

# Material Safety Data Sheet(GHS)

Date : Jun. 25. 2015

## 1. Product Identification

|              |   |
|--------------|---|
| Product name | UVRF<br>CMYKLcLmW   |
| Manufacturer | VISCOSMO Co.  |
| Address      | #2803, Heungdeok IT VALLEY, 13, Heungdeok 1-ro, Giheung<br>Yongin-si, 16954, KOREA<br>Phone : +82 2 875 1770<br><a href="http://www.viscosmoink.com">http://www.viscosmoink.com</a> |

## 2. Hazards Identification

- 2.1 Hazard Classification: Acute toxicity(oral) : Category 1  
Skin corrosion / Irritation : Category 1  
Serious eye damage / eye irritation : Category 1

### 2.2 Label Elements Including Precautionary Statements:

Symbol:



Signal Word:

Warning

Hazard Risk

Harmful if swallowed.  
Causes serious eye damage.  
May cause an allergic skin reaction.

Precautionary Statement:

Prevention:

Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wear suitable protective clothing, gloves and eye/face protection.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Contaminated work clothing should not be allowed out of the workplace.  
Avoid contact with skin and eyes.  
Use only outdoors or in a well-ventilated area.

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.  
Rinse skin with water/shower.  
Wash contaminated clothing before reuse.  
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
Immediately call a POISON CENTER or doctor/physician.  
Take necessary specific treatment.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF ON SKIN: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/container by the special waste disposal trader who receives the permission of metropolis and districts governor.

2.3 Other Hazard. None Known  
Risk which are not included  
in the classification criteria:

### 3. Composition/Information on Ingredients

| Ingredient                    | CAS No       | %      |
|-------------------------------|--------------|--------|
| Pigment                       | -            | 1-10%  |
| Tetra Hydro Furfuryl Acrylate | 2399-48-6    | 10-60% |
| Isobonyl Acrylate             | 5888-33-5    | 5-10%  |
| Mixture of acrylate resin     | Trade Secret | 10-40% |
| Phenyl bis Phosphine Oxide    | 162881-26-7  | 1-10%  |

### 4. First Aid Measures

**Inhalation :** move to fresh air. If breathing is difficult, give oxygen. Call a physician.

**Ingestion :** Induce vomiting immediately as directed by medical personnel.

**Skin Contact :** Immediately flush skin with plenty of soap and water for at least 15 minutes. removing contaminated clothing and shoes.

**Eye Contact :** Immediately flush eyes thoroughly with water for at least 15 minutes, Remove contact lenses after initial 1-2minutes and continue flushing for several additional minutes. If effects occur, consult physician, preferably an ophthalmologist.

### 5. Fire-Fighting Measures

**Extinguishing Media :**

Water fog or fine spray. Carbon dioxide. Dry chemical fire extinguishers.

Foam. Alcohol resistant foams are preferred. General purpose synthetic foams or protein foams may function, but will be less effective.

**Special procedures :** Do not use directed water stream.

**Unusual Fire and Explosion Hazards :** None Known.

**Hazardous Combustion Products :**

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/ or irritating. Combustion products may include and are not limited to: carbon oxides.

**Protection of Firefighters :**

Wear positive-pressure self-contained breathing apparatus and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves.)

If protective equipment is not available or not used, fight fire from a protected location or a safe distance.

**Specific Fire or Explosion Hazards :**

Fine dust of this product can form explosive mixtures with air and poses a definite fire and explosion hazard at all times; keep away from ignition sources.

Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flashback may occur.

Spills of these organic liquids on hot fibrous insulations may lead to lowering of the autoignition temperatures, possibly resulting in spontaneous combustion.

**6. Accidental Release Measures****Personal Precautions :**

Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Wear appropriate personal protective equipment as specified in Section 8.

Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

**Environmental Precautions :**

Vapor explosion hazard, keep out of sewers. Contain liquid to prevent contamination of soil, surface water or ground water.

**7. Handling and Storage**

**Handling :** Containers, even those that have been emptied, can contain vapors.  
No smoking, open flames or sources of ignition in handling and storage area.

**Storage :** Storage and use areas should be No Smoking areas.  
Use of non-sparking or explosion proof equipment may be necessary, depending upon type of operation. Minimize sources of ignition, such as static buildup, heat, spark or flame.  
Keep container closed.  
Keep at temperatures between 10 °C and 35 °C. Keep out of the reach of children.  
Keep away from direct sunlight.

**8. Exposure Controls/Personal Protection****Exposure Guidelines :**

A "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapors or by direct skin contact.

**Engineering Controls :**

Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

**Personal Protective Equipment :**

**Respiratory Protection :** For Most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.  
In misty atmospheres, use an approved particulate respirator.  
For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

**Protective Clothing :** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, gloves, boots, apron, or full body-suit will depend on operation.  
Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.

**Hand/Skin Protection :** Wear gloves made butyl rubber, Neoprene..

Eye/Face Protection : Use safety glasses. If exposure causes eye discomfort, use a full-face respirator.

## 9. Physical and Chemical Properties

Appearance/Odor : Colored liquid

|                       |                        |                     |                |
|-----------------------|------------------------|---------------------|----------------|
| Boiling Point, °C     | : 160 °C               | Vapor Pressure mmHg | :              |
| Melting Point, °C     | : undetermined         | Specific Gravity    | :              |
| Flash Point, °C       | : >120 °C (Closed Cup) | Water Solubility    | : not miscible |
| Vapor Density (Air=1) | : >3                   | Evaporation Rate    | :              |

## 10. Stability and Reactivity

**Stability :** Stable under ordinary conditions of use and storage.  
**Conditions to Avoid :** Avoid heat and freezing temperatures. Keep away from direct sunlight.  
**Materials to Avoid :** Strong Oxidizing materials, peroxides, acids or iron.

## 11. Toxicological Information

**Routes of toxicology:** Eye, skin, inhalation, and oral.

**Acute Health Hazards:** Overexposure of eye surface to ink may be mildly irritating.  
Overexposure of skin to ink may cause irritation, redness and swelling.  
Inhalation or overexposure to ink vapors may result in respiratory tract irritation and anesthesia.  
Ingestion may cause upset stomach.

**Chronic Health Hazards:** None known.

**Mutagenicity:** The components are not reported to produce mutagenic effects in humans.

**Carcinogenicity:** The components are not reported to produce carcinogenic effects in humans.

**Irritancy of product:** Exposure of ink to eye, skin, and inhalation may irritate tissue.

### Acute Toxicity Estimates:

|                                   |         |   |
|-----------------------------------|---------|---|
| Acute oral toxicity :             | LD 50   | 2026 mg/kg (male rat)                     |
|                                   |         | 1790 mg/kg (female rat)                   |
|                                   | Species | rat                                       |
|                                   | Method  | OECD-Guideline No. 401                    |
| Acute dermal toxicity:            | LD 50   | > 2000 mg/kg                              |
|                                   | Species | rat                                       |
|                                   | Method  | 440/2008/EEC B. 3, OECD-Guideline No. 402 |
| Acute inhalation toxicity (mist): |         |   |
|                                   | LC50    | 5.82 mg/L (4hr)                           |
|                                   | Species | rat                                       |

### Skin and Eye:

Skin corrosion/irritation:

|            |                                    |
|------------|------------------------------------|
| Evaluation | Slightly irritating (P.I.I. = 2.0) |
| Species    | Rabbit                             |
| Method     | OECD-Guideline No. 404             |

Serious eye damage/eye irritation

|            |  |
|------------|--|
| Evaluation | Non-irritant                           |
| Species    | Rabbit                                 |
| Method     | 92/69/EEC B. 5, OECD-Guideline No. 405 |

**Sensitization:**

|            |   |
|------------|---|
| Evaluation | Skin sensitizer                                 |
| Species    | Mouse   |
| Method     | OECD-Guideline No. 429 (Local Lymph Node Assay) |

**Mutagenicity:** No information available

**Carcinogenicity:**  
Not Established IARC, NTP, EU, OSHA and ACGIH.

**Reproductive Toxicity:**

|                   |                        |
|-------------------|------------------------|
| Route of Exposure | Oral                   |
| Species           | rat                    |
| NOAEL value       | 400 mg/kg/d            |
| NOEL Value        | 400 mg/kg/d            |
| Method            | OECD-Guideline No. 422 |

**Chronic toxicity or long term toxicity:**

|                      |                                       |
|----------------------|---------------------------------------|
| Route of Exposure    | Oral                                  |
| Species              | rat                                   |
| Duration of exposure | 28 d                                  |
| NOAEL value          | 160 mg/kg/d                           |
| NOEL Value           | 50 mg/kg/d                            |
| Method               | 92/69/EEC B.7, OECD-Guideline No. 407 |

**Aspiration hazard:** Not Available.

## 12. Ecological Information

**Toxicity:**

We have no quantitative data concerning the ecological effects of this product. Environmental fate information is derived from consideration of the properties.

**Persistence and degradability:** No information available

**Bioaccumulative and degradability:** No information available

**Mobility in soil :** No information available

**Results of PBT and vPvB assessment** No information available

**Other adverse effects:** No information available

## 13. Disposal Considerations

Any disposal practice must be in compliance with all local and national laws and regulations.

**Disposal :**

Incinerate under controlled conditions in accordance with all local and national laws and regulations.

**Contaminated Packaging :**

Empty containers can only be disposed of when the remaining product adhering to the container walls has been removed. Remove all labels.

**14. Transport Information**

The UN classification number

UN Class: Not applicable

UN Number : Not applicable

Proper shipping Name: Not applicable

Packing Group: Not applicable

Marine Pollutant: Not applicable

Specific precautionary transport measures and conditions:

Avoid falling, dropping, shocking and dragging a container.

Protect a container from direct sunlight.

By 49 CFR 172.101 published by the US department of Transportation, this product is not considered Dangerous Goods.

DOT listing: None

Packing group: None

DOT Labels required: None

Marine pollutant: Components are not listed as marine pollutants.

**15. Regulatory Information**

All components are on TSCA, EINECS/ELINCS, AICS, DSL, ENCS, and ECL.

All components are REACH registered and not listed in Annex XIV of EC No., 1907/2006 REACH Restriction.

All components are not listed on SARA Title III 313.

Regulatory information with regard to this product in your country or region should be examined by the end user.

**16. Other Information**

The information herein is given in good faith, but no warranty express or implied, is made.

Recipients of our product must take responsibility for observing existing laws and regulations.