

Material safety data sheet (MSDS)

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	Class 3
Health Hazard	Acute toxicity (oral)	Not classified
Environmental Hazard	Aquatic environmental toxicity: acute	Class 3
	Aquatic environmental toxicity:	Class 3

**GHS Label Element
Symbols/Pictograms**
**SIGNAL WORD****Hazard statements**

WARNING
 H226 Flammable liquid and vapour.
 H303 May be harmful if swallowed.
 H315 Causes skin irritation.
 H332 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
 Use only non-sparking tools. (P242)
 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

Ingredient Name	Concentration or Concentration Range	ENCS No /ISHL No		CAS-No.
		Chemical Substances Control Law	Industrial Safety and Health Law	
Anisole (Methoxybenzene)	98~80%	(3)-556	(3)-556	100-66-3
Polystyrene type copolymer	2~20%	New Chemical Substances in a Small Quantity		Not Disclosed

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.
Eye Contact	In case of burns, immediately cool affected skin for as long as possible with cold water 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 Protection of Personnel Involved in First Aid	If swallowed the substance easily enters the airways and could result in 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
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
Unique Fire Fighting Method	Fire may produce irritating, corrosive and poisonous gases. 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.
Environmental Precautions Recovery and Neutralization	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
Method and Materials for Containment and Cleaning Up Measures to Prevent Secondary Hazards	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.

7. HANDLING AND STORAGE

[Procedure for Handling]	
Technical Measures Local and Overall Ventilation	Take measures specified in section 8 and put on the protective gears. Provide local and overall ventilation as mentioned in section 8.
Cautions for Safe Handling	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
Contact Prevention [Cautions for Safe Storage]	See section 10.
Technical Measures	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.

Storage Conditions	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.
Storage Incompatibility Suitable Container	See section 10. Use container compliant with Fire Service Act and UN Transport regulati

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
Hand Protector
Eye Protector
Skin and Body Protector**

Wear an appropriate protective respirator.
Wear appropriate protective gloves.
Wear appropriate protective eyeglasses.
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

Appearance	Physical State	Liquid
	Colour	Colourless
	Odour	Aromatic odour
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 °C)
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	Strong oxidizing compounds, strong acids, and strong base.
Hazardous Reaction/Decomposition Product	Heat may produce hydrogen chloride

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	Oral	LD50-rat	UN Classification: Class 5 as methoxybenzene 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. skn-rbt 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	Class 3	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)

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Observe the related laws and regulations, as well as the standards set by the municipal government for disposal of residual wastes. The residual wastes must be disposed through the independent industrial waste disposal entity duly licensed by Prefecture Governor or through the municipal government when the applicable municipal government is Containers must be recycled after complete cleaning or appropriate treatments in accordance with the provisions of the relevant laws and regulations, as well as the standards set by the municipal government. Completely remove the content before disposal.

Contaminated Containers and Packaging

14. TRANSPORT INFORMATION

[International Regulations]

Surface Water	Observe IMO regulations
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 TSCA MITI

2028761: Anisole : Listed
100-66-3 : Anisole : Listed
3-556 : Anisole :

16. OTHER INFORMATION

Reference Described at each data.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Gluon Lab LLC. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Gluon Lab LLC. has been advised of the possibility of such damages.