

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

SECTION 1: CHEMICAL PRODUCT - COMPANY IDENTIFICATION

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

(800) 424-9300 **CHEMTREC (24-Hour Emergency Response)**
(800) 222-1222 **POISON CONTROL**

PRODUCT: Buff-10™
CHEMICAL FAMILY: Inorganic Salt
MSDS CREATION DATE: 06 JAN 97
MSDS REVISION DATE: 23 JAN 03

SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	RTECS NUMBER	PERCENTAGE
Magnesium Oxide	1309-48-4	OM3850000	>99%

PROBABLE CONTAMINANT: Calcium Oxide, Silica, Iron Oxide, Chlorides

SECTION 3: HAZARDS IDENTIFICATION

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

EMERGENCY OVERVIEW: Odorless, white, /off-white powder. May cause irritation. Do not get in eyes, on skin or on clothing. Avoid repeated or prolonged contact with, skin and clothing. Wash thoroughly after handling. Use only with adequate ventilation.

POTENTIAL HEALTH EFFECTS:

INHALATION: May cause irritation.

SKIN CONTACT: May cause irritation.

EYE CONTACT: May cause irritation.

INGESTION: May cause irritation, nausea, vomiting, diarrhea, stomach pain.

CARCINOGEN STATUS:

OSHA: No NTP: No IARC: No

SECTION 4: FIRST AID MEASURES

INHALATION: If adverse effects occur, remove from contaminated area. Get medical attention immediately.

SKIN CONTACT: Wash with large amounts of soap and water. Remove contaminated clothing a clean before reuse. Get medical attention if needed.

EYE CONTACT: Flush eyes with large amounts of water. Get medical attention immediately.

INGESTION: If large amount is swallowed, get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARD: Negligible fire hazard.

EXTINGUISHING MEDIA: Use extinguishing agents appropriate for surrounding fire.

FIREFIGHTING: Move product from fire area if you can without risk. Avoid inhalation of material or combustion by-products. Keep upwind and out of low areas.



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HAZARDOUS COMBUSTION PRODUCTS: Thermal decomposition may release toxic and/or hazardous gases.

SECTION 6: ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL SPILL: Absorb with sand or other non-combustible material. Collect in appropriate container for disposal.

SECTION 7: HANDLING AND STORAGE

Observe all federal, state and local regulations when storing this product. Keep dry. Store with bases and keep away from incompatible materials. Use methods to minimize dust.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

OSHA (TWA) (fume)(total particulate)	ACGIH TWA (fume)	DFG MAK TWA (inhalable dust fraction)	DFG MAK (respirable dust fraction)
15 mg/m3	10 mg/m3	4 mg/m3	1.5 mg/m3

VENTILATION: Provide local exhaust ventilation system. Ensure compliance with exposure limits.

EYE PROTECTION: Wear safety glasses with splash shields or safety goggles/shield.

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

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: If a respirator is utilized, the 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. The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA:

150 mg/m3: Any dust, mist and fume respirator or supplied-air respirator

375 mg/m3: Any supplied-air respirator operated in a continuous flow method
Any powered, air-purifying respirator with a dust, mist and fume filter

750 mg/m3: Any air-purifying respirator with a full facepiece and high efficiency particulate filter
Any powered, air-purifying respirator with tight fitting facepiece and high efficiency particulate filter
Any self contained breathing apparatus with a full facepiece.
Any supplied air respirator with a full facepiece.

FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH

CONDITIONS: Any supplied air respirator with full facepiece and operated in a pressure demand or other positive pressure mode in combination with a separate escape supply or self-contained breathing apparatus with full facepiece.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

DESCRIPTION: White/off-white powder. Odorless.

MELTING POINT: >1999° F (>1093 ° C)

SPECIFIC GRAVITY (water=1): 2.5 –3.5)

WATER SOLUBILITY: <5%

SOLVENT SOLUBILITY: Soluble in dilute acids and ammonium salt solutions; insoluble in alcohol.

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SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Stable under normal temperatures and pressures.
CONDITIONS TO AVOID: None reported.
INCOMPATIBILITIES: **Acids (strong)** - Violent reaction.
HAZARDOUS DECOMPOSITION: Miscellaneous decomposition products.
POLYMERIZATION: Will not polymerize

SECTION 11: TOXICOLOGICAL INFORMATION**TOXICITY DATA:**

TC_{Lo}: 400 mg/m³, inhalation, human

Mutagenic data and tumorigenic data-see Registry of Toxic Effects of Chemical Substances (RTECS) file.

CARCINOGEN STATUS: None.

TARGET EFFECTS: No data available.

INHALATION: The dust may cause respiratory tract irritation. Metal fume fever, an influenza-like illness, may occur if freshly formed magnesium oxide fumes composed of particles sized between 0.02-0.05 microns are inhaled in sufficient amounts. Symptoms may be delayed 4-12 hours and begin with a sudden onset of thirst, and a sweet, metallic or foul taste in the mouth. Other symptoms may include upper respiratory tract irritation accompanied by coughing and a dryness of the mucous membranes, lethargy and a generalized feeling of depression. Fever, chills, muscular pain, mild to severe headache, nausea, occasional vomiting, exaggerated mental activity, profuse sweating, excessive urination, diarrhea, and prostration may also occur. Tolerance to fumes develops rapidly, but is quickly lost. All symptoms usually subside within 24-36 hours.

SKIN CONTACT: May cause slight irritation.

EYE CONTACT: May cause slight irritation, redness and pain.

INGESTION: May cause diarrhea. These salts are generally so slowly absorbed that oral administration causes nothing more than purging. If evacuation fails, mucosal irritation and absorption may occur. Systemically, these salts may produce central nervous system depression, abolition of reflexes and death from respiratory paralysis.

SECTION 12: ECOLOGICAL INFORMATION

No data available.

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
CERCLA SECTION 103:	No
SARA TITLE III SECTIONS 302,304,311/312:	No
OSHA Process Safety	No
California Proposition 65	No
WHMIS CLASSIFICATION:	Not determined

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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 product designated and may not be valid for such product 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 users' 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 Technologies, Inc. reserves the right to refuse shipment of this product 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.