

## Liquid Nitrogen Pillow – CG 08-08

### Section 1 – Chemical Product and Company Identification

OPS Diagnostics, LLC  
291 US Highway 22 East  
Building 6  
Lebanon, NJ 08833  
USA  
TEL: (908) 253-3444

For Emergencies, Call (908) 253-3444

Product Name: Liquid Nitrogen Pillow  
MSDS Number: Trade Secret  
Synonyms: CryoCooler Liquid Nitrogen Pillow, Cellulose Powder Pillow  
Chemical Formula: Polymer  
Molecular Weight: Not available

### Section 2 – Composition, Information on Ingredients

Cellulose, CAS# 9004-34-6, 100% by weight.

### Section 3 – Hazards Identification

#### EMERGENCY OVERVIEW

**Appearance:** White powder.

**Caution!** May cause eye irritation. Powder may cause respiratory and digestive tract irritation.

**Target Organs:** None known.

Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** Not available. Expected to be a low ingestion hazard.

**Inhalation:** Low hazard for usual industrial handling. Inhalation of dust may cause respiratory tract irritation.

**Chronic:** Not available.

### Section 4 – First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Wash with soap and water. Get medical attention if irritation develops.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

### 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**NFPA Rating:** (estimated) Health: 1; Flammability: 1; Instability: 0

**Extinguishing Media:** Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

### Section 6 – Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

### Section 7 – Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Keep container tightly closed. Avoid ingestion and inhalation.

**Storage:** Store in a tightly closed container. Store the reagent in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture. Do not store above 25°C (77°F).

## 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 adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

TWA: 10 (mg/m<sup>3</sup>) from ACGIH (TLV) (United States) Inhalation Total. TWA: 10 (mg/m<sup>3</sup>) from British Columbia Occupational Exposure Limit (Canada) Inhalation Total. TWA: 3 from British Columbia Occupational Exposure Limit (Canada) Inhalation Repairable. TWA: 15 (mg/m<sup>3</sup>) from OSHA (PEL) (United States) Inhalation Total. TWA: 10 STEL: 20 (mg/m<sup>3</sup>) (United Kingdom) Inhalation Total. TWA: 4 (mg/m<sup>3</sup>) (United Kingdom) Inhalation Repairable.

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 respirator use.

## Section 9 – Physical and Chemical Properties

**Physical State:** Solid (crystalline powder).

**Appearance:** White.

**Odor:** None

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Negligible.

**Viscosity:** Not available.

**Boiling Point:** Decomposes.

**Freezing/Melting Point:** 500°C

**Decomposition Temperature:** Not available

**Solubility:** Insoluble in water

**Specific Gravity/Density:** 1.27- 1.61 g/cm<sup>3</sup> at 0°C.

**Molecular Formula:** Polymer

## Section 10 – Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Excess heat, incompatible materials

**Incompatibilities with Other Materials:** Not available.

**Hazardous Decomposition Products:** Not available

**Hazardous Polymerization:** Has not been reported

## Section 11 – Toxicological Information

**RTECS#:** FJ5691460

**CAS#:** 9004-34-6

**LD50/LC50:** Acute oral toxicity, rat: LD50 = 5,000 mg/kg; Acute dermal toxicity, rabbit: LD50 = > 2,000 mg/kg

**Carcinogenicity:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** No information found

**Neurotoxicity:** No information found

## 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 – Transportation Information

US DOT	Canada TDG
<b>Shipping Name:</b> Not regulated as a hazardous material	No information available.
<b>Hazard Class:</b> Not applicable.	
<b>UN Number:</b> Not applicable.	
<b>Packing Group:</b> Not applicable.	

## Section 15 – Regulatory Information

US FEDERAL  
TSCA  
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.  
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 No chemicals are reportable under Section 313.  
**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 Not present on state lists from CA, PA, MN, MA, FL, or NJ.  
California Prop 65  
**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:** Not available.  
**Risk Phrases:** Not available.  
**Safety Phrases:**  
S 37 Wear suitable gloves.  
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S 28A After contact with skin, wash immediately with plenty of water  
  
WGK (Water Danger/Protection): 0  
No information available.  
Canada - DSL/NDSL  
Listed on Canada's DSL List.  
Canada - WHMIS  
This product has a WHMIS classification of D2B.  
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.  
Canadian Ingredient Disclosure List

## Section 16 – Additional Information

**MSDS Creation Date:** 1/29/2014

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall OPS Diagnostics be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if OPS Diagnostics, LLC has been advised of the possibility of such damages.*