

**SECTION 1 Identification of Substance/ Preparation and Company/ Undertaking**

**Product Name:** CONOSTAN® S-21 Blended Standard  
**Chemical Family** Petroleum hydrocarbon  
**Intended Use** Instrument Calibration  
**Catalogue Number:** 150-021-018

**Manufacturer/ Supplier:****Canada/ International**

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For Spills, Leaks, Fires or Accidents Call CHEMTREC: North America: (800) 424-9300  
Others: (703) 527-3887 (collect)  
California Poison Control System: (800) 356-3129

In the event of medical emergency, call your local poison centre or equivalent.

**SECTION 2 Hazards Identification****Emergency Overview  
GHS**

Harmonized Classification – Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

**Classification:**

Not classified

**Pictograms:**



**Signal Word:** Not Applicable

**Hazard Statements**

Not Applicable

**Precautionary Statements**

Not Applicable

**EU Symbol:** Not Applicable

**Risk Phrase(s):** Not Applicable

**Safety Phrase(s):** Not Applicable

**Potential Health Effects:**

**Eye:** Not known to be an eye irritant.

**Skin:** Not known to be a skin irritant. No harmful effects from skin absorption have been reported.

**Ingestion:** No harmful effects reported from ingestion.

**Inhalation:** No harmful effects reported.

### SECTION 3 Composition and Information on Ingredients

CAS No.	Chemical Name	Weight	EU-Index No.
8042-47-5	White Mineral Oil	100%	Not Available
7440-43-9	Cadmium Compounds	<0.01%	Not Available
7440-02-0	Nickel Compounds	<0.01%	Not Available
Proprietary	Lead Compounds	<0.01%	Not Available
Proprietary	Silicon Alkyl aryl Sulfonate (% as Si)	<0.01%	Not Available
None	Oil Mist, If generated	---	None

The following materials are present at less than 0.01%:

Blended Alkyl aryl Sulfonate or as indicated, including

Silver Compound	- % as Ag
Aluminum Compound	- % as Al
Boron Compound	- % as B
Barium Compound	- % as Ba
Calcium Compound	- % as Ca
Cadmium Compound	- % as Cd
Chromium Compound	- % as Cr
Copper Compound	- % as Cu
Iron Compound	- % as Fe
Magnesium Compound	- % as Mg
Manganese Compound	- % as Mn
Molybdenum Compound	- % as Mo
Sodium Compound	- % as Na
Nickel Compound	- % as Ni
Alkyl Phosphates	- % as P
Lead Compound	- % as Pb
Silicon Compound	- % as Si
Tin Compound	- % as Sn
Titanium Compound	- % as Ti
Vanadium Compound	- % as V
Zinc Compound	- % as Zn

A typical concentration of the above metal compound is 10 ppm of each metal.

Refer to container for the exact concentration.

1% = 10,000 PPM.

### SECTION 4 First Aid Measures

**In case of contact:**

**Eye:** If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

- Skin:** First aid is not normally required. However, it is good practice to wash any chemical from the skin.
- Ingestion:** First aid is not normally required. However, if swallowed and symptoms develop, seek medical attention.
- Inhalation:** First aid is not normally required. If breathing difficulties develop, move victim away from source of exposure and into fresh air. Seek immediate medical attention.
- Notes to Physician/Doctor:** Acute aspirations of large amounts of oil-laden material may produce serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

## SECTION 5 Fire-fighting Measures

### Fire Hazard Summary:

For fires beyond the incipient stage, emergency responders in the immediate hazard areas should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (See Section 8).

Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from the immediate hazard area if it can be done with minimal risk.

Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

**Extinguishing Media:** Dry chemical, carbon dioxide, foam or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

**Extinguishing Media to be Avoided:** No information found.

**Combustion and Thermal Decomposition Products:** This material may burn, but it will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire.

### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION

Health: 1 – Exposure would cause irritation with only minor residual injury.  
 Flammability: 1 – Must be heated before ignition can occur. Flash point over 93°C (200°F)  
 Reactivity: 0 – Normally stable, even under fire exposure conditions, and is not reactive with water  
 Special Hazard:

## SECTION 6 Accidental Release Measures

### Spill Precautions:

This material may burn, but it will not ignite readily. Keep all sources of ignition away from spill/release. Stay upwind and away from spill/ release. Notify persons downwind of the spill/ release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/ release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (See Section 8).

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways. Contain liquid with sand or soil. Recover and return free product to proper containers. Dike far ahead of the spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material such as vermiculite, sand, or clay to clean up residual liquids.

Notify fire authorities and appropriate federal, state and local agencies. Immediate cleanup of any spill is recommended. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (Phone No.: 800-424-8802).

**Clean-up:**

SMALL SPILLS: Not applicable.

LARGE SPILLS: Evacuate area. Contact fire and emergency services and supplier for advice.

**SECTION 7 Handling and Storage**

**Handling:**

Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (See Sections 2 and 8).

Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames. Use good personnel hygiene practices.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged and promptly shipped to the supplier or a drum re-conditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

**Storage:**

Keep container(s) tightly closed. Use and store this material in a cool, dry, well-ventilated area, away from heat and all sources of ignition. Post area "No Smoking or Open Flame". Store only in approved containers. Keep away from any incompatible material (See Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

**Additional Information:**

The mixture is intended for use in a laboratory. The mixture as supplied is stable under normal laboratory conditions.

**SECTION 8 Exposure Controls and Personal Protection**

**EXPOSURE GUIDELINES**

ACGIH: Oil Mist, If generated - 5 mg/m<sup>3</sup> (TWA), 10 mg/m<sup>3</sup> (STEL).

OSHA: - 5 mg/m<sup>3</sup> (TWA)

NOTE: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

**Preventive Measures:**

Combustible liquid and vapor. Keep away from heat sparks, flames, static electricity or other sources of ignition.

**Eye / Face protection:** While contact with this material is not expected to cause irritation, the use of approved eye protection to safeguard against potential eye contact is considered good practice..

**Skin protection:** The use of gloves impervious to the specific material handled is advised to prevent skin contact and possible irritation (see manufacturers literature for information on permeability). Examples of approved materials are nitrile, neoprene.

**Inhalation / Ventilation:** A NIOSH certified air purifying respirator with a Type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposures limits (See exposure guidelines).

Protection provided by air purifying respirators is limited (see manufacturer's respirator

selection guide). Use a NIOSH approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode if there is potential for an uncontrolled release, exposure levels are unknown, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**Personal Hygiene:**

Do not eat or drink in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Appropriate Engineering Controls:**

If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (See exposure guidelines), additional engineering controls may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used (See appropriate electrical codes).

**Other Protective Equipment:**

Eye wash and quick-drench shower facilities should be available for flushing eyes and skin. Impervious clothing should be worn as needed. Thoroughly clean shoes and wash contaminated clothing before reuse. It is recommended that impervious clothing be worn when skin contact is possible.

Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

**SECTION 9 Physical and Chemical Properties**

<b>Form:</b>	Liquid	<b>Melting/Freezing Point:</b>	No Data
<b>Color:</b>	Oily brown	<b>Boiling Point:</b>	>599°F / >315°C
<b>Odor:</b>	No distinct	<b>pH:</b>	Not applicable
<b>Odor Threshold:</b>	No Data	<b>Density: (@ 20 °C)</b>	6.25 lbs/gal
<b>Solubility in water:</b>	Negligible	<b>Viscosity: (@ 40 °C)</b>	70
<b>Vapor Density (air=1):</b>	Not Applicable	<b>Specific Gravity:</b>	0.6 – 0.9 @ 60°F (15.6°C)
<b>Vapor Pressure (mm Hg):</b>	Negligible	<b>Flash Point:</b>	410°F / > 210°C (COC)
<b>Evaporation Rate (nBuAc=1):</b>	Negligible		

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

**SECTION 10 Stability and Reactivity**

<b>Chemical stability:</b>	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Incompatible Materials:</b>	Avoid contact with strong oxidizing agents such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, etc..
<b>Conditions to avoid:</b>	Avoid all possible sources of ignition (See Sections 5 and 7).
<b>Hazardous Decomposition Products:</b>	Combustion can yield carbon dioxide, carbon monoxide and other oxides.
<b>Hazardous Polymerization:</b>	Will not occur.

## SECTION 11 Toxicological Information

### Potential Health Effects

<b>Eye:</b>	Not known to be an eye irritant
<b>Skin:</b>	Not known to be a skin irritant. No harmful effects from skin absorption have been reported.
<b>Ingestion:</b>	No harmful effects reported from ingestion.
<b>Inhalation:</b>	No harmful effects reported.

### Effects of Short-Term (Acute) Exposure

<b>LD50/LC50:</b>	<u>White Mineral Oil - CAS# 8042-47-5</u> Dermal: LD50 : > 2 g/kg LC50 : > 5 mg/l (rat) Oral: LD50 : > 5 g/kg (rat)
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### Effects of Long-Term (Chronic) Exposure

<b>Respiratory or skin sensitization:</b>	No information found.
<b>Germ Cell Mutagenicity:</b>	Testing of various nickel compounds has produced positive results in assays for gene mutation, chromosomal aberration and DNA damage in both bacterial and mammalian cells.
<b>Reproductive Toxicity:</b>	Administration of certain organic lead compounds during pregnancy has caused developmental toxicity (neurobehavioral effects) in laboratory animals.

Administration of nickel acetate during pregnancy has resulted in birth defects in sheep, hamsters and mice. Developmental defects affects primarily the eyes were noted in laboratory animals exposed to nickel carbonyl via inhalation during pregnancy. Administration of soluble inorganic salts of nickel during pregnancy resulted in limited evidence of developmental toxicity. Increased fetal death, decreased litter size and reduced fetal weights were noted, but only at concentrations that also compromised the health status of the mothers. There is inconclusive evidence for the developmental toxicity of insoluble inorganic salts (e.g., oxides and sulfides).

<b>STOT- Single exposure</b>	No definitive information available on target organs toxicity short term exposure.
<b>STOT- Repeated exposure</b>	Chronic overexposure to organic cadmium can result in renal tubular dysfunction, proteinuria and less commonly, glomerular dysfunction, disturbance of calcium metabolism and renal stone formation.

Chronic overexposure to organic lead compounds is associated with toxicity of the hematopoietic, vascular, male reproductive, nervous systems and of the kidney. Hematological effects include anemia, decreased hemoglobin and increased urinary porphyrins. Vascular effects are manifested as high blood pressure. Neurotoxic effects may involve both sensory and motor neurons and may include encephalopathy and peripheral neuropathy. Kidney damage is characterized by nephropathy, interstitial fibrosis and tubular damage. Effects on the male reproductive system may include decreased sperm count, motility and testicular atrophy.

Chronic exposure to nickel and certain nickel compounds can cause rhinitis, sinusitis, allergies, cancer of the nasal sinus cavities and lungs. Nasal polyps, perforation of the nasal septum and chronic pulmonary irritation have also been reported. There is limited evidence from laboratory animal studies that nickel sulfate and nickel chloride can

**Aspiration Hazard:**

adversely affect the male reproductive system.  
No definitive information available.

**Carcinogenicity:**

The international Agency for Research on Cancer has determined that cadmium metal is a Group 1 human carcinogen. EPA has classified cadmium as a "probable carcinogen" based on limited human evidence, but sufficient evidence in laboratory animals. It has been classified as a known carcinogen by NTP.

Chronic oral ingestion of various inorganic lead compounds resulted in increased renal tumors in laboratory animals. Lead and inorganic lead compounds have been identified as carcinogens by NTP, IARC and OSHA. Organic lead compounds have not been identified as a carcinogen by NTP, IARC or OSHA.

There is insufficient evidence in humans for the carcinogenicity of nickel sulfate and for nickel compounds (sulfides and oxides) encountered in nickel refining. There is sufficient evidence in animals for the carcinogenicity of metallic nickel, nickel monoxides, nickel hydroxides and crystalline nickel sulfides and limited evidence in animals for other nickel compounds (e.g., alloys, arsenides and nickel carbonyl). Occupational exposure has been associated with cancer of the lung and nasal cavity. Nickel and nickel compounds have been identified as carcinogens by NTP and IARC.

No definitive information available for the other components on carcinogenicity, mutagenicity, target organs or developmental toxicity.

**Signs and symptoms of exposure:**

**Overexposure:**

Effects of overexposure may include diarrhea, irritation of the digestive tract and irritation of the respiratory tract.

**SECTION 12 Ecological Information**

**Eco-toxicity:** no information about this preparation is available.

**Mobility in soil:** no information about this preparation is available.

**Persistence and degradability:** no information about this preparation is available.

**Bioaccumulative potential:** no information about this preparation is available.

**SECTION 13 Disposal Considerations**

**Product disposal:**

This material, if discarded as produced, is not a RCRA "listed" hazardous waste due to the characteristic(s) of ignitability (D001). If the spilled or released material impacts soil, water or other media, characteristic testing of the contaminated materials may be required prior to their disposal. Further, this material once it becomes a waste is subject to the land disposal restrictions in 40 CFR 268340 and may require treatment prior to disposal, to meet specific standards. Consult state and local regulations to determine whether they are more stringent than the federal requirements.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum re-conditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

**Contaminated packaging:** Dispose of as unused product.

**SECTION 14 Transport Information**

**IDMG (sea):** Not Regulated As A Hazardous Material Or Dangerous Goods For Transportation By This Agency.

**UN-Number:** Not Applicable      **Class:** Not Applicable

**Packing group:** Not Applicable  
**Proper shipping name:** Not Applicable  
**Note:**

**ADR/DOT (road):** Not regulated

Material is unregulated unless in container of 3500 gal or more then provisions of 49 CFR Part 130 apply for land shipment.

**UN-Number:** Not Applicable      **Class:** Not Applicable

**Packing group:** Not Applicable

**Proper shipping name:** Not Applicable

**Note:** Not Applicable

**ICAO/IATA (air):** Not Regulated As A Hazardous Material Or Dangerous Goods For Transportation By This Agency.

**UN-Number:** Not Applicable      **Class:** Not Applicable

**Packing group:** Not Applicable

**Proper shipping name:** Not Applicable

**Note:**

## **SECTION 15      Regulatory Information**

### **US Federal:**

#### **TSCA**

This product and/or its components are listed on the TSCA Chemical Inventory.

### **US State:**

**Warning:** This material contains the following chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

#### **California Prop. 65**

Component: Cadmium and Cadmium Compounds  
Effect: Developmental and Reproductive Toxicant

Component: Lead and Lead Compounds  
Effect: Cancer

Component: Nickel and Certain Nickel Compounds  
Effect: Cancer

This material has not been identified as a carcinogen by NTP, IARC or OSHA except for some individual components.

### **Canada**

**WHMIS Classifications:** Not Classified

## SECTION 16 Other Information

**Revised:** January 3, 2017

**Date of previous** Not Applicable

**revision (s):**

**Details of revision (s):** Not Applicable

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