

Illegal trade in ODS

Focus on Current Trends and Scale

*Ret. Major Nicomedes P. Enad
Customs Expert*

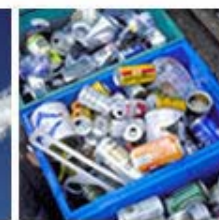
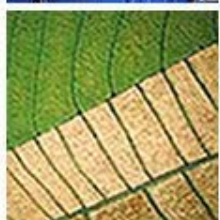


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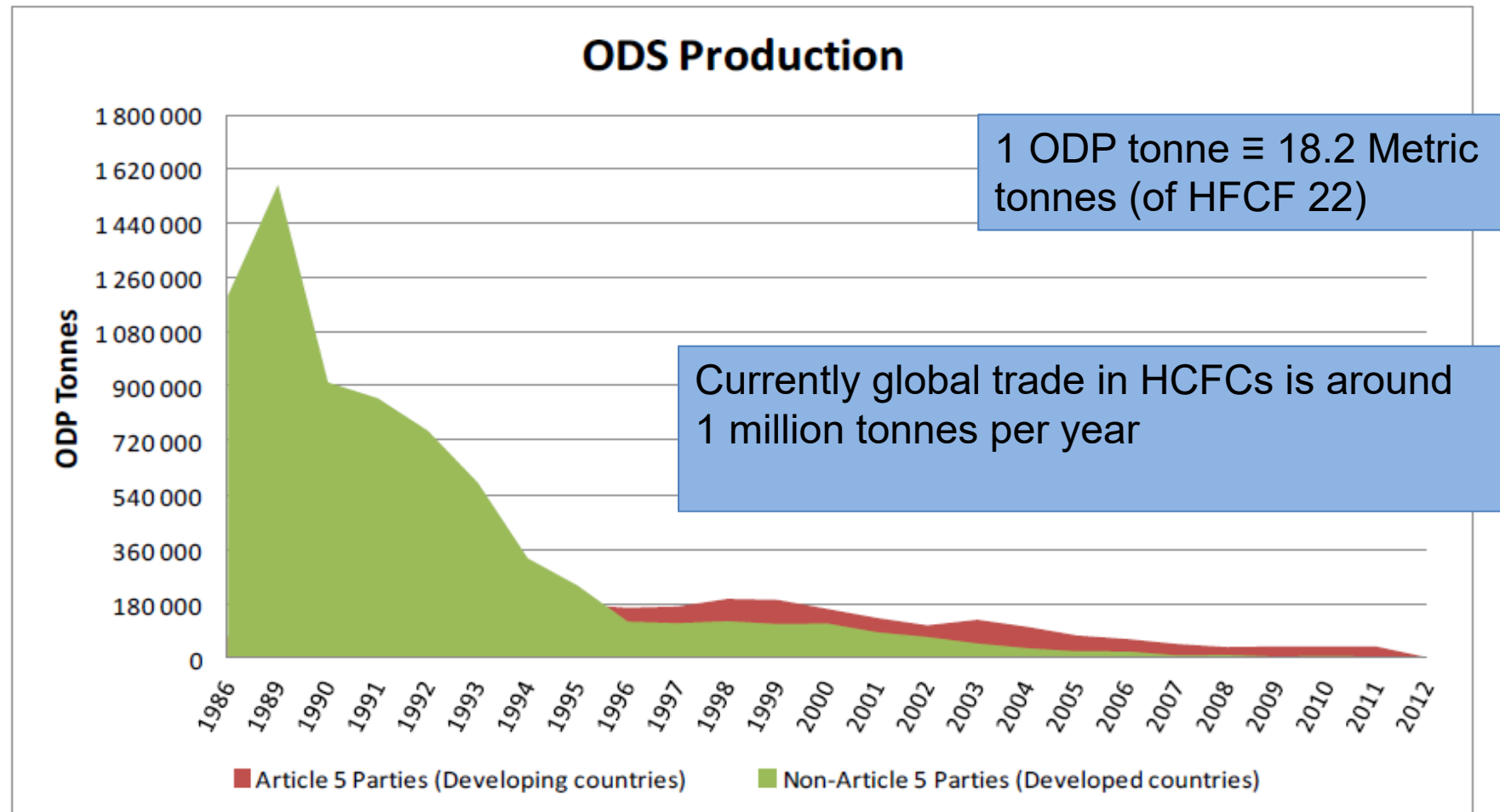
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I . Trends of ODS trade



Major ODS producers: HCFCs

Country	Production in 2012 (ODP tonnes)
Argentina	230.45
Canada	49.14
China	34,413.51
Democratic People's Republic of Korea	28.66
France	310.11
India	1,565.40
Japan	297.23
Mexico	298.32
Netherlands	116.6
Republic of Korea	306.67
Russian Federation	466.62
United States of America	1,498.18
Venezuela (Bolivarian Republic of)	160.27

Major ODS producers: Methyl Bromide

Country	Production in 2012 (ODP tonnes)
China	149.8
Israel	1,562.50
Japan	83
United States of America	608

Carbon Tetrachloride

Country	Production in 2012 (ODP tonnes)
China	219.5
France	815.5

CFCs

Country	Production in 2012 (ODP tonnes)
China	270.4
Russian Federation	80

So is trade in CFCs are history?



PHASE-OUT SCHEDULE FOR ODS

ODS type	Article 5 Countries	Final phase-out for Article 5 countries
CFC (5 main types)	1999 freeze	2010 phase-out
Halons	2002 freeze	2010 phase-out
Other CFCs	2003 reduction 20%	2010 phase-out
Carbon tetrachloride	2005 reduction 85%	2010 phase-out
Methyl chloroform	2003 freeze	2015 phase-out
HCFCs	2013 freeze	2030 phase-out (2015 10% reduction)
Methyl bromide	2002 freeze	2015 phase-out

CFCs

Country	Production in 2012 (ODP tonnes)
China	270.4
Russian Federation	80

So is trade in CFCs are history?



refrigerant gas,r22,r410a,r134a,r404a - Windows Internet Explorer


http://www.kindgas.com/

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PRO

- Pure Refr
- Mixed refrigerant Series
- Auto Refrigerant Series
- Product Picture

TECHNICAL SUPPORT




R12

Type : [Pure Refrigerant Series](#)

Description :

Packing: Can of 220g(N.W.); Disposable cylinder 30LB/13.6KG, 50LB/22.7KG; Recyclable cylinder 450KG/400L, 900KG/800L, 1100KG/1000L, 1000KG/926L.

给我留言




R11

Type : [Pure Refrigerant Series](#)

Description :

Packing:Can of 220g, 250g, 280g, 300g, 340g, 500g, 800g, 1000g;Disposable cylinder 30lb/13.6kg, 50lb/22.7kg; Recyclable cylinder 400L, 800L, 926L, 1000L; ISO-Tank.

给我留言



R12

Type : [Pure Refrigerant Series](#)

Description :

Packing: Can of 220g(N.W.); Disposable cylinder 30LB/13.6KG, 50LB/22.7KG; Recyclable cylinder 450KG/400L, 900KG/800L,

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 **Pharm-grade difluorodichloromethane (CFC-12)**

Min. Order: **1 Metric Ton**

Place of Origin: CN ; CAS No.: **75-71-8** ; Classification: **Alkene & Derivatives** ; Purity: **99.8** ; MF: **75-71-8**

[Contact Supplier](#)  Offline

[Quzhou Dongming Chemical Co., Ltd.](#)
[Contact Details](#)

China (Mainland)

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 **small can packing R134A of CFC-12 substitutes**

[Zhejiang Zhonglan Refrigeration Technology Co., Ltd.](#)

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 **refrigerant gas R-12**

Min. Order: **500 Cartons**

Place of Origin: CN;ZHE ; CAS No.: **59-89-7** ; Grade Standard: **Industrial Grade** ; Purity: **more than 99.8%** ; Application: **all kinds refrigerant gas**

[Contact Supplier](#)  Offline

[Zhejiang Zhonglan Refrigeration Technology Co., Ltd.](#)
[Contact Details](#)

China (Mainland)

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Reasons for smuggling...



Reasons for smuggling...



- ODS substitutes are often more expensive
- High cost of changing to substitutes
 - retrofitting of equipment often needed
- Long lifetime of equipment containing ODS
 - R&AC, foaming lines, dry-cleaning machines
- Transfer Of Used Refrigerators and Cars
- Different price between domestic and international



Reasons for smuggling



- Intense business competition in context of limited license and quota
- The demand for ODS remains high and may be higher than legally allowed import quota
- Evasion of tax levied on ODS
- Lack of enforcement of trade restrictions



Magnitude of ODS smuggling

Global ODS smuggling in 1990s

- 20 thousand tonnes per year
- 150-300 thousand USD per year

Global ODS smuggling in 2000s

- 7–14 thousand tonnes per year
- 25-60 million USD per year

Operation "Sky Hole Patching" in 2006-2007

- 27 seizures with 155 tonnes of ODS in Asia

Operation "Sky Hole Patching II" in 2010

- 28 seizures with 64 tonnes of ODS
- 728 items of ODS-containing equipment seized
- 2 tons of cocaine seized together with CFC cylinders



Magnitude of ODS smuggling

ECA enforcement award (2nd edition) in 2011-2012

- 17 seizures of 72 item of equipment and 3016 refrigerant cylinders containing more than 61 metric tonnes of ODS
- 16 unwanted shipments of 342 metric tonnes of ODS prevented (iPIC)
- 103 MT of past illegal trade detected



From iPIC in 2012 - 1000 metric tonnes of ODS, including CFCs, HCFCs and carbon tetrachloride avoided (illegal or unwanted trade)

From iPIC in 2013 - 250 Metric Tonnes of ODS trade prevented



II . Smuggling methods

❑ Mis-declaration



- 1,305 ODS(R-22) cylinders Mis-declared as Orange
- Risk analysis by comparing weight



❑ Double-layering



After the third layer of HCFC-22, a color white cylinder contained in the carton appears which is a CFC-12

Piles of HCFC-22 appears in the first, second and third rows of the container van

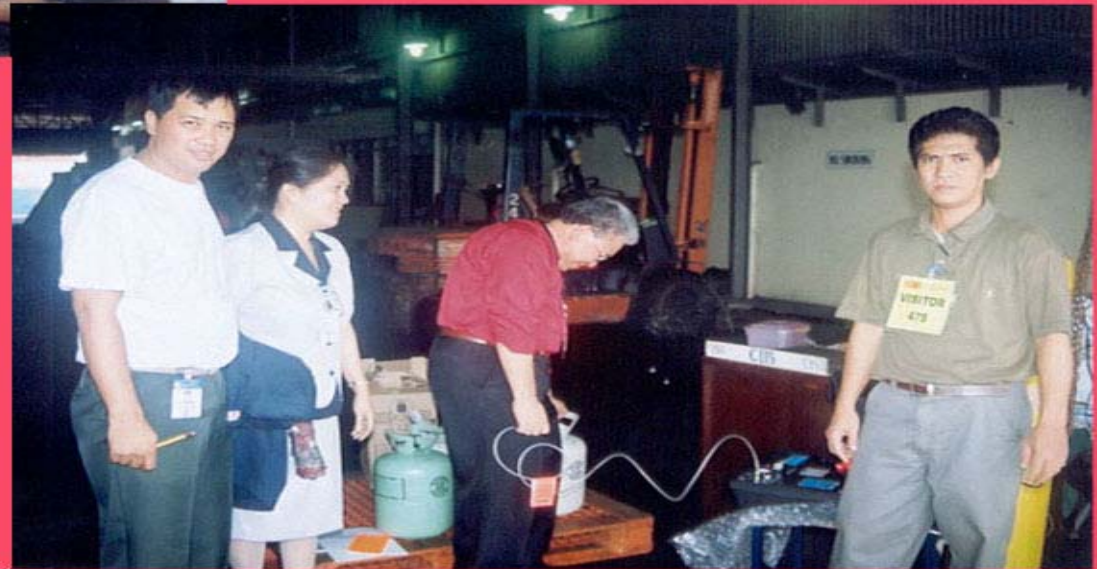


❑ Double-layering

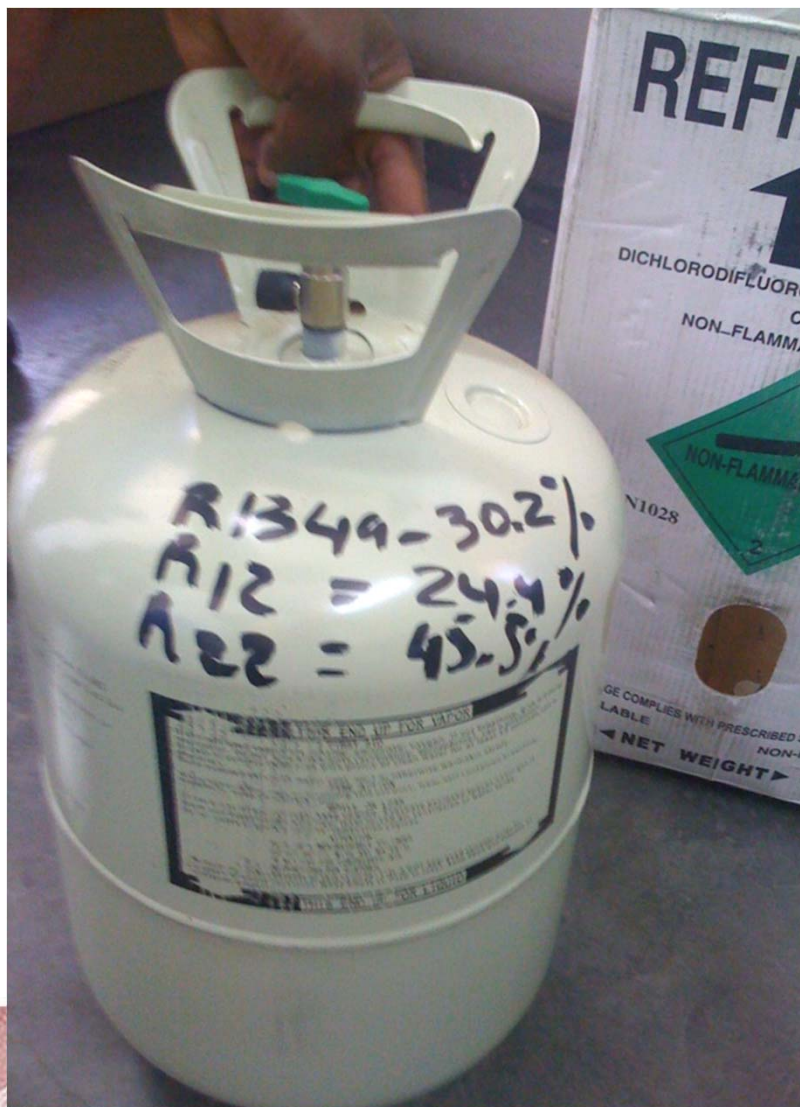


Inspection Team
composed of BOC-EPU
Chief with his staff,
BOC Examiner and
POD-EMB Staff

Inspection Team
conducted testing of the
shipments using Neutron
Refrigerant Identifier.
Checked the label of the
cylinder.



❑ Contaminated mixtures



N°	Cylinders declared as R-134a			
	R134a	R22	R12	Air
1	16,4	65,2	18,5	0%
2	39,8%	26,9%	33,4%	0%
3	14,1%	70,6%	15,3%	0%

Detected in Togo





Paraguay: 1150 cylinders declared as R-134a, in fact 90% of the content was HCFC-22
Shipment was from Brazil and was returned to Brazil

China – EU – Russia



- **26 metric tonnes of allegedly recycled R12** from China were seized by Russian Customs in Saint Petersburg in 2010 because there was no **import license**.
- Importer requested retroactively import licenses for:
 - **Recycled R12** – refused because licensing office knew that China did not export any recycled CFC
 - **R12 for metered-dose inhalers (MDIs)** – refused because this exempted use must be authorized by Meeting of Parties and R12 must be medical grade (not recycled)
 - **R12 for destruction** – refused.
- Maximum storage period expired and the containers were shipped back via Poland to China in December 2011.
- **China and EU were not informed neither was the shipment tracked in any way.**





Poland: 'Suspicious' HFC-134a cylinder (because of unusually low price). The cylinder in fact was contained a mixture of refrigerants including CFC-12 (identified with refrigerant identifier and confirmed by Gas Chromatography)

Consequences



HCFC equipment

The Montreal Protocol does not impose controls on products or equipment containing or relying on ODS



Declared as equipment

CFCs are frequently declared as 'equipment' such as refrigeration equipment, compressors or autoparts. In some cases this can be simple mis-declaration, in other more elaborate cases ODS can be smuggled inside the equipment.

A smuggler in the USA used this device to illegally import CFCs into the USA from Venezuela



Sweden



 AFK38A 220 - 240 R134a 	Electrolux MADE IN SWEDEN <table border="1"> <tr> <th>VOLTS</th> <th>WATTS</th> <th>FUSE</th> <th>VOLUME: LITRES</th> </tr> <tr> <td>230</td> <td>180</td> <td>10A</td> <td>GROSS</td> </tr> </table> ~ AC ONLY 50 Hz REFRIG. R134a 50/90 g FREEZING CAPACITY kg/24 h TYPE TR 117G CLIMATE CLASS N TEST PRESSURE 20(HS) 11(LS) bar MOD. TR 1178 G PROD. NO. 9246545-30 REFRIGERANT R134a	VOLTS	WATTS	FUSE	VOLUME: LITRES	230	180	10A	GROSS	Electrolux MADE IN SWEDEN <table border="1"> <tr> <th>VOLTS</th> <th>WATTS</th> <th>FUSE</th> <th>VOLUME: LITRES</th> </tr> <tr> <td>230</td> <td>180</td> <td>10A</td> <td>GROSS</td> </tr> </table> ~ AC ONLY 50 Hz REFRIG. R134a 50/90 g FREEZING CAPACITY kg/24 h TYPE TR 117G CLIMATE CLASS N TEST PRESSURE 20(HS) 11(LS) bar MOD. TR 1178 G PROD. NO. 9246545-30 REFRIGERANT R134a	VOLTS	WATTS	FUSE	VOLUME: LITRES	230	180	10A	GROSS
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- The Swedish customs found stickers when checking a person that was earlier fined for smuggling waste CFC equipment.
- They spotted that the stickers showing different company names all have the same model and production numbers.

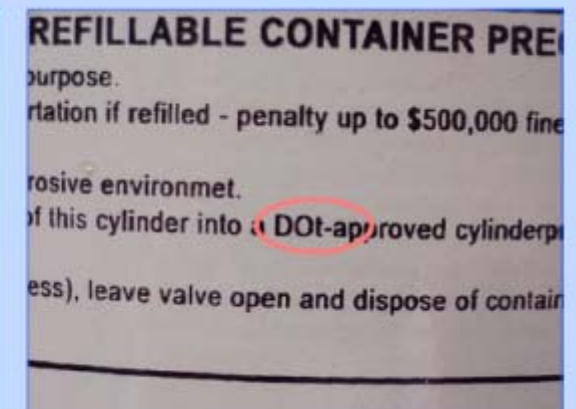
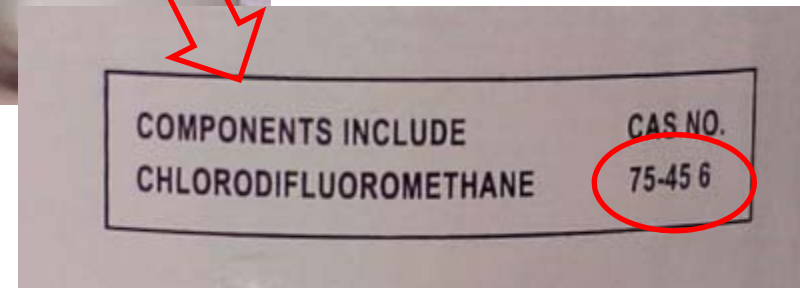
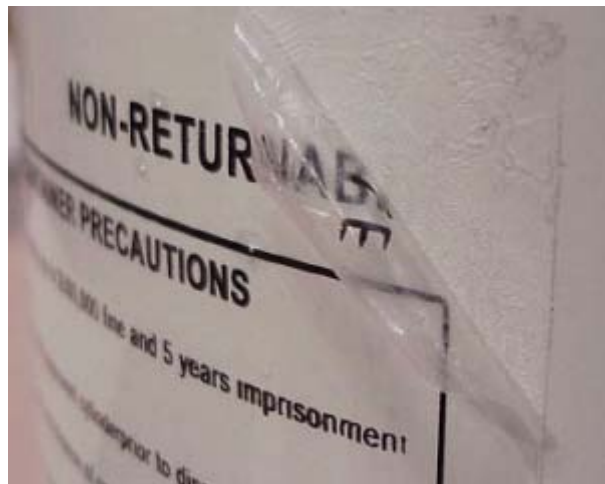
Germany...



- **Germany:** customs authorities detected used refrigeration equipment (fridges, freezers) with stickers indicating the use of R600a (hydrocarbon) as refrigerant.
- However, when removing the sticker the original engraving indicates that the compressors actually contain **CFC-12**.

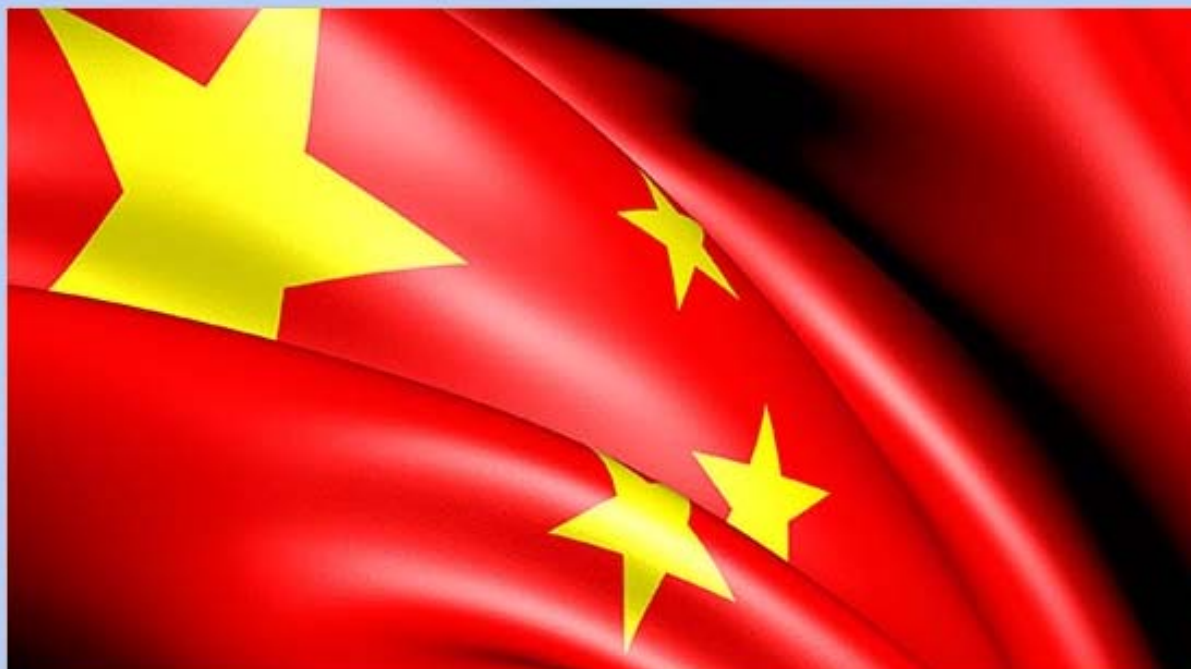


Counterfeits...



Tuesday, 8 October 2013

DuPont seizes R134a counterfeits in China



CHINA: US refrigerant manufacturer DuPont has announced the seizure of 300 cylinders of counterfeit R134a in Hangzhou province, China.

DuPont identified Hangzhou Sporlan Heating and Refrigeration Company Ltd as a potential counterfeiter through a tip from another, unnamed, refrigerant manufacturer.

A raid of Hangzhou Sporlan facilities was performed by local law enforcement authorities and counterfeit cylinders and packaging were seized.



Prison for Counterfeiter

The owner of a Chinese company has been jailed for three years after a second conviction for producing counterfeit refrigerants

The sentence follows a co-ordinated which revealed the companies were fraudulently producing R410A and R407C counterfeit refrigerants for the Chinese market under the Honeywell Genetron brand name.

The companies were ordered by a Chinese court in Shanghai to pay \$52,000 in damages and make a public apology to Honeywell.

March 2014



HCFC – ‘care with codes’

- A Customs authority in West Asia identified a shipment of R22 - total amount of 19 metric tonnes - declared as Refrigerant R-22 but with a wrong HS code 27111900* – (rather than **2903.71**) which has been verified and approved by the Customs operators and inspectors!
- E-Customs if applied blindly, the software itself can allow the brokers and importers to insert wrong HS code for an ODS and this is a weakness of some software which gives the opportunity of miss declaration.

Petroleum gases and other gaseous hydrocarbons: Liquified





III. Case study of illegal ODS trade

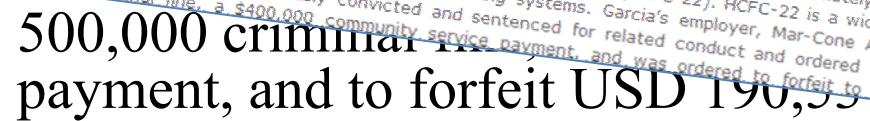


USA (April 2012)

- Carlos A. Garcia, 52, Senior Vice-President of Marcone's Heating and Cooling Division, **pled guilty for knowingly receiving, buying, facilitating the transportation, concealment, and selling of approximately 13.6 metric tonnes of HCFC-22 which were illegal imported into the USA.**
- **Garcia faces a statutory maximum sentence of twenty years in prison.**
- Garcia's employer was convicted and ordered to pay a USD 500,000 criminal fine, a USD 400,000 community service payment, and to forfeit USD 190,534 in illegal proceeds



USA (April 2012)



USA

Miami Man Sentenced to 18 Months in Prison for Smuggling Refrigerant July 2011

U.S. District Court Judge sentenced an importer, 34, to 18 months in prison and ordered him to pay a \$40,000 criminal fine and forfeit illegal proceeds in the amount of \$935,240.

He pled guilty to knowingly importing approximately 278,256 kilograms of illegal hydrochlorofluorocarbon - 22 (HCFC-22, also known as R-22) into the United States.



USA

K Corporation in USA

➤ Import of 29,107 cylinders containing 418 tonnes of HCFC-22 in 11 separate shipments, market value almost \$4 million.

Possible Charges:

18 USC 545 (smuggling)

18 USC 542 (falsified entry paperwork)

42 USC 7413 (Clean Air Act)

18 USC 371 (conspiracy)

18 USC 1001 (false statements)

18 USC 1341/1343 (Mail/wire fraud)

Money Laundering

RICO and Criminal Enterprise (*Racketeer Influenced and Corrupt Organizations Act of 1970*)



USA

Outcome

CEO

30 months imprisonment

\$40,000 criminal fine

\$1,356,160.00 criminal forfeiture of "proceeds"

K Corporation

5 years probation

\$40,000 criminal fine

\$1,356,160.00 criminal forfeiture of "proceeds"





Canada

Record seizure of more than \$1million of HCFCs

The company and its president accepted responsibility for the illegal importation of approximately 120,000 kg of HCFC-22

The company and its president have been charged with four counts of illegal importation of HCFC-22 between September 2008 and June 2009, in contravention of the *Ozone-depleting Substances Regulations*

- Forfeit of the 5,315 cylinders of HCFC-22 seized (of which the market value is estimated at more than \$1 million),
- The production and publication of an article in a specialized magazine and on the company's Internet site
- Voluntary payment of an amount of \$4,500 to the Environmental Damages Fund.

Netherlands

- In May 2012, the Dutch government pursued a case against a company which is part of a multinational chemical products conglomerate
- For export of HCFCs to Kazakhstan (which had not yet ratified the Beijing Amendment to the Montreal Protocol) and for surpassing the company's permitted export limits to Indonesia and Malaysia.
- Prosecutors demanded a fine based on the principles outlined in the EU-Directive 2008/99 on the Protection of the Environment through Criminal Law.

Total fine: EUR 200,000 (US \$270,000)



IV. Challenges and Responses

- Different phase-out schedules
- Production/consumption controls in key non-Article 5 markets (EU/US) coupled with on-going demand (servicing etc.)
- Rapid production growth in Article 5 countries
- Low price – R-22
- 2013 HCFC freeze for A5 countries and first reduction around the corner...



Challenges

- There is not formal systematic sharing of licence information and checking between importing and exporting countries prior to trade - other than between countries participating in the voluntary iPIC system.
- There are many significant data discrepancies between reported import and export data of trading partner countries (could be indicative of illegal trade)
- Possibility of illicit ODS production
- Weak transit controls
- Customs not routinely monitoring trade in HCFC alternatives such as HCFs which are frequently used to mis-declare ODS.



Challenges

- 'Loophole' of trade in recycled ODS remains
- Illegal trade is not a high priority for enforcement agencies in most countries
- Lack of specialized courts and green benches in the courts
- Customs often reject the substances rather than seizing them with subsequent investigation, prosecution and disposal.
- Fines often are minimal and not really a disincentive for smugglers
- Challenges of enforcement and in particular for countries with limited institutional and human resource capacity



Challenges

- Fragmented environmental and environment-related laws and regulations
- Relatively weak power of the environmental authority within the government
- Poor reporting of cases to Ozone Secretariat
- Lack of '*intelligence led enforcement*' and effective risk profiling



Consequences

- Erodes the success of the Montreal Protocol
- Undermines compliance and related investment
- Loss of taxation and duties
- Threatens legitimate businesses and values of society
- Health and safety costs
- Damage to equipment



Response

- Raised capacity, training → vigilance
- Inter-agency cooperation
- Regional and international cooperation platforms and mechanism
- Regional/border dialogues
- Latest identification equipment
- Informal prior informed consent –iPIC
- **Risk profiling**



V . Risk Profiling

General indicators

- Price
 - Non-ODS (e.g., HFCs)
 - Routes
 - Paperwork (chemical numbers and names consistent)
 - Large shipment of refrigerants
 - Equipment
 - Shipments of declared non-ODS
 - to a country* not a Party
 - from a country* still producing ODS
 - by an unfamiliar company* that does not also ship ODS
- * **NOU/Environment Ministry should provide names.**



Risk Profiling

- Import of declared recycled ODS from a country
 - without a recycling facility, or
 - where total phase-out time has passed

Specific Indicators

- Blacklist/suspicious importers
- Blacklist/suspicious exporting companies (confidential)
- Tip-offs from industry/competitors
- New importers
- Changes in imported commodities following phase-out steps.



Thank you for your attention

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