Chemical

Ethylene

ETHYLENE: Cryogenic Hydrocarbon of multiple applications.

Ethylene is a hydrocarbon in the form of liquefied gas that is characterized by having multiple applications depending on which of its features you take advantage of. On the one hand, it is the monomer of polyethylene, one of the most widely used plastics, and on the other it has very technical applications, such as its use as an additive in the food industry as a fruit ripening stimulant and regulator, raw material in the manufacture of graphene, oxyfuel due to its flame temperature or as a refrigerant for deep-freezing due to its cooling capacity, which can reach temperatures of below -80°C.

Chemical Name:	ASHRAE Name:	CAS Number:
Ethene	R-1150	**74-85-1**

Technical Characteristics:

> Low critical temperature extremely flammable liquefied gas.
> Gas packaged in high pressure containers with gas-phase valve.
> Characteristic smell.

Packaging:

- 18kg Cylinder
- Cylinder blocks

Applications:

- Additive for ripening fruit
- Gas for flame cutting
- Raw material in manufacturing graphene
- Very low storage and lyophilization temperature

Table of Properties:

Molecular weight	28.05	g/mol
Boiling point	-103.77	°C
Latent heat of vaporization at boiling point	482.41	kJ/kg
Liquid density at boiling point	567.65	kg/m3
Cp (specific heat at constant pressure)	1.5048	kJ/kg K
Cv (specific heat at constant volume)	1.2008	kJ/kg K
Specific Gravity	0.98	
Thermal conductivity	19.099	mW/m.K
LEL (Lower Explosive Limit)	2.7	% volume
UEL (Upper Explosive Limit)	34	% volume

Material Compatibility:

Metals	
Aluminum	Satisfactory
Brass	Satisfactory
Monel	Satisfactory
Ferritic steel	Satisfactory
Stainless steel	Satisfactory
Zinc	Satisfactory
Titanium	No data

Plastics	
Polychlorotrifluoroethylene	Satisfactory
Polyvinylidene fluoride	Satisfactory
Polyvinyl chloride	No data
Ethylene tetrafluoroethylene	Satisfactory
Polycarbonate	No data
Polyamide	Satisfactory
Polypropylene	Satisfactory

Elastomers	
Butyl (isobutene-isoprene) rubber	Satisfactory
Nitrile rubber NBR	Satisfactory
Chloroprene	No data
Chlorofluorocarbons	No data
Silicone	No data
Perfluoroelastomers	Satisfactory
Fluoroelastomers	Satisfactory
Neoprene	Satisfactory
Polyurethane	No data
Ethylene-Propylene	No data

Lubricants	
Mineral	Satisfactory
Fluorocarbon base	Satisfactory

More Information:

If you want more information about our products, contact us.

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