Material Safety Data Sheet
Sodium Cobaltinitrite

ACC# 21137

Section 1 - Chemical Product and Company Identification

MSDS Name: Sodium Cobaltinitrite
Catalog Numbers: S80178, S280 100, S280-100, S280100
Synonyms: Sodium Hexanitrocobaltate(III), pa.
Company Identification:
Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410
For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
13600-98-1	Sodium Cobaltinitrite	>99	237-077-7

Hazard Symbols: O
Risk Phrases: 8

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: yellow to brown-red solid. Sensitizer. May cause eye and skin irritation. May cause respiratory tract irritation. May cause digestive tract irritation with nausea, vomiting, and diarrhea. May cause liver damage. May cause cardiac disturbances. May cause lung damage. May cause allergic respiratory reaction. May cause allergic skin reaction. May cause fetal effects based upon animal studies. May cause cancer based on animal studies. Strong oxidizer. Contact with other material may cause a fire. **Danger!**
Target Organs: Blood, heart, central nervous system, liver, thyroid.

Potential Health Effects
Eye: May cause eye irritation. May cause conjunctivitis. May cause permanent corneal opacification.
Skin: May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause severe irritation and possible burns.
Ingestion: May cause liver damage. Can cause nervous system damage. Exposure may cause anemia and other blood abnormalities. May cause burns to the gastrointestinal tract. May cause nausea, vomiting, and diarrhea, possibly with blood. May cause cardiac and thyroid abnormalities.
Inhalation: May cause allergic respiratory reaction. May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. May cause effects similar to those described for ingestion. May cause acute pulmonary edema, asphyxia, chemical pneumonitis, and upper airway obstruction caused by edema.
Chronic: Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. May cause fetal effects. Prolonged inhalation can cause a sharp drop in blood pressure, throbbing, headache, nausea, and weakness. Cobalt compounds may cause cancer based upon animal studies. Damage to kidney tubules or glomeruli may occur. May cause cyanosis - a blue-gray coloring of the skin and lips caused by a lack of oxygen.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Notes to Physician: The use of antidotal treatment for cobalt exposure should be determine d only by qualified medical personnel.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with combustible materials may cause a fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water with caution and in flooding amounts.
Extinguishing Media: For small fires, use water spray, dry chemical, carbon dioxide or chemical foam. Contact professional fire-fighters immediately.
Flash Point: Not available.

Autoignition Temperature: Not available.
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: (estimated) Health: 2; Flammability: 0; Instability: 0; Special Hazard: OX

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Minimize dust generation and accumulation. Keep container tightly closed. Avoid contact with clothing and other combustible materials. Do not get on skin or in eyes. Do not ingest or inhale.
Storage: Keep away from heat, sparks, and flame. Do not store near combustible materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium Cobaltinitrite	none listed	none listed	none listed

OSHA Vacated PELs: Sodium Cobaltinitrite: No OSHA Vacated PELs are listed for this chemical.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Appearance: yellow to brown-red
Odor: none reported
pH: Not available.
Vapor Pressure: Negligible.
Vapor Density: Not available.
Evaporation Rate:negligible
Viscosity: Not available.
Boiling Point: Not applicable.
Freezing/Melting Point: Not available.
Decomposition Temperature: Not available.
Solubility: Soluble in water.
Specific Gravity/Density: Not available.
Molecular Formula: CoN6Na3O12
Molecular Weight:403.9356

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: High temperatures, incompatible materials, ignition sources, dust generation, combustible materials, reducing agents.
Incompatibilities with Other Materials: Reducing agents, strong acids, amines, mineral acids, organic materials.
Hazardous Decomposition Products: Nitrogen oxides, cobalt/cobalt oxides.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 13600-98-1: GF9480000
LD50/LC50:
Not available.

Carcinogenicity:
CAS# 13600-98-1:
ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans (as Co) (list
IARC: Group 2B carcinogen (listed as Cobalt compounds).
Epidemiology: No data available.
Teratogenicity: Teratogenic effects have occurred in experimental animals.
Reproductive Effects: No data available.
Neurotoxicity: No data available.
Mutagenicity: No data available.
Other Studies: No data available.

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	No information available.				OXIDIZING SOLID NOS (SODIUM HEXANITROCOBALTATE)
Hazard Class:					5.1
UN Number:					UN1479
Packing Group:					III

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 13600-98-1 is not listed on the TSCA inventory. It is for research and development use only.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA

CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.
Section 313
This material contains Sodium Cobaltinitrite (listed as Cobalt compounds), 99%, (CAS# 13600-98-1) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Air Act:
This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
CAS# 13600-98-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols:
O
Risk Phrases:
R 8 Contact with combustible material may cause
fire.

Safety Phrases:
S 17 Keep away from combustible material.

WGK (Water Danger/Protection)
CAS# 13600-98-1: 2
Canada - DSL/NDSL
None of the chemicals in this product are listed on the DSL or NDSL list. **Canada - WHMIS**
This product does not have a WHMIS classification.
Canadian Ingredient Disclosure List
CAS# 13600-98-1 is not listed on the Canadian Ingredient Disclosure List.
Exposure Limits

Section 16 - Additional Information

MSDS Creation Date: 12/12/1997
Revision #7 Date: 3/04/2004