

Material Safety Data Sheet

Reviewed on 06/20/2006

1 Identification of substance

- **Product details**
- **Trade name:** Magic-Glos
- **Article number:** UV Formulation
- **Manufacturer/Supplier:**
 JHB International
 1955 S. Quince St
 Denver, CO 80231
 USA
- **Information department:** Product safety department.
- **Emergency information:** 800-525-9007

2 Composition/Data on components

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	50-100%
2386-87-0	7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid,7oxibicyclo[4.1.0]hept-3-ylmethyl ester	25-50%
37625-56-2	2-Oxepanone,polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol	10-25%

- **Additional information:**

HEALTH HAZARDS / ROUTES OF EXPOSURE

INHALATION: No significant signs or symptoms indicative of any adverse health hazard are expected to occur at standard conditions due to the low volatility of this material. However, aerosols, or vapors which may be generated at elevated processing temperatures, may cause respiratory tract irritation. Symptoms of irritation may include coughing, mucous production and shortness of breath.

EYE CONTACT -- PRIMARY ROUTE: Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation. May cause moderate irritation with symptoms including burning sensation, tearing, redness or swelling.

SKIN ABSORPTION -- PRIMARY ROUTE: Although no appropriate human or animal health effects data are known to exist, this material is expected to be a slight skin absorption hazard.

SKIN IRRITATION -- PRIMARY ROUTE: Although no appropriate human or animal health effects data are known to exist, this material is expected to be a skin irritant. Symptoms may include localized redness or rash and swelling of the affected area. Symptoms may be delayed. A more severe skin response may occur after prolonged contact with this material. Although no appropriate human or animal health effects data is known to exist, this material may cause an allergic skin reaction (sensitization) in susceptible individuals upon repeated exposure.

INGESTION: Although no appropriate human or animal health effects data are known to exist, this material is expected to be a slight ingestion hazard.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: This material or its emissions may induce an allergic or sensitization reaction and thereby aggravate systemic disease.

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3 Hazards identification

· Hazard description:



Irritant
Dangerous for the environment

· Information pertaining to particular dangers for man and environment:

Irritating to eyes and skin.

May cause sensitisation by skin contact.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Only for trade users / technical specialists

Keep out of the reach of children.

· Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· NFPA ratings (scale 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

· HMIS-ratings (scale 0 - 4)



HEALTH 1 Health = 1
FIRE 1 Fire = 1
REACTIVITY 0 Reactivity = 0

· Additional information:

WARNING! This is a light sensitive product polymerized by exposure to UV Light. Do not expose to Ultraviolet Light/Radiation, Direct Sunlight, High temperatures (>100 F), and oxidizing agents.

High temperatures, exposure to light, radiation exposure, inhibitor depletion, accidental impurities, inert gas blanketing, and oxidizing agents may cause spontaneous polymerization reaction. Polymerization in large masses may cause excess exothermic reaction generating heat and also pressure. Closed containers may rupture or explode during runaway polymerization.

4 First aid measures

· After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

If symptoms persist consult doctor.

A person vomiting while lying on their back should be turned onto their side.

DO NOT attempt to give anything by mouth to an unconscious person.

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5 Fire fighting measures

- **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.

- **Special hazards caused by the material, its products of combustion or resulting gases:**

High temperatures, exposure to light, radiation exposure, inhibitor depletion, accidental impurities, inert gas blanketing, and oxidizing agents may cause spontaneous polymerization reaction. Polymerization in large masses may cause excess exothermic reaction generating heat and also pressure. Closed containers may rupture or explode during runaway polymerization.

- **Protective equipment:**

Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

Do not enter fire area with out proper protection. Acrid smoke-fumes/carbon monoxide/carbon dioxide/nitrogen oxides and perhaps other toxic vapors may be released during a fire involving this product. fight fire from safe distance/protected location. Heat/impurities may increase temperature/build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Water may be ineffective in firefighting due to low solubility. Use water spray/fog for cooling. Pressure relief system may plug with solids, increasing risk of overpressure. Notify authorities if liquid enters sewer/public waters.

6 Accidental release measures

- **Person-related safety precautions:**

Wear protective clothing.

Keep people at a distance and stay upwind.

- **Measures for environmental protection:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

- **Measures for cleaning/collecting:**

Ensure adequate ventilation.

Spilled or released material may polymerize and release heat/gases. Extinguish all ignition sources and ventilate area. Wear protective equipment during clean up. Dike and recover large spill. Soak up small spill with inert solids (such as vermiculite, clay) and sweep/shovel into vented disposal container. wash spill area with a strong detergent and water solution; rinse with water but minimize water use during clean up. For spills on water, contain, minimize dispersion and collect. Dispose/report per regulatory requirements.

7 Handling and storage

- **Handling:**

- **Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Wear appropriate protective equipment when handling this material (See Section 8 of MSDS). Do not use localized heat sources such as ovens or band heaters to heat product. Exposing this product to elevated temperatures (>100 F) may compromise the product quality and/or result in an uncontrolled hazardous polymerization. Product is packaged with inhibitor(s). The product's inhibitor(s) require the presence of dissolved oxygen. Maintain, at a minimum, the original headspace in the product container and do not blanket or mix with oxygen-free gas. as it renders inhibitor ineffective.

- **Information about protection against explosions and fires:** No special measures required.

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

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Store in dark area away from light.

Store at temperatures between 25 C - 35 C.

Stoor indoors. DO NOT EXPOSE TO OXYGEN-FREE GAS.

- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:**

If handling results in aerosol or vapor generation, local exhaust ventilation is recommended.

- **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Avoid contact with the eyes and skin.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water.

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

If this material is handled at elevated temperatures or under mist/vapor forming conditions, NIOSH/MSHA approved respiratory protection equipment should be used.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Impervious protective clothing

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9 Physical and chemical properties**· General Information**

Form: Liquid
Color: According to product specification
Odor: Mild

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 211°C (412°F)

· Flash point: 118°C (244°F)

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Density: Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Solvent content:

Organic solvents: 0.5 %
VOC content: 0.5 %
 5.0 g/l / 0.04 lb/gl

10 Stability and reactivity**· Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.
 Avoid elevated temperatures.

· Materials to be avoided:

High temperatures, localized heat sources (i.e. drum/band heaters & ovens), direct sunlight, UV radiation, inert gas blanketing, inert gas, oxygen scavengers, free radical initiators, strong acids, strong bases, strong oxidizers, amines, and mercaptans.

· Dangerous reactions

Reacts with amines.

Reacts with catalysts, oxidizing agents and strong alkali.

Hazardous polymerization may occur if mixed with amines in large masses and/or with heat. High temperatures, exposure to light, radiation exposure, inhibitor depletion, accidental impurities, inert gas blanketing, and oxidizing agents may cause spontaneous polymerization reaction. Polymerization in large masses may cause excess exothermic reaction generating heat and also pressure. Closed containers may rupture or explode during runaway polymerization.

· Dangerous products of decomposition:

Acrid smoke-fumes/carbon monoxide/carbon dioxide/nitrogen oxides, unknown hydrocarbons, and perhaps other toxic vapors may be released during a fire involving this product.

11 Toxicological information**· Acute toxicity:****· LD/LC50 values that are relevant for classification:**

2386-87-0 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxibicyclo[4.1.0]hept-3-ylmethyl ester

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	23000 mg/kg (rabbit)

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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

12 Ecological information

- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

13 Disposal considerations

- **Product:**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.
Dispose of in accordance to all local, state, and/or national legislation.

14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Remarks:** Not regulated.
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Remarks:** Not regulated.
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **Remarks:** Not regulated

15 Regulations

- **Sara**
- **Section 355 (extremely hazardous substances):**
None of the ingredient is listed.

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· **Section 313 (Specific toxic chemical listings):**

71-43-2 benzene

· **TSCA (Toxic Substances Control Act):**25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)

108-32-7 propylene carbonate

71-43-2 benzene

· **Proposition 65**· **Chemicals known to cause cancer:**

71-43-2 benzene

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

71-43-2 benzene

· **Chemicals known to cause developmental toxicity:**

71-43-2 benzene

· **Carcinogenicity categories**· **EPA (Environmental Protection Agency)**

71-43-2 benzene

A

· **IARC (International Agency for Research on Cancer)**

71-43-2 benzene

I

· **NTP (National Toxicology Program)**

71-43-2 benzene

K

· **TLV (Threshold Limit Value established by ACGIH)**

71-43-2 benzene

A1

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

71-43-2 benzene

· **OSHA-Ca (Occupational Safety & Health Administration)**

71-43-2 benzene

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**

Irritant

Dangerous for the environment

· **Hazard-determining components of labelling:**reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)· **Risk phrases:**

Irritating to eyes and skin.

May cause sensitisation by skin contact.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Safety phrases:**

Keep out of the reach of children.

Avoid contact with skin and eyes.

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

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Do not breathe fumes/aerosol.

Wear suitable protective clothing, gloves and eye/face protection.

Use only in well-ventilated areas.

After contact with skin, wash immediately with plenty of soap and water.

· **Special labeling of certain preparations:**

Only for trade users / technical specialists

Keep out of the reach of children.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. The information given and the recommendations made herein apply to our product alone and are not combined with other product(s). Such are based on our research and on data from other reliable sources and are believed to be accurate. No guarantee of accuracy is made. It is the user's responsibility before using any product to verify this data under their own operating conditions and to determine whether the product is suitable for their purposes.

· **Department issuing MSDS:** Product safety department.

· **Contact:** Lisa Lambright

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