

# SAFETY DATA SHEET

**1. Identification**

**Product identifier:** SODIUM COBALTINITRITE

**Other means of identification**

**Product No.:** 3656

**Recommended use and restriction on use**

**Recommended use:** For R&D use only. Not on TSCA Inventory. Excluded from TSCA or exempt from premanufacture notice.

**Restrictions on use:** Not determined.

**Details of the supplier of the safety data sheet**

|                 |                                     |
|-----------------|-------------------------------------|
|                 | Avantor Performance Materials, LLC. |
|                 | 3477 Corporate Parkway              |
|                 | Center Valley, PA 18034             |
| Telephone:      |                                     |
|                 | Customer Service: 855-282-6867      |
| Fax:            | 610-573-2610                        |
| Contact Person: | Environmental Health & Safety       |
| E-mail:         | info@avantormaterials.com           |

**Emergency telephone number:**

CHEMTREC: 1-800-424-9300 within US and Canada

**2. Hazard(s) identification**

**Hazard Classification**

**Physical Hazards**

|                  |            |
|------------------|------------|
| Oxidizing solids | Category 2 |
|------------------|------------|

**Health Hazards**

|                        |            |
|------------------------|------------|
| Respiratory sensitizer | Category 1 |
| Skin sensitizer        | Category 1 |
| Carcinogenicity        | Category 2 |

**Unknown toxicity - Health**

|  |       |
|--|-------|
| Acute toxicity, oral                     | 100 % |
| Acute toxicity, dermal                   | 100 % |
| Acute toxicity, inhalation, vapor        | 100 % |
| Acute toxicity, inhalation, dust or mist | 100 % |

**Unknown toxicity - Environment**

|  |       |
|--|-------|
| Acute hazards to the aquatic environment | 100 % |
|--|-------|

Chronic hazards to the aquatic environment 100 %

**Label Elements**

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:** May intensify fire; oxidizer.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
Suspected of causing cancer.

**Precautionary Statements**

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat. - No smoking. Take any precaution to avoid mixing with combustibles. Keep away from clothing and other combustible materials. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace.

**Response:** IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal:** 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.

**Other hazards which do not result in GHS classification:** None.

**3. Composition/information on ingredients**

**Substances**

| Chemical name         | Common name and synonyms | CAS number | Content in percent (%)* |
|-----------------------|--------------------------|------------|-------------------------|
| SODIUM COBALTINITRITE |                          | 13600-98-1 | 90 - 100%               |

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. First-aid measures**

**General information:** Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

**Ingestion:** Rinse mouth thoroughly. Drink a few glasses of water or milk. Call a POISON CENTER/doctor if you feel unwell.

**Inhalation:** Move to fresh air. Get medical attention if symptoms persist.

**Skin Contact:** Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse.

**Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** May cause irritation to skin, eyes, and respiratory tract. May cause allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Hazards:** None known.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Treat symptomatically. Symptoms may be delayed.

**5. Fire-fighting measures**

**General Fire Hazards:** In case of fire and/or explosion do not breathe fumes.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Water spray, dry powder or carbon dioxide.

**Unsuitable extinguishing media:** None known.

**Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**

**Special fire fighting 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:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Keep unauthorized personnel away. Use personal protective equipment. Ventilate closed spaces before entering them. See Section 8 of the SDS for Personal Protective Equipment.

**Methods and material for containment and cleaning up:** Avoid dust formation. Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination.

**Notification Procedures:** Prevent entry into waterways, sewer, basements or confined areas. Stop leak if you can do so without risk. Inform authorities if large amounts are involved.

**Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

**Precautions for safe handling:** Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Avoid inhalation of dust. Wash thoroughly after handling.

**Conditions for safe storage, including any incompatibilities:** Keep container tightly closed. Store in a cool and well-ventilated place. Store in a dry place. Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

| Chemical Identity             | Type       | Exposure Limit Values  | Source  |
|-------------------------------|------------|------------------------|---|
| SODIUM COBALTINITRITE - as Co | TWA        | 0,02 mg/m <sup>3</sup> | Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)   |
| SODIUM COBALTINITRITE - as Co | TWA        | 0,02 mg/m <sup>3</sup> | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| SODIUM COBALTINITRITE - as Co | TWA        | 0,02 mg/m <sup>3</sup> | Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)  |
| SODIUM COBALTINITRITE - as Co | TWA        | 0,02 mg/m <sup>3</sup> | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)  |
| SODIUM COBALTINITRITE - as Co | 8 HR ACL   | 0,02 mg/m <sup>3</sup> | Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)  |
|                               | 15 MIN ACL | 0,06 mg/m <sup>3</sup> | Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)  |
| SODIUM COBALTINITRITE - as Co | TWA        | 0,02 mg/m <sup>3</sup> | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)  |
| SODIUM COBALTINITRITE - as Co | TWA        | 0,02 mg/m <sup>3</sup> | US. ACGIH Threshold Limit Values (2011)   |

**Appropriate Engineering Controls** No data available.

### Individual protection measures, such as personal protective equipment

**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.

**Eye/face protection:** Use tight fitting goggles if dust is generated.

**Skin Protection**

**Hand Protection:** Wear protective gloves.

**Other:** Wear suitable protective clothing.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator.

**Hygiene measures:** 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. Provide eyewash station and safety shower.

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| <b>9. Physical and chemical properties</b> |
|--|

**Appearance**

**Physical state:** Solid  
**Form:** Powder.  
**Color:** Yellow-orange

**Odor:** Odorless  
**Odor threshold:** No data available.  
**pH:** No data available.  
**Melting point/freezing point:** No data available.  
**Initial boiling point and boiling range:** No data available.  
**Flash Point:** No data available.  
**Evaporation rate:** 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:** No data available.  
**Density:** No data available.  
**Relative density:** No data available.

**Solubility(ies)**

**Solubility in water:** Very Soluble  
**Solubility (other):** No data available.

**Partition coefficient (n-octanol/water):** No data available.  
**Auto-ignition temperature:** No data available.  
**Decomposition temperature:** No data available.  
**Viscosity:** No data available.

**Other information**

**Molecular weight:** 403,94 g/mol (CoN6O12.3Na)

|                                     |
|-------------------------------------|
| <b>10. Stability and reactivity</b> |
|-------------------------------------|

**Reactivity:** Contact with combustible material may cause fire.

**Chemical Stability:** Material is stable under normal conditions.

|  |  |
|--|--|
| <b>Possibility of hazardous reactions:</b> | Hazardous polymerization does not occur.   |
| <b>Conditions to avoid:</b>                | Contact with incompatible materials.   |
| <b>Incompatible Materials:</b>             | Strong reducing agents. Organic compounds. Flammable/combustible material.                                     |
| <b>Hazardous Decomposition Products:</b>   | Toxic metal fumes may form when heated to decomposition. Thermal decomposition may produce oxides of nitrogen. |

|                                      |
|--------------------------------------|
| <b>11. Toxicological information</b> |
|--------------------------------------|

**Information on likely routes of exposure**

|                      |  |
|----------------------|--|
| <b>Inhalation:</b>   | May cause irritation to the respiratory system. May cause respiratory allergy.                               |
| <b>Skin Contact:</b> | May cause irritation. Prolonged or repeated contact may cause skin sensitization in susceptible individuals. |
| <b>Eye contact:</b>  | May irritate eyes.   |
| <b>Ingestion:</b>    | May cause irritation of the gastrointestinal tract.  |

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

|                            |                    |
|----------------------------|--------------------|
| <b>Oral Product:</b>       | No data available. |
| <b>Dermal Product:</b>     | No data available. |
| <b>Inhalation Product:</b> | No data available. |

|  |                    |
|--|--------------------|
| <b>Repeated dose toxicity Product:</b> | No data available. |
|--|--------------------|

|   |                            |
|---|----------------------------|
| <b>Skin Corrosion/Irritation Product:</b> | May cause skin irritation. |
|---|----------------------------|

|   |                    |
|---|--------------------|
| <b>Serious Eye Damage/Eye Irritation Product:</b> | May irritate eyes. |
|---|--------------------|

|   |  |
|---|--|
| <b>Respiratory or Skin Sensitization Product:</b> | May cause allergy or asthma symptoms or breathing difficulties if inhaled.<br>May cause an allergic skin reaction. |
|---|--|

|                                 |                              |
|---------------------------------|------------------------------|
| <b>Carcinogenicity Product:</b> | Suspected of causing cancer. |
|---------------------------------|------------------------------|

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

SODIUM COBALTINITRITE Overall evaluation: 2B. Possibly carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**ACGIH Carcinogen List:**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No mutagenic components identified

**In vivo**

**Product:** No mutagenic components identified

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** Not classified

**Other effects:** None known.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation Product:** There are no data on the degradability of this product.

**BOD/COD Ratio Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF) Product:** No data available on bioaccumulation.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Mobility in soil:** No data available.

**Known or predicted distribution to environmental compartments**

SODIUM COBALTINITRITE No data available.

**Other adverse effects:** The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**13. Disposal considerations**

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws.

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

**14. Transport information**

**TDG**

|                               |  |
|-------------------------------|--|
| UN Number:                    | UN 1479  |
| UN Proper Shipping Name:      | OXIDIZING SOLID, N.O.S.(SODIUM COBALTINITRITE) |
| Transport Hazard Class(es)    |  |
| Class:                        | 5.1  |
| Label(s):                     | 5.1  |
| Packing Group:                | II   |
| Marine Pollutant:             | No   |
| Special precautions for user: | Not determined.                                |

**IMDG**

|                            |  |
|----------------------------|--|
| UN Number:                 | UN 1479  |
| UN Proper Shipping Name:   | OXIDIZING SOLID, N.O.S.(SODIUM COBALTINITRITE) |
| Transport Hazard Class(es) |  |
| Class:                     | 5.1  |
| Label(s):                  | 5.1  |
| EmS No.:                   | F-A, S-Q                                       |
| Packing Group:             | II   |
| Marine Pollutant:          | No   |

Special precautions for user: Not determined.

**IATA**

|                               |  |
|-------------------------------|--|
| UN Number:                    | UN 1479  |
| UN Proper Shipping Name:      | Oxidizing solid, n.o.s.(SODIUM COBALTINITRITE) |
| Transport Hazard Class(es):   |  |
| Class:                        | 5.1  |
| Label(s):                     | 5.1  |
| Packing Group:                | II   |
| Marine Pollutant:             | No   |
| Special precautions for user: | Not determined.                                |
| Cargo aircraft only:          | Allowed.                                       |

**Transport in bulk according to Annex II of MARPOL and the IBC Code:** Not applicable

**15. Regulatory information**

**Canada Federal Regulations**

**List of Toxic Substances (CEPA, Schedule 1)**

Not Regulated

**Export Control List (CEPA 1999, Schedule 3)**

Not Regulated

**National Pollutant Release Inventory (NPRI)**

**Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**

NPRI PT5 Not Regulated

**Canada. National Pollutant Release Inventory (NPRI) (Schedule 1, Parts 1-4)**

NPRI SODIUM COBALTINITRITE

**Greenhouse Gases**

Not Regulated

**Controlled Drugs and Substances Act**

|            |               |
|------------|---------------|
| CA CDSI    | Not Regulated |
| CA CDSII   | Not Regulated |
| CA CDSIII  | Not Regulated |
| CA CDSIV   | Not Regulated |
| CA CDSV    | Not Regulated |
| CA CDSVII  | Not Regulated |
| CA CDSVIII | Not Regulated |

**Precursor Control Regulations**

Not Regulated

**International regulations**

**Montreal protocol**

Not applicable

**Stockholm convention**

Not applicable

**Rotterdam convention**

Not applicable

**Kyoto protocol**

Not applicable

**Inventory Status:**

|  |  |
|--|--|
| Australia AICS:                          | On or in compliance with the inventory   |
| Canada DSL Inventory List:               | Not in compliance with the inventory.  |
| EINECS, ELINCS or NLP:                   | On or in compliance with the inventory   |
| Japan (ENCS) List:                       | Not in compliance with the inventory.  |
| China Inv. Existing Chemical Substances: | Not in compliance with the inventory.  |
| Korea Existing Chemicals Inv. (KECI):    | On or in compliance with the inventory   |
| Canada NDSL Inventory:                   | Not in compliance with the inventory.  |
| Philippines PICCS:                       | On or in compliance with the inventory   |
| US TSCA Inventory:                       | For R&D use only. Not on TSCA Inventory.<br>Excluded from TSCA or exempt from premanufacture notice. |
| New Zealand Inventory of Chemicals:      | On or in compliance with the inventory   |
| Japan ISHL Listing:                      | Not in compliance with the inventory.  |
| Japan Pharmacopoeia Listing:             | Not in compliance with the inventory.  |

**16. Other information, including date of preparation or last revision**

**Revision Date:** 16.05.2018

**Version #:** 1.2

**Further Information:** No data available.

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