

Technical Development Design

Integrate compliance scenario's in
the Supply Chain Finance Business Simulation; The Cool Connection



Company Inchange

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1. Introduction

GENERAL IDEA

1.1 Summary

The serious game The Cool Connection is a business in healthcare products. The simulation focused on Supply Chain Finance. There are four roles where the player can make decisions, the roles purchasing, supply chain, sales and finance. When the decisions are made, the round can be simulated a half year. After the calculation, can the player see the result of their decisions and improved their strategy. Normally plays a player three to six rounds, but this is not restricted.

When the player starts to play, there are default settings active. For example, the safety stock of the components is filled. With these default settings are round -1 and 0 simulated. The player can see the impact of the old decisions. It's possible for the player to compare the results of several rounds. Normally are the default settings for round -1 and 0 the same, for the new development is that not always the case as you could see in the design.

For the new Cool Connection company are there some compliance issues implemented. The compliance issues can be divided over 4 categories:

- Component stuck
- Product stuck
- Cash stuck
- Penalty

For each category are there several scenarios. Some scenarios combine two categories. There are 9 different scenarios. In the appendix are the nine scenarios, here we named only the scenarios from technical point of view.

Component stuck

- The delivery of component PEG/TPEG by supplier Sentinel is stuck (sc 1).
- The delivery of component Lemon Drops by LSP of supplier NewScent is stuck (sc 9).

To simulate the effect of component stuck the programmer extends the delivery of the supplier for the relevant components, a kind of delivery delay. The delay is restricted between 1 and 182 days.

Product stuck

- The delivery of product PristineShoulder to customer OmbrosBellas is stuck (sc 4).
- The delivery of product CoolCEE to customer Bilnaft is stuck (sc 5).
- The delivery of product CoolCondition to customer Chinpo is stuck (sc 8).

To simulate the effect of product stuck the programmer extends the delivery to the customer, a kind of delivery delay. The delay is restricted between 1 and 182 days.

Cash stuck

- The payment from customer Peroxide Mobile stuck (sc 3).
- The payment from customer Hairdov stuck (sc 7).

To simulate the effect of product stuck the programmer extends the payment period of the customer, a kind of payment delay. The delay is restricted between 1 and 182 days.

Penalty

- Unlawful sale to customer Peggy Woo (sc 1 and 2).
- Sale to sanctioned country to customer Pulse 500+ (sc 6).

To simulate the penalties the programmer add extra costs based on the revenue of the customer.

For each category are there two functionalities implemented. The first one is an event based effect. The session designer can choose per round if there is an effect and how big the impact is. This event can be active in round 0 and later. The second functionality is an entity based property. The impact starts from the beginning, round -1, and the size of the impact is in every round the same.

Besides of the impact of compliances is also the first step to the solution implemented. The first step is collecting information, so the player understands what is going wrong. The player gets for each rounds some credits, with these credits can the player buy information. The information are reports about some components, sanction list, newspaper, council regulation etc. The information will be visible in the next round.

The compliance issues happen for specific component, product, countries and customers. The session has fixed entities. The issues are only related to these specific. The compliance issues will be a new extension that should work in almost every combination of decisions and gameplay elements.

1.2 Learning goal

The player needs to recognize the several compliance issues. And learn which information is relevant to solve the issue.

1.3 Assumption

- The decision for category management must be inactive. Else could the player create a work around without solving the problem and not reach the learning goal.
- Optional: The company is a healthy company and the service level will be agreed. So the player can see that the penalties is not a response on the low service level.

1.4 Impact

The expected impact for component stuck is:

- Longer delivery time (longer transfer of ownership term); lower or no stock for the component
- Payment delay by TCC (= higher cash); the payment term is extended with the amount of days that the component stuck by the custom.
- With a delay of component delivery, the stock in the inbound warehouse is lower, some products cannot be created, less production runs, lower stock level in the outbound warehouse and the delivery of the products to the customer will be lower.
- Optional: higher loss and damage by LSP; The longer the delivery time, the bigger the change that something gets damaged.

The expected impact for finished product stuck is:

- higher floating stock; the delivery time is delayed with the days of custom delay.
- payment delay by customer (= lower cash); the payment term is extending with the amount of days that the product stuck by the custom.
- The term for transfer of ownership is longer.
- Optional: higher loss and damage by LSP; The longer the delivery time is the bigger the change that something gets damaged.
- Optional: higher penalties from the customers; the customers get later their products so the arranged service level will not be reached.

The expected impact for cash stuck is:

- payment delay by customer (= lower cash); the payment term is extending with 182 days.

The expected impact for penalty is:

- The total revenue decrease caused by the penalties by the sanctioned customer or sanctioned finished product.

1.5 Restrictions

There are no restrictions so far.

2. Compliance category I: Component stuck

2.1 Background information

To understand the impact of the component stuck is some basic knowledge about INCO term and payment instrument necessary. The options for payment instrument and the moment that TCC will pay are described in the table below. The yellow blocks give the possible combinations. The red blocks are combinations that is not possible.

Table the moment of payment

INCO term/ Payment instrument	Order moment	EXW	FOB/CIF	DDP	DDP + consignment stock	Arrival at the customer warehouse
CIA						
L/C						
Direct Debit*						
Cheque*						
EBT*						

*depend on the chosen INCO term

All payment instruments are allowed by the custom delay functionality, but the impact can be difference. The INCO term has no specific influence, the supplier is responsible for the transfer of the products and the export papers. If the dispositional right (= beschikkingsmacht) is not correct, then there is no real transfer of ownership. And TCC won't pay. Even by INCO term EXW is the real transfer of ownership not done.

In the next table is shown how the custom delay has influence. The combination of consignment stock with CiA and L/C is not allowed.

Table influence of the custom delay

INCO term/ Payment instrument	EXW	FOB/CIF	DDP	DDP + consignment stock
CIA	Component delay	Component delay	Component delay	X
L/C	Component and payment delay	Component and payment delay	Component and payment delay	X
Direct Debit	Component and payment delay	Component and payment delay	Component and payment delay	Component and payment delay
Cheque	Component and payment delay	Component and payment delay	Component and payment delay	Component and payment delay
EBT	Component and payment delay	Component and payment delay	Component and payment delay	Component and payment delay

2.2 User interface

The TCC employee needs to extract the signals from the existing reports. So there will no new information add.

Decisions (EB, DJ)

No new decision.

The decision for category management must be off.

No interaction expected with other decisions.

Infocenter (EB,DJ,MAS)

No new information necessary.

Information screen (EB, DJ, MAS)

No new information necessary.

Tooltip (EB,DJ,MAS)

The effects of the compliance are visible in the existing information tools.

Mail (DJ,MAS)

In the first design is no mails wished.

Alerts (EB)

Not necessary

Report (DJ)

Not relevant

New reports (DJ)

Not relevant

Existing reports (DJ)

There are no new lines.

(Technical approach: everything will be delivered only some orders with a long delay. Red is the impact that is programmed. Green is the impact you should expect when there is no delivery at all. Purple is the expected impact that not happened at the moment.)

Several values will be influenced by the issues:

Purchasing

- Component
 - Delivery reliability: decreased
 - Average lead time: increase (it stuck in the transport)
 - Rejection: with no delivery is there also no rejection, so it could decrease
 - Landed purchase costs: decreased (part of the costs will not be payed)
 - Landed purchase price: unknown how it comes through the calculation
 - Transport costs last round: not relevant, it's in the LSP report
 - Demand per week: no change
 - Amount purchased last round: no change
- Supplier
 - Delivery reliability: decreased
 - Rejection: with no delivery is there also no rejection, so it could decrease
 - Deliveries last round: decreased
 - Order lines last round: no change
 - Purchase value last round: no change
 - Truck shipments: decreased
 - Pallet shipments: decreased
 - Stock reliability: no change

- Shipment responsibility: no change
- Non-LSP transportation costs: no change
- Loss and damage during shipment: no change (only relevant if the TCC is responsible for transport)
- Supplier (financial)
 - Total purchase value: no change
 - Credit limit: no change
 - Average purchase value: no change
 - Order value: no change
 - Days payable outstanding: no change
 - Overdue payment: no change
 - Credit balance: increased (the unpaid invoiced)
 - Order postponement: no change
 - Payment currency: not relevant
 - Currency gains/losses: not relevant

Supply chain

- Component
 - Delivery reliability: decreased
 - Demand per week: no change
 - Stock: decreased (orders but less delivery)
 - Economic inventory: no change (the contracts with the suppliers are already finished)
 - Obsoletes: not relevant
 - Component availability: decreased
 - Bias: not relevant
 - Floating stock: no change (it's the floating stock where TCC is responsible for the transport)
- Bottling line
 - Run time per week (hours): can be more or less
 - Change over time per week (hours): can be more or less
 - Breakdown time per week (hours): can be more or less
 - Unused capacity per week (hours): increased a little
 - Run time: can be more or less
 - Changeover time: no change
 - Breakdown time: decreased
 - Unused capacity: can be more or less
 - Overtime: increase
 - Start up productivity loss: no change
 - Production plan adherence: decreased
 - Outsourced (hours): can be more or less
 - Outsourced: can be more or less
- Mixers
 - Cleaning time: no change
 - Average lot size: no change
- Warehousing
 - Capacity: no change
 - Usage: no change
 - Cube utilization: no change
 - Overflow: can increase and decrease depend on several factors
 - Orderlines per week: no change

- Pallets/Tanks per week: no change
- Hours per week: no change
- Flexible manpower (FTE): can increase and decrease depend on several factors
- Product
 - Demand per week (units): no change
 - Demand per week: decreased (no change expected -> based on price)
 - Price: increased (basic price * contract index, service level)
 - Gross margin per piece: decreased
 - Gross margin per week: decreased
 - Orderlines per week: no change
 - Obsoletes: no change
 - Obsoletes per week: no change
 - Stock (weeks): decreased
 - Stock: decreased
 - Economic inventory: no change
 - Bias: no change
 - Production batches last round: is possible that its decreased
 - Start up productivity loss: no change
 - Production plan adherence: decreased
 - Assignable contribution rate: decreased (the margin per hour)
 - Rejects: increased
 - Floating stock (value): no change
 - Floating stock (weeks): increased a little
- LSP inbound -> correct no impact
 - Deliveries: no change
 - Delayed deliveries: increased
 - Average delay time (days): increased
 - Shipment reliability: decreased
 - Loss and damage during shipment: no change
 - Shipment costs: no change
 - Discount: no change
- LSP outbound
 - Deliveries: no change
 - Delayed deliveries: no change
 - Average delay time (days): no change
 - Shipment reliability: no change
 - Loss and damage during shipment: no change
 - Shipment costs: no change
 - Discount: no change

Sales

- Product
 - Demand per week (units): no change
 - Demand per week: decreased
 - Sales price: decreased
 - Gross margin per week: decreased
 - Gross margin per piece: decreased
 - Service level: decreased
 - Additional sales because of promotions: no changes
- Customer
 - Attained contract index: decreased

- Service level: decreased
- Turnover per week: decreased
- Gross margin per week: decreased
- Shipments per week: no change
- Orderlines per week: no change
- Pallets per week: no change
- Truck shipments: no change
- Pallet shipments: no change
- Shipment responsibility: no change
- Non-LSP delivery costs: no change
- Loss and damage during shipment: no change (TCC is not responsible for transport)
- Customer (financial)
 - Credit limit: no change
 - Days Sales outstanding: no change
 - Overdue payments: no change
 - Credit balance: no change
 - Total demand: no change
 - Potential demand: no change
 - Sales and bonus and penalties: penalties increased
 - Credit loss: no change
 - Payment currency: not relevant
 - Currency gains/losses: not relevant
 - Order value: decreased
 - Sustainability penalties: not relevant

Financial

- Bank
 - Overdraft capacity (value): decreased
 - Average used overdraft (value): decreased
 - Used loan real estate: no change
 - Used loan machines: no change
 - Frequency of payment processing: no change
 - Supplier Financing program: no change
 - Blocked letter of credit: decreased
- Income
 - Gross sales: no change
 - Sales bonus and penalties:
- Financial position
 - Inventories: decreased

2.3 Back office (EB)

Gameplay elements (EB)

Add the new gameplay element.

The scenario must be on in the start round until the latest round of the session. The start round can be variety between zero and the latest round of the session (the latest round of the session will not really make sense). The component is fixed. The moment of time when the compliance start can be variable. So there must be an effect field. The size of the impact can be regulating by the moment that the compliance issue start (if we don't change anything by the tuning like the order sizes of the customers). From technical point of view is it a good idea to create a dropdown menu to choose the entity.

FreshConnection.Core.Domain.Gameplay.LeverancierBasedGameplayElement

EntityType:

FreshConnection.Core.Domain.Leverancier

GameplayKey:

customdelaysupplier

EntityId:

A dropdown box with one option (like the gameplay element risk were you can choose the component). Information about which customer (translationid) will follow later.

2.4 Database

New tables (EB)

No new tables.

Fields in existing tables (EB)

A new gameplay elements need to added. The gameplay element will automatic be added to Matlab in the struct

vwstructgameplayelement

.

Adjustment existing tables (DJ)

Add column custom delay in the table 'leverancier'. As default value zero.

2.5 Matlab (DJ)

Matlab input (DJ)

No adjustment in input necessary. In

importeerdata.m

is the data of the gameplay element automatically read.

Add customdelay by the struct for supplier.

Matlab code

See version control software.

Matlab Output (DJ)

No new output. The gameplay element has effect on several values, but does not create new variables.

3. Compliance category II: Product stuck

3.1 Background information

All payment instruments are allowed by the custom delay functionality, but the impact can be difference. The INCO term has no specific influence, the supplier (= TCC) is responsible for the transfer of the products and the export papers. If the dispositional right (= beschikkingsmacht) is not correct, then there is no real transfer of ownership. And the customer won't pay. Even by INCO term EXW is the real transfer of ownership not done.

In the next table is shown how the custom delay has influence. The combination of consignment stock with CiA and L/C is not allowed.

Table influence of the custom delay

INCO term/ Payment instrument	EXW	FOB/CIF	DDP	DDP + consignment stock
CIA	Products delay	Products delay	Products delay	X
L/C	Products and money delay	Products and money delay	Products and money delay	X
Direct Debit	Products and money delay	Products and money delay	Products and money delay	Products and money delay
Cheque	Products and money delay	Products and money delay	Products and money delay	Products and money delay
EBT	Products and money delay	Products and money delay	Products and money delay	Products and money delay

The demand doesn't change so the chain from supplier until delivery will not change. The asset allocation for products is based on the warehouse and not on the floating stock, so this will not change. The service level of the customer will not change, because the service level calculation for the customer is (now) based on the moment that it leaves the outbound warehouse combined with the influence of the LSP reliability.

3.2 User interface (EB)

The TCC employee needs to extract the signals from the existing reports. So there will no new information add.

Decisions (EB, DJ)

No new decision.

The decision for category management must be off.

No interaction expected with other decisions.

Infocenter (EB,DJ,MAS)

No new information necessary.

Information screen (EB, DJ, MAS)

No new information necessary.

Tooltip (EB,DJ,MAS)

The effects of the compliance are visible in the existing information tools.

Mail (DJ,MAS)

In the first design is no mails wished.

Alerts (EB)

Not necessary

Report (DJ)

Not relevant

New reports (DJ)

Not relevant

Existing reports (DJ)

There are no new lines.

Several values will be influenced by the issues:

Sales

- Customer-Product
- Product-Customer
- Customer
- Customer (financial)
 - **Optional: Sales bonus and penalties, expecting higher penalty for the relevant customer**
 - Frequency of overdue payments increase (the customer don't want to pay)
 - Overdue payments increase
 - Credit balance increase
 - Overdue balance will be higher
 - Credit loss will be higher
- Product
 - No changes

Finance

- Income
 - Gross sales don't change (Correct)
 - **Optional: Sales bonus and penalties increase**
 - Interest expenses; overdraft increase
 - Interest expenses; Emergency loan increased
 - Transaction costs decreased a little
 - Bank penalties increase
 - Corporate tax decrease (less income -> less tax)
- Financial position
 - Cash decrease
 - Inventories product increase
 - Receivables increase
 - Short term loans can increase
 - Receipt in advance will be equal, the delay of delivering is also included in the payment term
- Cash and funding
 - Cash position lower
 - Cash receipts lower
 - Cash paid out no changes

- Used overdraft increase
- Overdraft capacity increase
- Bank
 - Frequency of payment processing lower
 - Average used overdraft increase
 - Overdraft capacity increase

Purchasing

- No changes in the reports

Supply Chain

- Component
- Mixing & Bottling
- Product
 - Floating stock increase
- LSP
 - Optional: loss and damage increase

3.3 Back office (EB)

Gameplay elements (EB)

Add the new gameplay element.

The scenario must be on in the start round until the latest round of the session. The start round can be variety between zero and the latest round of the session (the latest round of the session will not really make sense). The product, customer and countries are fixed. The moment of time when the compliance start can be variable. So there must be an effect field. The size of the impact can be regulating by the moment that the compliance issue start (assuming that we don't change anything by the tuning like the order sizes of the customers). From technical point of view is it a good idea to create a dropdown menu to choose the entity.

```
FreshConnection.Core.Domain.Gameplay.KlantBasedGameplayElement
```

EntityType:

```
FreshConnection.Core.Domain.Klant
```

GameplayKey:

```
customdelaycustomer
```

EntityId:

A dropdown box with one option (like the gameplay element risk were you can choose the component). Information about which customer (translationid) will follow later.

3.4 Database

New tables (EB)

No new tables.

Fields in existing tables (EB)

A new gameplay elements need to added. The gameplay element will automatic be added to Matlab in the struct

vwstructgameplayelement

Adjustment existing tables (DJ)

Add column custom delay in the table 'klant'. As default value zero.

3.5 Matlab (DJ)

Matlab input (DJ)

No adjustment in input necessary. In

importeerddata.m

is the data of the gameplay element automatically read.

Matlab code

See version control software.

Matlab Output (DJ)

No new output. The gameplay element has effect on several values, but does not create new variables.

3.6 Notes (DJ)

Notes:

- DJ makes the assumptions that there is no new output for UI necessary for this development.
- Test script need to create before development start.

EXTERNAL COMMUNICATION (DJ)

- Marketing needs to know what the development plan is and when the expected release is (especially Jochum wants this).
- The other analyst, Anne, needs to know the basic stuff about the new development.
- Brickwork needs to know when they need to test it and what the reserved hours are.
- The back office needs to know when TCCv3 is ready for use and what can be used. (TCCv3 related and not special to this development)
- The relevant technical persons of the 'the talent connection' needs to know when the connection with TCCv3 can started and must be finished. (TCCv3 related and not special to this development)

3.7 Test (DJ,EB,MAS,PS)

Testscript DJ (DJ)

- Work process during the ML development:
- Describe the goal of the next development block
- Write comments by the added code
- Test the result in ML with a testteam
- Work process at the end of the ML development:
- Run the simulation in ML with a testteam with gameplay elements and a testteam without the gameplay elements
- Analyse the differences, are the expected and/or correct?
- Work process after the db changes:
- Do a calculation with a testteam from the backoffice

- Work process after all developments:
- Create two sessions, a session with the gameplay elements and one without the gameplay elements and compare the reports of the teams (in this design are the expected differences described)
- Open all decisions that are allowed and calculate
- Test interaction between decisions

Test EB (EB)

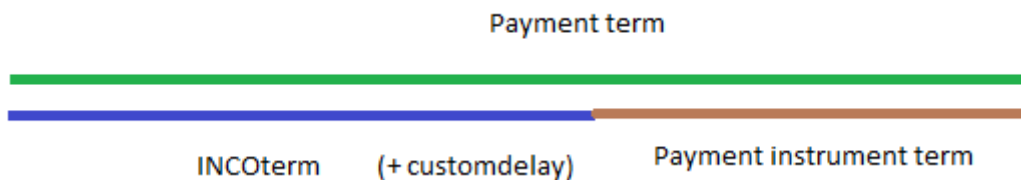
Test MAS (MAS)

4. Compliance category III: Cash stuck

4.1 Background information

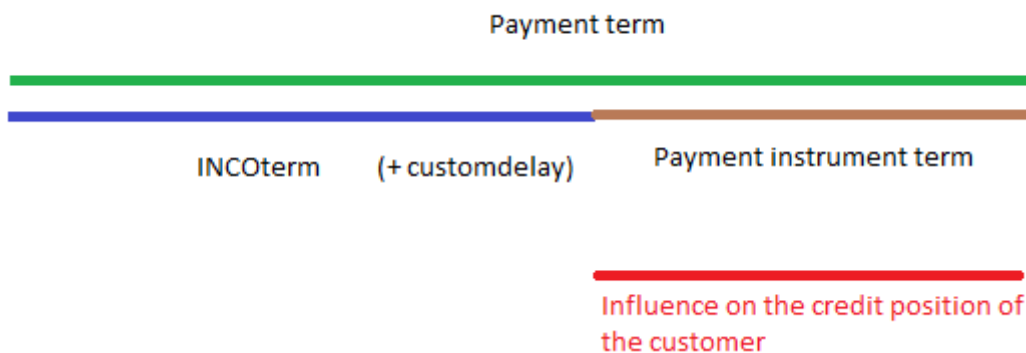
For the payment behaviour are the *INCOTerm* (fixedpaymentdelay) and the *payment instrument* term (paymentdelay) used. The *payment term* is a combination of the *INCOTerm* and the term of the *payment instrument*. The term of the *payment instrument* is normally distributed (ReallIncomeDelay).

Figure 1 current situation



After the *INCOTerm* the credit position of the customer decreased (creditpositiondelay). The customer paid the order after the *payment term*, then the credit position increased (income_done_klant).

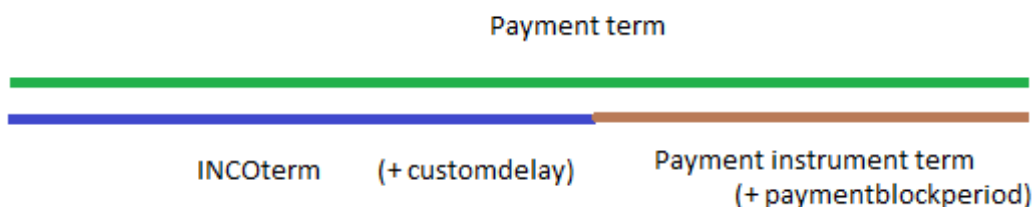
Figure 2 credit position of the customer



When the *payment term* change, then is it possible that the potential demand, overdue payments, prepayments and currency change moment also change.

For the product stuck issue is the *INCOTerm* increased, because it's related to the transfer of ownership moment. Cash stuck has no influence on the moment of transfer of ownership. Only on the moment of payment, so it affects only the *payment instrument term*.

Figure 3 proposal



4.2 User interface (EB)

The TCC employee needs to extract the signals from the existing reports. So there will no new information add.

Decisions (EB, DJ)

No new decision.

The decision for category management must be off.

No interaction expected with other decisions.

Infocenter (EB,DJ,MAS)

No new information necessary.

Information screen (EB, DJ, MAS)

No new information necessary.

Tooltip (EB,DJ,MAS)

The effects of the compliance are visible in the existing information tools.

Mail (DJ,MAS)

In the first design is no mails wished.

Alerts (EB)

Not necessary

Report (DJ)

Not relevant

New reports (DJ)

Not relevant

Existing reports (DJ)

There are no new lines.

Several values will be influenced by the issues:

Sales

- Customer-Product
- Product-Customer
- Customer
- Customer (financial)
 - Frequency of overdue payments increase (the customer don't want to pay)
 - Overdue payments increase
 - Credit balance increase
 - Overdue balance will be higher
 - Credit loss will be higher
- Product

Finance

- Income
 - Gross sales don't change (Correct)
 - Interest expenses; Emergency loan increased
 - Transaction costs decreased a little
 - Bank penalties increase
 - Corporate tax decrease (less income -> less tax)
- Financial position
 - Cash decrease

- Receivables increase
- Short term loans can increase
- Receipt in advance will be lower
- Cash and funding
 - Cash position lower
 - Cash receipts lower
 - Cash paid out no changes
- Bank
 - Frequency of payment processing lower

Purchasing

- No changes in the reports

Supply Chain

- No changes in the reports

4.3 Back office (EB)

Gameplay elements (EB)

Add the new gameplay element.

The scenario must be on in the start round until the latest round of the session. The start round can be variety between zero and the latest round of the session (the latest round of the session will not really make sense). The product, customer and countries are fixed. The moment of time when the compliance start can be variable. So there must be an effect field. The size of the impact can be regulating by the moment that the compliance issue start (assuming that we don't change anything by the tuning like the order sizes of the customers). From technical point of view is it a good idea to create a dropdown menu to choose the entity.

```
FreshConnection.Core.Domain.Gameplay.KlantBasedGameplayElement
```

EntityType:

```
FreshConnection.Core.Domain.Klant
```

GameplayKey:

```
cashstuckcustomer
```

EntityId:

A dropdown box with one option (like the gameplay element risk were you can choose the component). Information about which customer (translationid) will follow later.

4.4 Database

New tables (EB)

No new tables.

Fields in existing tables (EB)

A new gameplay elements need to added. The gameplay element will automatic be added to Matlab in the struct

```
vwstructgameplayelement
```

Adjustment existing tables (DJ)

Add column cash stuck in the table 'klant'. As default value zero.

4.5 Matlab (DJ)

Matlab input (DJ)

No adjustment in input necessary. In

```
importeerdata.m
```

is the data of the gameplay element automatically read.

Matlab code

See version control software.

Matlab Output (DJ)

No new output. The gameplay element has effect on several values, but does not create new variables.

4.6 Notes (DJ)

Notes:

- DJ makes the assumptions that there is no new output for UI necessary for this development.
- Test script need to create before development start.

EXTERNAL COMMUNICATION (DJ)

- Marketing needs to know what the development plan is and when the expected release is (especially Jochum wants this).
- The back office needs to know when TCCv3 is ready for use and what can be used. (TCCv3 related and not special to this development)
- The relevant technical persons of the 'the talent connection' needs to know when the connection with TCCv3 can started and must be finished. (TCCv3 related and not special to this development)

4.7 Test (DJ,EB,MAS,PS)

Testscript DJ (DJ)

- Work process during the ML development:
- Describe the goal of the next development block
- Write comments by the added code
- Test the result in ML with a testteam
- Work process at the end of the ML development:
- Run the simulation in ML with a testteam with gameplay elements and a testteam without the gameplay elements
- Analyse the differences, are the expected and/or correct?
- Work process after the db changes:
- Do a calculation with a testteam from the backoffice
- Work process after all developments:
- Create two sessions, a session with the gameplay elements and one without the gameplay elements and compare the reports of the teams (in this design are the expected differences described)
- Open all decisions that are allowed and calculate

- Test interaction between decisions

Test EB (EB)

Test MAS (MAS)

5. Compliance category IV: Penalty

5.1 User interface (EB)

In the income report, will a new row added named “compliance penalties”.

Decisions (EB, DJ)

No new decision.

The decision for category management must be off.

No interaction expected with other decisions.

Infocenter (EB,DJ,MAS)

No new information necessary.

Information screen (EB, DJ, MAS)

No new information necessary.

Tooltip (EB,DJ,MAS)

In the income report in the row compliance penalties.

Mail (DJ,MAS)

In the first design is no mails wished.

Alerts (EB)

Not necessary

Report (DJ)

In the income report, will a new row added named “compliance penalties”.

New reports (DJ)

Not relevant

Existing reports (DJ)

In the income report, will a new row added named “compliance penalties”.

Finance

- Income
 - Below the rows “Sales bonus and penalties” and “Sustainability penalties” will the row “compliance penalties” added. The revenue decreased.

The penalties will not be visible in other reports. Several values will be influenced by the issues:

Finance

- Income
 - Emergency loan increase
 - Bank penalties increase
 - Corporate tax decrease
- Financial Position
 - Cash & cash equivalents increase
 - Short term loans: increase
 - Share capital: decrease
 - Retained earnings: decrease

- Cash & Funding:
 - Cash position increase
 - Cash receipts increase
 - Cash paid out increase
 - Used overdraft increase
- Bank
 - Average used overdraft increase

The compliance penalties have no influence on the results of the other roles.

5.2 Back office (EB)

Gameplay elements (EB)

Add the new gameplay element.

The scenario must be on in the start round until the latest round of the session. The start round can be variety between zero and the latest round of the session (the latest round of the session will not really make sense). The product, customer and countries are fixed. The moment of time when the compliance start can be variable. So there must be an effect field. The size of the impact can be regulating by the moment that the compliance issue start (assuming that we don't change anything by the tuning like the order sizes of the customers). From technical point of view is it a good idea to create a dropdown menu to choose the entity.

```
FreshConnection.Core.Domain.Gameplay.KlantBasedGameplayElement
```

EntityType:

```
FreshConnection.Core.Domain.Klant
```

GameplayKey:

```
compliancepenaltycustomer
```

EntityId:

A dropdown box with one option (like the gameplay element risk where you can choose the component).

Effectname:

```
compliancepenaltyfixed
compliancepenaltyfraction
```

Effect:

```
compliancepenaltyfixed (positive integer)
0 ≤ compliancepenaltyfraction ≤ 1 (decimal, [1,4])
```

5.3 Database

New tables (EB)

No new tables.

Fields in existing tables (EB)

A new gameplay elements need to added. The gameplay element will automatic be added to Matlab in the struct

Adjustment existing tables, views, stored procedures (DJ)

Table/vw/sp	Add field	Specifications	Default value
Klant	CompliancePenaltyFixed	Decimal (18,0) NOT NULL	0
Klant	CompliancePenaltyFraction	Decimal (18,4) NOT NULL	0
Gereedproduct	CompliancePenaltyFixed	Decimal (18,0) NOT NULL	0
Gereedproduct	CompliancePenaltyFraction	Decimal (18,4) NOT NULL	0
vwstructklant	Add 'klant' related fields		
vwstructgp	Add 'gereedproduct' related fields		
klantoutput	PremiesPenaltiesCompliance	Decimal (18,4) NOT NULL	Comes from Matlab
ReportFinanceOutput	CompliancePenaltyTotal (automatic added from Matlab)	Decimal (18,4) NOT NULL	Comes from Matlab

5.4 Matlab (DJ)**Matlab input (DJ)**

Add the fields compliancepenaltyfixed and compliancepenaltyfraction for customer and finished product in the relevant tables in the importeerdata.m part.

Matlab code

Change in the gameplayelementeneffectenvoorsimulatie.m, prepare_simfinance.m, prepareer_finance.m, simcurve_gereedproduct.m and prepare_output.m.

Matlab Output (DJ)

New output in the structuur_ReportFinanceOutput.m and in exporteerdata.m for the income report.

5.5 Notes (DJ)

Note:

- Test script need to create before development start.

EXTERNAL COMMUNICATION (DJ)

- Marketing needs to know what the development plan is and when the expected release is (especially Jochum wants this).
- The back office needs to know when TCCv3 is ready for use and what can be used. (TCCv3 related and not special to this development)
- The relevant technical persons of the 'the talent connection' needs to know when the connection with TCCv3 can started and must be finished. (TCCv3 related and not special to this development)

5.6 Test (DJ,EB,MAS)**Testscript DJ (DJ)**

- Work process during the ML development:
- Describe the goal of the next development block
- Write comments by the added code

- Test the result in ML with a testteam
- Work process at the end of the ML development:
- Run the simulation in ML with a testteam with gameplay elements and a testteam without the gameplay elements
- Analyse the differences, are the expected and/or correct?
- Work process after the db changes:
- Do a calculation with a testteam from the backoffice
- Work process after all developments:
- Create two sessions, a session with the gameplay elements and one without the gameplay elements and compare the reports of the teams (in this design are the expected differences described)
- Open all decisions that are allowed and calculate
- Test interaction between decisions

Test EB (EB)

Test MAS (MAS)

6. Scenarios

There are 9 scenarios described by Philip Sidney.

Scenario 1: PEG wrong delivery

TCC ordered 500 metric tons of PEG (Polyethylene glycol, CAS registration number 25322-68) with Sentinel Chemicals Ltd. in the UK. Terms & conditions as usual. TCC and Sentinel are doing business for decades already. This time however, TCC received TPEG instead of PEG. TPEG (Polytetrahydrofuran polyethylene glycol) is a block co-polymer of poly 1,4-Butanediol and PEG. And it is export controlled under the so-called dual-use export controls, stemming from the Missile Technology Control Regime.

Apparently, this particular shipment has escaped both UK HM Revenue & Customs' and UK Export Control Office's attention. Now you have to deal with it. You decide to ship it back to Sentinel Chemicals and you call them up to inform them and request immediate delivery of the 500 metric tons of proper PEG.

Sentinel Chemicals informs you that they are very sorry to have upset your operations and request return shipment and emphasize the necessity of an export license application with your national export control office. They also stress that your export control office may want to discuss this shipment and the lack of a previous UK export license with the UK Export Control Office and/or that Sentinel Chemical may feel pressed to do so. Outcome might be that no further shipments of PEG can take place until this matter is solved.....

What do you do?

Scenario 2: PEG + 1,4 Butanediol

Your wholesale department receives an inquiry for delivery of 200 tons of PEG. This is not an unusual transaction for TCC and the customer. TCC always has enough supply and the wholesale customer can't wait for shipping from the UK to take place.

This time, the wholesale customer asks you if you can perhaps also ship 20 tons of 1,4 butanediol, a solvent frequently used in the industry (CAS registration number 110-63-4). As you are not certain that TCC would have a supply of 1,4 butanediol, you ask the warehouse manager. He looks at you a bit scornfully, cackles and sends you off. Agitated, you ask him what and why... He tells you that a) 1,4 butanediol is a class C controlled substance in the UK and in many other jurisdictions it is considered either a precursor for drugs or a drug itself. 1,4 butanediol, so he tells you, is also used as a [recreational drug](#) known by some users as "One Comma Four", "Liquid Fantasy", "One Four Bee" or "One Four B-D-O". It exerts effects similar to [γ-hydroxybutyrate](#) (GHB), which is a metabolic product of 1,4-Butanediol. Misuse has also resulted in addiction and death, when mixed with other drugs..... Also, almost half of it is dehydrated to *tetrahydrofuran* to make fibers such as Spandex.

But, even more important: 1,4 butanediol is one of the constituents of TPEG! (*polytetrahydrofuran* polyethylene glycol: a block co-polymer of (poly) 1,4 butanediol and polyethylene glycol (PEG).

What do you do?

Scenario 3: Hydrogen Peroxide – high quantity of products

A wholesale customer of TCC want to procure a small quantity of hydrogen peroxide (CAS registration number 7722-84-1). No problem, TCC does have very large supplies of H₂O₂ and you are happy to oblige. After a month or so, the customer comes back to you and ask for another delivery,

now 50 tons please. And, could it preferably be a high concentrate, higher than last delivery. Would you perhaps have something like 80 -90%? Well, yes. You will order it and ship it to them. They are quite satisfied with your handling and they order another 100 tons. You feel a bit awkward about them ordering so large quantities that just don't fit their business profile. You Google Hydrogen Peroxide and you find the following:

What do you do?

Scenario 4: Anti-dandruff shampoo – registration

TCC sells tons and tons of shampoo on an annual basis. 20% of the sales concern The Cool Connection Pristine Shoulders anti-dandruff shampoo. This shampoo contains zinc pyrithione (CAS registration number 13463-41-7) as the active agent. One of your largest buyers is in Brazil. Now, Brazil has recently changed its laws and regulations on registration on (potentially) hazardous and/or medicinal products. The Brazilian Food & Drug Administration "Anvisa" has recently promulgated its regulations on treatment against dandruff, seborrheic dermatitis and other medical applications including treatments of psoriasis, eczema, ringworm, fungus, athlete's foot, dry skin, atopic dermatitis, tinea, and vitiligo.

The case is that Anvisa changes the registration criterion from category X to category Y, and also stipulates that, until you meet the new criterion and registration requirements, you will not sell, procure to sell, or deliver any Pristine Shoulders in or to customers in Brazil and neither will you sell, procure to sell and/or deliver any zinc pyritione to customers in Brazil.

You still have 160 pallets of Ombros Belas shampoo for the Brazilian market, meeting former registration requirements. All the flasks or "frascos de xampu" are labeled in the Portuguese language.....

What do you do?

Scenario 5: Indirectly making available economic resources to a sanctioned person, who is an ultimate beneficial owner of a Belarusian trading company

Context

Juri Aliksandr Vimanov is sanctioned by the EU in 2006 due to his active involvement in the repression of civil society in Belarus. As a former Deputy Head of the KGB, in charge of the staff and the organisation of their tasks, he was responsible for the repressive activity of the KGB against civil society and democratic opposition.

Vimanov's is owner of several Belarusian companies through his holding company. Vimanov indirectly owns 95% of the shares of Bilnaft Trading LLC, a Minsk company that is one of the main importers of personal care products and perfumes in Eastern Europe, that are sold-on in the Belarusian, Russian and Ukrainian retail market.

Issue:

1. Making economic resources available directly or indirectly to sanctioned / listed persons is not allowed according to EU sanctions on Belarus;
2. the making available of funds or economic resources to non-listed legal persons or entities which are owned or controlled by a listed person or entity will in principle be considered as making them indirectly available to the latter

3. *Ownership*: the criterion to be taken into account when assessing whether a legal person or entity is owned by another person or entity is the possession of more than 50% of the proprietary rights of an entity or having majority interest in it. If this criterion is satisfied, it is considered that the legal person or entity is owned by another person or entity.
4. Economic resources means assets of every kind, whether tangible or intangible, movable or immovable, which are not funds but can be used to obtain funds, goods or services.
5. TCC has violated EU sanctions on Belarus and cannot further deliver its products to Bilnaft Trading LLC anymore.

Phase 1:

Śłużba Celna, the Polish customs law enforcement agency, seized 3 truckloads TCC products, market value around €3,2 mln, at the Polish – Belarus border. This shipment was meant for Bilnaft Trading LLC logistics center in Minsk. According to the Polish authorities necessary authorizations were missing in the export documentation handed over by the truck drivers. TCC's logistics service provider informed TCC that the shipment will not be released before investigations by the Polish authorities have been finalized.

TCC's management asks for immediate action from you and persists in delivering TCC products to Bilnaft via Czech Republic, Slovakia and Ukraine. Suspension of all sales activities and existing contracts with Eastern Europe will be costly. Legal claims may amount to tens of millions of Euro. Cancellation of sales activities means the cancellation of all further marketing efforts in the Russian and Ukrainian market, which investments have accrued to over €10 million.

Phase 2:

The alternative shipment of TCC products to Bilnaft via Czech Republic, Slovakia and Ukraine is also seized by the Slovakian customs authorities at the Slovakian – Ukrainian border. TCC's logistic service provider informed TCC that also this shipment will not be released in the short term. In the meantime, the logistic service provider has stated that the Polish and Slovakian authorities have informed the Dutch law enforcement, who are preparing investigations of TCC's sales activities to the Eastern Europe market.

Dutch law enforcement requests for further information and explanation of TCC's sales to Bilnaft Trading LLC, as of the start of TCC's engagement with Bilnaft Trading LLC in 2009. TCC's management and sales department has become aware that Bilnaft Trading LLC is indirectly owned by Juri Aliksandr Vimanov.

Vimanov is sanctioned by the EU in 2006 due to his active involvement in the repression of civil society in Belarus. As a former Deputy Head of the KGB, in charge of the staff and the organisation of their tasks, he was responsible for the repressive activity of the KGB against civil society and democratic opposition. He is also one of the main financial sponsors of the Lukashenka regime which moneys originate from Vimanov's business and investment activities. Vimanov's is owner of several Belarusian companies through his holding company. Vimanov indirectly owns 95% of the shares of Bilnaft Trading LLC.

TCC's management first response to the Dutch law enforcement was that Bilnaft Trading LLC is a company of good name and fame and is serviced by several European suppliers of luxury shampoos and personal care products. The management also argued that Bilnaft Trading LLC is not listed on the EU sanctions list. The Dutch authorities state that delivering goods to Bilnaft implies making economic resources available indirectly to a sanctioned person which is forbidden under the applicable EU and Dutch sanction regulations. .

TCC has agreed with Dutch authorities to conduct look-back investigations which also implies that immediate remediating actions have to be taken and responses to the law enforcers have to be prepared. (i.e. remediating actions may be: 1) suspension of all sales activities and existing contracts with Eastern Europe in order to save compliance costs and avoid risks: this alternative will result in a loss for TCC of tens of millions of Euro; 2) set up an internal compliance program and engage with an alternative trading company in the region in a compliant way in order to further sell TCC products in that local market and consolidate its market position, sales and financial results)

It has become clear that the situation with the seized truck loads sitting at the Polish – Belarus border and Slovakian – Ukrainian border will last longer than the preservation time of TCC’s products. TCC has to write-off the shipments resulting in an immediate loss of €7 million

Phase 3:

An alternative Russian trading company “Hairdov” has been proposed to you by the sales department that they seem fit, based on some occasional exports as of 2010. In fact they have seen other local wholesale companies that might be beneficial to TCC to further open up the East European market and gain market share.

The management asks you to design and implement compliance measures that TCC, and in particular the sales department, has to take into account in order to assure sustainable presence and further penetration of the East European shampoo market.

Scenario 6: Sell to distributor/ agent which sells on TCC products to sanctioned countries

Context:

TCC has launched a range under its +++shampoo for Middle Eastern women in 2012 who cover their hair under a veil, making their hair prone to friction, which, in turn, increases the frequency of damage. Similarly, TCC entered in the African colour cosmetics market in 2014 with ===shampoo, which is known to have deeper penetration among ethnic women due to the brand’s wide range of pigmentation, which blends well with ethnic skin tone. Oils used as the carrier in +++shampoo and pigmentation used in ===shampoo are purchased centrally by TCC from a US supplier in Florida.

For the sale and distribution of +++ shampoo and ===shampoo in the Middle East and North African region, TCC sells its products to Puls500+ trading company. Puls 500+ head office is domiciled in Abu Dhabi in the UAE and has branches and representative offices in Kuwait, Egypt, Libya, Morocco, Lebanon, Yemen, Syria, Iraq and Iran. Puls500+ sells on TCC products to local distributors in these countries.

Issue:

1. Applicability and extraterritorial effect of US sanctions:
 - a. the reexportation from a third country, directly or indirectly, by a person other than a United States person, of any goods, technology, or services that have been exported from the United States is prohibited, if undertaken with knowledge or reason to know that the reexportation is intended specifically for Iran or the Government of Iran;
 - b. The exportation or reexportation of items to Syria from the United States or by a U.S. person, wherever located, to the Government of Syria or any other person whose property and interests in property are blocked pursuant to §542.201(a), and all transactions ordinarily incident thereto, are authorized, provided that the

exportation or reexportation of such items to Syria is licensed or otherwise authorized by the Department of Commerce.

- c. Reexport restrictions to persons / entities designated as terrorists
2. EU sanctions:
- a. Making economic resources available directly or indirectly to sanctioned / listed persons is not allowed according to EU sanctions on Egypt, Iran, Iraq, Syria, Lebanon, Yemen
 - b. Economic resources means assets of every kind, whether tangible or intangible, movable or immovable, which are not funds but can be used to obtain funds, goods or services.
 - c. Prohibition to export luxury goods to Syria, i.e. perfumes and toilet waters exceeding a sales price of EUR 70 per 50 ml and cosmetics, including beauty and make-up products exceeding a sales price of EUR 70 each (<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02012R0036-20151014&qid=1451990007846&from=NL> ; ANNEX X sub 6 to Council regulation 36/2012 consolidated version)

Phase 1

TCC's bank inquires with TCC in which extent TCC's activities in MENA involve countries subject to US and EU sanctions. Based on an incoming EUR payment from Puls500+, which payment message referred to a shipment to Puls500+ Iran office in the explanatory field, TCC's bank suspects that incoming payments on TCC's EUR and USD account originating from Puls500+ in Abu Dhabi, in fact originate from sanctioned countries. TCC's bank is in particular concerned about the involvement of US and EU sanctioned parties in the TCC sales activities in MENA and in the financial settlement of these transactions. TCC has agreed with the bank, regarding the provisioning of financing and financial services to TCC, not to involve the bank in activities involving EU and US sanctioned countries, persons and entities.

The bank requires this information within the coming week, otherwise it will consider to suspend all account and payment services, not to renew working capital facilities that are about to mature, to end existing credit facilities and to unwind outstanding FX contracts and interest rate swaps.

The sales statistics of the last two years, which report transaction volumes and value, differentiated per client, per country, do not explicitly reveal that deliveries to Puls500+ involved deliveries to Puls 500+ in Iran, Syria, Egypt, Libya and Yemen. According to the Sales Director MENA it is however very likely that deliveries to Puls500+ ended up in these countries. He also finds that TCC's responsibility should end somewhere and that it is practically impossible to track all sales transactions and deliveries to Plus500+ Abu Dhabi to their final end-destinations.

Alternative 1: TCC decides to end the bank relation and to open new accounts and credit lines with another bank

Alternative 2: continue existing bank relationship (and further investigates transactions in the past and investigate possible violations of US and EU regulations), take compliance measures and make arrangements with Pulse 500+ in order to assure legitimate transactions;

Alternative 3: continue existing bank relationship and do nothing (i.e. provide general information but still no transparency)

Phase 2:

Alternative 1: TCC opened new accounts, continued credit lines and treasury facilities with another bank. TCC motivated the changing the banking relationship by stating that the new bank has more

attractive service levels and rates for their financing and financial services. TCC continues to sell products to Pulse 500+ on an ongoing base without taking any further action;

Alternative 2: TCC informs their bank that it will cooperate and provide insight into the end-destinations and end-users of their products in the MENA region in order to evidence legitimacy of the transactions. TCC needs more time to conduct further investigation and engage with Pulse 500+ in order to get the necessary information. Puls500+ is open to provide the information after TCC has reached an understanding with them not to approach the MENA market directly themselves. This arrangement solved Puls500+'s concern that it would be carved out by TCC from the supply chain and that it would lose business and position in the MENA region to TCC. Puls500+ has the same interest as TCC in complying with US and EU sanctions and embargos in order to build a sustainable supply chain and willing to cooperate.

Alternative 3: TCC informs their bank that TCC's responsibility is limited to the sales activities of TCC products with Pulse 500+ and that it cannot take responsibility for Pulse 500+ onward sales activities. In addition to that, TCC emphasizes that it is practically impossible for TCC to check the end destinations and end-users for all shipments to Pulse 500+. TCC states that it will not provide any further information and will take legal action in case the bank will suspend their financing and financial services.

Phase 3:

Alternative 1: The new bank has followed up TCC's motivation for changing banking relationship and has made further inquiries with TCC's previous bank. TCC's previous bank informed the new bank that it has ended the relationship with TCC, based on TCC's reluctance to provide further information on the legitimacy of their MENA activities having regard to applicable sanction regulations. The new bank requires full insight into TCC's MENA activities and has immediately suspended account and payment services as well as working capital facilities and treasury positions directly related to TCC's MENA activities, practically stopping TCC's activities in the MENA region.

Alternative 2: TCC further investigated the matter. Puls500+ provided an overview of its sales activities involving TCC products for the past years in the MENA region. The sales overview showed no sales to US nor EU sanctioned countries, except for one sale by its Iranian representative of a package of 40 sample bottles ===shampoo, each containing 20ml, for €15 a bottle to an Iranian privately held sales agent. Further explanation by Plus500+ of its Iranian sales activities reveals that Plus500+ has sized down its Iranian branch as of 2009 to one sales representative whose main task is to maintain relationships with local business, with an eye to possible release of Iranian sanctions in the near future.

Since 2009 sales activities of Puls500+ with Iran are nihil. Puls500+ has stated not to conduct any sales activities to Syria and / or Iraq at the moment. TCC screened and conducted further investigations into the names of the persons and entities involved in the Puls500+ sales activities in Lebanon, Yemen, Egypt, Libya and Morocco and found no indications for the involvement of US or EU sanctioned persons or entities. TCC and Puls500+ have reached an understanding that Puls500+ will not involve TCC and its products in any sales activity involving Iran, Syria or Iraq without notifying TCC and enable TCC to analyze possible impact of US and EU sanctions. In addition to that, Puls500+ will inform TCC of changes in its customer base that buy TCC products, in order to enable TCC to determine possible prohibitions and /or restrictions related to US and EU export controls and sanctions.

This sales transaction by Plus500+ involving Iran explains the incoming payment into the bank account of TCC referencing Iran.

Further investigation by TCC of the impact of US and EU export controls and sanctions resulted in the following findings.

According to the US export control regulations, the US items incorporated in the +++ and ==Shampoo are not listed on the US dual list. When incorporated in foreign made products, US export controls and US sanctions require a license for the re-export of these US origin item in case an embargoed destination (e.g. Iran, Syria) is involved and the US origin item is valued more than 10% of the total value of the foreign-made commodity. Also US export controls and US sanctions prohibit or restrict the (re-)export of US origin items to targeted persons and entities.

TCC determined that although the US origin ingredients are significant for the functioning of the Shampoo, their value is less than 2% each of the total value of TCC's products, including the sample bottles. Also, Puls500+'s transaction with Iran did not involve a US sanctioned or any other person or entity targeted by a US government agency. TCC concludes that no violation of US export controls and sanctions occurred or are likely to occur.

Regarding the EU sanctions on Iran, TCC found no restrictions regarding the export to Iran and no EU sanctioned persons or entities involved in export or in the related payment thereof.

Alternative 3: TCC's bank has informed TCC that it will cease its provisioning of finance and financial services with immediate effect and that it will unwind existing credit lines and treasury positions.

Scenario 7: Payment to TCC is blocked due to involvement of a sanctioned bank in the financial settlement of an export by TCC to a country subject to sanctions

Context:

TCC occasionally exports products to the Russian Federation to Hairdov. Hairdov's bank, AKB MBank, rolled over a bank guarantee in January 2014, on request of the Hairdov, for the amount of USD1,9 million to the benefit of TCC for securing future payments by the Hairdov for TCC exports. TCC and Hairdov agreed in the past to settle TCC export transactions in USD.

This week, AKB MBank is sanctioned by the US authorities due to its indirect involvement in the support of Russian annexation of Crimea. The United Nations Security Council and the EU's member states, based on the Common Foreign and Security Policy, have not issued any restrictions or prohibitions regarding AKB MBank or persons related to that bank.

Issues:

1. Payment transactions involving US nexus are subject to US jurisdiction with respect to US sanction regulations. US nexus implies (i) USD payments (which settlement will involve US persons "down the line"), (ii) involvement of US persons, (iii) involvement of US origin items, (iv) involvement of US territory. Non-US financial institutions executing USD will cause (in the end) an US person to violate US sanctions and therefore may risk law enforcement by US authorities. Non-US financial institutions will, therefore, not facilitate the execution of incoming USD payments involving a person / entity sanctioned by US authorities. The non-US financial institution will most probably reject the incoming payment order and, in case it already received the funds, suspend the funds (i.e. no forwarding of the funds nor returning the funds to the sanction person / entity);
2. Payment transactions that do not involve US nexus will not be subject to US jurisdiction. In case EU / local sanction regulations do not prohibit or restrict payment transaction, financial institutions will execute the payment.

Phase 1: AKB MBank is sanctioned by US authorities this week.

Alternative 1: TCC does not take any action because no US person is involved in the transaction.

Alternative 2: TCC engages with Hairdov to reconsider the agreement on the settlement of the export transactions in USD (and agree to settle in EUR or other currency) and / or agree to involve another, non-sanctioned US / EU bank.

Phase 2:

Alternative 1: Hairdov's attempt to pay TCC via AKB MBank in USD results in the rejection of the payment and suspension of the funds by AKB MBank's correspondents. Because the payment guarantee is denominated in USD, payment under the guarantee (due to non-performance of the regular payment) is also rejected and suspended as well by AKB MBank's correspondent banks. The result will be that TCC will not receive the money and Hairdov argues that it has fulfilled its payment obligations. TCC takes a loss for the amount of the transaction

Alternative 2: Due to the restructuring of the settlement of the payment of TCC export transactions, both Hairdov and TCC do not face any restrictions due to US sanctions.

Scenario 8: Delivery to state owned hospital that is sanctioned under applicable sanction regulations

TCC is approached by a Singaporean shipping company "Chinpo Shipping" to deliver €7 million worth of TCC finest and luxurious shampoos to an healthcare organization named Kwaksong, located in Shenyang near the Chinese – North Korean border. According to Chinpo Shipping, Kwaksong will sell TCC products to persons in the region for medical treatment of skin diseases. TCC's products ordered, including their ingredients, do not have any medical application or medical claim. Payment to TCC will be arranged by Cinpo Shipping via a company in United Arab Emirates using a local money exchange office.

Issues:

- a. prohibition to sell, supply, transfer or export, directly or indirectly, luxury goods, to North Korea
- b. initiating a false authorization to making available economic resources, necessary to satisfy the basic needs of natural or legal persons, entities or bodies listed in Annex IV, V or Va and dependent family members of such natural persons, including (payments for) foodstuffs, rent or mortgage, medicines and medical treatment, taxes, insurance premiums and public utility charges

Phase 1: TCC is approached by a Singaporean shipping company "Chinpo Shipping" to deliver €7 million worth of TCC's finest and most luxurious shampoos to an healthcare organization named Kwaksong, located in Shenyang, China, near the Chinese – North Korean border.

Alternative 1: TCC does not accept the sales order (due to indications of violations of EU sanctions on North Korea in particular the prohibition to sell, supply, transfer or export, directly or indirectly, luxury goods, to North Korea. Kwaksong and Chinpo Shipping may be front companies used by North Korean sanctioned entities to circumvent UN, EU, US and other local sanctions).

Alternative 2: TCC accepts the sales order and accounts for an initial return/ result.

Phase 2:

Outcome alternative 2: TCC's bank informs TCC that it is notified by its correspondent bank in Turkey that TCC's bank will receive funds for the benefit of TCC, ordered by an UEA trading company, and initiated by a local, unknown money exchange office in UEA. TCC's bank inquires for further information on:

- company Kwaksong that, according to the bank, has no public information on its owners but seem to be related to the North Korean Third Chemical Joint Venture Company. The Third Chemical Jint Venture Company is sanctioned by the EU.
- Chinpo Shipping that is co-located in Singapore with the North Korean Embassy and according to public sources, Chinpo Shipping has acted as agent for North Korean based company.

Alternative 2a: TCC claims that the incoming payment is related to the shipment of medicines to China.

Alternative 2b: TCC further investigates parties involved and finds more information evidencing TCC's bank indications for sanctions evasion. TCC unwinds the transaction, order its bank to refuse payment and informs Dutch authorities.

Phase 3:

Alternative 2a: TCC's bank reports the transaction to the Financial Intelligence Unit (FIU) and law enforcement initiates investigation of the transaction with TCC ultimately accusing TCC of sanction evasion.

Scenario 9: Payment to TCC is rejected by intermediary US banks due to involvement of logistic service provider that has bad press

TCC makes use of an international active and professional container shipping company C&A CFN to handle its logistics worldwide.

Recently C&A CFN was accused in the media for being involved in arms smuggling. The bad press was based on the attack of armed forces of a Middle East state on a containership bound for Egypt in the Mediterranean Sea and claimed to have seized 3 containers of conventional arms destined for the Gaza strip. According to C&A CFN, the ship's manifests did not show any cargo in contravention of international regulations, and they do not have any more information at this stage.

Issue:

- Bad press may trigger financial institutions not to facilitate any transaction involving C&A CFN causing delays in payments or suspension of funds

Phase 1:

Alternative 1: TCC does not take any action and continues using C&A CFN as shipper for handling its logistics

Alternative 2: TCC confers with its bank to assess possible restrictions and delays in financial settlement of the export transactions in which C&A CFN is involved

Alternative 3: TCC suspends using all services of C&A CFN and investigates alternative shipping companies causing delays in the logistic handling of existing sales orders.

Phase 2:

- Alternative 1: TCC is confronted with the rejection of several incoming USD payments and suspension of funds by US banks involved in the clearing of the export transaction involving C&A CFN in the logistic handling. US bank seem to take a very risk averse approach regarding transactions involving C&A CFN causing liquidity issues for TCC;
- Alternative 2: TCC's bank, immediately after the bad press was published, has inquired for the viewpoint with all of its correspondent banking relations, including the US correspondent banks. TCC's bank found that some, but not all, international US trading banks applied a restrictive approach towards transactions involving C&A CFN. It also found that the majority of the EU banks, including TCC's bank, monitor the transactions involving C&A CFN more carefully and further process these transactions, almost with no delay, if there are no indications for the involvement of military or dual use items in the underlying export transaction. TCC's bank advises TCC to explicitly document the nature of the goods in the commercial documents and transportation documents and to discuss with importers on the financial settlement terms in order to avoid the involvement of the risk averse banks.
- Alternative 3: It takes TCC over 6 weeks to find alternative shippers for the majority of its international logistic routes causing delays in delivering the products to its clients.

7. Compliance reports

The player can buy information to understand why the compliance issue happens. For each scenario are there one or several reports.

Reports related to scenario 1 & 2

7.1.1 Scenario 1 & 2 report 1

WIKIPEDIA The Free Encyclopedia

1,4-Butanediol

From Wikipedia, the free encyclopedia

1,4-Butanediol, colloquially known as **BD**, is the organic compound with the formula HOCH₂CH₂CH₂CH₂OH. This colorless viscous liquid is derived from *butane* by placement of *alcohol* groups at each end of the chain. It is one of four stable isomers of *butanediol*.

Contents [hide]

- Synthesis
- Industrial use
- Health effects and use as a drug
 - Pharmacokinetics
 - Pharmacodynamics
 - Legality
 - 2007 contamination of Bindeez toy
- References
- External links

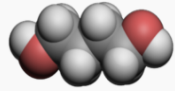
Synthesis [edit]

In its industrial synthesis, *acetylene* reacts with two equivalents of formaldehyde to form 1,4-butanediol. This type of acetylene-based process is illustrative of what is known as "Repe chemistry", after German chemist *Walter Repe*. Hydrogenation of 1,4-butanediol gives 1,4-butanediol. This route is used by BASF and Ashland/ISP.

LyondellBasell manufactures 1,4-butanediol in a multi-step process without the use of acetylene. First, propylene oxide is converted to allyl alcohol. The allyl alcohol is then *hydroformylated* to 4-hydroxybutylaldehyde. Hydrogenation of this aldehyde yields 1,4-butanediol.^[4]

It is also manufactured on an industrial scale from *maleic anhydride* in the *Davy process*, which is first converted to the methyl maleate ester, then hydrogenated. Other routes are from *butadiene*, *allyl acetate* and *succinic acid*.^[5]

1,4-Butanediol



Names

IUPAC name
Butane-1,4-diol

Other names
Tetramethylene glycol

Identifiers

CAS Number 110-63-4 ✓

ChEMBL ChEMBL171623 ✓

ChemSpider 13835209 ✓

DrugBank DB01955 ✓

EC Number 203-786-5

Jmol 3D model
Interactive image ✓
Interactive image ✓

RTECS number EK0525000

UNII 7X002LE6G3 ✓

InChI [show]

SMILES [show]

A biological route to BDO has been commercialized that uses a genetically modified organism.^[6] The biosynthesis proceeds via 4-hydroxybutyrate.

Industrial use [edit]

1,4-Butanediol is used industrially as a *solvent* and in the manufacture of some types of *plastics*, elastic fibers and *polyurethanes*. In *organic chemistry*, 1,4-butanediol is used for the synthesis of *γ-butyrolactone* (GBL). In the presence of phosphoric acid and high temperature, it dehydrates to the important solvent *tetrahydrofuran*.^[7] At about 200 °C in the presence of soluble ruthenium catalysts, the diol undergoes *dehydration* to form *butyrolactone*.^[8]

World production of 1,4-butanediol was claimed to be about one million metric tons per year and market price is about 2,000 USD (1,600 EUR) per ton (2005). In 2013, worldwide production was claimed to be billions of lbs (consistent with approximately one million metric tons).^[9]

Almost half of it is dehydrated to *tetrahydrofuran* to make fibers such as Spandex.^[10] The largest producer is BASF.^[11]

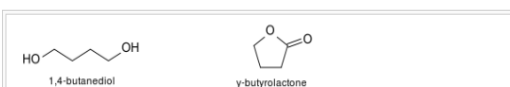
Health effects and use as a drug [edit]

It is also used as a *recreational drug* known by some users as "One Comma Four", "Liquid Fantasy", "One Four Bee" or "One Four B-D-O". It exerts effects similar to *γ-hydroxybutyrate* (GHB), which is a metabolic product of 1,4-butanediol.^{[12][13]} When mixed with other drugs, misuse of 1,4-Butanediol has resulted in addiction and death.^[14]

Pharmacokinetics [edit]

1,4-Butanediol is converted into GHB by the enzymes *alcohol dehydrogenase* and *aldehyde dehydrogenase* and differing levels of these enzymes may account for differences in effects and *side effects* between users.^[15] While co-administration of *ethanol* and GHB already poses serious risks, co-administration of *ethanol* with 1,4-butanediol will interact considerably and has many other potential risks. This is because the same enzymes that are responsible for metabolizing alcohol also metabolize 1,4-butanediol so there is a strong chance of a dangerous *drug interaction*.^{[15][16]}

Emergency room patients who overdose on both *ethanol* and 1,4-butanediol often present with symptoms of *alcohol intoxication* initially and as the ethanol is metabolized the 1,4-butanediol is then able to better compete for the enzyme and a second period of intoxication ensues as the 1,4-butanediol is converted into GHB.^[15]



1,4-butanediol γ-butyrolactone

Properties^[17]

Chemical formula C₄H₁₀O₂

Molar mass 90.12 g·mol⁻¹

Density 1.0171 g/cm³ (20 °C)

Melting point 20.1 °C (68.2 °F; 293.2 K)


Boiling point 235 °C (455 °F; 508 K)

Solubility in water Miscible

Solubility in ethanol Soluble

Refractive index (n_D) 1.4460 (20 °C)


Hazards^[18]

GHS pictograms 

GHS signal word WARNING

GHS hazard statements H302

GHS precautionary statements P264, P270, P301+312, P330, P501

NFPA 704 

Flash point 121 °C (250 °F; 394 K) (open cup)

Autoignition temperature 350 °C (662 °F; 623 K)

Related compounds

Related butanediols 1,2-Butanediol
1,3-Butanediol
2,3-Butanediol

Related compounds Succinaldehyde
Succinic acid

7.1.2 Scenario 1 & 2 Report 2

EXTRACT

From

COUNCIL REGULATION (EC) No 428/2009

of 5 May 2009

setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items

2009R0428 — EN — 25.12.2015 — 005.002 — 91

▼M5

1C111

a. 5. b. (continued)

Technical Note:

In 1C111.a.5. 'missile' means complete rocket systems and unmanned aerial vehicle systems capable of a range exceeding 300 km.

6. Hydrazine replacement fuels as follows:

1.2-Dimethylaminoethylazide (DMAZ) (CAS 86147-04-8);

b. Polymeric substances:

1. Carboxy-terminated polybutadiene (including carboxyl-terminated polybutadiene) (CTPB);
2. Hydroxy-terminated polybutadiene (including hydroxyl-terminated polybutadiene) (HTPB), other than that specified in the Military Goods Controls;
3. Polybutadiene-acrylic acid (PBAA);
4. Polybutadiene-acrylic acid-acrylonitrile (PBAN);
5. Polytetrahydrofuran polyethylene glycol (TPEG);

Technical Note:

Polytetrahydrofuran polyethylene glycol (TPEG) is a block co-polymer of poly 1,4-Butanediol (CAS 110-63-4) and polyethylene glycol (PEG) (CAS 25322-68-3).


6. Polyglycidyl nitrate (PGN or poly-GLYN) (CAS 27814-48-8).

c. Other propellant additives and agents:

1. SEE MILITARY GOODS CONTROLS FOR ~~Carboranes, decaboranes, pentaboranes~~ and derivatives thereof;
2. ~~Triethylene glycol dinitrate (TEGDN)~~ (CAS 111-22-8);
3. 2-Nitrodiphenylamine (CAS 119-75-5);
4. Trimethylethane trinitrate (TMETN) (CAS 3032-55-1);
5. Diethylene glycol dinitrate (DEGDN) (CAS 693-21-0);
6. Ferrocene derivatives as follows:
 - a. See Military Goods Controls for ~~catocene~~;
 - b. See Military Goods Controls for Ethyl ferrocene;
 - c. See Military Goods Controls for Propyl ferrocene;
 - d. See Military Goods Controls for n-butyl ferrocene;
 - e. See Military Goods Controls for Pentyl ferrocene (CAS 1274-00-6);

Reports related to scenario 3

7.1.3 Scenario 3 report 1

	<p style="text-align: center;">CAT Communities Against Terrorism</p>	
<p>POTENTIAL INDICATORS of Terrorist Activities related to Peroxide-Based Explosives</p>		
<p><i>What should I consider suspicious?</i></p>		<p><i>What should I do?</i></p>

SUSPICIOUS ACTIVITIES

- Unknown customer or customer from out of the area.

SUSPICIOUS PURCHASES

- Customer has little or no legitimate working knowledge of the chemical being purchased.
- Individual requesting or purchasing:
 - Information or books about using peroxide to make explosives.
 - Unusual quantities of a chemical, such as more than a gallon of hydrogen peroxide (H₂O₂).
 - Hydrogen peroxide in a concentration of 30% or higher.
- Individual seeking to purchase the precursor chemicals for the compound TATP (triacetone triperoxide) in combination or in large quantity.
 - Hydrogen peroxide (H₂O₂).
 - Sulfuric acid (oil of vitriol, battery acid).
 - Acetone (propanone, dimethyl ketone).
- Individual seeking to purchase the precursor chemicals for the compound HMTD (hexamethylene triperoxide diamine) in combination or in large quantity.
 - Hydrogen peroxide (H₂O₂).
 - Hexamine (methenamine, solid fuel tablets).
 - Citric acid (hydrogen citrate, concentrated lemons and limes).

Note: Hydrogen peroxide may be purchased on the Internet or from a pharmacy, food store, home improvement or hardware store, chemical distributor, health store, or beauty supply store.

BE PART OF THE SOLUTION.

- Know what chemicals are distributed by your business.
- Know what quantities are usual for purchases by customers at your business.
- Know your customers.
 - Require valid ID from all new customers.
 - Ask customers questions about their intended use of the chemical, and listen to and observe their responses.
 - Make note of suspicious statements, people, and/or vehicles, especially if the customer displays an out-of-state driver's license or is driving a rental vehicle or a vehicle with an out-of-state license plate.
- Keep records of purchases.
- Report any missing or stolen precursor chemicals to law enforcement authorities.
- If something seems wrong, notify law enforcement authorities.

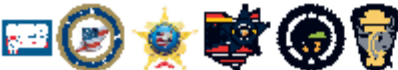
DO NOT JEOPARDIZE YOUR SAFETY OR THE SAFETY OF OTHERS.

Preventing terrorism is a community effort. By learning what to look for, you can make a positive contribution in the fight against terrorism. The partnership between the community and law enforcement is essential to the success of anti-terrorism efforts.

Some of the activities, taken individually, could be innocent and must be examined by law enforcement professionals in a larger context to determine whether there is a basis to investigate. The activities outlined on this handout are by no means all-inclusive but have been compiled from a review of terrorist events over several years.

To report suspicious activity, please call 1-877-OHS-INTEL (877-647-4683) or by logging onto [HTTP://HOMELANDSECURITY.OHIO.GOV](http://HOMELANDSECURITY.OHIO.GOV).
In the event of an emergency, please dial 911.

IT IS IMPORTANT TO REMEMBER THAT JUST BECAUSE A PERSON'S SPEECH, ACTIONS, BELIEFS, APPEARANCE, OR WAY OF LIFE IS **DIFFERENT**; IT DOES NOT MEAN THAT PERSON IS **SUSPICIOUS**.

	<p>To report suspicious activity, please call 1-877-OHS-INTEL (877-647-4683) or by logging onto HTTP://HOMELANDSECURITY.OHIO.GOV. In the event of an emergency, please dial 911.</p>
<p><small>Some of the indicators listed above are, by themselves, lawful conduct or behavior and may also constitute the exercise of rights guaranteed by the U.S. Constitution. In addition, there may be a wholly innocent explanation for conduct or behavior that appears suspicious in nature. For this reason, the totality of behavioral indicators and other relevant circumstances should be evaluated when considering any law enforcement response or action.</small></p>	

THIS PROJECT WAS SUPPORTED BY GRANT NUMBER 2007-AJL-RX-K007, AWARDED BY THE BUREAU OF JUSTICE ASSISTANCE, OFFICE OF JUSTICE PROGRAMS, U.S. DEPARTMENT OF JUSTICE.



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Hydrogen peroxide

From Wikipedia, the free encyclopedia

Hydrogen peroxide is a **chemical compound** with the formula H_2O_2 . In its pure form, it is a colourless liquid, slightly more viscous than water; however, for safety reasons it is normally used as a **solution**. Hydrogen peroxide is the simplest *peroxide* (a compound with an oxygen–oxygen single bond) and finds use as a weak oxidizer, bleaching agent and disinfectant. Concentrated hydrogen peroxide, or "high-test peroxide", is a reactive oxygen species and has been used as a **propellant in rocketry**.^[4]

Hydrogen peroxide is often described as being "water but with one more oxygen atom", a description that can give the incorrect impression of significant chemical similarity between the two compounds. While they have a similar melting point and appearance, pure hydrogen peroxide will explode if heated to boiling, will cause serious contact burns to the skin and can set materials alight on contact. For these reasons it is usually handled as a dilute solution (household grades are typically 3–6% in the U.S. and somewhat higher^[*quantity*] in Europe). Its chemistry is dominated by the nature of its unstable *peroxide* bond.

Contents

- Structure and properties
 - Properties
 - Aqueous solutions
 - Structure
 - Comparison with analogues
- Discovery
- Manufacture
 - Availability
- Reactions
 - Decomposition
 - Redox reactions
 - Organic reactions

Propellant

For more details on this topic, see [High-test peroxide](#).


High-concentration H_2O_2 is referred to as "high-test peroxide" (HTP). It can be used either as a **monopropellant** (not mixed with fuel) or as the oxidizer component of a **bipropellant rocket**. Use as a monopropellant takes advantage of the decomposition of 70–98% concentration hydrogen peroxide into steam and oxygen. The propellant is pumped into a reaction chamber, where a catalyst, usually a silver or platinum screen, triggers decomposition, producing steam at over 600 °C (1,112 °F), which is expelled through a **nozzle**, generating **thrust**. H_2O_2 monopropellant produces a maximal **specific impulse** (I_{sp}) of 161 s (1.6 kN·s/kg). Peroxide was the first major monopropellant adopted for use in rocket applications. Hydrazine eventually replaced hydrogen-peroxide monopropellant thruster applications primarily because of a 25% increase in the vacuum specific impulse.^[52] Hydrazine (toxic and hydrogen peroxide (less-toxic [ACGIH TLV 0.01 and 1 ppm respectively]) are the only two monopropellants (other than cold gases) to have been widely adopted and utilized for propulsion and power applications. The **Bell Rocket Belt**, reaction-control systems for X-1, X-15, Centaur, Mercury, Little Joe, as well as the turbo-pump gas generators for X-1, X-15, Jupiter, Redstone and Viking used hydrogen peroxide as a monopropellant.^[53]

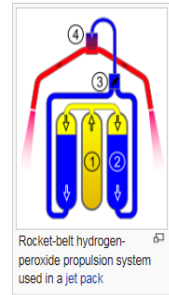
As a bipropellant, H_2O_2 is decomposed to burn a fuel as an oxidizer. Specific impulses as high as 350 s (3.5 kN·s/kg) can be achieved, depending on the fuel. Peroxide used as an oxidizer gives a somewhat lower I_{sp} than liquid oxygen, but is dense, storable, noncryogenic and can be more easily used to drive gas turbines to give high pressures using an efficient *closed cycle*. It can also be used for regenerative cooling of rocket engines. Peroxide was used very successfully as an oxidizer in World War II German rocket motors (e.g. T-Stoff, containing oxyquinoline stabilizer, for both the **Walter HWK 109-500 Starthilfe** RATO externally podded monopropellant booster system, and for the **Walter HWK 109-509** rocket motor series used for the **Me 163B**), most often used with C-Stoff in a self-igniting hypergolic combination, and for the low-cost British **Black Knight** and **Black Arrow** launchers.

In the 1940s and 1950s, the **Hellmuth Walter KG**-conceived **turbine** used hydrogen peroxide for use in **submarines** while submerged; it was found to be too noisy and require too much maintenance compared to **diesel-electric** power systems. Some **torpedoes** used hydrogen peroxide as oxidizer or propellant. Operator error in the use of hydrogen-peroxide torpedoes was named as possible causes for the sinkings of **HMS Sidon** and the **Russian submarine Kursk**.^[54] SAAB Underwater Systems is manufacturing the **Torpedo 2000**. This torpedo, used by the **Swedish Navy**, is powered by a piston engine propelled by HTP as an oxidizer and **kerosene** as a fuel in a bipropellant system.^{[55][56]}

Explosives

Hydrogen peroxide has been used for creating **organic peroxide**-based explosives, such as **acetone peroxide**, for **improvised explosive devices**. Hydrogen peroxide itself also acts as an explosive in high concentrations when placed in an absorbent, and has been used in attacks including the **7 July 2005 London bombings**.^[57] These explosives tend to degrade quickly and hence are not used as commercial or military explosives.

Hydrogen peroxide	
	
Names	
IUPAC name	hydrogen peroxide
Other names	Dioxidane Oxidanyl
Identifiers	
CAS Number	7722-84-1
CHEBI	CHEBI:16240
CHEMBL	CHEMBL71595
ChemSpider	763
EC Number	231-765-0
IUPHAR/BPS	2448
Jmol 3D model	Interactive image
KEGG	D00008
PubChem	784
RTECS number	MX0900000 (>90% soln.) MX0887000 (>30% soln.)
UNII	BBX060AN9V
UN number	2015 (>60% soln.)



Rocket-belt hydrogen-peroxide propulsion system used in a jet pack

7.1.5 Scenario 3 Report 3



Communities Against Terrorism

Potential Indicators of Peroxide-Based Explosives

What Should I Consider Suspicious?

- Unknown customer or customer from out of the area.
- Customer has little or no legitimate working knowledge of the chemical being purchased.
- Individual requesting or purchasing
 - Information or books about using peroxide to make explosives.
 - Unusual quantities of a chemical, such as more than a gallon of hydrogen peroxide.
 - Hydrogen peroxide in a concentration of 30% or higher.
- Individual seeking to purchase the precursor chemicals for the compound TATP (triacetone triperoxide) in combination or in large quantity.
 - Hydrogen peroxide (H₂O₂)
 - Sulfuric acid (oil of vitriol, battery acid)
 - Acetone (propanone, dimethyl ketone)
- Individual seeking to purchase the precursor chemicals for the compound HMTD (hexamethylene triperoxide diamine) in combination or in large quantity.
 - Hydrogen peroxide (H₂O₂)
 - Hexamine (methenamine, solid fuel tablets)
 - Citric acid (hydrogen citrate, concentrated lemons and limes)

It is important to remember that just because someone's speech, actions, beliefs, appearance, or way of life is different; it does not mean that he or she is suspicious.

Hydrogen peroxide may be purchased on the Internet or from a pharmacy, food store, home improvement or hardware store, chemical distributor, health store, or beauty supply store.

What Should I Do?

- Know what chemicals are distributed by your business.
- Know what quantities are usual for purchases by customers at your business.
- Know your customers.
 - Require valid ID from all new customers.
 - Ask customers questions about their intended use of the chemical, and listen to and observe their responses.
 - Make note of suspicious statements, people, and/or vehicles, especially if the customer displays an out-of-state driver's license or is driving a rental vehicle or a vehicle with an out-of-state license plate.
- Keep records of purchases.
- Report any missing or stolen precursor chemicals to law enforcement authorities.
- If something seems wrong, notify law enforcement authorities.
- Do not jeopardize your safety or the safety of others.

Preventing terrorism is a community effort. By learning what to look for, you can make a positive contribution in the fight against terrorism. The partnership between the community and law enforcement is essential to the success of anti-terrorism efforts.

Some of the activities, taken individually, could be innocent and must be examined by law enforcement professionals in a larger context to determine whether there is a basis to investigate. The activities outlined on this handout are by no means all-inclusive but have been compiled from a review of terrorist events over several years.



Joint Regional Intelligence Center (JRIC)
www.jric.org
 ,888) 705-JRIC (5742) mention "Tripwire"

This project was supported by Grant Number 2007-MJ-BX-K002, awarded by the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice. Each indicator listed above, is by itself, lawful conduct or behavior and may also constitute the exercise of rights guaranteed by the U.S. Constitution. In addition, there may be a wholly innocent explanation for conduct or behavior that appears suspicious in nature. For this reason, no single indicator should be the sole basis for law enforcement action. The totality of behavioral indicators and other relevant circumstances should be evaluated when considering any law enforcement response or action.

Reports related to scenario 4

7.1.6 Scenario 4 Report 1

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Slovenščina
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Srpskohrvatski / српскохрватски
Svenska
中文

[Edit links](#)

Zinc pyrithione

From Wikipedia, the free encyclopedia

Zinc pyrithione (or **pyrithione zinc**) is a coordination complex of zinc. It has fungistatic (that is, it inhibits the division of fungal cells) and bacteriostatic (inhibits bacterial cell division) properties and is used in the treatment of *seborrheic dermatitis*.^[2]

Contents [hide]

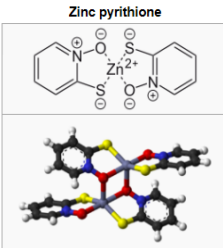
- Structure of the compound
- Uses
 - Medical
 - In paint
 - In sponges
- Mechanism of action
- Health effects
 - Brands
- See also
- References
- External links

Structure of the compound [edit]

The pyrithione ligands, which are formally monoanions, are chelated to Zn²⁺ via oxygen and sulfur centers. In the crystalline state, zinc pyrithione exists as a centrosymmetric dimer (see figure), where each zinc is bonded to two sulfur and three oxygen centers.^[3] In solution, however, the dimers dissociate via scission of one Zn-O bond.

This compound was first described in the 1930s.^[4]

Pyrithione is the conjugate base derived from 2-mercaptopyridine-*N*-oxide (CAS# 1121-31-9), a derivative of pyridine-*N*-oxide.



Names	
IUPAC name	bis(2-pyridylthio)zinc 1,1'-dioxide
Other names	ZnP, pyrithione zinc, zinc OMADINE
Identifiers	
CAS Number	13463-41-7
ChEMBL	ChEMBL1200471
ChemSpider	21513957
Jmol 3D model	Interactive image
PubChem	3005837
UNII	R953O2RHZ5
InChI	 [show]
SMILES	 [show]
Properties	
Chemical formula	C ₁₀ H ₈ N ₂ O ₂ S ₂ Zn
Molar mass	317.70 g/mol
Appearance	colourless solid
Melting point	240 °C (464 °F; 513 K) (decomposition) ^[1]
Boiling point	decomposes
Solubility in water	8 ppm (pH 7)
Pharmacology	
ATC code	D11AX12 (WHO)
Except where otherwise noted, data are given for materials in their standard state (at 25 °C [77 °F], 100 kPa).	
 verify (what is ?) Infobox references	

Uses [edit]

Medical [edit]

Zinc pyrithione is best known for its use in treating *dandruff* and *seborrheic dermatitis*,^[5] particularly in *dandruff shampoos*. It also has antibacterial properties and is effective against many pathogens from the *Streptococcus* and *Staphylococcus* genera. Its other medical applications include treatments of psoriasis, eczema, ringworm, fungus, athletes foot, dry skin, atopic dermatitis, tinea, and vitiligo.

In paint [edit]

Due to its low solubility in water (8 ppm at neutral pH), zinc pyrithione is suitable for use in outdoor paints and other products that provide protection against mildew and algae. It is an effective algicide. It is chemically incompatible with paints relying on metal carboxylate curing agents. When used in latex paints with water containing high amount of iron, a sequestering agent that will preferentially bind the iron ions is needed. Its decomposition by ultraviolet light is slow, providing years of protection even against direct sunlight.

In sponges [edit]

Zinc pyrithione is also used as an antibacterial treatment for household sponges, most notably by the 3M Corporation.^[6]

Mechanism of action [edit]

Its antifungal effect is thought to derive from its ability to disrupt membrane transport by blocking the proton pump that energizes the transport mechanism.^[7]

Health effects [edit]

Zinc pyrithione is approved for over-the-counter topical use in the United States as a treatment for *dandruff* and is the active ingredient in several antidandruff shampoos. However, in its industrial forms and strengths, it may be harmful by contact or ingestion. Zinc pyrithione can trigger a variety of responses.^[8]

Brands [edit]

Head & Shoulders is an American brand of anti-dandruff and non-dandruff shampoo produced by parent company Procter & Gamble that was introduced in 1961.^[9] The active ingredient is pyrithione zinc.^[10]

InChI [show]

SMILES [show]

https://en.wikipedia.org/wiki/Zinc_pyrithione#in_sponges

Reports related to scenario 5

7.1.7 Scenario 5 Report 1

Date: _____		BILL OF LADING		Page 1 of _____				
SHIP FROM				Bill of Lading Number: _____ <div style="border: 1px solid black; padding: 5px; text-align: center;">BAR CODE SPACE</div>				
Name: _____		Address: _____						
City/State/Zip: _____		SID#: _____		CARRIER NAME: _____ Trailer number: _____ Seal number(s): _____ SCAC: _____ Pro number: _____				
Name: _____		Location #: _____						
Address: _____		City/State/Zip: _____		<div style="border: 1px solid black; padding: 5px; text-align: center;">BAR CODE SPACE</div>				
City/State/Zip: _____		CID#: _____						
SHIP TO				Freight Charge Terms: (freight charges are prepaid unless marked otherwise) Prepaid _____ Collect _____ 3 rd Party _____				
Name: _____		Location #: _____						
Address: _____		City/State/Zip: _____		<input type="checkbox"/> Master Bill of Lading: with attached underlying Bills of Lading <small>(check box)</small>				
City/State/Zip: _____		CID#: _____						
THIRD PARTY FREIGHT CHARGES BILL TO:				<div style="border: 1px solid black; padding: 5px; text-align: center;">BAR CODE SPACE</div>				
Name: _____		Address: _____						
Address: _____		City/State/Zip: _____		Freight Charge Terms: (freight charges are prepaid unless marked otherwise) Prepaid _____ Collect _____ 3 rd Party _____				
City/State/Zip: _____		CID#: _____						
SPECIAL INSTRUCTIONS: _____								
CUSTOMER ORDER INFORMATION								
CUSTOMER ORDER NUMBER	# PKGS	WEIGHT	PALLET/SLIP <small>(CIRCLE ONE)</small>		ADDITIONAL SHIPPER INFO			
			Y	N				
			Y	N				
			Y	N				
			Y	N				
			Y	N				
			Y	N				
			Y	N				
			Y	N				
GRAND TOTAL								
CARRIER INFORMATION								
HANDLING UNIT		PACKAGE		WEIGHT	H.M. (X)	COMMODITY DESCRIPTION <small>Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 3(a) of NMFC Item 360</small>	LTl ONLY	
QTY	TYPE	QTY	TYPE				NMFC #	CLASS
GRAND TOTAL								
RECEIVING STAMP SPACE								
GRAND TOTAL								
Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____"						COD Amount: \$ _____ Fee Terms: Collect: <input type="checkbox"/> Prepaid: <input type="checkbox"/> Customer check acceptable: <input type="checkbox"/>		
NOTE Liability Limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. • 14706(c)(1)(A) and (B).						Shipper Signature		
RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.						The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.		
SHIPPER SIGNATURE / DATE <small>This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.</small>		Trailer Loaded: <input type="checkbox"/> By Shipper <input type="checkbox"/> By Driver		Freight Counted: <input type="checkbox"/> By Shipper <input type="checkbox"/> By Driver/pallets sold to contain <input type="checkbox"/> By Driver/Pieces		CARRIER SIGNATURE / PICKUP DATE <small>Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.</small>		

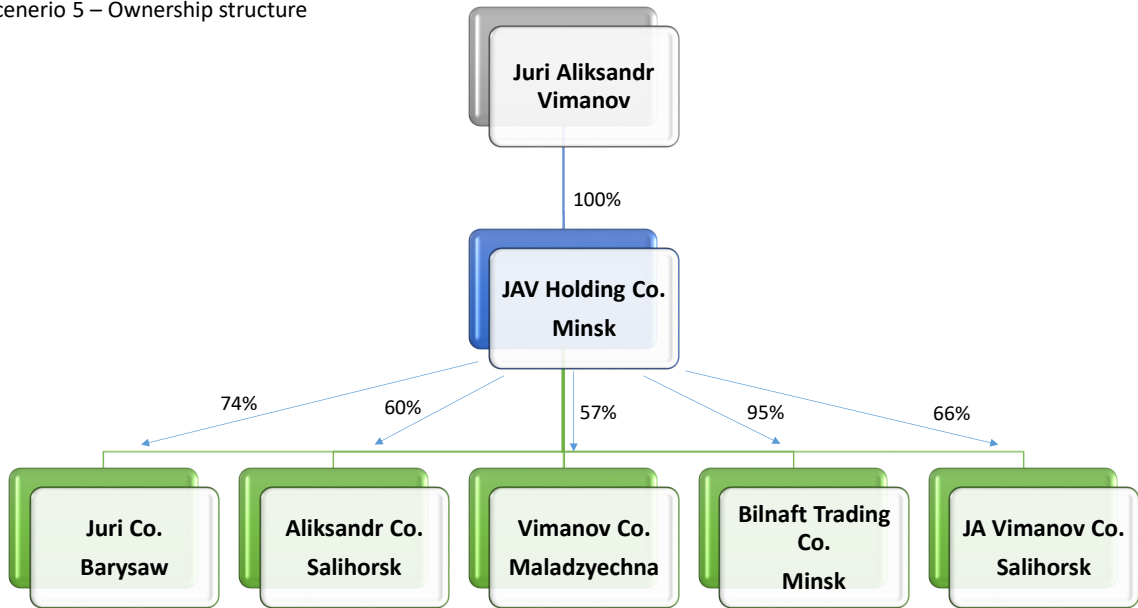
ANNEX I

Natural or legal persons, entities and bodies referred to in Article 2(1)

A. Persons

	Names Transcription of Belarusian spelling Transcription of Russian spelling	Names (Belarusian spelling)	Names (Russian spelling)	Identifying Information	Reasons for listing
1.	Ablameika, Siarhei Uladzimiravich Ablameiko, Sergai Vladimirovich (Ablameyko, Sarguy Vladimirovich)	АБЛАМЕЙКА, Саргаі Уладзіміравіч	АБЛАМЕЙКО, Сергей Владимирович	DOB: 24.09.1956, Voronovo, Hrodna Region Address: ул. Бобруйская, 5aMinsk Belarus	Rector of Belarusian State University. He was responsible for the expulsion of several students from the University because they participated in the demonstrations on 19 December 2010 and in other peaceful demonstrations in 2011.
2.	Juri Aleksandr Vimanov, Juri Vimanov, Juri Aleksandr Vimanov,	Прыкладзецца, Віманов прыкладзецца, Аляксандр	прыкладзецца, Віманов прыкладзецца, Аляксандр прыкладзецца,		Has been actively involved in the repression of civil society in Belarus. As a former Deputy Head of the KGB, in charge of the staff and the organisation of their tasks, he was responsible for the repressive work of the KGB against civil society and democratic opposition.
3.	Atabekau Kharalbak Bakhtibekavich Atabekov Kharalbak Bakhtibekovich	АТАБЕКАЎ, Харалбак Бакцібекавіч	АТАБЕКОВ, Харалбак Бактибекович (АТАБЕКОВ, Харалбак Бактибекович)		Colonel, commander of a special brigade of Interior Troops in the Uruchie suburb of Minsk. He commanded his unit during the crackdown on the post-election protest demonstration in Minsk on 19 December 2010 where an excessive use of force was applied. His actions constituted a direct violation of the international commitments of Belarus in the field of human rights.

Scenerio 5 – Ownership structure



Scenerio 5 – Flow of goods & money

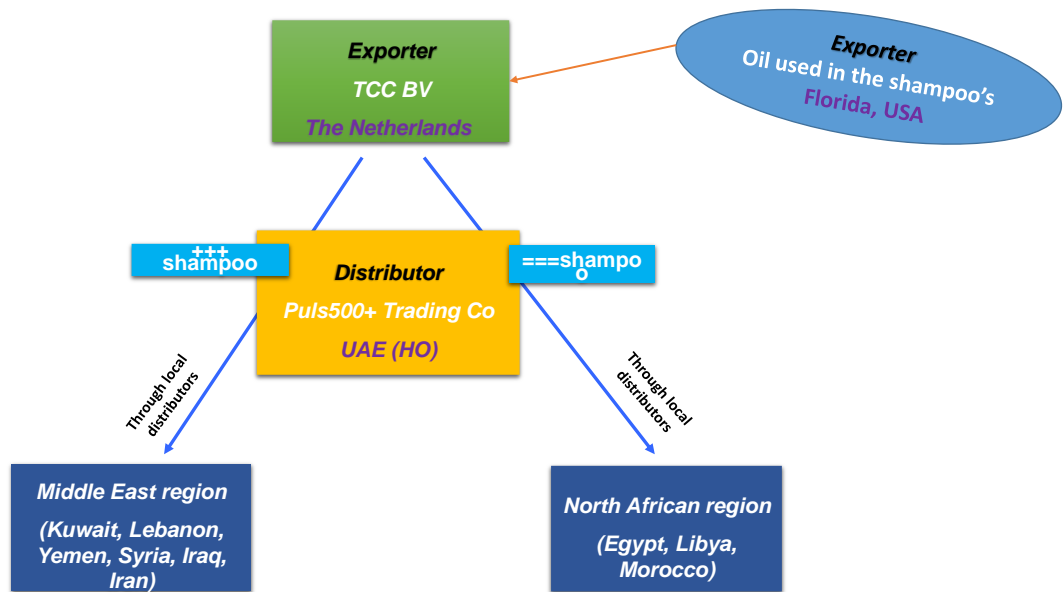


philip sidney

Reports related to scenario 6

7.1.10 Scenario 6 Report 1

Scenario 6 – Flow of goods



philip sidney

7.1.11 Scenario 6 Report 2

[Guidance on Due Diligence to Prevent Unauthorized Transshipment/Reexport of Controlled Items to Russia](#)

- [Print](#)

Details

In consideration of the ongoing situation in Crimea, US DoC BIS has imposed export restrictions targeted at Russia's energy and defense sectors.

BIS remains concerned about efforts by front companies and other intermediaries, who are not the true final end users, to transship or reexport U.S.-origin items to the Russian Federation in violation of these measures and other export controls. Even prior to the imposition of restrictions based on the situation in Crimea, front companies and other intermediaries obtained U.S.-origin items that may require a license to Russia through intermediate countries subject to a more favorable licensing policy under the Export Administration Regulations (EAR). A salient example is Wassenaar Arrangement dual-use items controlled under the EAR.

Therefore, BIS is providing additional guidance to exporters to prevent unauthorized reexports to Russia, especially for transactions involving controlled items or items listed in Supplement No. 2 to Part 744 of the EAR, which lists items that are subject to the military end use license requirement. As described in Supplement No. 3 to Part 732 of the EAR, whenever a person who is clearly not going to be using the item for its intended end use (e.g., a freight forwarder) is listed as an export item's final destination, the exporter has an affirmative duty to inquire about the end use, end user, and ultimate destination of the item to ensure the transaction complies with the EAR. In addition, the exporter should pay attention to any information that may indicate an unlawful diversion is planned. This may include discrepancies in the destination country and the country from which an order is placed or payment is made.

When inquiring into the ultimate destination of the item, an exporter should consider e-mail address and telephone number country codes and languages used in communications from customers or on a customer's website. The exporter should also research the intermediate and ultimate consignees and purchaser, as well as their addresses, using business registers, company profiles, websites, and other resources.

Exporters should always screen their customers against [the screening lists](#)).

Furthermore, exporters should pay attention to the countries a freight forwarder serves, as well as the industry sectors a distributor or other non-end user customer supplies. The exporter should then determine whether a license is required based on the likely country of ultimate destination and end use and end user. The exporter should consider not only the list-based license requirements but also the end use and end user [controls and](#) the embargoes and special controls in Part 746. If the exporter continues to have any doubts or concerns surrounding the end use, end user, or country of ultimate destination after exercising due diligence, the exporter should present all relevant information to BIS in the form of a license application or refrain from the transaction.

Export controls are a shared responsibility between government and industry. If you have any concerns about suspicious inquiries that come to your firm, you are encouraged to contact your local BIS Export Enforcement Office.

Engineering Dynamics, Inc. / James Angehr / John Fowler / Nelson Galgoul

The Violation: Beginning in March 1995 and continuing through February 2007, James Angehr and John Fowler, owners of Engineering Dynamics Inc., a Louisiana company that produced ECCN 8D992 software to design offshore oil and gas structures, exported and attempted to export software to Iran through a co-conspirator in Brazil without having first obtained the required authorization from the U.S. Government. On April 24, 2008, Angehr and Fowler pled guilty to charges that they conspired to violate U.S. export licensing requirements in connection with this export. Nelson Galgoul, director of the Brazilian engineering company Suporte, acted as an agent for Engineering Dynamics Inc. in the marketing and support of this software and trained users of the software in Iran. On August 2, 2007, Galgoul pled guilty to exporting and attempting to export controlled engineering software to Iran without the required U.S. authorization. This case resulted from a joint investigation conducted by BIS's Houston Resident Office, ICE, and the FBI. The Penalty: On August 7, 2008, Angehr and Fowler were sentenced to five years of probation. Angehr was additionally sentenced to six months of confinement in a halfway house, and Fowler was sentenced to four months of confinement in a halfway house. Each defendant was fined \$250,000, and ordered to forfeit \$218,583. On May 22, 2008, Galgoul was sentenced to 13 months in prison, three years of supervised release, a \$100,000 criminal fine, and a \$109,291 forfeiture for his part in the conspiracy. On April 18, 2008, Engineering Dynamics, Inc. agreed to pay a civil penalty of \$132,791. In addition to the civil penalty paid to BIS, Engineering Dynamics Inc. paid an additional \$132,791 to OFAC. Additionally, on December 30, 2011, the Assistant Secretary of Commerce for Export Enforcement issued a Final Order denying Galgoul's export privileges for a period of three years.

7.1.12 Scenario 6 Report 3

EXTRACTS

from

REGULATIONS

COUNCIL REGULATION (EU) No 509/2012

of 15 June 2012

amending Regulation (EU) No 36/2012 concerning restrictive measures in view of the situation in Syria

(3) the following article is inserted:

Article 11b

1. It shall be prohibited:

- (a) to sell, supply, transfer or export, directly or indirectly, luxury goods as listed in Annex X, to Syria;
- (b) to participate, knowingly and intentionally, in activities whose object or effect is, directly or indirectly, to circumvent the prohibition referred to in point (a).

2. By way of derogation from point (a) of paragraph 1, the prohibition referred to therein shall not apply to goods of a non-commercial nature, for personal use, contained in ~~travellers' luggage~~.

Article 2

The text set out in Annex I to this Regulation is added to Regulation (EU) No 36/2012 as Annex IA.

Article 3

The text set out in Annex II to this Regulation is added to Regulation (EU) No 36/2012 as Annex IX.

Article 4

The text set out in Annex III to this Regulation is added to Regulation (EU) No 36/2012 as Annex X.

Article 5

This Regulation shall ~~enter into force~~ on the day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Luxembourg, 15 June 2012.

For the Council
The President
M. LIDEGAARDEN

ANNEX III

ANNEX X

LIST OF LUXURY GOODS REFERRED TO IN ARTICLE 11B

1. Pure-bred horses

CN Codes: 0101 21 00

2. Caviar and caviar substitutes; in the case of caviar substitutes, if the sales prices exceed EUR 20 per 100 grams

CN Codes: ex 1604 31 00, ex 1604 32 00

3. Truffles

CN Codes: 2003 90 10

4. Wines (including sparkling wines) exceeding a sales price of EUR 50 per litre, spirits exceeding and spirituous beverages exceeding a sales price of EUR 50 per litre

CN Codes: ex 2204 21 to ex 2204 29, ex 2208, ex 2205

5. Cigars and cigarillos exceeding a sales price of EUR 10 each cigar or cigarillo

CN Codes: ex 2402 10 00

6. Perfumes and toilet waters exceeding a sales price of EUR 70 per 50 ml and cosmetics, including beauty and make-up products exceeding a sales price of EUR 70 each

CN Codes: ex 3303 00 10, ex 3303 00 90, ex 3304, ex 3307, ex 3401

7. Leather, saddlery and travel goods, handbags and similar articles exceeding a sales price of EUR 200 each

CN Codes: ex 4201 00 00, ex 4202, ex 4205 00 90

8. Garments, clothing accessories and shoes (regardless of their material) articles exceeding a sales price of EUR 600 per item
CN Codes: ex 4203, ex 4303, ex 61, ex 62, ex 6401, ex 6402, ex 6403, ex 6404, ex 6405, ex 6504, ex 6605 00, ex 6506 99, ex 6601 91 00,
ex 6601 99, ex 6602 00 00

9. Pearls, precious and semi-precious stones, articles of pearls, jewellery, gold or silversmith articles
CN Codes: 7101, 7102, 7103, 7104 20, 7104 90, 7105, 7106, 7107, 7108, 7109, 7110, 7111, 7113, 7114, 7115, 7116

10. Coins and banknotes, not being legal tender
CN Codes: ex 4907 00, 7118 10, ex 7118 90

11. Cutlery of precious metal or plated or clad with precious metal
CN Codes: ex 7114, ex 7115, ex 8214, ex 8215, ex 9307

12. Tableware of porcelain, china, stone- or earthenware or fine pottery exceeding a sales price of EUR 500 each
CN Codes: ex 6911 10 00, ex 6912 00 30, ex 6912 00 50

13. Lead crystal glassware exceeding a sales price of EUR 200 each
CN Codes: ex 7009 91 00, ex 7009 92 00, ex 7010, ex 7013 22, ex 7013 33, ex 7013 41, ex 7013 91, ex 7018 10, ex 7018 90, ex 7020 00
80, ex 9405 10 50, ex 9405 20 50, ex 9405 50, ex 9405 91

14. Luxury vehicles for the transport of persons on earth, air or sea, as well as their accessories; in the case of new vehicles, if the sales
prices exceeds EUR 25 000; in the case of used vehicles, if the sales price exceeds EUR 15 000
CN Codes: ex 8603, ex 8605 00 00, ex 8702, ex 8703, ex 8711, ex 8712 00, ex 8716 10, ex 8716 40 00, ex 8716 80 00, ex 8716 90, ex
8801 00, ex 8802 11 00, ex 8802 12 00, ex 8802 20 00, ex 8802 30 00, ex 8802 40 00, ex 8805 10, ex 8901 10, ex 8903

16.6.2012 EN

Official Journal of the European Union

L 156/37

15. Clocks and watches and their parts if the individual item exceeds a sales price of EUR 500
CN Codes: ex 9101, ex 9102, ex 9103, ex 9104, ex 9105, ex 9108, ex 9109, ex 9110, ex 9111, ex 9112, ex 9113, ex 9114

16. Works of art, collectors' pieces and antiques
CN Codes: 97

17. Articles and equipment for skiing, golf and water sports, if the individual item exceeds a sales price of EUR 500
CN Codes: ex 4015 19 00, ex 4015 90 00, ex 6112 20 00, ex 6112 31, ex 6112 39, ex 6112 41, ex 6112 49, ex 6113 00, ex 6114, ex 6210
20 00, ex 6210 30 00, ex 6210 40 00, ex 6210 50 00, ex 6211 11 00, ex 6211 12 00, ex 6211 20, ex 6211 32 90, ex 6211 33 90, ex 6211
39 00, ex 6211 42 90, ex 6211 43 90, ex 6211 49 00, ex 6402 12, ex 6403 12 00, ex 6404 11 00, ex 6404 19 90, ex 9004 90, ex 9020, ex
9506 11, ex 9506 12, ex 9506 19 00, ex 9506 21 00, ex 9506 29 00, ex 9506 31 00, ex 9506 32 00, ex 9506 39, ex 9507

18. Articles and equipment for billiard, automatic bowling, casino games and games operated by coins or banknotes, if the individual item
exceeds a sales price of EUR 500
CN Codes: ex 9504 20, ex 9504 30, ex 9504 40 00, ex 9504 90 80' EN 16.6.2012 Official Journal of the European Union L 156/37

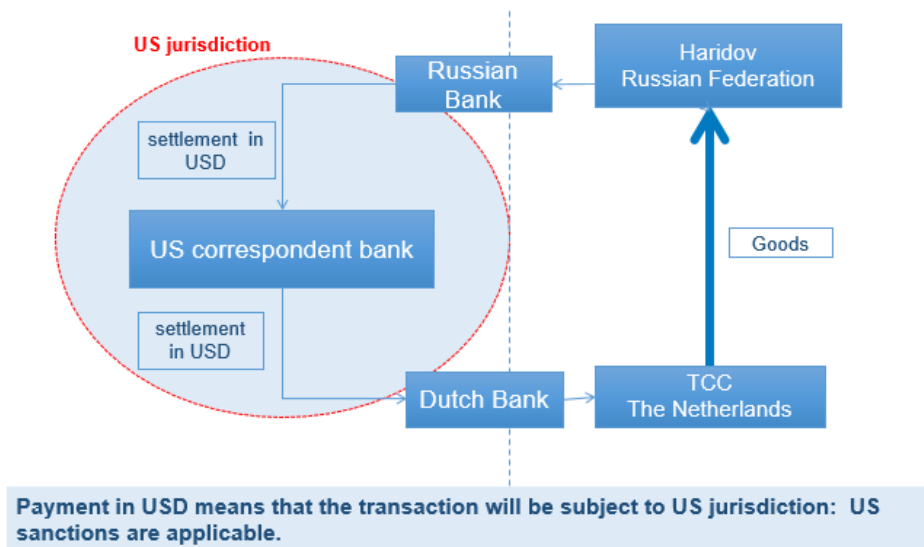
Reports related to scenario 7

7.1.13 Scenario 7 Report 1

Scenerio 7 – Flow of goods & money



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7.1.14 Scenario 7 Report 2

Deutsche Bank to pay \$258m penalty for violating US sanctions

- By [Kedar Grandhi](#)

November 5, 2015 06:46 GMT

- [7](#)



Deutsche Bank to pay penalty to settle charges that it conducted business on behalf of entities in US-sanctioned countries such as Iran and [Syria](#) Reuters

Deutsche Bank has agreed to pay \$258m (£167.7m, €237.3m) as penalties to settle charges for conducting business on behalf of entities in US-sanctioned countries. The fines are payable to the New York Department of Financial Services (NYDFS) and the US Federal Reserve. Of the total fine, \$200m will be paid to NYDFS and the remaining to the Fed.

The US government prohibits doing business in countries such as Iran, Syria, Libya and Sudan as they are considered havens for possible terrorist financing. The penalty was charged as the US had identified [a number of](#) Deutsche Bank customers as acting on behalf of those sanctioned countries, the regulators said.

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Between the years 1999 and 2006, Deutsche did business to the tune of \$10.9bn in clearing transactions for the customers, using "non-transparent methods and practices" to shield them from scrutiny, NYDFS said. Apart from the monetary penalty, the settlement requires the German bank to sack six employees and hire an independent monitor.

A Deutsche Bank spokeswoman said, "The conduct ceased several years ago, and since then we have terminated all business with parties from the countries involved." This settlement, which was announced yesterday (4 November), is the latest in a series of crackdowns by American authorities on European headquartered banks that have allegedly conducted business with countries under US sanctions. Examples of other banks that have been fined for violating US sanctions include, French bank BNP Paribas that paid about \$9bn, Credit Agricole, another French bank, which was fined about \$787m in October, Commerzbank, Credit Suisse Group, HSBC Holdings, Barclays, and Standard Chartered.

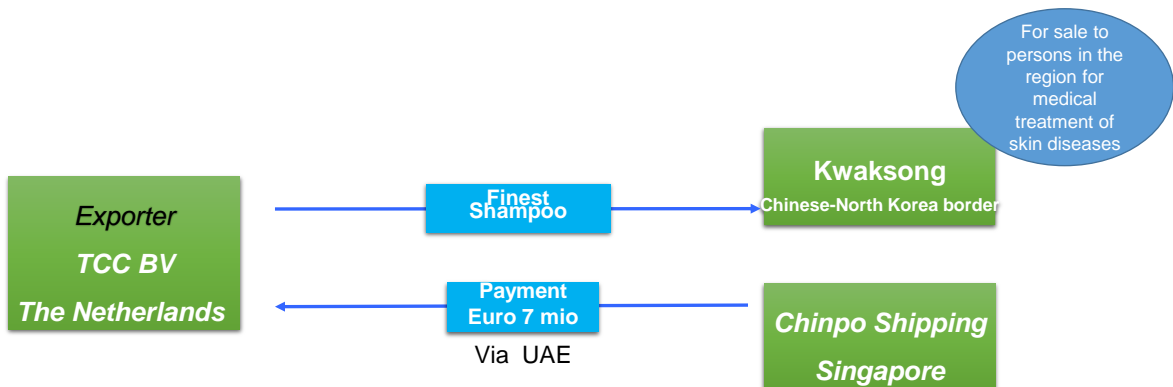
How the restricted transactions were conducted

To mask the restricted transactions, the German bank used several methods such as 'wire stripping' and 'cover payments'. Under the former, its overseas employees handling payment messages would remove any information indicating a connection to a sanctioned party from the message before passing it on to a corresponding US bank. In the cover payments method, employees would send two payment messages, one that included all the details and the other that did not include details about the underlying parties to the transaction.

Reports related to scenario 8

7.1.15 Scenario 8 Report 1

Scenario 8 – Transaction



philip sidney

7.1.16 Scenario 8 Report 2

Singapore shipping agent guilty of acting as middleman for North Korea nuclear program

wp

ANNA FIFIELD AND MONICA MILLER, WASHINGTON POST | December 15, 2015 10:55 AM ET

[View from Washington Post](#)



[Reuters](#) / [Akhilish](#) / [Getty Images](#) / [Creative Commons](#), vessels dock at the [Duke Terminal](#) in Singapore.

TOKYO – Singapore sent a stern warning Monday to companies doing business for North Korea, with a court handing down guilty verdicts to a local shipping agent accused of transferring money to help Pyongyang buy weapons.

The case against [Chinpo Shipping](#) – which had transferred millions of dollars for North Korea – revealed a trove of information about how North Korea has been using intermediaries to send money through the international banking system without detection.

“This is a significant case in terms of prosecuting North Korean middlemen,” said Andrea Berger, a nonproliferation expert at the Royal United Services Institute in London, noting that this was the first case under a Singaporean regulation that bars companies from helping North Korea with its nuclear and missile programs.

Luxuries Flow Into North Korea

By

JEREMY PAGE

January 7, 2012

BEIJING—The North Korean leadership's appetite for imported luxuries, highlighted by three Lincoln limousines at Kim Jong Il's funeral, has spread to growing numbers of the country's elite, despite U.N. sanctions designed to force Pyongyang to abandon its nuclear-weapons program.

Luxury goods are becoming a hot commodity in North Korea, and it's not only government officials who are buying them. The WSJ's Deborah Kan speaks to Jeremy Page.

An examination of U.N. and Chinese trade data reveals that exports to North Korea of products including cars, tobacco, laptops, cellphones and domestic electrical appliances all increased significantly over the past five years. Most items crossed the border from China.

The data reveal glaring loopholes in the sanctions regime, demonstrating how China has stepped in as North Korea's main supplier of goods considered luxuries as other countries have clamped down on such exports.

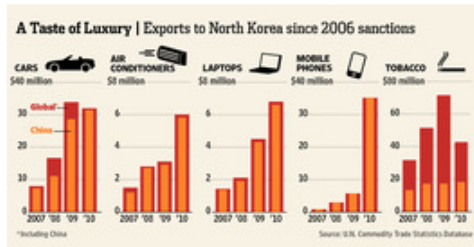
But the figures also hint at the emergence of a new entrepreneurial class in North Korea rich enough to buy imported goods. Some analysts say this group could represent the strongest impetus for economic reform, and potentially undermine the totalitarian grip of the Kim family dynasty.

Since 2007, North Korea's imports of cars, laptops and air conditioners have each more than quadrupled, while imports of cellphones have risen by more than 4,200%, with the vast majority of items coming from China, according to the U.N. data. Chinese customs data show those trends continuing in 2011.

Critics accuse China of not doing enough to rein in its unpredictable ally. They say China exploits its position as Pyongyang's only military ally and main aid donor as a bargaining chip. Beijing has indicated frustration with North Korea's refusal to abandon its nuclear program, but opposes the sanctions in principle, favoring closer trade ties as the best way to promote economic reform and influence its neighbor.

China on Sunday reaffirmed its commitment to North Korea, according to the state-run Xinhua news agency. Beijing will maintain its policy of "support and assistance," Xinhua reported, citing an interview with Assistant Foreign Minister Liu Zhenmin.

The trade figures illustrate a dilemma facing the U.S. and its allies as Kurt Campbell, the U.S. assistant secretary of state for East Asian and Pacific affairs, wrapped up a visit to China, South Korea and Japan last week to discuss how to persuade the new North Korean leadership under Mr. Kim's son, Kim Jong Eun, to give up nuclear arms.



ENLARGE

The sanctions, imposed after North Korea conducted a nuclear test in 2006 and strengthened after its second test in 2009, were designed to put direct pressure on the leadership, which has long sought to maintain the loyalty of the elite with imported luxury items. A key target was Office 39, a secretive agency of the ruling Workers' Party that U.S. officials believe is involved in selling drugs and weapons to drum up hard currency. It also buys luxury goods including items like iPads and laptops for the elite, according to some accounts.

But many analysts and diplomats believe the sanctions are ineffective, largely because the U.N. allowed member states to decide for themselves what counts as a luxury item. China agreed to comply, but permits exports of many products widely considered luxuries by the U.S., the European Union, Japan and others, which have halted or restricted exports of them. Other items reach North Korea through smuggling, especially over the Chinese border.

Hong Lei, a spokesman for China's Foreign Ministry, told a regular news briefing Thursday that China's trade with North Korea did not violate the sanctions regime.

It's in Beijing's interest to prevent a collapse of the North Korean regime, which could send refugees flooding into China and bring South Korean and U.S. troops right up to the Chinese border. China also hopes to increase trade across its northeastern border and use a port on North Korea's east coast as an outlet for Chinese exports.

The U.N. data show that China has replaced Japan as the biggest exporter of cars to North Korea since Tokyo added them to the luxury list in 2006, and that in 2010 China overtook Singapore as the biggest exporter to the North of tobacco products, which many countries consider luxury items under the sanctions.

The flow of luxury goods to North Korea is controversial, not least because of the activities of Office 39. In 2009, for example, Office 39 was involved in a failed attempt to import through China two Italian-made yachts worth more than \$15 million and destined for Kim Jong Il, according to the U.S. Treasury, which in 2010 blacklisted several North Korean businesses and individuals it said were working for the agency.



ENLARGE

A woman uses a video camera on a bumper-car ride in Pyongyang in October. Exports of luxuries to North Korea have risen despite sanctions. *ASSOCIATED PRESS*

Many analysts believe Office 39 will play a key role in ensuring that Kim Jong Eun can generate enough hard currency, and dispense enough largess, to maintain the support of the political elite.

"The sanctions don't work because as long as China allows the export of luxury goods, the North Korea elite will be paid with them to support the regime," said Jiyong Song, an associate fellow at London-based think tank Chatham House, who has studied North Korea since 1999.

At the same time, she added, "Things like DVDs and mobile devices will help to change North Korean society in a gradual manner by teaching them about the outside world, and showing them these things don't just come through the benevolence of their leaders." She said last year she interviewed a North Korean defector—the daughter of a trade official—who claimed she had been given an iPad and two laptops by the "Dear Leader," as Kim Jong Il was known.

The growing demand for Chinese consumer goods is no longer confined to the political elite, according to Andrei Lankov, a leading expert on North Korea at Kookmin University in Seoul.

He estimated that the political elite consists of a few thousand key decision-makers and about a million people with midlevel or senior positions in the bureaucracy. Most of the rest of the population of 24 million receive an official monthly salary of \$2 to \$3 which they can top up to about \$15 by selling things in private markets, he said.

More recently, though, a new entrepreneurial class of up to 1% of the population, or about 240,000 people, has emerged that is earning at least a few hundred dollars a month, said Prof. Lankov.

"This growing demand for luxury goods is being driven by the new bourgeoisie," he said. He said he had met a defector who as early as 2008 claimed to have been earning \$1,000 a month by importing tobacco from China and selling it in North Korea in fake packaging.

It is impossible to verify who precisely is driving the demand for Chinese consumer goods. North Korea does not publicize any kind of trade data, let alone allow independent market research. But other countries do report their exports to North Korea, and figures through the end of 2010 are compiled in the United Nations Commodity Trade Statistics Database, or UN Comtrade. China's customs authorities provide data for its exports to North Korea through last November.

Among the exports of liquor to North Korea from Hong Kong in 2010 were 839 bottles of unidentified spirits, worth an average of \$159 each, and 17 bottles of "spirits obtained by distilling grape wine or grape marc" worth \$145 each, according to the U.N. figures.

In 2010, North Korea also imported 14 color video screens from the Netherlands—worth an average \$8,147 each—and about 50,000 bottles of wine from Chile, France, South Africa and other countries, as well as 3,559 sets of videogames from China, the U.N. data show.

Some of this might have been to cater to the small number of tourists, diplomats and foreign businesspeople in the country. Many items, however, were clearly destined for North Koreans. Cars, for example, are one of the highest status symbols, and are often given as gifts by the state to loyal senior officials.

In 2010 alone, North Korea imported 3,191 cars, the vast majority from China—although one, valued at \$59,976, placing it in the luxury category. came from Germany.

One of the most striking figures is a dramatic increase in imports of mobile telephones—ownership of which was once considered a crime. In 2010 alone, the country imported 433,183 mobile phones, almost all from China, and with an average value of \$81 each. Egyptian telecoms company Orascom, which launched North Korea's first and only mobile network in 2008, said that its North Korean network had 809,000 subscribers at the end of the third quarter of 2011.

Reports related to scenario 9

7.1.17 Scenario 9 Report 1

US Treasury fines French shipping firm and bank

In March Israel's Navy seized CMA CGM ship 'MV Victoria', more than 50 tons of weapons from Iran were aboard.



UN Human Rights Council | 31 | (photo [www.undp.org](#))

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BERLIN/DUSSELDORF – Congressman Peter King (R-New York) called on CMA CGM, the world's third largest shipping company, to end its business relations with the Islamic Republic of Iran, citing the US Treasury's decision on Tuesday to sanction the French shipping giant for violating Iran sanctions, in an exclusive statement to *The Jerusalem Post*.

King, an influential congressional representative and head of the Homeland Security Committee in Congress, told the Post: "I have already called on CMA CGM twice to immediately comply with US, EU, and UN sanctions and to renounce its business relationship with Iran. I applaud the Treasury Department for enforcing penalties against CMA CGM, whose alleged violations of sanctions on Cuba, Sudan, and Iran go back several years. This news confirms that CMA CGM has a troubling pattern of skirting regulations and I strongly urge them to immediately comply and abide by international sanctions."

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The US Treasury sanctions dealt another blow to CMA CGM's shipping reputation because of the company's strong economic ties with Iran's maritime industry. In December, King wrote to Philippe Soulié, CEO of the shipping company, noting that he is "deeply concerned" about CMA CGM trade relations with Iran.

[The company's MV Everest container ship was seized off the Nigerian coast last year, fully loaded with Iranian weapons. King put the company on notice that its monitoring mechanisms are inadequate.

CMA-CGM appeared to ignore King's warning.

Israel's Navy seized in March the CMA CGM-operated container ship *MV Victoria* in the Mediterranean. A cache of more than 50 tons of weapons from Iran were aboard, including anti-ship missiles, 3,000 mortar shells and almost 70,000 rounds of ammunition for machine guns.

Though Tuesday's sanctions did not target CMA CGM for the 2009-2010 transports of Iranian weapons, the United States Treasury Department fined the French shipping company in the amount of \$374,400 to settle allegations of violations of regulations blocking trade with Cuba, Sudan and Iran between the period December 2004 and April 2008.

According to the Treasury, CCA, a subsidiary of the CMA CGM, "facilitated the exportation of goods from foreign ports to Sudan on at least two occasions and, in 28 separate transactions, accepted payments for shipping services provided by its foreign parent company, CMA CGM, or its foreign affiliates, in connection with shipments between third countries and Cuba, Iran or Sudan."

[In an e-mail to the Post on Thursday, the office of Mike Conaway (R-Texas) wrote, "Congressman Conaway is encouraged by the Treasury Department's actions and will remain engaged on the issue moving forward."

The prominent US Congressman from Texas had issued a strongly worded April letter to the US Treasury and State Departments that CMA CGM's "repeated failures" to enforce international guidelines to stop weapons smuggling warranted an American response.

He called for the Treasury to ban CMA CGM from conducting maritime trade with Iran if the company did not crackdown on its porous control system.

A joint May Handelsblatt (Germany's business daily) and Post investigative report first disclosed the King and Conaway letters complaining about CMA CGM failure to clamp down on illicit Iranian shipments aboard its company-operated vessels.

In response to the Post/Handelsblatt articles, CMA CGM implemented an Iran compliance desk to monitor goods from the Islamic Republic.

The new Treasury financial penalties note that “CCA did not voluntarily self-disclose the matter to OFAC and that the alleged violations constituted a non-egregious case,” adding, “CCA and CMA CGM have undertaken remediation to ensure that such alleged violations do not recur.”

When asked about King’s call for CMA CGM to pull the plug on its Iran business transactions and the company’s assessment of the financial penalties, Heather M. Spring, CMA CGM’s vice president and general counsel in the US-branch in Norfolk, wrote the Post on Thursday: “As you may be aware, the settlement has nothing to do with the CMA GGM Group’s lawful activities in Iran. Nor did the settlement relate to weapons trade or the transportation of any other type of unlawful cargo.

“To the contrary, most of the shipments involved food and medicine, lawfully shipped between non-US destinations.”

She continued: “As a French company CMA CGM is permitted to do business with Iran, Cuba and Sudan, subject to UN and EU sanctions.

[We here at CMA CGM [America], however, can have no involvement, however small, in our parent company’s trade with those nations. We take that responsibility very seriously.”

Though Spring declined to comment specifically on King’s call for CMA CGM to end its business with Iran, she wrote, “We have previously been in touch with Mr. King’s office and have been completely forthright with him about these issues and our enhanced compliance efforts.”

CMA CGM operates its US operation in Norfolk, Virginia. Spring did not comment on whether the sanctions and the company’s continued trade with Iran will adversely impact its American customer base.

The US says that Iran is developing a nuclear-weapons program and finances terror groups, including Al-Qaida and Hezbollah.

In a separate set of sanctions, the US Treasury Department fined the French bank Société Générale \$111,359 to settle alleged violations of Iran sanctions. According to the Treasury settlement, the Société Générale issued “letters of credit between two nonsanctioned parties, processed two payments under those letters of credit involving the shipment of cargo transported aboard vessels owned and/or managed by the Islamic Republic of Iran Shipping Lines of Tehran, Iran, an Iranian entity.”

7.1.18 Scenario 9 Report 2

Iranian arms smugglers using European ship firms-study



Jan 30 Iranian traffickers, trying to dodge an embargo imposed by Western nations over Iran's nuclear programme, are smuggling weapons on container ships owned by firms from the countries that imposed the sanctions, a think-tank said on Monday.

Before 2008, when the United Nations toughened arms embargoes on Iran, the majority of arms and dual-use goods shipments to and from Iran were being transported aboard Iranian ships, or ships chartered by Iranian companies, it said.

"By using respectable mainstream European shipping companies in countries such as Germany and France, they make them their unwitting accomplices," said Hugh Griffiths, a researcher at the Stockholm International Peace Research Institute.

Container shipping companies generally cannot verify the cargo they transport in the sealed containers.

The owners of the vessels appear to have been unaware of the nature of the illicit cargo, said SIPRI, which conducts independent research on international security, armaments and disarmament.

The international community's biggest concern is the smuggling of items that Iran might use for any production of nuclear weapons - which the West suspects is the goal of Iran's nuclear enrichment programme. Tehran says the programme is for purely peaceful purposes.

"What has been seized and is in our report is just the tip of the iceberg," said Griffiths.

"Like the Colombian cocaine cartels, they have in recent years come under increased pressure from a legal framework that allows their cargoes to be seized. So they have started to use ships which have no suspect profile," said Griffiths.

SIPRI said governments should discuss with the shipping industry ways of tackling the growing use of container shipping for smuggling.

ALSO IN INDUSTRIALS

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China stocks firm ahead of holiday; Hong Kong follows Asian markets lower

"We suggest there should be more information sharing between the shipping industry and governments, because the shipping industry has a lot of valuable and currently untapped information - particularly ship security officers and the captains of certain ships," Griffiths said.

CMA CGM, the world's third-largest container shipping group, said in November it had stopped export shipments from Iran and was scanning all containers bound for the country.

(Reporting by Anna Ringstrom; Editing by Alison Williams and Tim Pearce)

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- Multiple Search
- KeyWord Search

cma CGM

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cma CGM (8)	M	Names	Country	Position	Class	ID	PIC	AKA	Rel
ALL (8)	1	100%	Cma Com (America) Llc	United States	Paid \$374,400 to settle allegations of violations of the Cuban Assets Control Regulations - August 16, 2011				Enforcement
Categories	2	100%	Cma Com Rus. Ltd.	Russian Federation	Under investigation for violating the antimonopoly law - November 26, 2013				Enforcement
Adverse Media (1)	3	100%	Cma Com S.A.	France	Under investigation for price fixing - February 26, 2016				Enforcement
Enforcement (6)	4	100%	Cma Com Logistics Park Dadri Private Limited	India	Government Linked Corporation				SOE
SOE (1)	5	100%	Cma-Com S.A.	France	Fined € 13,834,519 for antitrust violations - November, 2012				Adverse Media
Types	6	100%	Cma Com Peru S.A.C.	Peru	On suspicion of price fixing - February 26, 2016				Enforcement
Sources	7	68%	J.C.M.A.Com. Construções E.Manut.Ltda	Brazil	Added to Comptroller General's Office (CGU) sanction list				Enforcement
Countries	8	66%	Acqm, Inc.	United States	Censured and fined \$50,000 by FINRA - June 2013				Enforcement

Relationships



Family

No relationships available

Associated Individuals

- CMA-CGM S.A. Adverse Media**
- Compañia Trasmediterránea S.A. Associate Adverse Media**
- Europa Ferrys S.A. Associate Adverse Media**
- Balearia Eurolineas Marítimas S.A. Associate Adverse Media**
- Euromaroc 2000 S.L. Associate Adverse Media**
- Buquebús España SAU Associate Adverse Media**
- Cenargo SLU Associate Adverse Media**
- Ferrimaroc S.A. Associate Adverse Media**
- Lineas Marítimas Europeas S.A. Associate Adverse Media**
- Förde Reederei Seetouristik Iberia, SL Associate Adverse Media**
- Förde Reederei Seetouristik Maroc SARL Associate Adverse Media**
- International Maritime Transport Corporation, SA Associate Adverse Media**
- Compagnie Maritime Marocco-Norvegienne, S.A. Associate Adverse Media**
- Compagnie Marocaine de Navigation Associate Adverse Media**
- Comanav Ferry SA Associate Adverse Media**

Related Companies And Organizations

No relationships available

8. Test results

After each change is a test necessary. In the test is it important to check if the change do what he has to do and if no other part is infected.

8.1 Matlab

- For each category is the code correct
- For each category is the comments complete
- If it affects other parts of the code, then it's a result of the simulation and that is correct
- The impact is in proportion with what is expected

8.2 User interface

- The labels are correct formulated
 - Adjusted the label HydrogenPyoxide into HydrogenPerioxide (feedback from Philip Sidney)
 - Adjusted the compliance reports name into the formal names (feedback from Philip Sidney)
- No mails necessary (feedback MaS)

8.3 Effect

- Test several times with several decisions (feedback DJ, MaS)
- The impact per category is restricted into a few effects. That is confirm the development plan. (feedback DJ, PS, MaS)
- The gameplay element and the database effect are the same, confirm the development plan. (feedback DJ)