



MATERIAL SAFETY DATA SHEET

CORRAL CLEANER

(General Distribution Version)

MSDS prepared by American Cleaning Technologies Inc.

Emergency First Aid Procedures are found in the last entry of Section Six

Section One: Name of the Product and of the Distributor

Product Name: Corral Cleaner

Distributed By:

American Cleaning Technologies Inc.

Synonyms: Terra Firma Cleaner , Trash Bin Cleaner,

P.O. Box 386

Dacono, Colorado 80514-0386

CAS Registration: None

303-833-5393

Section Two: Hazardous Ingredients/Identity Information

According to the best information available to American Cleaning Technologies Inc, (ACT, Inc) controlling exposures to 1.3 mg/m³ of total product, or 0.45 mg/m³ of respirable product will control exposure for all contaminants except subtilisins, which must be determined specifically. Persons allergic to cotton dusts should avoid contact with the dust. Persons with cotton hypersensitivity or cross-sensitivity should avoid contact with the dust.

Nonhuman exposures are typically not within the realm of MSDSs. However, to ensure the highest degree of safety, ACT, Inc. has evaluated the potential impact the microbial component this product may have on livestock, bloodstock and other agricultural stocks. One of the microbial components has been associated with isolated (extremely few) cases of bovine abortion and bovine mastitis. The cases of diseases in cattle were considered to be strictly opportunistic, and the organism is not considered a pathogen for cattle, nor for other animal species. In summary, normal, healthy animals should have no susceptibility to any of the microbial species in our product. There is no indication in the literature that the Bacterial component would pose any harm to animals in contact with Terra Firma Cleaner/Trash Bin Cleaner/Corral Cleaner. All of the microbial species used in our product are common environmental Bacteria, and some are not uncommon flora found in healthy animals.

Section Three: Physical and Chemical Characteristics

Boiling Point (°F):	>1000 °F(with significant weight loss at elevated temperatures)
Specific Gravity:	Approximately 2.0 g/cm ³ (estimated)
Melting Point:	>1000 °F
Vapor Density:	Will not form vapor at normal temperature and pressure.
Vapor Pressure:	Will not form vapor at normal temperature and pressure.
Molecular Weight:	Complex Mixture
Solubility(%v/v):	<5% (Estimated)
Photoreactive VOC's:	None
pH:	Not determined for the dry material
Evaporation Rate:	Will not evaporate
% Volatility:	<0.1%
Odor Threshold:	Not determined, anticipated to be greater than 7, less than 12
Odor:	Dry dusty odor
Appearance:	Gray powder with large lumps

Section Four: Fire and Explosion Hazard Data

Flash Point	Auto ignition Temperature	L.E.L.	U.E.L
Will not flash	Will not autoignite	>10,000 mg/m ³ (estimated)	NA

Extinguishing Media and Special Fire Fighting Procedure: In the event of a fire, fight the predominate fuel. The addition of acids to this product will result in the generation of CO₂, and heat. If acids are in contact with the product in a closed container, significant pressures may develop.

General Fire/Explosion Discussion: This product is non-flammable. The substance decomposes at high temperature producing carbon dioxide and carbon monoxide. Pyrolysis of vegetable matter may occur at high temperatures.

Section Five: Reactivity Data and Storage Information

Stability: Spontaneous polymerization or reactions will not occur. The material should not be permitted to remain in contact with open air when exposed to oils. If contact with oils results in excessive heat, the material should be disposed in sealed containers or buried.

Hazardous Decomposition Products: The addition of water will result in the generation of heat and pressure build up may occur in closed containers. Mineral acids (muriatic acid etc.) will result in violent effervescence and generation of copious amounts of CO₂.

Incompatibility: Acids and Water

Handling: This material may irritate unprotected skin, eyes and mucus membranes.

Storage: Store in a sealed container in a dry location away from acids.

Section Six: Health Hazard Data

General Discussion: The primary adverse health concerns with the product are due to 1) incidental silica content 2) hypersensitivity (allergic) reactions to plant material, 3) exposure to proteolytic enzymes. Smokers who use our product will be at a greater risk of contracting adverse health problems.

Notes to Industrial Hygienist and Physician: Potential "first-day-back-at-work" allergen. ACT, Inc. highly recommends that exposures to people with TB, silicotics and others with interstitial lung diseases or fibrosis of the lung should be controlled to a conservative level.

Acute Health Effects: Dust from the product will irritate eyes, skin and mucus membranes. Ingestion may cause immediate CO₂ gas production in the stomach. Anaphylactic (allergic) reaction may occur in people sensitive to cotton-like dusts.

Chronic Health Effects: Silicosis and silicotic-like lung changes may be expected from chronic (long term) inhalation exposures (with concomitant increase in susceptibility to TB). Contact dermatitis may result. Sensitization to the product may develop after prolonged exposure or after a single shocking dose.

Cancer Hazard: Various morphs of silica have different carcinogenic ratings. This product is considered to be carcinogenic due to the silica content. In the table below, we have presented carcinogenic ratings for the most carcinogenic silica morphs.

Organization	Carcinogenic Rating
IARC	1
NTP	2A and 2B
NIOSH	X

Reproductive Hazard: None expected.

EMERGENCY FIRST AID PROCEDURES

Inhalation Exposure: Remove the person to fresh air; avoid concentrations of greater than 0.45 mg/m³ of respirable product. Note to physician; respiratory distress may be due to an anaphylactic reaction to plant fibers, similar to byssinosis, and or (to a lesser extent) subtilisin exposures.

Eye Contact: Minor injury to the eyes may result if the powder contacts the eyes. In the event of contact, immediately flush with large amounts of isotonic eyewash. If eyewash is not available, flush eyes with lukewarm water. Seek medical evaluation.

Skin Contact: Wash exposed skin with warm water and soap.

Oral Ingestion: Following ingestion there will be a rapid and violent effervescence with a moderate quantity of CO2 being evolved. Release gas as needed by belching.

Section Seven: Precautions for Safe Handling and Use

Spills and Emergencies: Sweep the dry material and dispose of as non-hazardous material. If large quantities are spilled (greater than 10 pounds), ACT, Inc. recommends collection of the powder and disposal at an industrial landfill.

Waste Disposal: If this material is disposed of in its raw form, the product probably would not meet the definition of a hazardous waste as defined by RCRA. However, if large quantities are spilled (greater than 10 pounds), ACT, Inc. recommends collection of the powder and disposal at an industrial landfill.

Section Eight: Control Measures

Ventilation: Standard industrial hygiene ventilation practices should be used to control human exposures to this product.

Personal Protective Equipment:

Clothing: Standard work clothing should provide adequate protection. The clothing should be removed at the end of the work shift and maintained at the work site. Caution should be used during laundering to avoid dust.

Gloves: Standard nitrile or latex gloves will provide adequate protection.

Eye Protection: Standard safety glasses with side shields are recommended.

Respiratory Protection: Workplace controls and good work practices are better than personal protective equipment including the use of respirators. These recommendations are only guidelines and may not apply to every situation. Respiratory protection equivalent to the pre 42 CFR part 84 HEPA filter (APR with a DFM (purple) cartridge) will provide adequate protection. It is the opinion of ACT, Inc. that dust masks will not provide adequate protection.

Personal Decontamination: Good personal hygiene should be exercised by all users of our product.

Section Nine: Regulatory Issues

Environmental Regulations Resource Conservation and Recovery Act: If our product were discarded as purchased, the material would probably not be a hazardous waste as defined by RCRA. However, it remains the responsibility of the end user to determine compliance with RCRA and to perform testing as specified under 40 CFR §261.21 through §261.24. The following table addresses the expected listing for our product under RCRA.

§261.21 Ignitability	No
§261.22 Corrosivity	No
§261.23 Reactivity	No
§261.24 Toxicity (D Code)	None
F CODES	Unknown
K CODES	No
P CODES	No
U CODES	Unknown

Water Pollution Control Act: Not determined. This material should not be disposed of in municipal services or natural waters.

Community Right to Know (SARA III)

Spill Reportable Quantity (§302)	NA
SECTION 311 (§370)	NA
SECTION 312 (§370)	NA
SECTION 313 (§372.65)	NA
EXTREMELY HAZARDOUS LIST (§355)	No
REPORTING THRESHOLD	NA

Toxic Substance Control Act: All of the constituents found in the product are believed to be on the TSCA inventory.

State Regulations: This MSDS has been prepared to comply with the provisions found in the Federal Department of Labor OSHA Hazard Communication Standard. Several states, most notably CA, PA, NJ and MA have independently promulgated regulations pertaining to MSDSs. ACT, Inc. has not specifically determined if this MSDS is in compliance with the provisions for any particular state. The information provided below is for general information only and is not necessarily complete. It is possible that the product contains other compounds which appear on various state lists.

California Proposition 65: Silica is included on the California "List of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity." We believe that the information contained in this MSDS provides the information needed under Proposition 65 for the employer to inform the employee of the reproductive and carcinogenic hazards.

Massachusetts, NJ, Pennsylvania

This MSDS has not been prepared specifically to comply with these state regulations and may or may not contain compounds present at such levels which could require reporting as required by the state.

DISCLAIMER

The information contained in this MSDS relates specifically to the material and may not be valid if used in combination with other materials or in any unspecified process. The information on our product is accurate to the best of our knowledge but does not purport to be all inclusive and must only be used as a general guide. It is the user's responsibility to ensure that the product will be suitable for their particular use. The user assumes all responsibility for compliance with applicable Federal, State and Local Regulations. We do not accept liability for damage or loss that may occur from the use of this information.