

MATERIAL SAFETY DATA SHEET

Product Name: NEUTRAL ZONE

REMEDICATION AND NATURAL ATTENUATION SERVICES, INC.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: NEUTRAL ZONE

Emergency phone: Chemtrec 800-424-9300

Product Information: 763-585-6191

Company: REMEDIATION AND NATURAL ATTENUATION SERVICES, INC.
6712 WEST RIVER ROAD
BROOKLYN CENTER, MN 55430

Date Prepared: 12-31-07

Supersedes: NEW

Prepared By: JAS

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS No.</u>	<u>Exposure Limits</u>	<u>Typical % by weight</u>
1. Calcium Carbonate	471-34-1	OSHA PEL: TWA 15 mg/m3 (Total Dust) 5 mg/m3 (Respirable Dust) ACGIH TLV:TWA 10 mg/m3 (Total Dust)	45 -55
2. Water	7732-18-5	N/A	40 - 50
3. Ethyl Alcohol	64-17-5	OSHA PEL: TWA 1000 ppm ACGIH TLV:TWA 1000 ppm	3 - 7
4. Proprietary Non-Toxic Additives	*****	N/A	<1

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION: Combustible. May cause eye irritation. May cause skin irritation with prolonged contact. Inhalation of mist may cause irritation to respiratory tract. Harmful if swallowed. Wash thoroughly after handling. Do not take internally.

EFFECTS of OVEREXPOSURE:

CARCINOGENICITY:

NTP: No

IARC: No

OSHA: No

EYES: May cause eye irritation.

SKIN: Repeated or prolonged contact may cause skin irritation.

INHALATION: Mist may cause irritation to mucous membranes and respiratory tract.

INGESTION: May cause temporary irritation of the throat, stomach and gastrointestinal tract.

CHRONIC EFFECTS and MEDICAL CONDITIONS: The effects of long-term, low-level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the avoidance of all effects from repetitive acute exposure. This product may aggravate existing eye, skin and respiratory conditions.

4. FIRST AID MEASURES

EYES: Flush with copious amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Get immediate medical attention.

SKIN: Immediately flush with water. Remove contaminated clothing. Launder contaminated clothing before reuse.

INHALATION: Remove to fresh air. If breathing is difficult, oxygen may be given, preferably with a physician's advice. Get medical attention.

INGESTION: If swallowed, give several glasses of water. Do not induce vomiting. If vomiting does occur, give fluids again and keep head below hips to help prevent aspiration. Do not give anything by mouth to an unconscious person. Get immediate medical attention.

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5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point: 130° F Test: PM CC, ASTM D-93

Explosive Limits: LEL: N/A UEL: N/A

NFPA/OSHA CLASS II

EXTINGUISHING MEDIA: Use water spray or foam, dry chemical, CO2

UNUSUAL FIRE and EXPLOSION HAZARDS: Large spills in a confined area could result in vapor concentrations which may produce a more serious fire hazard.

FIREFIGHTING INSTRUCTIONS: Firefighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

NFPA Ratings: Health: 1 Fire: 2 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS: Soak up small spills with inert solids. Use suitable disposal container that is grounded and bonded.

LARGE SPILLS: Evacuate Area. Wear appropriate respirator & protective clothing. Remove leaking containers to open air. Dilute spill with water to reduce combustion hazard. Absorb with sand, dirt or clay absorbents and deposit in suitable disposal containers and remove outside.

7. HANDLING AND STORAGE

Store in a clean, cool, ventilated area away from sources of ignition. Refer to NFPA 30 & OSHA 29CFR 1910.106 "Storage & Handling Combustible Liquids". Clean up spills at once. Electrically grounded handling equipment recommended. Keep container tightly closed when not in use. Protect containers from damage. Always wear appropriate protective clothing. Wash thoroughly after handling.

FOR COMMERCIAL USE ONLY!

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: Avoid splashing. Wear chemical-resistant safety goggles if necessary. Contact lenses must not be worn.

PROTECTIVE GLOVES: Protective gloves for prolonged exposure.

RESPIRATORY PROTECTION: Not normally needed but for prolonged exposure use NIOSH/MSHA approved respiratory protection equipment.

VENTILATION: Use adequate ventilation that would be equivalent to outdoor environment.

OTHER PROTECTIVE EQUIPMENT: Emergency eye wash fountains and safety showers are recommended in the immediate vicinity of any potential exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White opaque slurry.

BOILING POINT: <210°F @ 1ATM

VAPOR PRESSURE (mm): ca water

EVAPORATION RATE: Unknown.

SOLUBILITY IN WATER: Dispersible.

SPECIFIC GRAVITY @25C – 1.45

DENSITY: 12.0 lb./gal. @ 20C

pH(as is): 9.5 ± 0.50

ODOR: Mild alcoholic.

ODOR THRESHOLD (ppm): Not determined.

TOTAL SOLIDS (% by weight): 50.0 ± 5.0

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY (CONDITIONS TO AVOID): Stable.

INCOMPATIBILITY: Strong acids, strong oxidizers and excessive heat.

HAZARDOUS DECOMPOSITION PRODUCTS: Calcium oxide and other toxic gases when burning.

HAZARDOUS POLYMERIZATION: None

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11. TOXICOLOGICAL INFORMATION

LD50 or LC50 found for oral, dermal or inhalation routes of administration.

1. Calcium Carbonate (471-34-1): Oral LD50 Rat: 6450 mg/kg
2. Water (7732-18-5): Oral LD50 Rat: >90ml/kg
3. Ethyl Alcohol (64-17-5):
 - Draize test, Rabbit, Eye: 500 mg Severe
 - Draize test, Rabbit, Eye: 500 mg/24H Mild
 - Draize test, Rabbit, Skin: 20 mg/24H Moderate
 - Inhalation, Rat: LC50: 20000 ppm/10H
 - Oral LD50 Mouse: 3450 mg/kg
 - Oral LD50 Rabbit: 6300 mg/kg
 - Oral LD50 Rat: 7060 mg/kg
 - Ethyl Alcohol has been shown to produce fetotoxicity in the embryo or fetus of laboratory animals.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL/CHEMICAL FATE INFORMATION: This material is not expected to be harmful to aquatic life and shows no bioaccumulation or food chain concentration toxicity potential.

13. DISPOSAL CONSIDERATIONS

RCRA: This product, if disposed as shipped, is not considered a hazardous waste as specified in 40 CFR 261. Dispose in accordance with all applicable federal, state and local regulations.

14. TRANSPORT INFORMATION

SHIPPING NAME: Non-Bulk Packaging: Not Regulated as HAZMAT
Bulk Packaging: Ethyl Alcohol Solutions
HAZARD CLASS: 3
ID#: UN1170
PACKING GROUP: III
LABEL: FLAMMABLE

15. REGULATORY INFORMATION

This material does not contain nor was it manufactured using ozone-depleting chemicals.

U.S. FEDERAL REGULATIONS:

TSCA STATUS: All ingredients on Toxic Substance Control Act Inventory.

CERCLA REPORTABLE QUANTITY: N/A

SARA TITLE III:

Section 302 Extremely Hazardous Substances:	None.
Section 311/312 Hazardous Categories:	Fire Hazard/Immediate (Acute)
Section 313 Toxic Chemicals:	None.

16. OTHER INFORMATION

All label precautions must be observed when handling, storing and transporting empty containers due to product residues. Do not reuse this container unless it is professionally cleaned and reconditioned.

REFERENCES:

- U.S. Dept. of Health and Human Services, NIOSH: Registry of Toxic Effects of Chemical Substances, 1985-86 Edition.
- Sax, N. Irving and Lewis, R.J.: Dangerous Properties of Industrial Materials, 7th Edition, Van Nostrand Reinhold Co., 1989.
- Lewis, R.J.: Hawley's Condensed Chemical Dictionary, 12th Edition, Van Nostrand Reinhold Co., 1993.
- U.S. Dept. of Transportation, U.S. Coast Guard: CHRIS Hazardous Chemical Data, 1982.
- U.S. Dept. of Labor, OSHA: Air Contaminants - Permissible Exposure Limits, 1989.
- National Fire Protection Association (NFPA): Fire Protection Guide on Hazardous Materials (NFPA 325M/49/491M/704), 9th Edition, 1986.

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- National Fire Protection Association (NFPA): Hazardous Materials Response Handbook, Henry, M.F., Editor, 1989.
- Merck & Co., Inc.: The Merck Index, 11th Edition, 1989.

Information herein is given in good faith as authoritative and valid; no warranty, express or implied can be made.