigned the shipment   | MD (vendors attribute) shared with SPRINT   |
| Invoice Number - Material document       | Invoice number (matched with the shipment number)  |   |
| Leg indicator                            | 1 preliminary / 2 main leg / 3 Subsequent / 4 direct segment / 5 return segment  | 1, 2, 3, 4...   |
| Material                                 | Material code & name   | (master data with general attributes)   |
| Material hierarchy                       | For Solvay legacy, Material hierarchy from material plant  |   |
| Material plant                           | Plant / Material code & name   | (master data with plant attributes)   |
| Plant                                    | Shipping plant for outbound transportation, receiving plant for inbound transportation.  | ROAA, RO00...   |
| Purchase order                           | Transport PO number  |   |
| Purchasing Site                          | Geographic site associated to the plant  | ROSIGNANO   |
| Reference Month                          | Month used for rates conversions: taking actual completion date, then if empty planned completion date else shipment creation date (always populated). |   |
| Ship Actual date for shipment completion | Actual date for shipment completion (goods leaving the plant or warehouse)   |   |
| Ship Actual date for Start of shipment   | Start of main shipment leg (vessel departure) usually matching also with invoicing date  |   |
| Ship Dep country                         | Country associated to the shipment departure (departure of the first shipment leg)   | FR, BR, US...   |
| Ship dep geo zone                        | Zone associated to the shipment departure (departure of the first shipment leg)  | NA, LA, EU, AP  |
| Ship Dep Postal Code                     | ZIP code from the shipment departure code  | Zip code depending on countries   |
| Ship Dep Transp Zone                     | Transportation zone from the shipment departure point  | PF1 : 2-50R,2-52R...<br>RCS : 0000380200, 0000680200...   |
| Ship departure point                     | Address associated to the shipment departure (departure of the first shipment leg)   | can be shipping point, a node (port, terminal...) a ship to, a vendor, a plant... with all the detail of the adress |
| Ship departure type                      | Type of point associated to the shipment departure (departure of the first shipment leg)   | cust/node/ship/vend/plant   |
| Ship Dest Country                        | Country associated to the shipment destination (arrival of the last shipment leg)  | FR, BR, US...   |
| Ship Dest Postal Code                    | ZIP code from the shipment destination code  | Zip code depending on countries   |
| Ship Dest Transp Zone                    | Transportation zone from the shipment destination point  | PF1 : 2-50R,2-52R...<br>RCS : 0000380200, 0000680200...   |



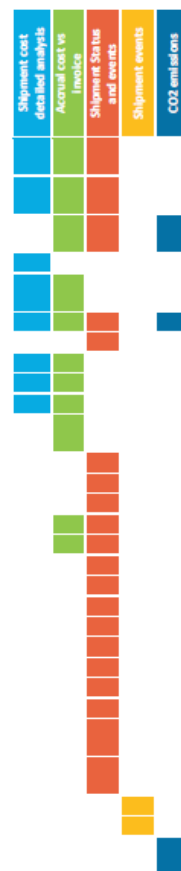
|   |  |   |
|---|--|---|
| Ship destination point                            | Address associated to the shipment destination (destination of the last shipment leg)  | can be a point (port, terminal...) a ship to, a vendor, a plant... with all the detail of the address                                 |
| Ship destination type                             | Type of point associated to the shipment destination (destination of the last shipment leg)                                      | cust/node/ship/vend/plant   |
| Ship packaging material                           | Container or truck used for the shipment (type of container, type of truck)  | PF1 : usually not used (packed at delivery level)<br>RCS : 1059333 (ISOTANK) ...  |
| Ship Planned date for shipment completion         | Planned date for shipment completion (goods leaving the plant or warehouse)  | Date depending on user default date format  |
| Ship Planned for shipment completion (Year/Month) | Planned date for shipment completion (goods leaving the plant or warehouse) YYYY-MM  | YYYY-MM   |
| Ship Route  | <b>Route Id and key entered in the shipment header</b>   |   |
| Ship shipment type                                | Shipment type  | RCS : 9001 (road direct), 9002 (Sea monocontainer), PF1 : Z3CD (ROAD standard)  |
| Ship Shipping condition                           | Shipping condition from shipment file when populated or (if not populated in shipment) shipping condition form the delivery item | RCS : AI Road LTL, AK Road FTL, AE sea FCL port of dest...<br>PF1 : 30 Road FTL, 31 Road LTL, C2 cust pick up cont 20'...             |
| Ship shipping type                                | Shipping type in shipment header (main transport)  | PF1 : 30 (standard truck packed), 3A (truck container 20ft), 3B (truck container 40ft)...<br>RCS : 01 (Truck), 03 (rail), 04 (sea)... |
| Ship Transport mode                               | From shipping type, simplified   | AIR, OCEAN, RAIL...   |
| Ship Transportation planning point                | Organisation who organized and track the shipment  |   |
| Shipment cost item                                | <b>Cost number item (prefixed with shipment cost nbr)</b>  |   |
| Shipment cost number                              | Shipment cost document number  |   |
| Shipment number                                   | Number of the shipment document  | 410000000 in PF1, 300000 in RCS   |
| Ship. Shipping line                               | For sea shipment, shipping line name (additional data 1 from shipment document)  | COSCO, OOCL...  |
| Shipment Stage sequence                           | Sequence number of the stage in the shipment (1 for first stage, 2 for second one etc...)  | 1, 2, 3...  |
| ShpCst item category                              | Category of the shipment cost item   | RCS : 0001 (transportation costs), ...<br>PF1 : 2731 (frais d'attente...)   |
| ShpCst Posting (Year/Month)                       |  |   |
| ShpCst Posting date                               |  |   |
| ShpCst Service agent                              | Supplier to whom we pay the services   |   |
| Source system                                     | SAP system from which data is coming   | PF1 / WP1   |
| Stage departure point                             | Address associated to the stage departure  | can be shipping point, a node (port, terminal...) a ship to, a vendor, a plant...   |
| Stage departure type                              | Type of stage departure  | cust/node/ship/vend/plant   |
| Stage destination point                           | Address associated to the stage destination  | can be shipping point, a node (port, terminal...) a ship to, a vendor, a plant... with all the detail of the address                  |
| Stage destination type                            | Type of stage destination  | cust/node/ship/vend/plant   |
| Transportation group (Bulk / Packed)              | Bulk or Packed (Bulk if designation of transportation group contains "Blk" or "Bulk" else "Packed")                              | B (Bulk) / P (Packed)   |
| Transportation group detail                       | Transportation group from the transported material   | liquid bulk, solid bulk, etc  |

In bold : navigational attributes are masterdata containing some additional attributes



| Master data :   | Attributes :   |
|---|--|
| <b>TIERS Address</b>  | Designation, Type, Location (city), Country, TR zone, ZIP code, Geo zone (EU/NA/NAM/LAM)   |
| <b>Route</b>  | Designation, Factory calendar, Service agent, Main leg shipping type, preliminary leg shipping type, subsequent leg shipping type, standard transit time, standard lead-time   |
| <b>Shipment cost item</b>   | Reference document (PO/PO-Item), Partner, Partner role, Item category, Freight class, Tariff zones (departure/destination) Posting date, Date of pricing, service agent,... and several other information from shipment cost item.                         |
| <b>Shipment number</b>  | All dates and times from shipment (deadl. Tab), Hazardous content flag, Identification (plates numbers, container numbers, Seals number, Route, Forw Agent, Transport mode, other information coming from shipment header, informations from "tender" tab. |
| <b>Other master data available in TIERS are reused from other BW applications</b> |  |

| TIERS ratios                         | Definition  | units |
|--------------------------------------|---|-------|
| Qty net weight delivery*             | Net weight of transported material in document unit   |       |
| Qty gross weight delivery*           | Gross weight of transported material (ie net weight x coefficient gross weight vs net weight from material view)                                  |       |
| Total gross weight*                  | Gross weight including material gross weight + tare weight of packagings (used in the delivery) + tare weight of packagings used in the shipment. |       |
| Accrual net value**                  | Shipment cost calculated in shipment cost document  |       |
| Detailed shipment condition values** | Detailed value at shipment condition level that has been used for calculation of accrual net value.   |       |
| Distance                             | Distance managed at shipment stage level in km  | Km    |
| Average distance                     | Total distance / Number of shipments  | Km    |
| Cost per unit (net)                  | Accrual net value / net weight (PU)   | CP/PU |
| Cost per unit (gross)                | Accrual net value / gross weight (PU)   | CP/PU |
| Cost per km                          | Accrual net value / distance  | CP/km |
| Invoiced value**                     | Value of supplier invoice (or Solvay credit note to supplier) matched with the shipment document number.  | Value |
| Invoice – Accrual gap                |   | CP    |
| Provisioning accuracy                | $1 - (ABS(\text{invoice} - \text{Accrual}) / \text{Accrual value})$   | %     |
| Number of shipments                  | Number of single shipment files (shipment operation assigned to one Forw. agent)  |       |
| Number of containers                 | Number of packaging "Container" or "IsoTank" related to the shipment file.  |       |
| Number of HU                         | Number of handling units (zone in delivery header)  |       |
| Number of deliveries                 |   |       |
| Number of stages                     | Total number of stages managed in shipment files  |       |
| Number of legs                       | Total number of stages that are legs in shipment files  |       |
| Booking leadtime***                  | Leadtime between actual planning date and actual completion date  | Days  |
| On site time***                      | Leadtime between actual check in (day+time) and actual completion (day+time)  | Days  |
| Queue time***                        | Leadtime between actual check in (day+time) and actual loading start (day+time)   | Days  |
| Loading duration***                  |   | Days  |
| Transit time***                      |   | Days  |
| HOTS                                 | Haulier On Time Shipment :<br>Shipments where actual completion day = Planned completion day  | %     |
| HOTD                                 | Haulier On Time Delivery :<br>Shipments where actual shipment end = planned shipment end  | %     |
| Number of events                     | Number of registered events   |       |
| Event duration                       | Event duration (when populated actual start of event and actual end of event)   | Days  |
| CO2 quantity                         | Tons of CO2 emission corresponding to the transportation (based on the transport mode, total gross weight and distance)                           | To    |



\* All those quantities are available in document unit or PU (prompt unit) making available the totalisation.

\*\* All those values are available in document currency, and in CP (currency of prompt). Conversion is done based on exchange rates managed by finance team for the month "reference month" (month of actual completion or if empty planned completion or if still empty, shipment creation date).

\*\*\* For all those calculations, there are 3 ratios defined : Number of shipment files for which the calculation is relevant, total duration and average duration (average based on shipment files where it is possible to calculate the leadtime)

To get a printable leaflet of the hereabove paragraph click on the link : [Leaflet](#)

## Currency conversion

- The X rate considered is the Daily Month Average (M) rate (table managed by finance team, source ECB - European Central Bank) based on Document creation date.

## Elearning

E-Learning is available in HR - My learning page, searching "SBS TIERS Awareness - EN".

For External (not having any "My learning page"), you can follow it ([Here](#))

It can be followed linearly (more or less one hour duration) or consulted upon user need only for a specific item.

## Questions.

### Frequently Asked Questions : Q&A Synthesis Tiers

In case of any specific question not answered above, please contact our support team : [sbs-is-appli-help@solvay.com](mailto:sbs-is-appli-help@solvay.com)

