



TechAir®

Safety Data Sheet

Oxidizing Mix: 95% Air / 5% Carbon Dioxide

Section 1: Product and Company Identification

Tech Air

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Product Code: Oxidizing Mix: 95% Air / 5% Carbon Dioxide
Part Number: 95CA5CDU

Synonyms:**Recommended Use:****Usage Restrictions:**

Section 2: Hazards Identification



Warning

Hazard Classification:

Gases Under Pressure

Hazard Statements:

Contains gas under pressure; may explode if heated

Precautionary Statements**Storage:**

Protect from sunlight.
Store in well-ventilated place.

Section 3: Composition/Information on Ingredients

	CAS #	Concentration
Air	Not applicable	95
Carbon Dioxide	124-38-9	5

	Chemical Substance	Chemical Family	Trade Names
Air	AIR, COMPRESSED	Inorganic gases	AIR; UN 1002 Nitrogen CAS: 7727-37-9 Oxygen CAS: 7782-44-7
Carbon Dioxide	CARBON DIOXIDE, GAS	Inorganic gases	CARBONIC ACID GAS; CARBONIC ANHYDRIDE; CARBON DIOXIDE; CARBON OXIDE; UN 1013; CO2

Section 4: First Aid Measures

	Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Air	Wash exposed skin with soap and water.	Flush eyes with plenty of water.	If a large amount is swallowed, get medical attention.	If adverse effects occur, remove to uncontaminated area. Get medical attention.	
Carbon Dioxide	If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.	Contact with liquid: Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.	Do not induce vomiting.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.

Section 5: Fire Fighting Measures

	Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Air	Use extinguishing agents appropriate for surrounding fire.		<ul style="list-style-type: none"> No respirator is required under normal conditions of use.
Carbon Dioxide	Non-flammable	Non-flammable	<ul style="list-style-type: none"> Any appropriate escape-type, self-contained breathing apparatus. Non-flammable

Section 6: Accidental Release Measures

	Personal Precautions	Environmental Precautions	Methods for Containment
Air			Stop leak if possible without personal risk.
Carbon Dioxide	Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering. Do not touch spilled material.	Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers.	Stop leak if possible without personal risk.

	Methods for Cleanup	Other Information
Air		
Carbon Dioxide	Stop leak, evacuate, remove source of ignition.	None

Section 7: Handling and Storage

	Handling	Storage
Air	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	
Carbon Dioxide	Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances.	Store and handle in accordance with all current regulations and standards

Section 8: Exposure Controls/Personal Protection

	Exposure Guidelines
Air	AIR, COMPRESSED: No occupational exposure limits established.
Carbon Dioxide	CARBON DIOXIDE, GAS: CARBON DIOXIDE: 5000 ppm (9000 mg/m ³) OSHA TWA 10000 ppm (18000 mg/m ³) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) 30000 ppm (54000 mg/m ³) OSHA STEL (vacated by 58 FR 35338, June 30, 1993) 5000 ppm ACGIH TWA 30000 ppm ACGIH STEL 5000 ppm (9000 mg/m ³) NIOSH recommended TWA 10 hour(s) 30000 ppm (54000 mg/m ³) NIOSH recommended STEL

Engineering Controls

Handle only in fully enclosed systems.

	Eye Protection	Skin Protection	Respiratory Protection
Air	Eye protection not required under normal conditions.	Protective clothing is not required under normal conditions.	No respirator is required under normal conditions of use.
Carbon Dioxide	For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing.	Any appropriate escape-type, self-contained breathing apparatus.

General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

Section 9: Physical and Chemical Properties

	Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor	Taste
Air	Gas	Clear	Colorless		Gas	Not available	
Carbon Dioxide	Gas	Colorless	Colorless	N/A	Gas	Odorless	Acid taste

	Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
Air						
Carbon Dioxide	Not flammable	Not available	N/A	Nonflammable	Nonflammable	Nonflammable

	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity
Air	-317 F (-194 C)	Not available	760 mmHg @ -194 C	1	Not applicable	Slightly soluble	Not applicable	Not available	Not applicable	0.01853 cP @ 26.85 C
Carbon Dioxide	Not available	-71 F (-57 C) @ 4000 mmHg	43700 mmHg @ 21 C	1.5 (Air=1)	1.522 @ 21 C	Soluble	3.7 (saturated aqueous solution) @ 101.3 kPa (carbonic acid)	Not available	Not applicable	0.01657 cP @ 0 C

	Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
Air			1.29 g/L @ 0 C			Not applicable	Slightly Soluble
Carbon Dioxide	44.01	C-O2	0.114	Not available	Not applicable	Not applicable	Soluble: Alcohol, acetone, hydrocarbons, organic solvents

Section 10: Stability and Reactivity

	Stability	Conditions to Avoid	Incompatible Materials
Air	Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	None known
Carbon Dioxide	Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	Combustible materials, oxidizing materials, metal salts, reducing agents, metal carbide, metals, bases

	Hazardous Decomposition Products	Possibility of Hazardous Reactions
Air	No hazard expected.	Will not polymerize.
Carbon Dioxide	Carbon monoxide	Will not polymerize.

Section 11: Toxicology Information

Acute Effects

	Oral LD50	Dermal LD50	Inhalation
Air	Not available	Not available	
Carbon Dioxide	Not established	Not established	Ringling in the ears, nausea, irregular heartbeat, headache, drowsiness, dizziness, tingling sensation, visual disturbances, suffocation, convulsions, coma

	Eye Irritation	Skin Irritation	Sensitization
Air	No information is available	No information is available	No significant target effects reported.
Carbon Dioxide	Irritation, frostbite, blurred vision	Liquid: blisters, frostbite	Difficulty breathing

Chronic Effects

	Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
Air	Not available	Not available	No data	No data
Carbon Dioxide	Not available	Not established	Available.	No data

Section 12: Ecological Information

Fate and Transport

	Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Air	Fish toxicity: Not available	Not available	Not available	Not available
Carbon Dioxide	Fish toxicity: 150000 ug/L 48 day(s) (Mortality) Brown trout (Salmo trutta) Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Relatively non-persistent in the environment. Moderately volatile from water.	Accumulates very little in the bodies of living organisms.	Leaches through the soil

Section 13: Disposal Considerations

Air	Dispose in accordance with all applicable regulations.
Carbon Dioxide	Dispose in accordance with all applicable regulations.

Section 14: Transportation Information

U.S. DOT 49 CFR 172.101

DOT Information For This Mixture

Shipping Name	Compressed gas, n.o.s. (Air, Carbon Dioxide)
UN Number	UN1956
Hazard Class	2.2
Hazard Information	Non-Flammable Gas

Individual Component Information

	Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Air	Air, compressed	UN1002	2.2	Not available	2.2	Not available	Not available	Not available
Carbon Dioxide	Carbon dioxide	UN1013	2.2	Not applicable	2.2	75 kg or L	150kg	None

Canadian Transportation of Dangerous Goods

	Shipping Name	UN Number	Class	Packing Group / Risk Group
Air	Air, compressed	UN1002	2.2	Not available
Carbon Dioxide	Carbon dioxide	UN1013	2.2	Not applicable

Section 15: Regulatory Information

U.S. Regulations

	CERCLA Sections	SARA 355.30	SARA 355.40
Air	Not regulated.	Not regulated.	Not regulated.
Carbon Dioxide	Not regulated.	Not regulated.	Not regulated.

SARA 370.21

	Acute	Chronic	Fire	Reactive	Sudden Release
Air	No	No	No	No	Yes
Carbon Dioxide	Yes	No	No	No	Yes

SARA 372.65

Air	Not regulated.
Carbon Dioxide	Not regulated.

OSHA Process Safety

Air	Not regulated.
Carbon Dioxide	Not regulated.

State Regulations

	CA Proposition 65
Air	Not regulated.
Carbon Dioxide	Not regulated.

Canadian Regulations

	WHMIS Classification
Air	A
Carbon Dioxide	A

National Inventory Status

	US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Air	Not listed on inventory.	Not listed.	Not determined.
Carbon Dioxide	Listed on inventory.	Not listed.	Listed on inventory.

Section 16: Other Information

	NFPA Rating
Air	HEALTH=0 FIRE=0 REACTIVITY=0
Carbon Dioxide	HEALTH=2 FIRE=0 REACTIVITY=0

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard