

SAFETY DATA SHEET

TERRAMEND™ Carbon

SDS # : TERAC-C
Revision date: 2021-10-14
Format: NA
Version 1.03



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name TERRAMEND™ Carbon
Alternate Commercial Name Aerobic Daramend®

Recommended use of the chemical and restrictions on use

Recommended Use: Bioremediation product for the remediation of contaminated soil and groundwater
Restrictions on Use No uses to be advised against were identified.

Manufacturer/Supplier

Evonik Active Oxygens, LLC
2005 Market Street
Suite 3200
Philadelphia, PA 19103
Phone: +1 267/ 422-2400 (General Information)
E-Mail: Product-regulatory-services@evonik.com

Emergency telephone numbers

For leak, fire, spill or accident emergencies, call:
1 800 / 424 9300 (CHEMTREC - U.S.A.)
1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)
+1 303/ 389-1409 (Medical - U.S. - Call Collect)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Not classified

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

CONTAINMENT HAZARD: Any vessel that contains wet TERRAMEND must be vented due to potential pressure build up from fermentation gases. Bulk TERRAMEND packages must be kept dry to avoid risk of spontaneous combustion common to many bulk organic materials.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No	Weight %
Calcium carbonate	471-34-1	10-20
Organic amendment	Proprietary	70-90
Soy lecithin	RR-35148-4	1-5

4. FIRST AID MEASURES

Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if symptoms occur.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
Inhalation	Move victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately if symptoms occur.
Ingestion	Rinse mouth with water and afterwards drink plenty of water or milk. Do not induce vomiting or give anything by mouth to an unconscious person. Call a poison control center or doctor immediately for treatment advice. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	Inhalation of dust in high concentration may cause irritation of respiratory system.
Indication of immediate medical attention and special treatment	Treat symptomatically

needed, if necessary

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Water, Foam, Carbon dioxide (CO ₂). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific Hazards Arising from the Chemical	.
Flammable properties	Combustible material
Hazardous Combustion Products	Phosphorus oxides; Nitrogen oxides (NO _x); Ammonia.
Explosion data	
Sensitivity to Mechanical Impact	Not sensitive.
Sensitivity to Static Discharge	Not sensitive.
Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid dust formation. For personal protection see Section 8.
Other	For further clean-up instructions, call PeroxyChem Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
Environmental Precautions	No special environmental precautions required.
Methods for Containment	Sweep or vacuum up spillage and return to container. Material may be recycled when contamination is not a problem.
Methods for cleaning up	After cleaning, flush away traces with water. Dispose of waste as indicated in Section 13.

7. HANDLING AND STORAGE

Handling	Avoid dust formation. Handle in accordance with good industrial hygiene and safety practice.
Storage	Keep tightly closed in a dry and cool place. Any vessel that contains wet TERRAMEND must be vented due to potential pressure build up from fermentation gases.
Incompatible products	Powdered magnesium, Strong acids, Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Calcium carbonate 471-34-1	-	-	TWA: 10 mg/m ³ TWA: 5 mg/m ³	-
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Calcium carbonate	-	TWA: 10 mg/m ³	-	TWA: 10 mg/m ³

471-34-1				
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Appropriate engineering controls

Engineering measures Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and Body Protection Wear suitable protective clothing. Protective shoes or boots.

Hand Protection Protective gloves

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Hygiene measures Clean water should be available for washing in case of eye or skin contamination. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product.

General information These recommendations apply to the product as supplied

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Flakes, Yellow to brown
Physical State	Solid
Color	No information available
Odor	odorless
Odor threshold	No information available
pH	4.8 - 5.1 (as aqueous solution)
Melting point/freezing point	No information available
Boiling Point/Range	No information available
Flash point	Not applicable
Evaporation Rate	No information available
Flammability (solid, gas)	Combustible material
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Density	No information available
Specific gravity	No information available
Water solubility	slightly soluble
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	Not explosive
K_{st}	0 bar-m/sec
Oxidizing properties	No information available
<u>Other Information</u>	
Molecular weight	No information available
No information available	

10. STABILITY AND REACTIVITY

Reactivity	None under normal use conditions.
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat. Humid air.
Incompatible materials	Powdered magnesium, Strong acids, Strong bases.
Hazardous Decomposition Products	None under normal use.

11. TOXICOLOGICAL INFORMATION**Product Information**

LD50 Oral	> 2,000 5000 mg/kg (rat) (calculated)
LD50 Dermal	No information available
LC50 Inhalation	No information available

Sensitization Not expected to be sensitizing based on the components.

Component Information

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation	NOAEL Oral Value
Calcium carbonate (471-34-1)	= 6450 mg/kg (Rat)			
Amorphous silica gel (7631-86-9)	= 7900 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h	
Aluminum Oxide (1344-28-1)	> 5000 mg/kg (Rat)			

Information on toxicological effects

Symptoms Dust is irritating eyes, nose, throat, and lungs.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation corrosivity	Not expected to be irritating based on the components. Not applicable.
Carcinogenicity	This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product.
Mutagenicity	This product is not recognized as mutagenic by Research Agencies
Neurological effects	None known
Reproductive toxicity Developmental toxicity	This product does not contain any known or suspected reproductive hazards. Contains no known teratogenic components.

STOT - single exposure No information available.
STOT - repeated exposure No information available.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects There are no data available for this product. Not expected to have significant environmental effects.

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to Microorganisms	Toxicity to daphnia and other aquatic invertebrates
Amorphous silica gel	72 h EC50: = 440 mg/L (Pseudokirchneriella subcapitata)	96 h LC50: = 5000 mg/L (Brachydanio rerio) static		48 h EC50: = 7600 mg/L (Ceriodaphnia dubia)

Persistence and degradability No product level data available. The organic components are biodegradable and can be expected to contribute to BOD.

Bioaccumulation Bioaccumulation is unlikely.

Mobility Is not likely mobile in the environment due its low water solubility.

Other Adverse Effects None known.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

DOT NOT REGULATED

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any

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chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS-No	Weight %	SARA 313 - Threshold Values %
Aluminum Oxide - 1344-28-1	1344-28-1	0.2	1.0

SARA 311/312 Hazard Categories

This product is not subject to reporting under the Emergency Planning and Community Right-to-Know rule.

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA/EPCRA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations**U.S. State Right-to-Know Regulations**

This product contains the following substances regulated under state Right-to-Know laws:

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Calcium carbonate					X

California Proposition 65

This product does not contain any Proposition 65 chemicals

CANADA**Environmental Emergencies**

This product contains no substances listed under Canada's Environmental Emergency regulations.

Canadian National Pollutant Release Inventory

This product contains no substances reportable under Canada's National Pollutant Release Inventory regulations.

International Inventories

All ingredients are directly listed on the active TSCA Inventory

Mexico

Mexico - Grade Slight risk, Grade 1

16. OTHER INFORMATION

NFPA	Health Hazards 1	Flammability 0	Stability 0	Special Hazards -
HMIS	Health Hazards 1	Flammability 0	Physical hazard 0	Special precautions -

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Revision note Manufacturer name changed.

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Prepared By:

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End of Safety Data Sheet