Namelist "Species_Initialization"

This data setup is used to define the initial field of species mass fraction over the domain.

Full data set of the namelist

Example for a gas mixture with two species

```
 &Species_Initialization   Initial_Field_Option_For_Species= 0  1,
                           Species_Reference_Value         = 1 /
```

Definition of the data set

Species_Reference_Value

- Type : allocatable array of real values. The size of the array is automatically defined in respect with the number of species considered.
- Reference mass fraction of species.
- Default values set by the user.

Be careful. The user must ensure the coherence between the reference values of physical quantities defined in the namelist "Fluid_Properties" (temperature, density and molecular mass), the initial temperature field over the domain (see the namelist "Temperature_Initialization") and the species mass fractions defined here.
Keep in mind that the reference value of thermodynamic pressure is calculated from the ones of temperature, density and molecular mass (see namelist "Fluid_Properties") . \\The density field is then initialized from the fields of temperature an species mass fractions by considering that the thermodynamic pressure is uniform over the domain (low Mach-number hypothesis).

Initial_Field_Option_For_species

- Type : integer value
- Option to define the distribution of the species mass fraction over the domain :
  - 0 : Uniform distribution
  - 1 or greater : Optional values associated to the field of species mass fraction defined by the user in the appropriate fortran module (see module_user_define_init_fields.f90). The reference value can be used to define the species mass fraction scale.
  - Default value= 0