Material Safety Data Sheet

August 1, 2011

Products: Optical Adhesive and Coating OF-134

Company: **MY Polymers Ltd.**

1. Chemical Product

Chemical identification: Proprietary acrylate/methacrylate resin
Intended uses: Optical adhesive. Low refractive index applications.
Molecular weight: 2000-6000

2. Composition: over 99% polymers based on a polyol with acrylic/methacrylic ester groups and silane functionality.

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

Classification: The product is not classified as dangerous material. Caution, substance not yet fully tested.
Adverse human health effects: The product, when properly handled, according to good working and hygienic practices, is not dangerous for the human health.
Environmental effects: The product, when properly used and disposed, is not dangerous for the environment.

Physical and Chemical hazards: Releases methanol upon exposure to moisture. By-products from thermal decomposition are toxic and corrosive vapours.
As the properties of this product has not been fully explored, care should be exercised when handling.

4. First Aid Procedures:

Symptomatology following exposure:
Eye contact: Redness, irritation
Skin contact: Redness, irritation
Ingestion: Abdominal pain, nausea, vomit
Inhalation: Burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.

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 notexplosive.
The heating of the product may cause decomposition with emission of toxic and corrosive vapours.
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_2, dry chemicals
Protection of fire fighters: Self contained breathing apparatus.
Protective antiacid overall clothing.

6. Accidental Release Procedures:

Precautions with respect to individuals: Wear suitable protective clothings. 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 Avoid exposure to light and humidity

Precautions: No foreseeable hazard when the product is properly handled. Avoid heating above the decomposition temperature.

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. Keep away from combustible, explosive and incompatible materials (sect. 10). Avoid exposure to light and humidity.

Packaging: Glass or other moisture proof container.

Recommended materials: The product is both light and moisture sensitive and be kept in dark sealed containers.

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 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 vapour of the product. Respirator with filler for organic vapour.

Eye Protection Safety goggles

Hand Protection rubber gloves

Skin and body protection worksuit or rubber apron

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

9. Physical and Chemical Properties:

Appearance: viscous liquid.
Color: pale yellow, transparent
Odor: weak
Acidity: Not applicable
Refractive index: 1.33-1.34
Viscosity: 2000-5000 cps
Flash point: non flammable
Boiling Point: Not applicable
Decomposition temperature: >150ºC
Spontaneous ignition: No
Explosive Properties: None
Vapor Pressure: < 1 mm Hg @ 20°C
Density: 1.66-1.67
Solubility in water: insoluble.
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. May gel upon exposure to light, heat or moisture.

Conditions to avoid: Temperature above 150°C
Exposure to light
Contact with heat sources
Exposure to moisture

Materials to avoid: Avoid thermal free radical producing initiators (peroxides etc.)
Oxidising or reducing agents
Fine powdered magnesium, aluminium and their alloys above 100ºC.
Avoid inerting. (do not store under nitrogen.).

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

This product is a 100% active material, no evaporation or air pollution during handling under normal conditions can occur. Some methanol may be released slowly after exposure of the material to moisture. The level is at the range of 5-14 gram methanol per Kg of material.
No other 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 either glass or polyethylene 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
Labeling: Trade Name: **OF-134**
Hazard Symbol: None
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 can not 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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