

## Material Safety Data Sheet

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### Product : Moisture Cured Optical Coating MY-133 MC

**Company:** MY Polymers Ltd.  
**Telephone:** 972-8-9350101

#### Chemical Product

**Chemical identification:** Silane modified fluorinated polyurethane resins  
**Intended uses:** Optical Coating. Low refractive index applications.  
**Molecular weight:** 1500-4000

**2. Composition:** Above 95% polymers.

#### 3. Hazard identification:

##### Special indications of hazards to humans and the environment

Irritating to eyes, respiratory system and skin. Dangerous if swallowed due to a release of methanol.

**Physical and Chemical hazards:** Releases methanol upon exposure to moisture.

As the properties of this product has not been fully explored, care should be exercised when handling.

#### 4. First Aid Procedures:

##### First Aid Measures:

**Eye contact:** Irrigate with pure water for at least 3 minutes, then seek medical attention.  
**Skin contact:** Wash with soap and water, seek medical advice in case of persistent irritation.  
**Ingestion:** Give some glasses of water to drink. Induce vomiting. Seek medical advice in case of persistent pain.  
**Inhalation:** Take to fresh air. Seek medical advice in case of persistent pain.

#### 5. Fire Fighting Procedures:

**Specific hazards:** The product is not flammable and not explosive.  
The heating of the product may cause decomposition with emission of toxic and corrosive vapors (HF, hydrogen fluoride).

**Specific methods:** Wear specific protective equipment ( see below)  
Stay opposite the wind and at safety distance from the flames.  
Remove the containers, when possible to do it in safe conditions.  
Keep container cool by spraying with water if exposed to fire or other heat sources.

**Extinguishing media:** Foam, water spray, CO<sub>2</sub>, dry chemicals

**Protection of fire fighters:** Self contained breathing apparatus.  
Protective anti-acid overall clothing.

#### 6. Accidental Release Procedures:

**Precautions with respect to individuals:** Wear suitable protective clothing. Stop the release.  
**Precautions with respect to environment:** Avoid discharge into the environment. Stop leaks as soon as possible.  
Clean up spillage immediately.  
**Cleaning of spillage:** Absorb with a mineral filler such as sand, vermiculite etc. collect and store in a suitable container.

#### 7. Storage and handling:

##### Handling

**Precautions:** No foreseeable hazard when the product is properly handled. Avoid heating above the decomposition temperature. Avoid exposure to moisture and water.

**Technical measures:** Provide working areas with adequate ventilation and with water wash facilities ( eye bath and emergency showers)

##### Storage

**Storage conditions:** keep container closed. Keep away from heat sources and moisture. Keep away from combustible, explosive and incompatible materials (sect. 10).

**Packaging:** Glass, plastic, lined materials

**Recommended materials:** Glass or other moisture proof container.

**Non suitable materials:** Not known, however, non-lined metals may corrode and contaminate the product.

## 8. Exposure control / individual protection:

**Exposure limits:** Only threshold limits of by-products from thermal decomposition and hydrolysis are available (ACGIH 2005):

HF:	TLV/Ceiling	2.6 mg/mc	3 ppm
COF2:	TLV/Ceiling	5.4 mg/mc	2 ppm
Methanol	8 hours, 98/24/EC	260 mg/mc	200 ppm

**Engineering measures:** Provide working areas with adequate ventilation/aspiration systems.

## Personal Protective Equipment

**Respiratory protection** Use aspirator when performing operations involving potential exposure to vapor of the product.

Respirator with filler for organic vapor.

**Eye Protection** Safety goggles

**Hand Protection** rubber gloves

**Skin and body protection** work-suit or rubber apron

**Hygiene measures** Do not drink, eat and smoke during handling.

## 9. Physical and Chemical Properties:

Appearance: viscous liquid.

Color: colorless, transparent

Odor: weak

Acidity: Not applicable

Refractive index: 1.33 after curing

Viscosity: ND

Flash point: non flammable

Boiling Point: Not applicable

Decomposition temperature: >150°C

Spontaneous ignition: No

Explosive Properties: None

Vapor Pressure: ND

Density: 1.59

Solubility in water: insoluble. Releases methanol.

Solubility in organic solvents: soluble in esters and ketones

Volatiles: < 1%

## 10. Stability and Reactivity

**Stability:** The product is stable in normal conditions of use and storage.

**Conditions to avoid:** Temperature above 150°C

Exposure to moisture

Contact with heat sources

**Materials to avoid:** Avoid water

Oxidizing or reducing agents

Fine powdered magnesium, aluminum and their alloys above 100°C.

**Hazardous decomposition products:** carbon monoxide, nitrogen oxides, hydrogen cyanide, hydrogen fluoride, carbonyl fluoride.

## 11. Toxicological Information

**Penetration routes:** Contact and ingestion

**Adverse effects for human health:** Delayed and/or immediate effects after short and/or prolonged exposure:

Accute toxicity: No available data

Local effects/irritating power: No available data

Sensitization: No available data

Chronic toxicity: No available data

Carcenogenicity: No available data

Mutagenicity: No available data

Reproduction toxicity: No available data

## 12. Ecological information

No data available concerning environmental effects, ecostability or ecotoxicity.

Use the product according to good working practice, avoiding polluting the environment.

## 13. Disposal Consideration

**Waste treatment:** Send waste material to thermal destruction using high temperature incinerators designed to burn fluoride compounds.

**Packaging treatment:** Send to authorized land fills according to local laws and regulations.

## 14. Transport Regulations

Specific hazards product not dangerous for transportation (not classified)

Packaging information: Product is normally shipped in glass bottles.

### International transport classification:

U. N. Number not assigned

Packaging group: not assigned

## 15. Regulatory information

EC regulations ( directive 67-548 and following amendments)

### Classification

Classification type: Not required

Hazard class: none

Hazard Symbol:

Risk Phrases (R): 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases (S): 26-36 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

## 16. Other Information

This document completes the technical sheet of use but it does not replace it. The information contained in this document is based on our knowledge of the product at this time. The producer can offer no guarantee as to the accuracy or exhaustiveness of the above information. All chemicals may present unforeseen risks and should be used with cautions and by trained personnel. We cannot guarantee that the risks referred to above are the only risks present. The final choice of the application of a product is thus the sole responsibility of the user.

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