



NYACOL DP5480 MSDS

MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Trade Name: NYACOL® DP5480
Chemical Name: Ethylene Glycol and Silica
Synonyms: Colloidal Silica in Ethylene Glycol
Product Code: DP5480
Use: Anti-Block for Polymer Films
Manufacturer: Nyacol Nano Technologies, Inc.
Megunko Road, P.O. Box 349, Ashland, MA 01721 U.S.A.
Emergency Telephone: 508-881-2220

2. Composition / Information on Ingredients

<u>Component</u>	<u>CAS RN</u>	<u>Exposure Limits</u>	<u>% By Weight</u>
Ethylene Glycol	107-21-1	10 mg/M ³ TWA	70
Silicon Dioxide	7631-86-9	5 mg/M ³ TWA	30
<u>Component</u>	<u>EINECS #</u>	<u>RTECS #</u>	
Ethylene Glycol	203-473-3	KW2975000	
Silicon Dioxide	231-545-4	VV7310000	

3. Hazard Identification

EMERGENCY OVERVIEW

Translucent White Liquid – Slight Sweet Odor

Keep Spills Out Of Surface Waters

Potential Health Effects / Health Hazard Identification

Acute Exposure –

Eye:

May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

Skin:

Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling. Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact; see other effects below, and Section 11 for information regarding potential long term effects.

Ingestion:

Contains ethylene glycol, which is toxic when swallowed. A lethal dose for an adult is 1-2 ml per kilogram, or about 4 ounces (one-half cup or 120 ml.). Symptoms include headache, weakness, confusion, dizziness, staggering, slurred speech, loss of coordination, faintness, nausea and vomiting, increased heart rate, decreased blood pressure, difficulty breathing and seeing, pulmonary edema, unconsciousness, convulsions, collapse, and coma. Symptoms may be delayed. Decreased urine output and kidney failure may also occur. Severe poisoning may cause death. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

6. Accidental Release Measures

Leaks and Spills:	Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing. If more than 1 pound of product is spilled, then report spill according to SARA 304 and CERCLA 102(A) requirements.
Personal Protection:	See Section 8.

7. Handling and Storage

Handling:	Minimum feasible handling and temperatures should be maintained.
Storage:	Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

8. Exposure Controls / Personal Protection

Engineering Control:	Ventilation adequate to meet occupational exposure limits. The OSHA ceiling is 50 ppm; ACGIH ceiling is 50 ppm.
Skin Protection:	Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.
Eye Protection:	Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.
Respiratory Protection:	Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentrations of the contaminant or oxygen content is unknown.

9. Physical and Chemical Properties

NYACOL DP5480 is an ethylene glycol-based material.

Appearance:	Translucent white liquid.
Odor:	Slight, sweet.
Physical State:	Liquid.
pH:	Not applicable.
Boiling Point:	198°C (388°F) (Ethylene Glycol).
Freezing Point:	- 13°C (8°F) (Ethylene Glycol).
Flash Point:	118°C (244°F).
Vapor Pressure:	0.1 mm Hg. @ 20°C.
Oxidizing Properties:	Not an oxidizer.
Solubility in Water:	100%
Density:	1300 kg/M ³
Specific Gravity:	1.3
Volatile by Weight:	70%
Viscosity:	Not available.
Explosion Limits:	Not determined.
Partition Coefficient:	Not determined.
Evaporation Rate:	Slow.

10. Stability and Reactivity

Chemical Stability:	Stable.
Conditions To Avoid:	No recommendation.
Incompatibility With Other Materials:	None known.

continued →

15. Regulatory Information, continued

U.S. State Regulations

California Proposition 65: No label required.
State Right-to-Know Laws: Section 2 of this MSDS lists all components of DP5480.

Canadian Regulations

Domestic Substance List: All ingredients listed.
WHMIS: Class D, Division 1, Division 2, material causing other toxic effects and teratogenic effects.

Transportation of Dangerous Goods (TDG): Not applicable. DP5480 does not meet dangerous goods criteria.

This MSDS contains all the information items specified in Schedule 1, Column 3 of the Controlled Products Regulations in a 16-heading format.

EEC Regulations

Classification: Harmful.
Symbol: St. Andrew's Cross
Risk Phrases: Harmful if swallowed.
Safety Phrases: Keep out of reach of children.

16. Other Information

NFPA 704 Hazard Rating: Health - 2, Flammability - 1, Reactivity - 0, Special - None
HMIS® Hazard Rating: Health - 2, Flammability - 1, Reactivity - 0
Protective Equipment - I: Safety Glasses, Gloves, Combination Respirator

Recommended Use: NYACOL DP5480 is recommended for use as an anti-block for polymer films. Other uses have not been investigated and may have other hazards. For industrial use only, not for food, drug or home use.

Workers using DP5480 should read and understand this MSDS and be trained in the proper use of this material.

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This MSDS has been prepared with data from Nyacol Nano Technologies, Inc.'s laboratories, raw material suppliers and government publications.

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