

**CUSTOM TRAINING ON ILLEGAL REFRIGERANT TRADE**  
**« Regulations related to ODS and  
Fluorinated Greenhouse Gases »**



**Ülkü Füsun ERTÜRK**  
**Ministry of Environment and Urbanization**  
**DG Environmental Management**  
**Department of Climate Change and Adaptation**  
**Division of Protection of Ozone Layer and Management of Fluorinated Gas**

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# Content

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- 1. By-law on ODS Regulation,**
- 2. What is F-gas? Where are they used?**
- 3. By-law on Fluorinated Greenhouse Gases**
- 4. Prohibitions of Placing on the Market**
- 5. EU Quota Issues**
- 6. Labeling**
- 7. Disposable (non-refillable) Cylinders**
- 8. Differences between Refillable Cylinders and Disposable Cylinders**

# Where are the usage area of ODS/F-gas?



ODSs/HFCs are used in;

- Coolers
- Air Conditioners
- Heat pumps
- Blowing agent,
- Fire extinguishers,
- Aerosols



# Where are the usage area of F-gas?

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PFCs are used in;

- Typically electronics sector
- Pharmacy
- Cosmetic
- Fire extinguisher in the past



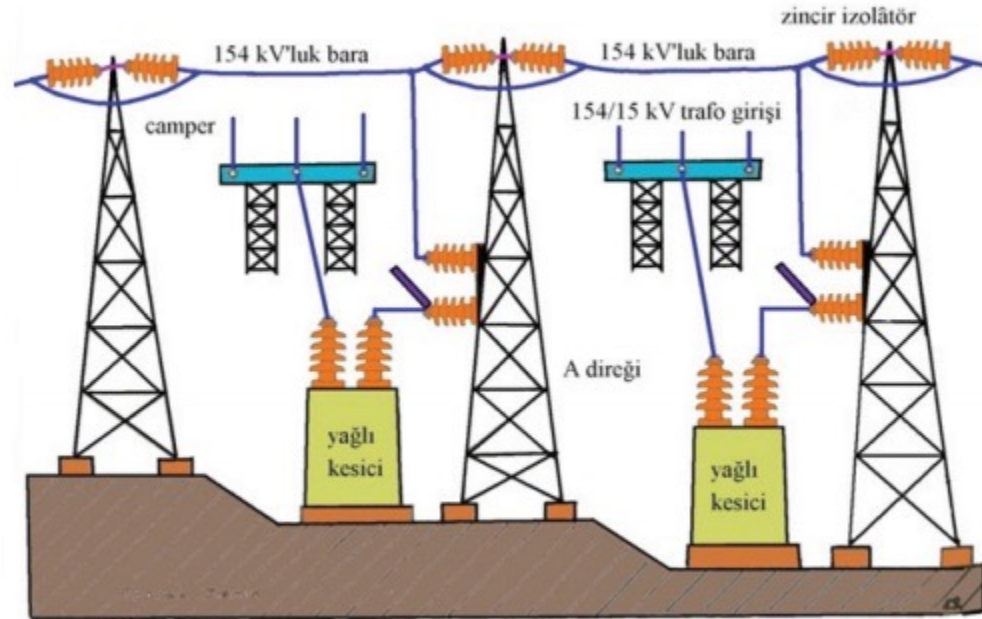
They may still exist in old fire protection systems.

# Where are the usage area of ODS/F-gas?



SF6 (Sulfur hexafluoride)

- Electrical switchgear sector
- Magnesium
- Aluminum production



# By-Law on ODS

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This By-Law;  
covers reporting and informing the public of any and all information regarding the production, foreign trade, use, placing on the market, recovery, recycling, reclamation and destruction of controlled substances, new substances, products or equipment that contain or function with Ozone Depleting Substances (ODSs).

was published in the Official Gazette dated **April 7, 2017** and numbered **30031** and entered into force.

# By-Law on ODS

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This By-Law was prepared;

Based on the provisions of the Montreal Protocol on Substances that Deplete the Ozone Layer and within the framework of alignment with the European Union Acquis

**The termination schedule** for these substances and the products and equipment containing them are also defined in the regulation in addition to provisions regarding to controlled substances, their usage areas, placing on the market and training and certification,

# By-Law on ODS

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ODS	Usage Area
CFC and HCFC	Air conditioning and cooling and foam (PU,XPS) sectors
Halon	Fire extinguishing
Methyl bromide	Agriculture

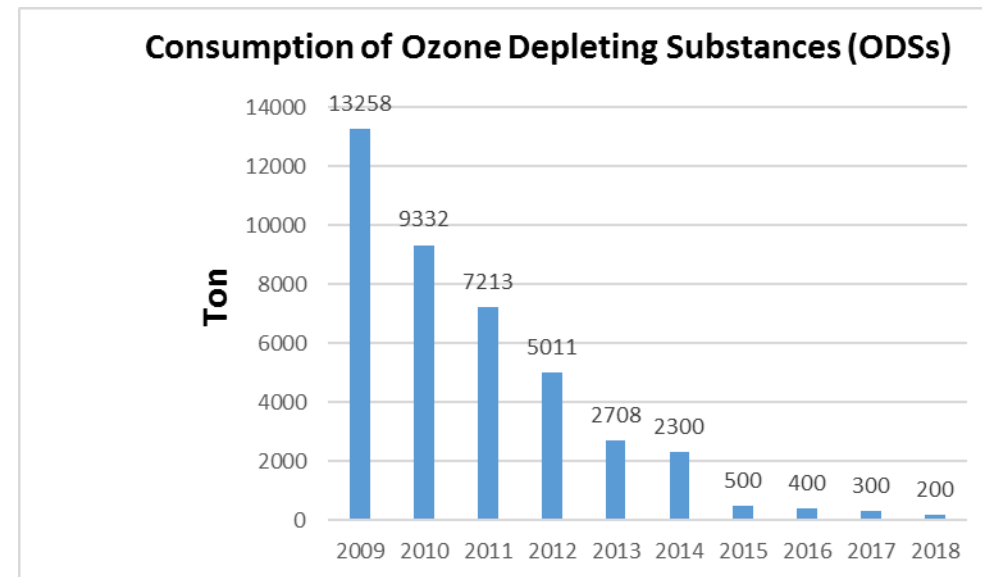


# By-Law on ODS

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The ozone layer in order to control import of Ozone Depleting Substances, entering into Turkey are permitted by only Trakya Free Zone, Ambarlı, Dilovası, Derince, İzmir and Mersin Customs Directorates, as specialty designated customs.



# Prohibitions of By-Law on ODS!

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Import of controlled substances stated in the By-Law in non-refillable pressurized containers shall be prohibited from 7 April 2018; except for import for laboratory purposes.

Placing the controlled substances in non-refillable pressurized containers on the market shall be prohibited, as of 1/1/2020.

# By-Law on F-Gas

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«By-Law on Fluorinated Greenhouse Gases» was published in the Official Gazette dated **January 4, 2018** and numbered **30291** as an outcome of the projects conducted by our Ministry and supported by EU and UN.

This By-Law has been drawn up within the framework of alignment with the European Union Acquis by taking into consideration the Regulation (EC) No. 842/2006 and 517/2014 of the European Parliament

With the Technical Assistance Project for Increases Capacity for Transposition and Capacity Building on F-Gases, a Draft By-law on F-gas was prepared in line with the 517/2014/EC directive and the Kigali Amendment.

# By-Law on F-gas

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SCOPE OF THE CURRENT BY-LAW?



# By-Law on F-gas

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- ✓ Releasing of F-Gases to the atmosphere is prohibited.
- ✓ The use of gases with certain Global Warming Potential in certain products and equipment is prohibited.
- ✓ Registration obligations have been imposed.
- ✓ Labeling obligations have been imposed.
- ✓ Mandatory Leak checks have been introduced.
- ✓ Obligation of certification for real and legal persons dealing with F-gases has been introduced.
- ✓ A ban on import and placing on the market for disposable cylinders has been implemented.

# Prohibitions for Placing on the Market

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## **As of 1/1/2019;**

- Direct evaporation systems containing HFC and PFC as refrigerants
- Fire protection systems containing PFC or HFC-23
- Household Windows, shoes and vehicle tires containing F-gas
- Single content foams containing F-gas with GWP 150 and more

# Prohibitions for Placing on the Market

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## **As of 1/1/2019;**

- Aerosol generators and signal whistles, containing HFC with GWP 150 and more, marketed for entertainment and decorative purposes
- Domestic refrigerators and freezers containing refrigerant or foam blowing agent with HFC with GWP 150 and more
- The use of sulfur hexafluoride in magnesium die casting and recycling of magnesium die casting alloys, if the amount of sulfur hexafluoride is more than 850 (eight hundred and fifty) kilograms / year

are prohibited to place on the market.

# Prohibitions for Placing on the Market

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**As of 4/1/2020;**

Import of F-Gases in disposable cylinders

**As of 1/1/2022;**

Place on the market of F-Gases in disposable cylinders

is prohibited.



# Labeling

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The statement "Contains fluorinated greenhouse gases"

**Industrial or chemical name** of the fluorinated greenhouse gases and their amount in kilograms according to Annex-1

Number of tons of CO<sub>2</sub> equivalents of the fluorinated greenhouse gases **as of 1/1/2019**

The statement "**Hermetically sealed**" if the equipment is hermetically sealed

The statement "**Leakage rate of less than 0.1% per year**" if the tested leakage rate of less than 0,1 % per year is indicated in the warranty document of the electrical switchgear equipment containing sulphur hexafluoride

The statement "**Foam blown with fluorinated greenhouse gases**" if fluorinated greenhouse gases were used as a blowing agent to produce foams, including foams applied to insulate the refrigeration, air conditioning or heat pump equipment prior to placing them in the market

# Custom Legislations Regarding the Topic

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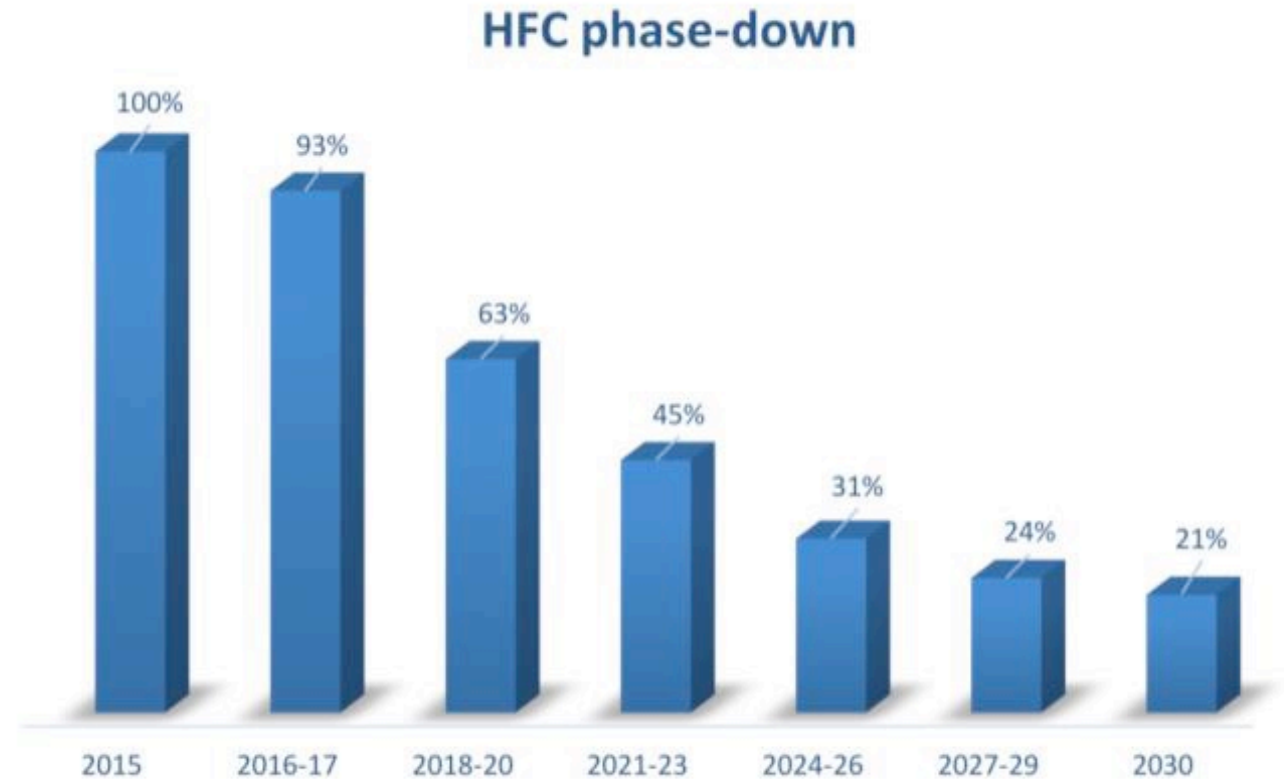
- Communiqué on the Import of Ozone Depleting Substances and Fluorinated Greenhouse Gases (2020/14)
- Communiqué on the Export of Ozone Depleting Substances (2014/1)
- Communiqué on Import Control of Chemicals Under Control in Terms of Environmental Protection (2020/6)



# Situation in EU?

EU F-Gas Regulation aims to;

- Prevent from emissions
- Reduce High GWP F-Gases



# Scope of EU F-Gas Regulation and Kigali Amendment

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It is applied for Fluorinated Greenhouse Gases.

Reduction (phase-down) is only for HFCs; the reduction Schedule is not applied for PFCs and SF6.

Although HFOs are not subject to Phase-down Schedule, they have to be reported.

# EU F-Gas Regulation/Quota

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As of January, 1, 2015

Manufacturers and importers who have put at least 100 tons of CO<sub>2</sub>e HFC to the market in the same calendar year

As of January, 1, 2015 pre-charged coolers, air conditioning and heat pumps

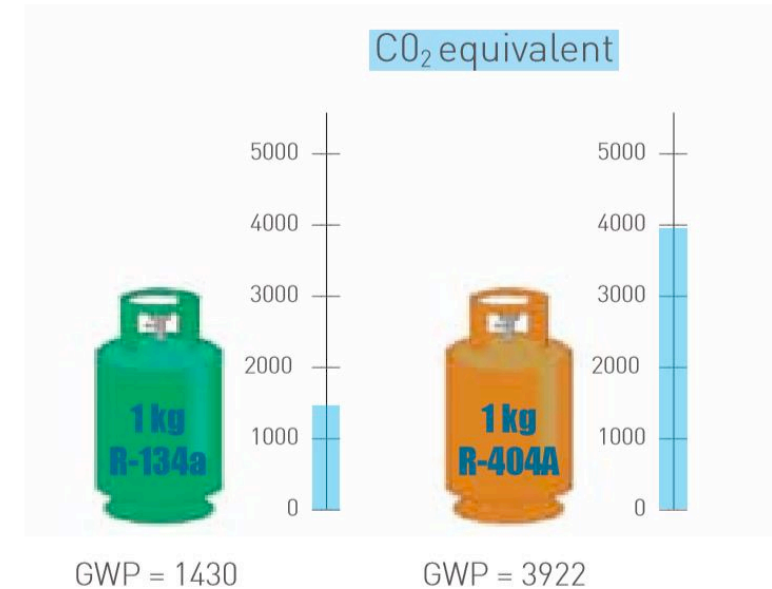
are also included in the quota system.



# EU F-Gas Regulation/Quota



- ❑ Quota gives annually
- ❑ Expressed as CO<sub>2</sub>e
- ❑ Found by the product of mass and GWP value
- ❑ More GWP value, more refrigerant



The higher the Global Warming Potential of an HFC, the higher the quantity of CO<sub>2</sub>-equivalent 1 kg of refrigerant represents.

# EU F-Gas Regulation/Sectoral Prohibitions/Annex III



L 150/222

EN

Official Journal of the European Union

20.5.2014

## ANNEX III

### PLACING ON THE MARKET PROHIBITIONS REFERRED TO IN ARTICLE 11(1)

Products and equipment Where relevant, the GWP of mixtures containing fluorinated greenhouse gases shall be calculated in accordance with Annex IV, as provided for in point 6 of Article 2	Date of prohibition	
1. Non-refillable containers for fluorinated greenhouse gases used to service, maintain or fill refrigeration, air-conditioning or heat-pump equipment, fire protection systems or switchgear, or for use as solvents	4 July 2007	
2. Non-confined direct evaporation systems that contain HFCs and PFCs as refrigerants	4 July 2007	
3. Fire protection equipment	that contain PFCs	4 July 2007
	that contain HFC-23	1 January 2016
4. Windows for domestic use that contain fluorinated greenhouse gases	4 July 2007	



# Labeling

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Products and equipment containing F-gas cannot be placed on the market or imported **unless** they are properly labeled and marked.





# Correct Labeling




UWAGA: ZAWIERA FLUOROWANY GAZ CIEPLARNIANY

# R-407C

SKŁAD/NAZWA CHEMICZNA: 23% Difluorometan / HFC-32 / R-32 (CH<sub>2</sub>F<sub>2</sub>)  
25% Pentafluoroetan / HFC-125 / R-125 (C<sub>2</sub>HF<sub>5</sub>)  
52% 1,1,1,2 Tetrafluoroetan / HFC-134a / R-134a (C<sub>2</sub>H<sub>2</sub>F<sub>4</sub>)

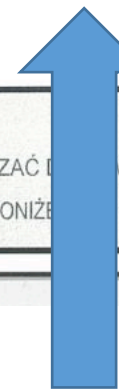
GWP: 1774  
ODP: 0  
KLASA: HFC  
GRUPA BEZPIECZEŃSTWA: A1

NAPEŁNIENIE:  kg

 Klasa 2.2 ADR

Eq CO<sub>2</sub>:  kg

INFORMACJE:  
SKŁADOWAĆ W CHŁODNYM POMIESZCZENIU, CHRONIĆ PRZED OTWARTYM OGNIEM, NIE WYPUSZCZAĆ DO ATMOSFERY  
GAZ ZNAJDUJE SIĘ W HERMETYCZNIE ZAMKNIĘTYM POJEMNIKU TRANSPORTOWYM, O ZBADANYM WYCIEKU PONIŻEJ 0,1% ROCZNIE



# Labeling

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Incompatibilities !



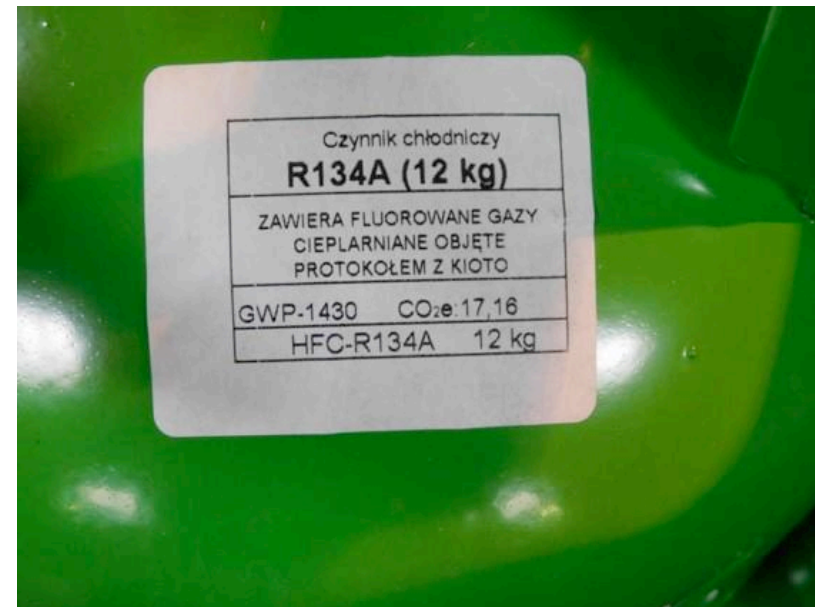


# Incompatible labels!



Possibly incompatible labels:

- ❖ Lack of information on cylinders containing F-Gas
- ❖ Lack of GWP Value and CO<sub>2</sub>e



# Labeling examples!





# Disposable cylinders !



# Differences between disposable and refillable cylinders



## Disposable



- No valve protector, collar and base
- Having wide valve and filling inlet
- Cannot be refilled, should be disposed.



## Refillable



- Having valve protector, collar and base

# PROHIBITIONS!



- **DISPOSABLE CYLINDERS ARE BANNED**



- **NOT SUITABLE AND NOT LABELED CYLINDERS**



- **CYLINDERS THAT DO NOT COMPLY WITH THE REQUIREMENTS OF EU ACQUIS**



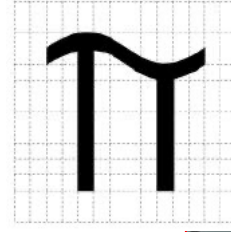
- **CYLINDERS THAT DO NOT MEET SAFETY STANDARDS**



# ACQUIS REQUIREMENTS



- Regulation on Pressurized Vessels – Ministry of Industry (Directive 2010/35 / EU Portable pressure vessels) (**Repealed**),
- Pi stamp,
- Name and address of the importer
- Having a technical document or a certificate of conformity





# ACQUIS REQUIREMENTS



- Pi stamp



Production  
year and date

Design and  
production standard

# Health and Safety Requirements



- Refrigerants defined as dangerous goods must be handled carefully.
- If refrigerants do not comply with the manufacturer's specifications or the contents shown on the cylinder, they pose a serious health and safety risk.
- Captured cylinders need to be managed carefully, they should not be exposed to rain and sun, and stored in an area with good ventilation.



# Honor Medals in 2019!





# BROCHURE... TURKISH, ENGLISH, RUSSIAN



**ILLEGAL  
TRADING OF  
REFRIGERANTS**



**YASA DIŐI  
SOĐUTKAN  
TİCARETİ**



**НЕЗАКОННАЯ  
ТОРГОВЛЯ  
ХЛАДАГЕНТАМИ**





Thank you for listening