ESSENTIAL CHEMISTRY. INNOVATIVE SOLUTIONS.

SAFETY DATA SHEET

Print Date: *March 28, 2019*

Section 1: Product & Company Information

Product Identifier: **Sodium Nitrate, Granular**

Other Means of Identification
Product Number: *131502*

Recommended Use and Restrictions on Use
Recommended Use: *Industrial uses: Uses of substances as such or in preparations at industrial sites. Explosive substances and articles. Construction materials and additives, adhesives and sealants. Industrial use resulting in manufacture of another substance (use of intermediates) manufacture of basic metals, including alloys. Fireworks, oxidizing agent. Formulation [mixing] of preparations and/or re-packaging (excluding alloys) Stone, plaster, cement, glass and ceramic articles. Heat transforming agents.*
Restrictions on Use: *Not known.*

Manufacturer / Importer / Supplier / Distributor Information
Company Name: *CORECHEM Inc.*
Address: *4320 Greenway Drive*
Knoxville, TN 37918
USA

Information Telephone Number: *1-865-524-4239*
Fax Number: *1-865-524-3375*
Website: *www.corecheminc.com*
Contact Person: *Regulatory Manager*
E-mail: *regulatory@corecheminc.com*

Emergency Phone Number: *Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 (monitored 24 hours/day)*

Section 2: Hazards Identification

GHS Hazard Classification(s)
In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Physical Hazard(s)
Oxidizing, Solids - 3

Health Hazard(s)
(Corrosion)Damage/Irritation, Eye – 2B

Environmental Hazard(s)
Not classified.

Label Elements
Signal Word
WARNING

Hazard Symbol(s)

Hazard Statement(s)
H272: May intensify fire; oxidizer.
H320: Causes eye Irritation.

Precautionary Statements
General
Not applicable.

Prevention
P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220: Keep/Store away from clothing/combustible materials.
P264: Wash face, hands and any exposed skin thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313: If eye irritation persists: Get medical advice/attention.
P370 + P378: In case of fire: Use suitable extinguishing media for extinction.

Storage

Not applicable.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

None known.

Section 3: Composition/Information on Ingredients

Substance

Chemical Identity [2]	Common Name/Synonym(s)	CAS # [3]	Weight %	Impurity or Stabilizing Additive
Sodium Nitrate	-	*7631-99-4*	*99 – 100%*	*No*

1. *Information regarding the composition and the percent ranges of the mixtures ingredients are not presented as it Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.*
2. *Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.*
3. *"—"Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.*

Section 4: First-Aid Measures

General Information

Call a poison Center/Doctor/Physician if you feel unwell. Never give anything by mouth to an unconscious person.

Inhalation

Remover person to fresh air and keep comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact

Wash skin with plenty of water. If skin irritation occurs, get medical advice/attention.

Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Ingestion

Rinse mouth out with water. Call a poison center/doctor/physician if you feel unwell.

Most important symptoms/effects, acute and delayed

Symptoms

May cause irritation to the respiratory tract. Thermal decomposition can lead to the release of irritating gases and vapors. Delayed adverse effects are possible. May cause moderate skin irritation. Causes eye irritation upon contact. Gastrointestinal complaints after ingestion of large quantities.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

Treat symptomatically.

Section 5: Fire-Fighting Measures

General Fire Hazards

May intensify fire: Oxidizer. The product is non-reactive under normal conditions of use, storage and transport. May cause or intensify fire; oxidizer. Thermal decomposition can lead to the release of irritating gases and vapors. Thermal decomposition generates: Nitrogen oxides, nitrates.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Use any suitable mean for extinguishing the surrounding fire. Spray water for small fires. For large fires, flood with abundant water.

Unsuitable Extinguishing Media

Use extinguishing media appropriate for surrounding fire.

Specific Hazards Arising from the Chemical

May intensify fire; oxidizer. Contact with combustible material may cause fire. During fire, gases hazardous to health may be formed. Thermal decomposition can lead to the release of irritating gases and vapors. Thermal decomposition generates: Nitrogen oxides and Nitrates.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.

Special Protective Equipment for Fire-Fighters

As in any fire, wear self-contained breathing apparatus pressure-demand (OSHA/NIOSH approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Ventilate spillage area. No open flames, no sparks and no smoking. Avoid contact with skin and eyes. Do not attempt to take action without suitable protective equipment, for further information refer to section 8: Exposure controls/personal protection.

Methods and Materials for Containment and Clean-Up

Mechanically recover the product. Collect all waste in a suitable and labeled container and dispose according to local legislation. Notify authorities if product enters sewers or public waters. Do not absorb with saw-dust or any other combustible absorbent material. Dispose of materials or solid residues at an authorized site.

Notification Procedures

Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.

Environmental Precautions

Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Section 7: Handling and Storage

Precautions for Safe Handling

Avoid dust formation. Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with the skin and eyes. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Perchlorate containing product: Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate and section 15 for more information regarding California state regulations.

Conditions for Safe Storage, including any Incompatibilities

Containers which are opened should be properly resealed and kept upright to prevent leakage Keep only in the original container in a cool, well ventilated place away from: Heat sources, flames, or sparks. Keep away from Flammable or combustible materials. Reducing Agents. Strong Acids.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

The product does not contain any relevant quantities of hazardous materials with critical values that have to be monitored in the workplace.

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

Ensure good ventilation of the work station. Local exhaust is recommended where dust may occur. Emergency eye wash fountain with clean water. Do not allow to enter drains or water courses.

Individual protection measures, such as personal protective equipment (PPE)

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/Face Protection

Use tight fitting goggles if dust is generated.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory Protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information

Hygiene Measures

Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section 9: Physical and Chemical Properties

Appearance:

Physical State:	*Solid*
Color:	*White*
Odor:	*Odorless*
Odor Threshold:	*No data available.*
pH:	*8-10*

Melting Point/Freezing Point:	*307°C*
Initial Boiling Point and Boiling Range:	*308 °C*
Flash Point:	*No data available.*
Evaporation Rate *(butyl acetate=1)*:	*No data available.*
Flammability (solid, gas):	*No data available.*
Upper/Lower Limit on Flammability or Explosive Limits	
Flammability Limit – Upper:	*No data available.*
Flammability Limit – Lower:	*No data available.*
Explosive Limit – Upper:	*No data available.*
Explosive Limit – Lower:	*No data available.*
Vapor Pressure:	*No data available.*
Vapor Density *(air =1)*:	*No data available.*
Relative Density *(water=1)*:	*2.26 (20 °C)*
Solubility(ies):	
Solubility in water:	*88g/100ml*
Solubility (other):	*No data available.*
Partition coefficient (n-octanol/water):	*No data available.*
Auto-Ignition Temperature:	*No data available.*
Decomposition Temperature:	*>550 °C*
Viscosity:	*No data available.*
Oxidizing properties:	*Oxidizing. Test 0.1 test for oxidizing solids*
Bulk Density:	*1190-1360 kg/m^3*

Other Information:

Molecular Weight:	*85.01 g/mol*
Formula:	*HNO_3·Na*

Section 10: Stability and Reactivity

Reactivity

The product is non-reactive under normal conditions of use, storage and transport. May cause or intensify fire; oxidizer.

Chemical Stability

The product is stable at normal handling and storage conditions.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to Avoid

Keep away from: Flammable or combustible materials. Reducing agents under specific conditions. These incompatible materials should not include improved packaging materials, pallets, or other dunnage.

Incompatible Materials

Flammable, combustible, strong acids, and strong reducing agents under specific conditions. These incompatible materials shall not include approved packaging materials, pallets, or other dunnage. (NFPA 400/ 2016, Hazardous Materials code, item 15.3.5.2.1.1)

Hazardous Decomposition Products

Thermal decomposition can lead to the release of irritating gases and vapors. Thermal decomposition may produce: Alkali oxides, Nitrogen oxides. Sodium Nitrate.

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: *On ingestion in large quantities: Gastrointestinal Complaints*
Inhalation: *May cause irritation to the respiratory tract.*
Skin Contact: *May cause moderate irritation.*
Eye Contact: *Causes eye irritation.*

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

Sodium Nitrate: LD50: (Rat) >2000 mg/kg (OECD 425 method)

Dermal

Sodium Nitrate: LD50: (Rat) >5000 mg/kg (OECD 402 method)

Inhalation

Sodium Nitrate: LC50: (Rat) >0.527 mg/l/4h (OECD 403 method)

Repeated Dose Toxicity

No data available.

Skin Corrosion/Irritation

May cause skin irritation.

Serious Eye Damage/Eye Irritation

Causes serious eye irritation.

Respiratory/Skin Sensitization

May cause irritation to the respiratory tract. Thermal decomposition can lead to the release of irritating gases and vapors. Delayed adverse effects are possible.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

US. National Toxicology Program (NTP) Report on Carcinogens

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Germ Cell Mutagenicity

In Vitro

No mutagenic components identified.

In Vivo

No mutagenic components identified.

Reproductive Toxicity

None known.

Specific Target Organ Toxicity – Single Exposure

None known.

Specific Target Organ Toxicity – Repeated Exposure

None known.

Aspiration Hazard

Not classified.

Other Effects

This product contains trace amounts of naturally occurring perchlorate and iodate. Like other goitrogenic substances, perchlorate may affect iodine uptake by thyroid under specific conditions.

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

Sodium Nitrate: LC50 (freshwater, fish) 6000 mg/l
Sodium Nitrate: LC50 (fish, marine water) 4400 mg/l

Aquatic Invertebrates

Sodium Nitrate: EC50 (Daphnia Magna)8600 mg/l

Toxicity to Aquatic Plants

Sodium Nitrate: EC50 (algae) > 1700 mg/l 10 days

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability

Biodegradation

There are no data on the degradability of this product.

BOD/COD Ratio

No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available on bioaccumulation.

Partition Coefficient n-octanol / water (log Kow)

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

May cause eutrophication at very large concentrations.

Section 13: Disposal Considerations

Disposal Instructions

U.S.-RCRA (Resource conservation and Recovery Act.) List for Hazardous constituents. Gather the product and place it in a spare container that has been suitably labeled. This material and its container must be disposed of as hazardous waste. Solid waste exhibiting the characteristic of ignitability has the EPA Hazardous waste Number of D001 according to the resource Conservation and Recovery Act (RCRA) 40 CFR 26.

Contaminated Packaging

Dispose of contents/ container in accordance with licensed collectors sorter instructions. Perchlorate containing product-Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate and section 15 for more information regarding California state regulations.

Section 14: Transportation Information

US Department of Transportation (DOT)

UN Number:	UN1498
UN Proper Shipping Name:	Sodium nitrate
Technical Name:	-
Hazard Class:	5.1
Subsidiary Hazard Risk:	-
Packing Group:	III
DOT Label/Placard Exemptions:	Not determined
Special Provisions:	A1, A29, B120, IB8, IP3, T1, TP33, W1
Packaging Exceptions:	49CFR 173.152
Packaging Non-Bulk:	49CFR 173.213
Packaging Bulk:	49CFR 173.240
Reportable Quantity (RQ):	None
Marine Pollutant:	No
Poison Inhalation Hazard:	No
Special precautions for user:	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Emergency Response Guidebook (ERG) #:	140

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

No chemical(s) in this material are subject to the reporting requirements of CERCLA.

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard:	Yes
Sudden Release of Pressure:	No
Reactive:	No
Acute (Immediate) Health Hazard:	Yes
Chronic (Delayed) Health Hazard:	No

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

This material does not contain any chemical(s) with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Section 16: Other Information

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 2
Chronic Health Hazard: /
Flammability: 0
Physical Hazard: 1
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 2
Fire Hazard: 0
Reactivity Hazard: 1
Special: OX
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

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Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
EC50 - Effective concentration, 50%
IDHL – Immediately Dangerous to Life and Health
Kg – Kilogram
l – Liter
lb – Pound
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%
mg - milligram
ml – milliliter
N/A – Not Applicable
N/D – Not Determined
PEL – Permissible Exposure Limit
REL – Recommended Exposure Limit
STEL – Short-term Exposure Limit
TWA - Time weighted average
ACGIH - American Conference of Industrial Hygienists
AIHA – American Industrial Hygiene Association
BEI - Biological Exposure Indices
CAS – Chemical Abstracts Service
DOT – US Department of Transportation
EPA – US Environmental Protection Agency
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC - Intermediate Bulk Container
IMDG - International Maritime Dangerous Goods
NIOSH – National Institute for Occupational Safety and Health
NTP – National Toxicology Program
OSHA – US Occupational Health and Safety Administration
SARA – US EPA Superfund Amendments and Reauthorization Act
TSCA – US EPA Toxic Substances Control Act
UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

Disclaimer

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