

Read : Application dt.03.10.2013 (received on dt.10.10.2013) by M/s. SRF Limited.  
 Heard: Sh. Sharma, Chartered Accountant attended on behalf of the applicant.

**PROCEEDINGS**

(under section 56(1)(e) of the Maharashtra Value Added Tax Act, 2002)

No.DDQ-11-2013/Adm-6/43/B- 1

Mumbai, dt. 6/11/2015

M/s. SRF Limited, having address as 506, 5<sup>th</sup> floor, Western Edge-1, Western Express Highway, Borivali (E), Mumbai, seeks to know the rate of tax on "Refrigerant Blends" namely "Floron HFC 404A" and "Floron HFC 407C" sold through tax invoice nos. 316 dt.18.12.2013 and no.315 dt.18.12.2013, respectively.

**02. FACTS AND CONTENTION**

The application states thus -

"We are a registered dealer registered under VAT TIN-27460001150V trading in Refrigerant Gases and Chemicals, in the state of Maharashtra.

We are dealing amongst other products, in Refrigerant Blends (commonly known as Refrigerant R-404A, R-407C, R-410A). Refrigerant Blends are a mixture of two or more Refrigerant Gases, and are primarily used in Air conditioning and cooling applications. Due to the multiplicity of rates being charged by various dealers in the State, a doubt has arisen about the VAT rate applicable to these blends.

Excise Classification: These blends are a mixture of three different types of Refrigerant Gases. A TABLE showing Excise classification of the blends and the components that make up the blends is given thus :

Product	Product Components		Excise Tariff	VAT classification
<b>R-404A</b>			3824.78.00	To be determined
	1	HFC-125 Pentafluoroethane	2903.39.19	Halogenated derivatives of Hydrocarbon
	2	HFC-143a 1,1,1-Trifluoroethane	2903.39.19	Halogenated derivatives of Hydrocarbon
	3	HFC-134a 1,1,1,2-Tetrafluoroethane	2903.39.19	Halogenated derivatives of Hydrocarbon
<b>R-407C</b>			3824.78.00	To be determined
	1	HFC-32 Difluoromethane	2903.39.19	Halogenated derivatives of Hydrocarbon
	2	HFC-125 Pentafluoroethane	2903.39.19	Halogenated derivatives of Hydrocarbon
	3	HFC-134a 1,1,1,2-Tetrafluoroethane	2903.39.19	Halogenated derivatives of Hydrocarbon
<b>R-410C</b>			3824.78.00	To be determined
	1	HFC-32 Difluoromethane	2903.39.19	Halogenated derivatives of Hydrocarbon
	2	HFC-125 Pentafluoroethane	2903.39.19	Halogenated derivatives of Hydrocarbon

Other details are thus :

<b>Refrigerant Number</b>	<b>R32</b>
Type	HFC (Hydrofluorocarbon)
Synonyms	HFC-32; R-32; HFA-32; Fluorocarbon-32; F-32
Chemical Name	Difluoromethane
Chemical Formula	CH <sub>2</sub> F <sub>2</sub>
CAS NO	75-10-5
Blend	NO
Manufacturing in India	NO
Manufacturing process in brief	R32 is manufactured by Hydrofluorination of Methylene Chloride as per following formula $CH_2Cl_2 + 2 HF \text{ (Hydrofluoric Acid)} \rightarrow CH_2F_2 + 2HCl$
Applications as R32	1 As a refrigerant in Airconditioners 2 As a component in Refrigerant Blends (407A, 407B, 407C, 407D, 410A, 410B) 3 As a dry etching agent for Semiconductors.
Excise Tariff	2903.39.19 2903 Halogenated Derivatives of hydrocarbons 29033919 Others



<b>Refrigerant Number</b>	<b>R134a</b>
Type	HFC (Hydrofluorocarbon)
Synonyms	HFC-134a;R-134a; HFA-134a; Fluorocarbon-32; F-134a
Chemical Name	1,1,1,2-Tetrafluoroethane
Chemical Formula	CF <sub>3</sub> CH <sub>2</sub> F
CAS NO	811-97-2
Blend	NO
Manufacturing in India	Yes (Only SRF Limited)
Manufacturing process in brief	There are many routes to manufacture R134a and each producer has its preferred process. Reaction $C_2HCl_3 + \rightarrow C_2H_2F_3Cl + 2HCl$ (TCE) (R-133a) (Hydrochloric Acid) $C_2H_2F_3Cl + HF \rightarrow C_2H_2F_4Cl + HCl$ (R-133a) (R-134a) (Hydrochloric Acid)
Applications as R134a	1 As a refrigerant in Mobile Airconditioning and Refrigerators 2 As a foam Blowing agent 3 As an Aerosol propellant (Medical and Industrial) 4 As a component in refrigerant blends (E.g.404A, 407A, 407B, 407C, 407D)
Excise Tariff	2903.39.19 2903 Halogenated Derivatives of hydrocarbons 29033919 Others

<b>Refrigerant Number</b>	<b>R125</b>
Type	HFC (Hydrofluorocarbon)
Synonyms	HFC-125;R-125; F-125
Chemical Name	Pentafluoroethane
Chemical Formula	CHF <sub>2</sub> CF <sub>3</sub>
CAS NO	354-33-6
Blend	NO
Manufacturing in India	NO
Manufacturing process in brief	The exact process for manufacturing R125 is not known , but closest estimation is as follows HFC-125 (pentafluoroethane) is made by process of gas-phase fluoridation between Perchloroethylene (PCE) and Hydrofluoric Acid (HF). The intermediates of reaction are HCFC-123 and HCFC-124
Applications as R 125	1 As a fire extinguishing agent 2 As a component in refrigerant blends (E.g.404A,407A,407B,407C,407D,408A,410A)
Excise Tariff	2903.39.19 2903 Halogenated Derivatives of hydrocarbons 29033919 Others

<b>Refrigerant Number</b>	<b>R143a</b>
Type	HFC (Hydrofluorocarbon)
Synonyms	HFC-143a;R-125; F-143a
Chemical Name	1,1,1,-Trifluoroethane
Chemical Formula	C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>
CAS NO	420-46-2
Blend	NO
Manufacturing in India	NO
Manufacturing process in brief	The exact process for manufacturing R143a is not known , but closest estimation is as follows: HFC-143a can be made by fluoridation reaction between HCFC-142b (1,1,1-difluoro-1-chloroethane) and Hydrofluoric Acid
Applications as R 143a	1 As a component in refrigerant blends (E.g.404A,507A,408A)
Excise Tariff	2903.39.19 2903 Halogenated Derivatives of hydrocarbons 29033919 Others

<b>Refrigerant Number</b>	<b>R410A</b>
Type	HFC (Hydrofluorocarbon)
Synonyms	HFC-410A;R-410A; F-410A
Chemical Name	Difluoromethane / Pentafluoroethane
Chemical Formula	CH <sub>2</sub> F <sub>2</sub> / CHF <sub>2</sub> CF <sub>3</sub>
CAS NO	NA
Blend	YES
Manufacturing in India	NO
Manufacturing process in brief	R410A is 50:50 blend of R32 and R125
Applications as R 125	1 As a refrigerant in New residential and commercial airconditioners



Excise Tariff	38247800	Prepared Binders for foundry moulds or cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included Halogenated Derivatives of hydrocarbons
	3824	
	38247800	

<b>Refrigerant Number</b>	<b>R407C</b>	
Type	HFC (Hydrofluorocarbon)	
Synonyms	HFC-407C; R-407C; F-407C	
Chemical Name	Difluoromethane / Pentafluoroethane / Tetrafluoroethane	
Chemical Formula	CH <sub>2</sub> F <sub>2</sub> / CHF <sub>2</sub> CF <sub>3</sub> / CH <sub>2</sub> FCF <sub>3</sub>	
CAS NO	NA	
Blend	YES	
Manufacturing in India	NO	
Manufacturing process in brief	R407C is prepared by blending of R32, R125, R143a (Ratio : 23:25:52)	
Applications as R 125	As a refrigerant in New residential and commercial airconditioners	
Excise Tariff	38247800	Prepared Binders for foundry moulds or cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included Halogenated Derivatives of hydrocarbons
	3824	
	38247800	

<b>Refrigerant Number</b>	<b>R404A</b>	
Type	HFC (Hydrofluorocarbon)	
Synonyms	HFC-404A; R-404A; F-404A	
Chemical Name	Pentafluoroethane / 1,1,1-Trifluoroethane / 1,1,1,2-Tetrafluoroethane	
Chemical Formula	CHF <sub>2</sub> CF <sub>3</sub> / CH <sub>3</sub> CF <sub>3</sub> / CH <sub>2</sub> FCF <sub>3</sub>	
CAS NO	NA	
Blend	YES	
Manufacturing in India	NO	
Manufacturing process in brief	R404A is prepared by blending of R32, R125, R134a (Ratio : 23:25:52)	
Applications as R 125	As a refrigerant in Commercial, Transport refrigeration	
Excise Tariff	38247800	Prepared Binders for foundry moulds or cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included Halogenated Derivatives of hydrocarbons
	3824	
	38247800	

Extracts about the products from the brochure of the company are thus :

#### **Floron 404A (Near Azetropic blend of R 125, R 143a and R134a)**

Applications: An Ozone friendly substitute of CFC 502, it is used as a Refrigerant in commercial refrigeration units, transport refrigeration units and industrial refrigeration units.

#### **FLORON 404A**

Applications

- Commercial Refrigeration
- Transport Refrigeration
- Industrial Refrigeration
- Refrigeration application from -45 °C to +15 °C

General Guidelines

- FLORON 404A is recommended to be charged in liquid phase
- Consult the original equipment manufacturer before retrofitting with FLORON 404A
- Do not mix Floron 404A with other refrigerants
- Polyolester (POE) oil should be used as a lubricant.

#### **FLORON 407C**

Applications

- Residential Air Conditioners
- Light Commercial air conditioners
- Medium Temperature commercial refrigeration system



#### General Guidelines

- FLORON 407C is recommended to be charged in liquid phase
- Consult the original equipment manufacturer before retrofitting with FLORON 407C
- Do not mix FLORON 407C with other refrigerants
- Polyolester (POE) oil should be used as a lubricant.

### 03. HEARING

Sh. Sharma, Chartered Accountant attended the hearing. It was submitted thus :

- The products for determination are -
  - i. FLORON HFC 404A sold under invoice dt.18.12.2013.
  - ii. FLORON HFC 407C sold under invoice dt.18.12.2013.
  - iii. R410C - Bill is not submitted and no determination was pressed in respect of the same.
- It is informed that the products are cleared under Central Excise Tariff Heading 3824 under the schedule entry C-54.
- The products are mixture of two or more refrigerant gases.

In view of the submission that the product is cleared under the Excise Heading 3824, it was sought to bring to attention of the applicant that the following description has been notified for the purposes of the MVAT Act,2002 - "*Prepared binders for foundry moulds or cores; Retarders used in the printing industry*". Whereas the description under Central Excise is - "*Prepared binders for foundry moulds or cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included*". So it was brought to notice that the entire Excise Heading has not been notified. Therefore as per Explanatory Notes to the notification, the impugned products would not be covered by the notification.

### 05. OBSERVATION

I have gone through the facts of the case. The application was sought for determination of rate of tax on three products namely *R-404A, R-407C, R-410A*. However, since bills were given of *R-404A* and *R-407C* only, the applicant preferred to pursue determination in respect of these two products only. Hence, I restrict my observations to these two products only. I have reproduced the details of the products as submitted by the applicant. The products are described as refrigeration blends. The claim of the applicant is that the impugned products are covered by the notification issued under the schedule entry C-54 of the Maharashtra Value Added Tax Act,2002 (MVAT Act,2002). The entry reads thus :

*Industrial inputs and packing materials as may be notified, from time to time, by the State Government in the Official Gazette.*

The notification under this entry refers to the classification under the Central Excise Tariff. Thus, not all items known as 'industrial inputs' and 'packing materials' are covered by this entry. Only relevant Tariff Headings in the context of the entry under the MVAT Act,2002 have been notified under the entry. Further, it is not the case that the description against any particular Central Excise Tariff Heading (CETH) may have been taken in its entirety for the purposes of the notification under the MVAT Act,2002. It is also not the case that if any particular



Tariff Heading has been notified then the products under the said Tariff Heading would fall in the entry C-54. What has to be seen is whether the product falls in the description as has been notified against the particular Tariff Heading which has been covered in the notification. Therefore, only those products which fall in the description as appearing against the Central Excise Tariff as notified for the purposes of the notification under the MVAT Act,2002 would stand covered by the entry. Thus, to claim coverage under the entry C-54, it is important that the applicant has to establish that the impugned products -

- a. fall in the CETH which has been notified; AND
- b. are covered by the description against the CETH as has been notified.

In the present case, the applicant claims that the impugned products are covered by the CETH 38247800. The Heading 3824 has been notified in the notification dt.01.09.2005 for the purposes of the entry C-54. The description against this Tariff Heading for the purposes of the notification and under the Central Excise Tariff may be seen thus :

**Description against CETH 3824 for the purposes of the notification**

<b>3824</b>	<i>Prepared binders for foundry moulds or cores; Retarders used in the printing industry</i>
-------------	--

**Description against CETH 3824 for the purposes of the Central Excise Tariff**

<b>3824</b>	<i>Prepared binders for foundry moulds or cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included</i>	
3824 78 00	--	<i>Containing perfluorocarbons (PFCs) or hydrofluorocarbons (HFCs) but not containing chlorofluorocarbons (CFCs) or hydrochlorofluorocarbons (HCFCs)</i>

From the above two Tables, we can infer thus :

1. The notification under schedule entry C-54 of the MVAT Act,2002 has notified the CETH 3824 (only the main heading 3824 and not the sub-heading 38247800).
2. The description as notified for the purposes of the notification is not the same as the description as appearing under Central Excise against the said Tariff 3824.
3. From the description as notified, we can see that the notification covers only the following :

- a. *Prepared binders for foundry moulds or cores*
- b. *Retarders used in the printing industry*

4. The present products are informed to be refrigerant blends and have uses thus :

**FLORON 404A**

- Commercial Refrigeration
- Transport Refrigeration
- Industrial Refrigeration
- Refrigeration application from -45 °C to +15 °C

**FLORON 407C**

- Residential Air Conditioners
- Light Commercial air conditioners
- Medium Temperature commercial refrigeration system

5. Note-(2) appended to the notification dt.01.09.2005 reads thus - *Where any commodities*



are described against any heading or sub-heading or as the case may be, tariff items, and the aforesaid description is different in any manner from the corresponding description in the Central Excise Tariff Act, 1985, then only those commodities described as aforesaid will be covered by the scope of this notification and other commodities though covered by the corresponding description in the Central Excise Tariff will not be covered by the scope of this notification.

6. From points 3, 4 and 5 above, it can be seen that the impugned products are not covered by the description as appearing against the CETH 3824 in the notification for the purposes of the schedule entry C-54 under the MVAT Act,2002.

I need not have expounded by enumerating the points as above as going by the very precise nature of the description as notified and the uses of the impugned products in refrigerators and air conditioners, it would not require much calibre to infer that the said notified description does not cover the impugned products.

During hearing, an argument was placed to the effect that the impugned product is just a mixture of two or more products and these individual products fall under CETH 2903 which has been notified as industrial inputs under the entry C-54 of the MVAT Act,2002. I find that the CETH 2903 has been notified under the entry C-54. However, as mentioned earlier, to claim coverage under the schedule entry C-54, the applicant has to show that the impugned products fall in the CETH 2903. Whereas we see that the applicant has shown and claimed coverage under the CETH 3824. The invoices under Central Excise, as submitted by the applicant, mention the Tariff Heading thereon as 38247800. The applicant has also given a copy of Bill of Entry for Home Consumption dt.10.07.2013 and dt.25.07.2013 evidencing import of the products "Refrigerant Gas HFC R404A" and "Hydrofluorocarbon -410A (HFC-410A)" respectively under Custom/Excise Tariff 38247800. And we see that the impugned products are not the same as the products which go into their making when the following is seen.

R-404A consists of HFC-125, HFC-143a and HFC-134a whereas R407C consists of HFC-32, HFC-125, and HFC-134a thus :

Particulars	Chemical Name	Chemical Formula	CAS NO	CETH	Type
HFC-125	Pentafluoroethane	CF <sub>3</sub> CH <sub>2</sub> F	811-97-2	2903.39.19	Halogenated derivatives of Hydrocarbon
HFC-143a	1,1,1,-Trifluoroethane	C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>	420-46-2	2903.39.19	Halogenated derivatives of Hydrocarbon
HFC-134a	1,1,1,2-Tetrafluoroethane	CF <sub>3</sub> CH <sub>2</sub> F	811-97-2	2903.39.19	Halogenated derivatives of Hydrocarbon
HFC-32	Difluoromethane	CH <sub>2</sub> F <sub>2</sub>	75-10-5	2903.39.19	Halogenated derivatives of Hydrocarbon

The impugned products have details thus :

Particulars	Chemical Name	Chemical Formula	CAS NO	CETH	Type	
R407C	Pentafluoroethane / 1,1,1,-Trifluoroethane / 1,1,1,2-Tetrafluoroethane	CHF <sub>2</sub> CF <sub>3</sub> / CH <sub>3</sub> CF <sub>3</sub> / CH <sub>2</sub> FCF <sub>3</sub>	/ / /	NA	38247800	HFC (Hydrofluorocarbon)
R407C	Difluoromethane / Pentafluoroethane / Tetrafluoroethane	CH <sub>2</sub> F <sub>2</sub> / CHF <sub>2</sub> CF <sub>3</sub> / CH <sub>2</sub> FCF <sub>3</sub>	/ / /	NA	38247800	HFC (Hydrofluorocarbon)

It can be seen from the above Tables that the impugned products do not have a separate CAS No. which is a unique numerical identifier assigned by Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature (currently including those described from at least 1957 through the present), including organic and inorganic compounds, minerals, isotopes, alloys and nonstructurable materials (UVCBs, of unknown, variable composition, or biological origin) [Source: Wikipedia]. The product obtained by mixing of the inputs cannot remain the same substance as was used in its formation. Each ingredients of the product have definite chemical composition and would not remain the same ingredients as were mixed when a product is formed with the others. Since claim is being laid that the impugned products are blends falling in the same Excise Heading as their ingredients i.e under Chapter 29, more specifically CETH 2903, a reference was made by me to the Harmonized Commodity Description and Coding System Explanatory Notes (HSN) of Chapter 29 and 38. It is seen thus -

- **Chapter 29 says that as a general rule, the Chapter is restricted to separate chemically defined compounds, subject to the provisions of Note 1 of the said Chapter.**

Note 1 reads thus -

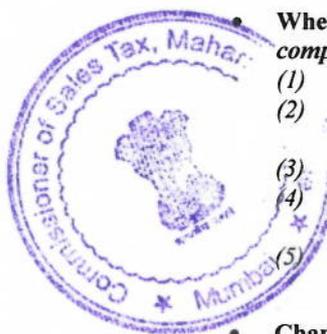
1. Except where the context otherwise requires, the headings of this Chapter apply only to :
  - (a) Separate chemically defined organic compounds, whether or not containing impurities;
  - (b) Mixtures of two or more isomers of the same organic compound (whether or not containing impurities), except mixtures of acyclic hydrocarbon isomers (other than stereoisomers), whether or not saturated (Chapter 27);
  - (c) The products of headings 29.36 to 29.39 or the sugar ethers, sugar acetals and sugar esters, and their salts, of heading 29.40, or the products of heading 29.41, whether or not chemically defined;
  - (d) The products mentioned in (a), (b) or (c) above dissolved in water;
  - (e) The products mentioned in (a), (b) or (c) above dissolved in other solvents provided that the solution constitutes a normal and necessary method of putting up these products adopted solely for reasons of safety or for transport and that the solvent does not render the product particularly suitable for specific use rather than for general use;
  - (f) The products mentioned in (a), (b), (c), (d), or (e) above with an added stabilizer (including an anticaking agent) necessary for their preservation or transport;
  - (g) The products mentioned in (a), (b), (c), (d), (e) or (f) above with an added anti-dusting agent or a colouring or odoriferous substance added to facilitate their identification or for safety reasons, provided that the additions do not render the product particularly suitable for specific use rather than for general use;
  - (h) The following products, diluted to standard strengths for the production of azo dyes : diazonium salts, couplers used for these salts and diazotisable amines and their salts.

Whereas Chapter 38 says that the Chapter does not cover separate chemically defined elements or compounds (usually classified in Chapter 28 or 29), with the exception of the following :

- (1) Artificial graphite (heading 38.01).
- (2) Insecticides, rodenticides, fungicides, herbicides, anti-sprouting products and plant-growth regulators, disinfectants and similar products, put up as described in heading 38.08.
- (3) Products put up as charges for fire-extinguishers or put up in fire-extinguishing grenades (heading 38.13).
- (4) Cultured crystals (other than optical elements) weighing not less than 2.5g each of magnesium oxide or of the halides of the alkali or alkaline-earth metals (heading 38.24).
- (5) Ink removers put up in packings for retail sale (heading 38.24). certified reference materials specified in Note 2 below; (5) products specified in Note 3 (a) or 3 (c) below;

- **Chapter 29 states that a separate chemically defined compound is a substance which consists of one molecular species (e.g., covalent or ionic) whose composition is defined by a constant ratio of elements and can be represented by a definitive structural diagram. In a crystal lattice, the molecular species corresponds to the repeating unit cell.**

It can be seen from the above extracts that chapter 29 covers separate chemically defined compounds whereas the impugned products are not so separately defined. In view thereof, their inclusion in Chapter 29 is not found validated. Therefore, the applicant's claim for inclusion in



the notification under CETH 2903 as notified for the entry C-54 is not possible.

Having seen thus, I find that there is no other description in the notification which could cover the impugned products under the schedule entry C-54 nor is there any specific schedule entry for the impugned products in any of the Schedules appended to the MVAT Act,2002. In view thereof, the impugned products find placed in the residuary schedule entry E-1 of the MVAT Act,2002, thereby taxable @ 12.5%. I have, therefore, to observe that the applicant has been rightly collecting tax @ 12.5% on the sale of the impugned products.

05. In view of the deliberations held hereinabove, it is determined thus -

**ORDER**

(under section 56(1)(e) of the Maharashtra Value Added Tax Act, 2002)

No.DDQ-11-2013/Adm-6/43/B-1

Mumbai, dt. 6/11/2015

It is herewith determined that -

- The description as notified against the Central Excise Tariff Heading 3824 for the purposes of the schedule entry C-54 of the Maharashtra Value Added Tax Act, 2002 does not cover the "Refrigerant Blends" namely "Floron HFC 404A" and "Floron HFC 407C" sold through tax invoice nos. 316 dt.18.12.2013 and no.315 dt.18.12.2013.
- In absence of any specific schedule entry, the products get placed in the residuary schedule entry E-1 of the Maharashtra Value Added Tax Act, 2002, thereby taxable @ 12.5%.



  
(RAJIV JALOTA)

COMMISSIONER OF SALES TAX,  
MAHARASHTRA STATE, MUMBAI