


# STEEL RECON INDUSTRIES SDN. BHD.

## MATERIAL SAFETY DATA SHEET

<b>SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION</b>	
<b>Chemical Name:</b>	CARBON DIOXIDE GAS
<b>Trade Name:</b>	CO2 CARTRIDGES
<b>Part No.</b>	FEC014
<b>Chemical Family:</b>	Carbonic anhydride, carbonic acid gas
<b>Supplier:</b>	STEEL RECON INDUSTRIES SDN. BHD. 8, PERSIARAN SUBANG (JALAN SUBANG 7), TAMAN PERINDUSTRIAN SUBANG, SUBANG JAYA, 47610, SELANGOR DARUL EHSAN, MALAYSIA
<b>In Case of Emergency Spills, Leaks, Fire, Exposure or Accident:</b>	TEL:603-80232323
<b>SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS</b>	
<b>CAS #</b>	<b>CHEMICAL NAME</b>
124-38-9	Carbon Dioxide =100%
<b>SECTION 3 - HAZARD IDENTIFICATION</b>	
<b>Emergency Overview:</b>	Carbon Dioxide is colorless. At low concentrations, the gas is odorless. At higher concentrations it has a sharp, acidic odor. It will act as an asphyxiant and an irritant. Carbon Dioxide is a powerful cerebral dilator. At concentrations between 2 and 10%, Carbon Dioxide can cause nausea, dizziness, headache, mental confusion, increased blood pressure and respiratory rate. Above 8% nausea and vomiting appear. Above 10%, suffocation and death can occur within minutes. Contact with the cold gas can cause freezing of exposed tissue. Moisture in the air can lead to formation of carbonic acid that can irritate the eyes. All forms of Carbon Dioxide are noncombustible. Carbon Dioxide is heavier than air and should not be allowed to accumulate in low lying areas.
<b>Inhalation:</b>	May Cause Rapid Respiration, Muscular Incoordination, Fatigue, Nausea and Vomiting and Unconsciousness.
<b>Ingestion:</b>	No Information Found.
<b>Skin:</b>	Pressure drop Through Valves and Piping may Cause Extreme Cold and Frostbite on Contact.
<b>Eye Contact:</b>	No Information Found.
<b>Chronic Exposure:</b>	No Information Found.
<b>SECTION 4 - FIRST AID MEASURES</b>	
<b>Inhalation:</b>	Immediately Remove Victim to Fresh Air. If Breathing has Stopped, Give Artificial Respiration. If Breathing is Difficult, Give Oxygen and Get Medical Attention.
<b>Ingestion:</b>	No Information Found.
<b>Skin:</b>	If Frostbite Occurs, Flush Affected Areas with Lukewarm Water. Do Not Use Hot Water. Get Medical Attention.
<b>Eyes:</b>	No Information Found.
<b>SECTION 5 - FIRE FIGHTING MEASURES</b>	
<b>Fire:</b>	Not Considered to be a Fire Hazard. Non-Flammable Gas.
<b>Explosion:</b>	Not Considered to be an Explosion Hazard. Cartridge Rupture may Occur Under Fire Conditions. Use What is Appropriate for Surrounding Fire.
<b>Fire Extinguishing Media:</b>	In the Event of Fire, Wear Full Protective Clothing and NIOSH-Approved Self-Contained Breathing Apparatus with Full Face piece Operated in the Pressure Demand or Other Positive Pressure Mode. Keep Cartridges Cool with Water Spray.
<b>Special Information:</b>	
<b>SECTION 6 - ACCIDENTAL RELEASE MEASURES</b>	
	Ventilate Area of Leak or Spill. Wear Appropriate Personal Protective Equipment as Specified in Section 7. Shut Off Source if Possible and Remove Source of Heat. Remove Leaking Cylinder to Exhaust Hood or Safe Outdoor Area if This can be Done Safely.
<b>SECTION 7 - HANDLING AND STORAGE</b>	
	Store in well Ventilated Areas and Away from Heat. Protect Containers from Physical Damage. Do Not Deface Cylinders or Labels. Cylinders should be Refilled by Qualified Producers of Compressed Gas.

<b>SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION</b>	
<b>Ventilation System:</b>	A System of Local and/or General Exhaust is Recommended to Keep Employee Exposures Below the Airborne Exposure Limits. Local Exhaust Ventilation is Generally Preferred Because it can Control the Emissions of the Contaminant at its Source, Preventing Dispersion of it into the General Work Area.
<b>Airborne Exposure Limits:</b>	ACGIH Threshold Limit Value (TLV), 5000 ppm, OSHA (PEL) 5000 ppm, (STEL) 30,000.
<b>Personal Respirators:</b> (NIOSH APPROVED)	Use a Self-Contained Breathing Apparatus in Case of Emergency or Non-Routine Use.
<b>Skin Protection:</b>	Loose Fitting Gloves or Impermeable Material, Such as Leather, When Working with Cold Liquid, Solid or Vapor.
<b>Eye Protection:</b>	Use Safety Glasses.
<b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b>	
<b>Appearance / Odor:</b>	Colorless / Odorless
<b>Solubility:</b>	87.8 @ 68 °F (v/v) in water.
<b>Density:</b>	Gas
<b>pH:</b>	No Information Found
<b>%Volatiles by Vol.:</b>	No Information Found
<b>Melting Point:</b>	No Information Found
<b>Boiling Point:</b>	Sublimes - 109.3 °C
<b>Vapor Density (Air=1):</b>	1.53
<b>Vapor Pressure (mmHg):</b>	816 psig @ 20 °C
<b>SECTION 10 - STABILITY AND REACTIVITY</b>	
<b>General Reactivity:</b>	Stable Under Ordinary Conditions of Use and Storage.
<b>Hazardous Decomposition:</b>	Toxic Carbon Monoxide may be Given Off During Combustion.
<b>Incompatibilities:</b>	Temperatures above 3,092 °F (1,700 °C). This Weakly Acidic Material will React with Alkaline Materials to Form Carbonates and Bicarbonates.
<b>Hazardous Polymerization:</b>	Will Not Occur.
<b>SECTION 11 - TOXICOLOGICAL INFORMATION</b>	
<b>Carcinogenic References:</b>	NTP Carcinogen - Known: No, IARC Category- None
<b>Aggravated by Exposure:</b>	Exposure to Carbon Dioxide at 1 to 4% Concentrations Result in Increased Respiratory Volume. Material acts as a Simple Asphyxiant by Displacing Air Necessary for Life.
<b>SECTION 12 - ECOLOGICAL INFORMATION</b>	
	No Information Found.
<b>SECTION 13 - DISPOSAL CONSIDERATIONS</b>	
	Dispose of Non-Refillable Cylinders in Accordance with Federal, State and Local Regulations. Allow Gas to Vent Slowly to Atmosphere in an Unconfined Area or Exhaust Hood. If the Cylinders are the Refillable Type, Return Cylinders to Supplier with any Valve Outlet Plugs or Caps Secured and Valve Protection Caps in Place.
<b>SECTION 14 - TRANSPORT INFORMATION</b>	
<b>Shipping Name:</b>	CARBON DIOXIDE
<b>Hazard Class:</b>	2.2 (NON-FLAMMABLE
<b>Identification No.:</b>	GAS) UN1013
<b>SECTION 15 - REGULATORY INFORMATION</b>	
<b>WHMIS Classification:</b>	A
	
<b>DSL Status:</b>	Appears on DSL.
<b>SECTION 16 - OTHER INFORMATION</b>	
<b>NFPA Rating:</b>	HEALTH-1, FLAMMABILITY-0, REACTIVITY-0
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