

0700-1595

# Material Safety Data Sheet

Nyogel OC-431A-LVP

MSDS No. OC-431A-LVP

Date of Preparation: 2/24/99

Revision Date: 4/26/06

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** Nyogel OC-431A-LVP

**General Use:** Optical Coupling Gel

**Manufacturer:** Nye Lubricants, Inc.

12 Howland Road

Fairhaven, MA 02719 U.S.A.

Telephone: (508) 996-6721 (8:00AM - 5:00PM ET weekdays)

Nights and weekends (Medical Emergencies ONLY): CHEMTREC (800) 424-9300

## Section 2 - Composition / Information on Ingredients

**Ingredient Name**

**CAS Number**

**% wt or  
% vol**

Product formulation is Proprietary  
No ingredients are known to be hazardous under normal usage.

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Oil Mist	5 mg/m <sup>3</sup>	NE	5 mg/m <sup>3</sup>	NE	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	2500 mg/m <sup>3</sup>

NE= None Established

## Section 3 - Hazards Identification

### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

**Summary of risks:** May irritate eyes. Prolonged or repeated skin contact may cause irritation. Inhalation of oil mist or vapors from material at high temperatures may irritate respiratory passages.

**HMIS**

**H** 1

**F** 1

**R** 0

**PPE** †

†Sec. 8

### Potential Health Effects

**Eye Contact:** May cause irritation.

**Skin Contact:** Repeated or prolonged skin contact may cause irritation.

**Inhalation:** Oil mist and vapors at high temperatures may irritate respiratory passages.

**Ingestion:** May cause gastrointestinal irritation.

**Primary Route(s) of Entry:** Inhalation at high temperatures, eye contact, skin contact.

**Target Organs:** Respiratory passages at high temperatures, eyes, skin.

**Medical Conditions Aggravated by Long-Term Exposure:** None known.

**Carcinogenicity:** IARC, NTP, and OSHA do not list Nyogel OC-431A-LVP or its ingredients as carcinogens.

## Section 4 - First Aid Measures

**Eye Contact:** Flush thoroughly with water for at least 15 minutes. Get immediate medical attention.

**Skin Contact:** Remove contaminated clothing. Wash exposed area with soap and water. Get medical attention if symptoms persists.

**Inhalation:** If symptoms develop, remove affected person from source of exposure into fresh air. Get immediate medical attention. If person is not breathing, give artificial respiration. If breathing is difficult, administer oxygen if available.

**Ingestion:** Get immediate medical attention. Do not induce vomiting unless instructed to do so by a physician.

### Section 5 - Fire-Fighting Measures

**Flash Point:** over 400°F (204°C)  
**Flash Point Method:** CC, ASTM D93  
**Lower Flammable Limit (LFL):** N/A  
**Upper Flammable Limit (UFL):** N/A  
**Extinguishing Media:** CO<sub>2</sub>, Foam, Dry Chemical, Water Spray  
**Unusual Fire or Explosion Hazards:** None  
**Hazardous Combustion Products:** Carbon Monoxide and small amount of other toxic fumes.  
**Fire-Fighting Instructions:** Wear a NIOSH approved positive pressure self-contained breathing apparatus with full protective clothing. Do not release runoff from fire control methods to sewers or waterways.

### Section 6 - Accidental Release Measures

**Spill Response:** Observe precautions from other sections. Contain any spill with dikes or absorbents to prevent migration and entry into drains, sewers or bodies of water. Wipe or scrape up grease and place it in a proper container for disposal. Wash walking surfaces thoroughly to reduce slipping hazard. Follow applicable OSHA (29 CFR 1910.120), state and local regulations.

### Section 7 - Handling and Storage

**Handling Precautions:** Exercise ordinary care in handling industrial lubricants. Avoid contamination of cigarettes or other tobacco products. Wash hands thoroughly before eating or smoking. Remove contaminated clothing and clean before reuse. Users should be alert to the possibility that very small percentages of the population may display unexpected allergic reactions to otherwise innocuous industrial lubricants and raw materials.  
**Storage Requirements:** Do not store in open or unlabeled containers. Store away from incompatibles.

### Section 8 - Exposure Controls / Personal Protection

**Eye Protection:** Avoid eye contact. Wear safety glasses or chemical goggles in accordance with OSHA 29 CFR 1910.133.  
**Skin Protection:** Avoid skin contact. Wear chemical protective gloves. Depending upon conditions of use, additional protection may be necessary such as a face shield, apron, etc.  
**Ventilation:** Local ventilation is generally not necessary under normal conditions of use with adequate general ventilation. Ventilation and other forms of engineering controls are the preferred means for controlling chemical exposures.  
**Respiratory Protection:** Avoid breathing oil mist. Respiratory protection is generally not necessary under normal conditions of use with adequate general ventilation.  
**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.  
**Other Precautionary Information:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

### Section 9 - Physical and Chemical Properties

<b>Appearance and Odor:</b> Clear, odorless gel	<b>Water Solubility:</b> Insoluble
<b>Vapor Pressure:</b> Negligible	<b>Boiling Point:</b> Not volatile
<b>Vapor Density:</b> Not Determined	<b>Dropping Point:</b> Non-melting
<b>Formula Weight:</b> Not Calculated	<b>% Volatile:</b> None
<b>Specific Gravity (H<sub>2</sub>O=1, at 4 °C):</b> 1.06 at 25°C	<b>Evaporation Rate:</b> Not Determined
<b>pH:</b> Not Determined	

### Section 10 - Stability and Reactivity

**Stability:** Nyogel OC-431A-LVP is stable at room temperature in closed containers under normal storage and handling conditions.  
**Polymerization:** This product will not undergo hazardous polymerization.  
**Chemical Incompatibilities:** Strong oxidizing materials  
**Conditions to Avoid:** Pyrolysis  
**Hazardous Decomposition Products:** Thermal oxidative decomposition of Nyogel OC-431A-LVP can produce carbon monoxide as well as small amounts of other toxic fumes.

### Section 11- Toxicological Information

**Toxicity Data:** None available.

### Section 12 - Ecological Information

**Environmental Fate and Effects:** No data has been established for this product.

**Section 13 - Disposal Considerations**

**Disposal:** Contact a licensed waste-disposal contractor for detailed recommendations.

**Disposal Regulatory Requirements:** Many states classify waste lubricants as "hazardous", which means disposal only by a licensed firm. Follow applicable Federal, state, and local regulations.

**Section 14 - Transport Information**

**DOT Transportation Data (49 CFR 172.101):** Not Regulated

**Section 15 - Regulatory Information**

**TSCA:**

All components of this product are listed on the TSCA inventory.

**EPA Regulations:**

SARA 311/312 Hazard Class (40 CFR 370)

Immediate (Acute) Health Hazard	No	Sudden Release of Pressure Hazard	No	Reactive Hazard	No
Delayed (Chronic) Health Hazard	No	Fire Hazard	No		

SARA 313 Toxic Chemicals (40 CFR 372)

No ingredients listed

CAS Number      %

SARA Extremely Hazardous Substances (40 CFR 355)

No ingredients listed

CAS Number      %

Threshold Planning Quantity (TPQ)

CERCLA Hazardous Substances (40 CFR 302)

No ingredients listed

CAS Number      %

Reportable Quantity (RQ)

**Section 16 - Other Information**

**Prepared By:** WMM

**Disclaimer:** While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Nye Lubricants, Inc. makes no warranty with respect thereto and disclaims all liability with respect thereon.



# SmartGel™

It knows how to make the light shine through.

## NYE NYOGEL® OC431A-LVP

A thixotropic gel with a refractive index of 1.46 at 589.3 nm.

Typical Properties of the Gel			Typical Value	Test Method
Color, Appearance			Crystal Clear	
Refractive Index	402 nm		1.4988	ASTM D-1218
	589.3 nm		1.4617	
	980 nm		1.4454	
	1550 nm		1.4372	
Refractive Index Temp. Coefficient	25°C to 60°C		- 3.5 X 10 <sup>-4</sup> /C	
Refractive Index vs. Wavelength, Cauchy Fit			1.4332 + 10,526xλ <sup>-2</sup>	ASTM D-1218
Optical Absorption (450-750 nm)			< 0.003 %/micron	Nye CTM-23
Penetration Unworked			243	ASTM D-1403
Apparent Viscosity	25°C		11,000 poise	Nye CTM-14
Oil Separation	24 hours	100°C	0.1 %	FTM 791, Method 321.2
Evaporation	24 hours	100°C	< 0.2 %	ASTM D-972
Specific Gravity	25°C		1.06	ASTM D-1217
Thermal Coefficient of Expansion	cc/cc/°C		6.0 X 10 <sup>-4</sup>	ASTM D-1903
Microscopic Particulate Contamination	10-34 microns		< 300	MIL-G-81937
Number of Particles/cc	>=35 microns		0	

The typical properties shown on this product data sheet should not be used as a basis for preparing specifications. Refer to the Material Safety Data Sheet for detailed safety information. (0405)



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