1. IDENTIFICATION

Product Name: gL2000
Manufacture Information: Gluon Lab LLC
Address: No.11,SankyoBldg.2-1-2-503,Koishikawa,Bunkyo-Ku, TOKYO JAPAN.
Telephone: +81-3-3811-7588
FAX: +81-3-3811-7588
Recommended use of the product and restrictions on use: Materials for electronics industry

2. HAZARD IDENTIFICATION

GHS
Physical Hazard: Flammable liquids
Health Hazard: Acute toxicity (oral)
Environmental Hazard: Aquatic environmental toxicity: acute

GHS Label Element
Symbols/Pictograms: WARNING

Hazard statements
H226 Flammable liquid and vapour.
H303 May be harmful if swallowed.
H315 Causes skin irritation.
H321 Harmful if inhaled.

Precautionary statements
【Safety Measures】
Keep away from heat, spark, open flames and hot surface. – No smoking
Keep container tightly closed.(P233)
Wear protective gloves, eye protection and face protection. (P280)
Ground/bond container and receiving equipment if electrostatically sensitive material is to be reloaded.(P240)
Use explosion-proof electrical, ventilating or lighting equipment. (P242)
Use only non-sparking tools. (P243)
Take precautionary measures against static discharge.(P243)
Avoid release to the environment. (P27)

【First Aid】
If on skin or hair: Remove/take off immediately all contaminated clothing. Rinse skin with water or shower. (P303 + P361 + P353)
In case of fire: Use appropriate media for extinction.(P370 + P378)

【Storage】
Store in cool and well-ventilated place.(P403 + P235)

【Disposal】
Commission a waste disposal contractor licensed by the local government to dispose of contents or container. (P501)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Classification of Substance and Mixture: Mixture

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>Concentration or Concentration Range</th>
<th>ENCS No / ISHL No</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anisole (Methoxybenzene)</td>
<td>98~80%</td>
<td>(3)–556</td>
<td>100–66–3</td>
</tr>
<tr>
<td>Polystyrene type copolymer</td>
<td>2~20%</td>
<td>New Chemical Substances in a Small Quantity</td>
<td>Not Disclosed</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

Inhalation: Move the suffering person to a place of fresh air, and let the person take rest in an easy-to-breathe posture. If the person feels giddy, call a physician immediately.
**Skin Contact**
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
In case of burns, immediately cool affected skin for as long as possible with cold water.

**Eye Contact**
Immediately flush eyes with plenty of water, occasionally lifting upper and lower eyelids.
Check for and remove any contact lenses. Continue to rinse for at least several minutes.
Get medical attention if irritation occurs.
Contact may cause burns to eyes.

**Inhalation**
Call a physician immediately, if giddy. Wash the mouth with water. Let the suffering person to vomit. Lay down the suffering person to on the side to prevent intake of the vomited filth into the trachea.

**Skin Contact**
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Eye Contact**
Immediately flush eyes with plenty of water, occasionally lifting upper and lower eyelids.
Check for and remove any contact lenses. Continue to rinse for at least several minutes.
Get medical attention if irritation occurs.
Contact may cause burns to eyes.

**Ingestion**
Call a physician immediately, if giddy. Wash the mouth with water. Let the suffering person to vomit. Lay down the suffering person to on the side to prevent intake of the vomited filth into the trachea.

**Acute and Chronic Effects**
Inhalation: burning sensation, cough, sore throat
Skin contact: skin dryness and redness
Eye contact: redness and pain
Ingestion: No data

**Most Important Symptom / Effects**
If swallowed the substance easily enters the airways and could result in burning sensation, cough, sore throat

**Protection of Personnel Involved in First Aid**
Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
The first aid personnel must put on appropriate protective gears such as the gas mask for organic solvent depending on the circumstances of exposure.

**Special Remarks for Physician**
Keep the patient calm. Observation of medical conditions is imperative.
Ensure that medical personnel are aware of the materials involved and take precautions to protect themselves.

**5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**
Regular foam, dry chemical, carbon dioxide, dry sand

**Unsuitable Extinguishing Media**
Water, water jet

**Unique Danger and Hazard**
Extremely flammable. Heat, sparks or flame cause fire.
May cause fire after extinction
Fire may produce irritating, corrosive and poisonous gases.

**Unique Fire Fighting Method**
Move container from the fire area if it can be done without risk.
Do not move container when exposed to heat.
Remove ignition sources if it can be done without risk.

**Protection of Fire-fighters**
The fire-fighters must put on respirators or gas mask and chemical resistant protective clothes.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**
Remove all sources of ignition.
Isolate the area with appropriate distances from the incident.
Prohibit unauthorized entry into the area.
Ventilate the closed area before entering.
Do not release into the environment.
Absorb or cover the leaked product with dry soil, sand or incombustible material and recover the leaked product to airtight containers for storage and disposal.
Stop leak if you can do it without risk.
Promptly remove all fire sources (by prohibiting smoking, generation of spark and use of flame in nearby areas).
Prevent flowing into drain, sewage, basement and closed area.

**Environmental Precautions**

**Recovery and Neutralization**

**Method and Materials for Containment and Cleaning Up**

**Measures to Prevent Secondary Hazards**

**7. HANDLING AND STORAGE**

**[Procedure for Handling]**
Take measures specified in section 8 and put on the protective gears.
Provide local and overall ventilation as mentioned in section 8.
Wash thoroughly after handling.
Never contact, inhale or swallow.
Use only outdoors or in a well-ventilated area.
Do not breath mist, vapour, spray.
Prohibit the use of high-temperature objects, spark generation and use of the flame in the surrounding areas: NO SMOKING
See section 10.

**[Cautions for Safe Storage]**
The storage facility should be designed with fire-proof construction and non-combustible materials.
The storage floor should be protected from water penetration, or should have water proof construction.
The storage floor should have penetration-proof construction against damage. Measures to catch any spills should be provided.

Store the product apart from the fire sources such as high temperature objects, spark and naked fire: NO SMOKING.  
Close the container tightly. Store in cool dry place.  
Keep away from oxidants, strong acid, strong base.  
Avoid direct sunlight and heat.  
The container must be stored at a well ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

[Facility Measures]
Use explosion-proof electrical/ventilating/lighting etc.  
Take measures to prevent discharge of static electricity.  
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.  
Use adequate general or local explosion-proof ventilation.

[Protective]
Respiratory Organ  
Wear an appropriate protective respirator.
Hand Protector  
Wear appropriate protective gloves.
Eye Protector  
Wear appropriate protective eyeglasses.
Skin and Body Protector  
Wear an appropriate protective clothing.

[Measures for Occupational Hygiene]
Check the conditions of protective gears periodically. 
Wash hands thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Physical State</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Colourless</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>Aromatic odour</td>
<td></td>
</tr>
</tbody>
</table>

| Melting Point                  | -37.5°C        |
| Boiling Point                  | 155.5°C        |
| Flash Point                    | 41 °C (Rapid equilibrium closed cup method) |
| Auto-ignition Temperature      | 475 °C         |
| Explosion Limit                | 0.3~6.3 %      |
| Vapour Pressure                | 3.54 mmHg (25 ℃) |
| Vapour Density                 | 3.72           |
| Density(g/cm3)                 | 0.9956         |
| Solubility Insoluble in water  |
| Soluble in alcohols and ether  |

10. STABILITY AND REACTIVITY

Stability  
stable

Reactivity  
May produce explosive vapour/air gas mixture over 52°C

Conditions to Avoid  
Temperature over

Materials to Avoid  
Strong oxidizing compounds, strong acids, and strong base.

Hazardous Reaction/Decomposition Products  
Heat may produce hydrogen chloride

11. TOXICOLOGICAL INFORMATION

Acute Oral  
LD50-rat 3700mg/kg bw JECFA 52 (2004)

Inhalation  
Gas Liquid under GHS definition

Vapour  
Not enough data to classify.

LC50-rat=8949 mg/m3/2h (6328 mg/m3/4h = 1431ppm/4h), below 90% of saturated vapour pressure, no mist. (RTECS (2006))

Mist  
No data available.

Skin Corrosive/Irritation  
Not enough data to classify.

Skin-srnt 500 mg/24H MOD (RTECS (2006))

Serious Eye Damage/Irritation  
No data available

Respiratory / Skin Sensitization  
Respiratory sensitization: No data available

Skin sensitization: No data available

Germ Cell Mutagenicity  
No in vivo data to classify.

Negative in Ames in vitro. (JECFA)

12. ECOLOGICAL INFORMATION

Hazardous to the Aquatic Environment  
:Acute Toxicity  
EC50=11.05mg/L (Daphnia magna, 24hrs) (AQUIRE, 2010)

Hazardous to the Aquatic Environment  
:Chronic Toxicity  
Class 3 Determined from acute toxicity class 3 and persistency; BOD -56%(Existing Chemical Survey Program by Japanese Gov., 1979)

See section 10.
13. DISPOSAL CONSIDERATIONS
Disposal Methods

Contaminated Containers and Packaging

Completely remove the content before disposal.

14. TRANSPORT INFORMATION
[International Regulations]

- Surface Water
  - UN No.: 2222
  - Proper Shipping Name: ANISOLE
  - Class: 3
  - Packing Group: III
  - Marine Pollutant: Not Applicable
  - Air Transportation: In accordance with ICAO/IATA
  - UN No.: 2222
  - Proper Shipping Name: Anisole
  - Class: 3
  - Packing Group: III

[Specific Safety Measures]

- Must carry Yellow
- Do not transport with food nor feedstuff.
- Protect from direct sunlight
- Prior to transport, check the containers to prevent breakage, corrosion, leakage and prevent collapsing and falling.
- Do not pile up heavy materials.

15. REGULATORY INFORMATION

- EINECS: 2028761: Anisole : Listed
- TSCA: 100-66-3 : Anisole : Listed
- MITI: 3-556 : Anisole :

16. OTHER INFORMATION

- Reference: Described at each data.

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