

ELECTRONIC GAS

DIMETHYLZINC (CH₃)₂Zn MIXTURES

Dimethylzinc can be diluted with hydrogen in order to provide concentrations of less than 100%. Using Dimethylzinc in this form can add an additional degree of control to the process, particularly when relatively small amounts of zinc are to be deposited. Dimethylzinc mixtures are prepared as ordered. Concentrations other than those listed below are available upon request. All mixtures concentrations are guaranteed by weight.

Description				
CYLINDER CONNECTION: CGA-350 / DISS-726				
DOPING CONCENTRATIONS can be mixed with UHP or VLSI grade Hydrogen				
Dimethylzinc Concentration	Cylinder Size	Pressure psig	Contents	
			ft ³	m ³
500 - 1100 ppm	049	1800	175	4.95
	016	1800	66	1.42
Higher concentrations are available, but pressures on higher concentration mixtures are lower than those shown above due to the fact that Dimethylzinc has a low vapor pressure. Only a maximum amount can be put into a cylinder to avoid liquefaction of the Dimethylzinc. To achieve higher concentrations, less balance gas is added.				
SHELF LIFE: 6 months				

DOT Shipping Information			
HYDROGEN BALANCE			
Conc	Shipping Name	Shipping Papers	Shipping Labels
All	__ppm Dimethylzinc/Hydrogen Mixture	Compressed Gases, flammable, nos (__ppm Dimethylzinc/Hydrogen Mixture) 2.1 UN 1954	Flammable Gas

Physical Properties	
Molecular Weight	95.44
Flammability Limits in air	Pyrophoric
Vapor Pressure @ 20°C	306 mm Hg
Density, Liquid @ 50.9°F (10.5°C), 1 atm	11.57lbs/gal (1.386g/ml)
Boiling Point @ 1 atm	114.8°F (46.0°C)
Melting Point @ 1 atm	-20.6°F (-29.2°C)
Toxicity (as Zn0)	
TLV-TWA	5mg/m ³
TLV-STEL	10mg/m ³

Metals Specifications		
ELEMENT	SYMBOL	TYPICAL
Aluminium	Al	< 100
Calcium	Ca	< 20
Chromium	Cr	< 50
Copper	Cu	< 10
Iron	Fe	< 7
Gallium	Ga	< 400
Germanium	Ge	< 10
Magnesium	Mg	< 3
Nickel	Ni	< 100
Silicon	Si	< 100
Tin	Sn	< 100
*all values in µg/g		