



TETRA Technologies, Inc.

Material Safety Data Sheet

This MSDS Sheet complies with the style format specified by ANSI Z400.1-1993

SECTION 1: CHEMICAL PRODUCT - COMPANY IDENTIFICATION

TETRA Technologies, Inc.

25025 I-45 North
The Woodlands, Texas 77380
(281) 367-1983
(800) 327-7817

(800) 424-9300 - CHEMTREC (24 Hours Emergency Response)

PRODUCT: TETRA Carb-Medium

SUBSTANCE: Calcium Carbonate

TRADE NAME: TETRA Carb-Fine, TETRA Carb-Medium, TETRA Carb-Coarse, PayZone® Carb-Ultra™, PayZone® Carb-Prime™

SYNONYM: Calcium Carbonate, Calcium Monocarbonate, CaCO₃, Limestone

CHEMICAL FAMILY: Metal Salt

MSDS CREATION DATE: 15 JAN 97

MSDS REVISION DATE: 28 JAN 97

SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENTS: Calcium Carbonate

CAS NUMBER: 471-34-1

RTECS NUMBER: EV9580000

PERCENTAGE:	Calcium Carbonate	>92%
	Magnesium Carbonate	<2%
	Crystalline Silica	<3%

PROBABLE CONTAMINANTS: Magnesium Carbonate, Crystalline Silica

SECTION 3: HAZARDS IDENTIFICATION

NFPA RATINGS: (SCALE 0-4): HEALTH=1, FIRE=0, REACTIVITY=0

EMERGENCY OVERVIEW: White, gray, or light pink odorless powder. May affect respiration. Avoid breathing dust. Avoid contact with eyes and skin. Avoid dust dispersal. Wash thoroughly after handling. Use only with adequate ventilation.

POTENTIAL HEALTH EFFECTS:



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INHALATION:

Short Term Effects: May cause mechanical irritation with coughing and sneezing.

Long Term Effects: No information available.

SKIN CONTACT:

Short Term Effects: May cause irritation.

Long Term Effects: Same effects as short term exposure.

EYE CONTACT:

Short Term Effects: May cause irritation. Additional effects may include tearing.

Long Term Effects: Same effects as short term exposure.

INGESTION:

Short Term Effects: May cause nausea and diarrhea.

Long Term Effects: In addition to effects from short term exposure, vomiting, stomach pain and frequent urination may occur.

CARCINOGEN STATUS:

OSHA: No **NTP:** No **IARC:** No

SECTION 4: FIRST AID MEASURES

INHALATION: Remove from exposure area to fresh air immediately. Perform artificial resuscitation if necessary. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

SKIN CONTACT: Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes).

EYE CONTACT: Flush eyes immediately with large amounts of water or normal saline solution, occasionally lifting upper and lower lids until no evidence of chemical remains (at least 15-20 minutes). Get medical attention if needed.

INGESTION: If vomiting occurs, keep head lower than hips to help prevent aspiration. Treat symptomatically and supportively. Get medical attention immediately.

NOTE TO PHYSICIAN: Antidote:

No specific antidote. Treat symptomatically and supportively.



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SECTION 5: FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARD: Negligible fire hazard when exposed to heat or flame.

EXTINGUISHING MEDIA: Extinguish using agent suitable for type of surrounding fire.

FIREFIGHTING: No acute hazard. Move container from fire area if you can do it without risk. Avoid breathing dusts, keep upwind.

HAZARDOUS COMBUSTION PRODUCTS: Thermal decomposition products may include corrosive calcium oxide and toxic carbon oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL SPILL: For spills, sweep up/scoop-up with minimal dust and place into suitable clean, dry containers for reclamation or later disposal.

SECTION 7: HANDLING AND STORAGE

Observe all federal, state, and local regulations when storing this substance. Store away from incompatible substances.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

Calcium Carbonate:

OSHA TWA - 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction)

ACGIH TWA - 10 mg/m³ (total dust, no asbestos and < 1% crystalline silica)

NIOSH TWA - 10 mg/m³ (total dust), 5 mg/m³ (respirable fraction)

[Measurement method for above: Particulate filter; acid; atomic absorption spectrometry (NIOSH III #7020, Calcium).]

Magnesium Carbonate:

OSHA TWA - 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction)

ACGIH TWA - 10 mg/m³ (total dust)

Crystalline Silica Quartz:

NIOSH TWA - 0.05 mg/m³

ACGIH TWA - 0.1 mg/m³ (respirable fraction)

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VENTILATION: Provide general dilution ventilation to meet published exposure limits.

EYE PROTECTION: Wear safety glasses with splash shields or safety goggles to prevent contact with this substance.

EMERGENCY WASH FACILITIES: Where there is any possibility that an employee's eyes and/or skin may be exposed to this substance, the employer should provide an eye wash fountain within the immediate work area for emergency use.

CLOTHING: Wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

GLOVES: Wear appropriate protective gloves to prevent contact with this substance.

RESPIRATOR: If a respirator is utilized, selection must be based on contamination levels found in the work place and specific to the job assignment. Do not exceed the working limits of the respirator. Respirators must also be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA). These respirators are ranked from minimum to maximum respiratory protection as listed below:

- Any dust and mist respirator with a full facepiece;
- Any air-purifying full facepiece respirator with a high-efficiency particulate filter;
- Any powered air-purifying respirator with a tight-fitting facepiece and high-efficiency particulate filter;
- Any Type 'C' supplied-air respirator with a full facepiece operated in pressure-demand or other positive-pressure mode or with a full facepiece, helmet or hood operated in continuous-flow mode;
- Any self-contained breathing apparatus with a full facepiece operated in pressure-demand or other positive-pressure mode.

FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH

CONDITIONS: Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.



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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

DESCRIPTION: White, gray, or light pink odorless powder.

MOLECULAR WEIGHT: 100.09

MOLECULAR FORMULA: CaCO₃

SPECIFIC GRAVITY: 2.7-2.9

MELTING POINT: Decomposes @ 1,517-2,442⁰ F (825-1,339° C)

BOILING POINT: Not Applicable

VAPOR PRESSURE: Not Applicable

VAPOR DENSITY: Not Applicable

WATER SOLUBILITY: Negligible

SOLVENT SOLUBILITY: Soluble in acetic acid, hydrochloric acid, nitric acid, other acids, ammonium chloride; insoluble in alcohol

HARDNESS: 3 (Mohs Scale)

pH: 8.0-9.0 (@ 10% solids in aqueous solution)

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Stable under normal temperatures and pressures.

CONDITIONS TO AVOID: Prevent dispersion of dust in air.

INCOMPATIBILITIES:

Acids: Contact may release carbon dioxide gas.

Fluorine: Contact may cause violent reaction.

Aluminum: Incompatible.

Magnesium: Mixture may explode when heated in a stream of hydrogen gas.

HAZARDOUS DECOMPOSITION: Thermal decomposition products may include corrosive calcium oxide and toxic carbon oxides.

POLYMERIZATION: Hazardous polymerization has not been reported to occur under normal temperatures and pressures.



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SECTION 11: TOXICOLOGICAL INFORMATION

TOXICITY DATA:

Calcium Carbonate (100%):

LD₅₀: 6,450 mg/kg, oral, rat

CARCINOGEN STATUS: None.

LOCAL EFFECTS: Irritant-skin, eye.

ACUTE TOXICITY LEVEL: Slightly toxic by ingestion.

TARGET EFFECT: No data available.

INHALATION:

ACGIH classifies limestone as a nuisance dust when toxic impurities are not present.

Acute Exposure: Nuisance dusts have little adverse effect on the lungs, and do not produce significant organic disease or toxic effect when exposures are kept under reasonable control. Excessive concentrations may cause injury to the mucous membranes by mechanical action and aggravate existing lung conditions.

Chronic Exposure: No reports can be found on adverse effects caused by prolonged exposure to pure limestone.

SKIN CONTACT:

Acute Exposure: May be irritating.

Chronic Exposure: Repeated and prolonged contact with irritants may cause dermatitis.

EYE CONTACT:

Acute Exposure: May cause redness, pain, and tearing.

Chronic Exposure: Repeated and prolonged exposure to irritants may cause conjunctivitis.

INGESTION:

Acute Exposure: May cause gastric irritation with belching, occasional nausea, constipation or diarrhea and an increase in gastric secretions.

Chronic Exposure: Same as acute exposure. May also cause intestinal obstruction if very large doses are ingested. No data available.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL IMPACT RATING (0-4): No data available.

ACUTE AQUATIC TOXICITY: No data available.

DEGRADABILITY: No data available.

LOG BIOCONCENTRATION FACTOR (BCF): No data available.

LOG OCTANOL/WATER PARTITION COEFFICIENT: No data available.



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SECTION 13: DISPOSAL INFORMATION:

Observe all federal, state and local regulations when disposing of this substance.

SECTION 14: TRANSPORT INFORMATION

DOT Shipping Name-ID Number: Non-regulated

SECTION 15: REGULATORY INFORMATION

	TSCA STATUS:	Yes
	DSL STATUS:	Yes
	EINECS:	Yes
40 CFR 302.4	CERCLA SECTION 103:	No
40 CFR 355.30	SARA SECTION 302:	No
40 CFR 355.40	SARA SECTION 304:	No
40 CFR 372.65	SARA SECTION 313:	No
29 CFR 1910.119	OSHA Process Safety:	No
	California Proposition 65:	No
40 CFR 370.21	SARA HAZARD CATEGORIES, SARA SECTIONS 311/312	
	ACUTE HAZARD:	Yes
	CHRONIC HAZARD:	No
	FIRE HAZARD:	No
	REACTIVITY HAZARD:	No
	SUDDEN RELEASE HAZARD:	No



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SECTION 16: OTHER INFORMATION

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any other processes. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy themselves as to the suitability and completeness of such information for their own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.

TETRA reserves the right to refuse shipment of this material to any consumer who fails to demonstrate the ability to consistently handle and use it safely and in compliance with all applicable laws, rules and regulations. Such demonstration may require on-site inspection of any or all storage, processing, packaging, and other handling systems that come in contact with it.

Customers are responsible for compliance with local, state, and federal regulations that may be pertinent in the storage, application, and disposal of this product.