

Table 1 – Constant properties for compounds (ECompoundConstProperties)

Name	Units	Define
State of aggregation at normal conditions	-	SOA_AT_NORMAL_CONDITIONS
Normal boiling point	K	NORMAL_BOILING_POINT
Normal freezing point	K	NORMAL_FREEZING_POINT
Critical temperature	K	CRITICAL_TEMPERATURE
Critical pressure	Pa	CRITICAL_PRESSURE
Molar mass	kg/mol	MOLAR_MASS
Standard formation enthalpy	J/mol	STANDARD_FORMATION_ENTHALPY
Heat of fusion at normal freezing point	J/mol	HEAT_OF_FUSION_AT_NORMAL_FREEZING_POINT
Heat of vaporization at normal boiling point	J/mol	HEAT_OF_VAPORIZATION_AT_NORMAL_BOILING_POINT
Reactivity type	-	REACTIVITY_TYPE
User defined	-	CONST_PROP_USER_DEFINED_XX

Table 2 – Temperature-dependent compound properties (ECompoundTPProperties)

Name	Units	Define
Density	kg/m ³	DENSITY
Heat capacity Cp	J/(kg·K)	HEAT_CAPACITY_CP
Enthalpy	J/kg/s, J/mol/s, J/kg, J/mol	ENTHALPY
Vapor pressure	Pa	VAPOR_PRESSURE
Viscosity	Pa·s	VISCOSITY
Thermal conductivity	W/(m·K)	THERMAL_CONDUCTIVITY
Permittivity	F/m	PERMITTIVITY
User defined	-	TP_PROP_USER_DEFINED_XX

Table 3 – Interaction properties between two compounds (ECompoundInteractionProperties)

Name	Units	Define
Interface tension	N/m	INTERFACE_TENSION
User defined property	-	INT_PROP_USER_DEFINED_XX

Table 4 – Overall mixture properties

Name	Units	Define
Mass flow	kg/s, mol/s	FLOW, TOTAL_FLOW
Mass	kg, mol	MASS, TOTAL_MASS
Temperature	K	TEMPERATURE
Pressure	Pa	PRESSURE
Molar mass	kg/mol	MOLAR_MASS

Table 5 – Single-phase mixture properties

Name	Units	Define
Mass flow	kg/s, mol/s	FLOW
Mass	kg, mol	MASS
Temperature	K	TEMPERATURE
Pressure	Pa	PRESSURE
Phase fraction	-	PHASE_FRACTION, FRACTION
Molar mass	kg/mol	MOLAR_MASS
Density	kg/m ³	DENSITY
Heat capacity Cp	J/(kg·K)	HEAT_CAPACITY_CP
Thermal conductivity	W/(m·K)	THERMAL_CONDUCTIVITY
Viscosity	Pa·s	VISCOSITY
Vapor pressure	Pa	VAPOR_PRESSURE
Enthalpy	J/kg/s, J/mol/s, J/kg, J/mol	ENTHALPY
Permittivity	F/m	PERMITTIVITY

Table 6 – Universal constants

Identifier	Typical value	Units
AVOGADRO_CONSTANT	6.022 141 99(47)x10 ²³	1/mol
BOLTZMANN_CONSTANT	1.380 6503(24)x10 ⁻²³	J/K
IDEAL_GAS_STATE_REFERENCE_PRESSURE	101 325	Pa
MOLAR_GAS_CONSTANT	8.314 472(15)	J/mol/K
SPEED_OF_LIGHT_IN_VACUUM	2.997 924 58(1)x10 ⁸	m/s
STANDARD_ACCELERATION_OF_GRAVITY	9.806 65	m/s ²
STANDARD_CONDITION_T	298.15	K
STANDARD_CONDITION_P	101325	Pa
MATH_PI	3.14159265358979323846	-

Table 7 – Solids distributions (EDistrTypes)

Identifier	Description
DISTR_COMPOUNDS	Distribution by compounds
DISTR_SIZE	Distribution by particles size
DISTR_PART_POROSITY	Distribution by particles porosity
DISTR_FORM_FACTOR	Distribution by particles form factor
DISTR_COLOR	Distribution by particles color
DISTR_USER_DEFINED_01 – DISTR_USER_DEFINED_10	User defined distribution

Table 8 – Phases

Identifier
SOA_SOLID
SOA_LIQUID
SOA_VAPOR
SOA_LIQUID2
SOA_UNDEFINED

Table 9 – Units ports

Identifier
INPUT_PORT
OUTPUT_PORT
UNDEFINED_PORT

Table 10 – Distribution grid entries (EGridEntry)

Identifier
GRID_NUMERIC
GRID_SYMBOLIC
GRID_UNDEFINED

Table 11 – Particle size distributions (EPSDTypes)

Identifier
PSD_q0
PSD_Q0
PSD_q2
PSD_Q2
PSD_q3
PSD_Q3
PSD_MassFrac
PSD_Number