

SAFETY DATA SHEET

NOTICE: Judgment may be based on indirect test and technical literature. The OSHA Hazard Communication Standard only requires SDS's and special labeling for materials defined as "HAZARDOUS"; see 29 CFR 1910.1200 (c). This document may be about a product which is NOT hazardous but is provided as information for our customers. See references for information.

SECTION 1. IDENTIFICATION

Product Identifier: Exact CoreTec-In Product Use: Nitrate/Borate Closed Loop Treatment Manufactured by: Kor-Chem, Inc. 5800 Bucknell Drive Atlanta, GA 30336	Product Identification # (PIF): 00380 Emergency Telephone #: 1-800-255-3924 ChemTel General Information #: 404-344-9580 Date Prepared: January 10, 2018
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SECTION 2. HAZARD(S) IDENTIFICATION

GHS Hazard Codification:



Signal Word: DANGER

Hazard Statement	Category	Code	Hazard Class
May be corrosive to metals	1	H290	Corrosive to Metals
Harmful if swallowed	4	H302	Acute Toxicity, Oral
May be harmful if swallowed and enters airways	2	H305	Aspiration Hazard
Causes severe burns and eye damage	1B	H314	Skin Corrosion
Causes serious eye damage	1	H318	Serious Eye Damage
Harmful to aquatic life with long lasting effects	3	H412	Hazardous to the Aquatic Environment, Long-Term Hazard
May intensify fire; oxidizer	3	H272	Oxidizing Liquids

Precautionary Measures:

Category	Code	Statement
Prevention	P234 P260 P264 P270 P273 P280	Keep only in original container. Do not breathe fumes/mists/ vapors/sprays. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Response	P301+P330+P331 P310+P321 P303+P361+P353 P363 P304+P340 P310 P321 P305+P351+P338 P310 P390	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Specific treatment: See section 4 First Aid Measures IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Specific treatments: See section 4 First Aid Measures. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Absorb spillage to prevent material damage.
Storage	P404 P405	Store in a closed container. Store locked up.
Disposal	P501	Dispose of contents/container in compliance with all Federal, State/Provincial and local laws and regulations.

Hazards not otherwise classified: Prolonged/repeated skin exposures can result in dermatitis. Inhaling mists/sprays of material is corrosive to respiratory tract and may cause pulmonary edema (shortness of breath and tightness of chest). Corrosive to digestive tract. Ingestion may cause severe pain, burning, vomiting and diarrhea. Lung aspiration may result in chemical pneumonitis, pulmonary edema, damage to lung tissue, and in extreme cases death.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Common Name	CAS #	Concentration Range %
Sodium hydroxide	Caustic soda	1310-73-2	5 – 6
Sodium Nitrite	Sodium Nitrite	7632-00-0	10 - 12

SECTION 4. FIRST AID MEASURES

Eyes: Immediately flush well with water for at least 15 minutes, while holding eyelids open. Remove any contact lenses and continue rinsing. If irritation persists, repeat flushing. Seek medical attention immediately.

Skin: Wash with soap and water, then flush with water for 15 minutes. Remove contaminated clothing and launder before reuse. If irritation persists, seek medical attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Treat symptomatically. If breathing is difficult, have a trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration by way of pocket mask equipped with one-way valve or other proper respiratory device – Do NOT use mouth-to-mouth method if victim inhaled material. Get medical attention immediately. Pulmonary edema symptoms can be delayed up to 48 hours after exposure.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth. If vomiting occurs spontaneously, have victim lean forward with head down, rinse mouth and administer more water. Immediately transport victim to an emergency facility.

SECTION 5. FIRE - FIGHTING MEASURES

Flash Point: Not flammable

Flammability: Not flammable

Extinguishing Media: Use media appropriate for surrounding fire.

Specific hazards arising from chemical: May react with chemically reactive metals such as aluminum, zinc, magnesium, copper, etc. to release hydrogen gas, which can form explosive mixtures with air.

Hazardous combustion products: Sodium oxide fumes.

Firefighting protective equipment: Wear a self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment.

Sensitivity to static discharge: This product is not combustible.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment (Section 8). Ventilate area. Do not breathe fumes/mists/ vapors/sprays. Avoid release into the environment. Absorb spillage to prevent material damage. Wash thoroughly after handling.

For Small Spills: Spilled material may be slippery. Avoid dispersal of material and runoff into soil, waterways, drains and sewers. Neutralize with weak acidic material (citric acid), then absorb spill with vermiculite or other inert material, and then place in a container for chemical waste. Litmus paper may be used to confirm neutralization. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Wash walking surfaces with water to reduce slipping hazard. Dispose of contaminated absorbent material in accordance with local, state and federal regulations.

For Large Spills: Large spills cannot occur due to packaging.

SECTION 7. HANDLING AND STORAGE

Handling: Wear personal protection equipment (Section 8). Use with adequate ventilation. Do not breathe fumes/mists/ vapors/sprays. Do not pre-mix with other chemicals. Do not eat, drink or smoke in work areas. Wash thoroughly after handling. Avoid release into the environment.

Storage: Keep away from heat, flame, or sunlight. Keep from freezing. Keep container tightly closed when not in use. Store locked up. Keep only in original container. Protect from physical damage. Store away from strong acids, halogenated compounds, prolonged contact with metals or alloys.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredient	CAS #	OSHA/PEL	ACGIH/TLV	STEL
Sodium hydroxide	1310-73-2	2mg/m3	2mg/m3	Not established
Sodium Nitrite	7632-00-0	Not established	Not established	Not established

Engineering Controls: Provide adequate ventilation. Observe occupational exposure limits and keep the risk of exposure to a minimum.

Personal protective equipment:

Eye: Safety glasses with side shields or splash proof goggles and face shield.

Skin: Chemical resistant gloves – rubber, neoprene or nitrile. Normal materials handling clothing and apron.

Respirator: Use NIOSH approved protection if PEL if sprays/mists are generated.

Other: Use only in a well ventilated area. Do not eat, drink or smoke while handling. Wash thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Dark red clear liquid	Upper/Lower flammability limits	Not determined
Odor	Mild	Vapor pressure (water=17.3mmg)	Not determined
Odor threshold	Not determined	Vapor density (Air = 1)	<1
pH	13+	Relative density (water = 1.0)	1.150 g/ml
Melting point	Not determined	Solubility	Complete in water
Freezing point	Not determined	Partition coefficient (n-octanol/water)	Not determined
Boiling point	Not determined	Auto-ignition temperature	Not determined
Flash point	Not Flammable	Decomposition temperature	Not determined
Evaporation rate (n-butyl acetate=1)	<1	Viscosity	Slightly viscous
Flammability	Not flammable	VOC by weight	0%

SECTION 10. STABILITY AND REACTIVITY

Reactivity: May react with chemically reactive metals such as aluminum, zinc, magnesium, copper, etc. to release hydrogen gas, which can form explosive mixtures with air. Slowly attacks glass at room temperature. Corrosive to metals.

Chemical stability: Stable under normal, ambient temperature and conditions.

Possibility of hazardous reactions: Will not occur, but can induce hazardous polymerization of acetaldehyde, acrolein and acrylonitrile.

Conditions to avoid: Heat, flame and sparks. Keep from freezing. Do not mix with other chemicals

Incompatible materials: Avoid strong acids, halogenated compounds, prolonged contact with metals or alloys.

Hazardous combustion products: Sodium oxide fumes.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Oral (LD50 Rat): 284 mg/kg
Dermal (LD50 Rabbit): Not determined
Inhalation (LC50 Rat): Not determined

Skin corrosion/irritation: Corrosive to skin. Symptoms may include burns, ulceration and scarring. Prolonged/repeated skin exposures can result in dermatitis.

Serious eye damage/irritation: Corrosive to eyes. Symptoms may include severe irritation, disintegration, scarring and clouding.

Respiratory or skin sensitization: Inhaling mists/sprays of material is corrosive to respiratory tract and may cause pulmonary edema (shortness of breath and tightness of chest).

Germ cell mutagenicity: Not available

Carcinogenicity: NTP/IARC/Carcinogen: Sodium Nitrite, CAS# 7632-00-0. OSHA not listed

Reproductive toxicity: Not available

STOT-single exposure: Not classified.

STOT-repeated exposure: Not classified.

Aspiration hazard: May be harmful if swallowed and enters airways

Ingestion: Corrosive to digestive tract. May cause severe pain, burning, vomiting and diarrhea. Lung aspiration may result in chemical pneumonitis, pulmonary edema, damage to lung tissue, and in extreme cases death.

Likely routes of exposure: Eyes, skin and inhalation (if mists or sprays are generated)

Interactive effects: Not available

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

96h LC-50 (fish): >100ppm
96h EC-50 (invertebrates): >100ppm
48h LC-50 (algae): >10ppm

Persistence and degradability: Degrades readily by reacting with natural carbon dioxide in the air.

Bioaccumulative potential: This material is not expected to bioaccumulate significantly.

Mobility in soil: Soil mobility not determined. This product is soluble in water and may spread in water systems.

Other adverse effects: This product can raise the pH of an aquatic environment, and thus be toxic to fish and aquatic plants. As with all chemicals, work practices should be aimed at eliminating environmental releases.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal of Wastes: Do not dump into sewers, on the ground or into any waterways. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Harmful to aquatic life.

Contaminated Packaging: Since emptied containers retain product residue, follow label warnings even after container is emptied.

Do not cut, drill, grind or weld on or near the container.

RCRA: A waste containing this product may have the RCRA hazardous waste no. D002 (Corrosive) (40 CFR 261.22).

SECTION 14. TRANSPORT INFORMATION

United States DOT:

UN/ID No.: UN3093
Proper Shipping Name: Corrosive Liquids, oxidizing, n.o.s., (Sodium hydroxide, Sodium Nitrite)
Hazard Class: 8, 5.1
Packing Group: II
49 CFR §173.152 (b) (1) (Exemption): This product can ship as "Limited Quantity" in inner packaging not over 0.3 gallons. (Non Hazardous)

IATA and IMDG:

UN/ID No.: UN3093
Proper Shipping Name: Corrosive Liquids, oxidizing, n.o.s., (Sodium hydroxide, Sodium Nitrite)
Hazard Class: 8, 5.1
Packing Group: II
Packaging exceptions 154
Packaging non bulk 202
Packaging bulk 242

SECTION 15. REGULATORY INFORMATION TSCA: All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements under 40 CFR 720.30.

SARA Section 302: The components of this product are either not regulated or regulated, but present in negligible concentrations.

SARA TITLE III Section 311/312:

Immediate (Acute) Health	Yes	Fire Hazard	Yes
Delayed (Chronic) Health	Yes	Reactive Hazard	Yes

SARA Title 313: This material does not contain any chemical components with known CAS numbers 7632-00-0 (Sodium Nitrite) to subject to reporting requirements (40 CFR 372).

CERCLA: Sodium hydroxide (CAS# 1310-73-2) has a reportable quantity of 1,000 lbs. at 100% concentration, however, this product is not considered a Hazardous Substance since the quantity does not equal or exceed the RQ in one package (49 CFR 171.8, definition of "Hazardous Substance").

United States Right-To-Know: Sodium hydroxide (CAS #1310-73-2) - Massachusetts, Minnesota, New Jersey, Pennsylvania, Rhode Island.

Proposition 65: This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

RCRA: A waste containing this product may have the RCRA hazardous waste no. D002 (Corrosive) (40 CFR 261.22).

S E C T I O N 1 6 . O T H E R I N F O R M A T I O N

Date Prepared: January 10, 2018 - GHS requirements.

Hazard Ratings (HMIS): Health 3, Flammability 1, Reactivity 1 (Scale 0 – 4). Personal Protection Rating to be supplied by user based on use conditions.

Carefully read all instructions on label before handling this product.

Keep out of reach of children.

“FOR INDUSTRIAL USE ONLY”

Abbreviation	Full Name/Explanation
ACGIH	American Conference of Government Industrial Hygienists
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CNS	Central Nervous System
CFR	Code of Federal Regulations
DOT	Department of Transportation
EC	Effective Concentration
HMIS	Hazardous Material Information System
IARC	International Agency for Research on Cancer
LC	Lethal Concentration
LD	Lethal Dose
NA	Not Applicable
ND	Not Determined
NE	Not Established
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RCRA	Resource Conservation Recovery Act
SARA	Superfund Amendments and Reauthorization Act
SE	Single Exposure
STEL	Short-Term Exposure Limit
STOT	Specific Target Organ Toxicity
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
VOC	Volatile Organic Compounds

The information contained herein is based on data available to us and is believed to be correct. We make no warranty, however, expressed or implied regarding the accuracy of these data or the results obtained from the use thereof.

Regulatory Standards: DOT TITLE 49, Code of Federal Regulations 172.101: Parts 100 to 177, Revised 10/1/92.

SUPER FUND AMENDMENTS REAUTHORIZATION ACT OF 1986, TITLE III TOXIC SUBSTANCE CONTROL ACT LIST (TSCA)- INGREDIENTS LISTED. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES NATIONAL TOXICOLOGICAL PROGRAM (NTP) REPORT OF CARCINOGENS INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) MONOGRAPHS, OCCUPATIONAL SAFETY & HEALTH REGULATIONS. CODE OF FED. REGS. FOOD & DRUG, 21 PARTS 170 to 199, Revised 4/1/91, 173.310.