

SECTION 1 – IDENTIFICATION OF SUBSTANCE

Product Name: Cobalt Standard in Mineral Oil at 5000 ppm
Product Number: OCODN-5000-XXX
Company Identification: VHG Labs, Inc
 276 Abby Road
 Manchester, NH 03103
 Tel: (603) 622-7660
 Fax: (603) 622-5180
Emergency Contact: 800-424-9300 Chemtrec (24 hrs)

SECTION 2 – COMPOSITION/DATA ON COMPONENTS

Component	CAS No.	Weight %	OSHA/PEL	ACGIH/TLV
Mineral Oil	8042-47-5	Balance	5 mg/m ³	5 mg/m ³
Organo-Cobalt Compound Proprietary (as Co)		0.5%	0.02 mg/m ³	0.02 mg/m ³

SECTION 3 – HAZARDS IDENTIFICATION

Emergency Overview: Irritant: may be irritating to eyes, nose, throat, and lungs. Aspiration hazard. Overexposure may cause irritation of the eyes and skin, pneumonitis, and respiratory irritation.

Target Organs: Eyes, skin, respiratory system, digestive tract.

Eye/Skin Contact: Repeated or prolonged exposure may cause irritation

Inhalation: May cause irritation after repeated or prolonged exposure.

Ingestion: Harmful if swallowed. May cause negative effects to digestive tract. May enter respiratory tract during swallowing and cause lung inflammation and damage.

Carcinogenicity: None

SECTION 4 – FIRST AID MEASURES

Ingestion: CALL A PHYSICIAN. Do NOT induce vomiting. If conscious, give large amounts of water.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep patient warm. Seek medical attention.

Skin Contact: Immediately flush skin with soap and plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Eye Contact: Immediately flush with plenty of water for at least 15 minutes. Seek medical attention.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point: N/A

Autoignition Temperature: N/A

Fire Extinguishing Media: Flammable Limits: Upper - N/A; Lower - N/A
 Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special Fire-Fighting Procedures: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

Special Fire & Explosion Hazards: This product will not readily ignite, but will burn if ignition source is present. Carbon monoxide can be released when combustion is incomplete. In certain conditions, other toxic gases may be produced.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective equipment. Evacuate those without protective equipment. Ensure adequate ventilation.

Environmental Precautions: Prevent product from entering drains or groundwater if possible. Dispose of in accordance to local regulations.

Clean Up Methods: Use and absorbent material on the spill. Place in appropriate chemical waste container. Wash site with water. Follow local, state, and federal regulations for disposal.

SECTION 7 – HANDLING AND STORAGE

- Handling:** Keep container tightly sealed. Use in areas with adequate exhaust ventilation. Wear appropriate protective equipment.
- Storage:** Store in cool, dry, well ventilated location in a tightly sealed container. Keep out of direct sunlight and keep away from heat and oxidizing agents.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Design of Technical Systems:** Use under fume hood with face velocity of at least 100 feet per minute. Ensure availability of eyewash stations and safety showers.
- Respiratory Protection:** Ensure adequate ventilation. Use suitable respirator when high concentrations are present.
- Hygienic Protection:** Keep away from food and beverages. Remove all soiled or contaminated clothing immediately.
- Personal Protection:** Wear impervious gloves, chemical resistant apron or lab coat, and safety goggles.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

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| Boiling Point: $\approx >338^{\circ}\text{C}$ | Vapor Pressure (mm Hg): N/A |
| Melting Point: $\approx 0^{\circ}\text{C}$ | Vapor Density (air=1): N/A |
| Specific Gravity: $\approx .85$ | Evaporation Rate: N/A ($\text{H}_2\text{O}=1$) |
| Solubility (H_2O): Insoluble | % Volatiles by Volume: ≈ 99 (21°C) |
| pH: N/E | Odor Threshold (ppm): N/A |
| Physical State: Liquid | Coefficient Water/Oil Distribution: N/A |
| Appearance: Pink | |

SECTION 10 – STABILITY AND REACTIVITY

- Stability:** Stable under normal conditions. Hazardous polymerization will not occur.
- Conditions to Avoid:** Heat.
- Incompatibles:** Oxidizing agents
- Decomposition Products:** Carbon monoxide and carbon dioxide.

SECTION 11 – TOXICOLOGICAL INFORMATION

- Toxicity Data:** Mineral oil is a laxative when ingested. Inhalation of mists can cause central aspiration pneumonia.

Component Data:

Component	CAS No.	RTECS#	Weight %	LD/LC50
Mineral Oil	8042-47-5	PY8047000	Balance	22g/kg (oral, mus)
Organo-Cobalt Compound Proprietary		N/A	0.5%	N/E

SECTION 12 – ECOLOGICAL INFORMATION

- Product Information:** Do not allow product to contaminate ground water, water bodies or sewage system.

SECTION 13 – DISPOSAL CONSIDERATIONS

- Waste Disposal:** Follow federal, state and local regulations for waste disposal.

SECTION 14 – TRANSPORT INFORMATION

- This is not a hazardous material for transportation.

SECTION 15 – REGULATORY INFORMATION

- Hazard Symbols:** Xn Harmful, N Dangerous for the environment
- SARA:** Subject to the reporting requirements of Section 313 of SARA Title III and of 40 CFR 372. Components of this solution are listed on the TSCA Inventory.
- WHMIS Classification:** Class B, Combustible
- Risk Phrases:** R20/21/22, R48, R50, R53- Harmful by inhalation or skin contact or if swallowed, danger of serious damage to health by prolonged exposure, danger of cumulative effects, very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Safety Phrases:** S9, S23/24/25, S26, S36/37/39, S57- Keep container in a well ventilated place. Avoid inhalation or contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical attention. Wear suitable protective clothing, gloves, and eye/face protection. Use

SECTION 16 – OTHER INFORMATION

N/A = Not Applicable or Not Available

N/E = Not Established

The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, we cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. We warrant that the chemical meets the specifications set forth on the label. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE. The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION.

Approved by Quality Assurance Department.

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