Gold Fountain Solution

1. Product and Company Identification

Product Identifier

Trade Name: Dotworks Gold Fountain Solution

Item Number(s): MPSFCG

Relevant Identified Uses of the Substance or Mixture:

Gold Fountain Solution Designed For HUV/LED UV and Conventional inks.

Restrictions on Use: **For Industrial Use Only**

Manufacturer/Supplier:

Recognition Systems Inc.
30 Harbor Park Dr
Port Washington, NY 11050
(516)625-5000

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC (800-424-9300 within the USA or 703-527-3887 for international collect calls)

2. Hazards(s) Identification

GHS Classification and Label Elements of the Product

Hazard Pictograms:

Signal Word: **WARNING**

Hazard Category	Signal Word		Hazard Statement
5	Warning	H302:	**Harmful if swallowed.**
2	Warning	H315:	**Causes skin irritation.**
2A	Warning	H319:	**Causes serious eye irritation.**
4	Warning	H372:	**Causes damage to organs (central nervous system, peripheral nerve, respiratory organs, nervous system) through prolonged or repeated exposure.**
4	Warning	H227:	**Combustible liquid.**
4	Warning	H335:	**May cause respiratory irritation**

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Precautionary Statements			
Prevention		**Response**	
P210:	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.	P302+ P352:	**IF ON SKIN:** Wash with plenty of soap and water.
P264:	Wash hands thoroughly after handling.	P332+ P315:	**If skin irritation occurs:** seek medical attention.
P260:	Do not breathe dust/fume/gas/mist/vapours/spray.	P305+ P351+ P338:	**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P271:	Use only in a well-ventilated area.		
P270:	Do not eat, drink or smoke while using this product.	P304+ P340+	**If eye irritation persists:** get medical advice/attention.
P280:	Wear eye protection/face protection/protective gloves/protective clothing.	P310+ P314:	**IF INHALED** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Get Medical advice/attention if you feel unwell.
P284:	Wear respiratory protection.		
P273:	Avoid release to the environment.	P370+ P378:	**In case of fire:** Use appropriate media other than water for extinction.
		P361+ P363:	Take off immediately all contaminated clothing and wash before re-use.
		P301+ P312+ P330:	**IF SWALLOWED**: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse Mouth.
		P331:	Do **NOT** induce vomiting.
Storage		**Disposal**	
P403+ P235:	Store in a well-ventilated place. Keep container tightly closed. Keep cool.	P501:	Dispose of contents/container to hazardous or special waste collection point.
P405:	Store locked up.		

3. Composition/Information on Ingredients

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Chemical Characterization: Mixture

Component Name	CAS #	Concentration % by Weight	GHS Hazard Codes
2-Butoxy ethanol	111-76-2	20-30%	H227, H304, H302, H315, H319
Ethylene glycol	107-21-1	10-20%	H302,, H373
Ammonium nitrate	6484-52-2	1-5%	H272

4. First Aid Measures

Inhalation: Remove victim to fresh air. Administer oxygen if breathing is difficult. Seek medical attention if respiratory irritation or distress continues.

Skin Contact: Wash with plenty of soap and water for no less than 5 minutes.

Eye Contact: Flush with a gentle, steady stream of water for at least 15 minutes. Seek medical attention.

Ingestion: If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Do not leave victim unattended.

5. Fire Fighting Measures

Suitable Extinguishing Media: Dry chemical, carbon dioxide, foam.

Specific Fire Fighting Measures: Apply water from a safe distance to cool and protect surrounding area.

Stand at upwind and do the fire-fighting, to avoid breathing toxic gas.

Unusual Fire and Explosion Hazards: N/A

Special Protective Equipment and Precautions for Fire Fighters: None

6. Accidental Release Measures

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Personal Precautions, Protective Equipment and Emergency Procedures:

Wear proper protective equipment.
Eliminate all sources of ignition and ventilate the area.
Stand at upwind. Evacuate personnel at downwind.
Dispose according to State, Federal and Local regulations.

Environmental Precautions: Avoid runoff to waterways and sewers.

· *Methods and materials for neutralization, containment and cleaning up:*

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

7. Handling and Storage

Precautions for Safe Handling:

Protect against physical damage.
Store in a cool, dry, well ventilated location away from heat/sparks/open flame.
Separate from incompatibles.
Keep containers tightly closed. Do not store in unlabeled or mislabeled containers.

8. Exposure Controls / Personal Protection

Airborne Exposure Limits:

2-Butoxy Ethanol:
ACGIH(1996) TWA: 20ppm (Eye & URT irr)
OSHA-PEL TWA: 50ppm, 240mg/m3
NIOSH-REL TWA: 5ppm, 24mg/m3

Ethylene glycol:
ACGIH(1996) TWA: 100mg/m3 (Eye & URT irr)
OSHA-PEL TWA: 50ppm, 125mg/m3

Eye Protection: Wear safety glasses with side shields or splash-proof goggles.

Skin Protection: Wear protective clothing including gloves, lab coat, apron or coveralls, as appropriate, to minimize skin contact.

General Industrial Hygiene Practices:

Wash with soap and water before meals and at the end of each work shift. Good manufacturing practices require amounts of any chemical be removed from the skin as soon as practical, especially before eating or smoking.

9. Physical and Chemical Properties

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Appearance:	Liquid	**Viscosity:**	Unknown	**Odor:**	Mild Glycol Ether
Odor Threshhold:	Unknown	**Relative Density:**	.98-1.0	**pH:**	3.9-4.5
Melting Point:	N/A	**Partition coefficient: n-octanol/water**	Unknown	**Freezing Point:**	0℃
Initial Boiling Point:	~100℃	**Decomposition Temperature:**	Unknown	**Boiling Range:**	Unknown
Flash Point:	155.3 F	**Vapor Density:**	Heavier Than Air	**Evaporation Rate:**	Unknown
Flammability, Solid:	Unknown	**Solubility**	100%	**Flammability, Gas:**	Unknown
VOC g/L Full Strength	370 g/L	**VOC g/L Working Strength**	10-15 g/L	**Vapor Pressure**	0.20 mmHG@20C
Lower Explosive Limit:	Unknown	**Auto-Ignition Temperature:**	Unknown	**Upper Explosive Limit:**	Unknown

10. Stability and Reactivity

Stability: This product is stable under normal handling and storage conditions.

11. Toxicological Information

There is no experimentally determined data available on the preparation (product) itself.

· ***Information on toxicological effects:***

Inhalation: *None known.*

Ingestion: *harmful if swallowed. May be fatal if swallowed and enters airways.*

Skin contact: *Causes skin irritation.*

Eye contact: *Cause eye irritation.*

Acute Toxicity (Component)

(2-Butoxyethanol) *Oral LD-50: (Rat): 1,300 mg/kg, Oral LD-50: (Guinea Pig): 1,400 mg/kg*

(Ethylene glycol) *Oral LD-50: (Rat): 4,000 mg/kg (CICAD 45, 2002)*

(Ammonium nitrate) *Oral LD-50: (Rat): 2,462 mg/kg*

(2-Butoxyethanol) *Dermal LD-50: (Rat): >2,000 mg/kg, Oral LD-50: (Guinea Pig): >2,000 mg/kg*

Inhalation

(2-Butoxyethanol) *Vapour: LC50 (Rat, 3h): >4.9 mg/l, Vapour: LC0 (Guinea Pig, 1h): >3.4 mg/l*

Repeated Dose Toxicity (Component)

(2-Butoxyethanol) *LOAEL (Rat, Oral Study): 69 mg/kg (Target Organ(s): Liver)*

NOAEL (Rat, Dermal Study): 150 mg/kg
LAEC (Rat, Inhalation Study): 152 mg/m3 (Target Organ(s): Blood)

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Skin corrosion/irritation (Component)
(2-Butoxyethanol) (Rabbit, 24h): Moderate
(Ethylene glycol) (Rabbit): 555 mg, Open; MILD
Serious eye damage/eye irritation (Component)
(2-Butoxyethanol) (Rabbit, 24h): Moderate
(Ethylene glycol) (Rabbit): 500 mg/24H; Mild (Rabbit): 100 mg/1H; MILD (Rabbit): 1.44g/6H; Moderate
Respiratory or skin sensitization: (Component)
(2-Butoxyethanol) (Guinea Pig): Not a skin sensitizer
Mutagenicity (Component)
(2-Butoxyethanol) In vitro: Salmonella typhimurium assay (Ames test): Negative +/- activation
In vivo: Chromosomal aberration intraperitoneal injection (Mouse, Male): Negative
Carcinogenicity (Component)
(2-Butoxyethanol) IARC-Gr.3: Not Classifiable as a Human Carcinogen.
ACGIH-A3(1996): Confirmed Animal Carcinogen with Unknown Relevance to Humans
(Ethylene glycol) ACGIH-A4(1992): Not classifiable as a human carcinogen
Reproductive toxicity (Component)
Based on available data the classification criteria are not met. Not classified as hazardous.
Specific target organ toxicity (Component)
Single exposure
(Ethylene glycol) Cause damage to CNS, kidneys, heart, respiratory (CERI Hazard Data Book, 1998)
Repeated exposure
(Ethylene glycol) Cause damage to CNS, respiratory, heart through prolonged or repeated expore
Aspiration hazard
(2-Butoxyethanol) Droplets of the products aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Other adverse effects No data available

12. Ecological Information

There is no experimentally determined data available on the preparation (product) itself.
· ***Toxicity*** *(Component)*
Acute toxicity
Fish
(2-Butoxyethanol) LC-50 (Oncorhynchus mykiss): 1,474 mg/l – 96h
Daphnia and other aquatic invertebrates
(2-Butoxyethanol) EC-50 (Water Flea, 48h): 1,550 mg/l
(Ethylene glycol) Classified as Out of Category from 96-hour LC50>100mg/L of fishes (Oryzias latipes) (MOE eco-toxicity tests of chemicals, 2001)
(Ammonium nitrate) 200 g/100 ml (SIDS, 2007)
Chronic toxicity
Fish
(2-Butoxyethanol) NOEC (Zebra Fish, 21d): >100 mg/l
Aquatic invertebrates
(2-Butoxyethanol) NOEC (Daphnid, 21d): 100 mg/l
Toxicity to Aquatic Plants

(2-Butoxyethanol) *EC-50 (Algae (Pseudokirchneriella subcapitata), 72h): 1,840 mg/l*

· *Persistence and degradability*

(2-Butoxy ethanol)

BOD Degradation : 96% (Registered chemicals data check & review, Japan)

· *Bioaccumulative potential*

(2-Butoxy ethanol) *Log Pow=0.83 (PHYSPROP Database, 2005)*

(Ethylene glycol) *Log Pow=1.93 (ICSC, 1999)*

No Mobility in soil data available

Known or predicted distribution to environmental compartments No data available.

Results of PBT and vPvB assessment No data available.

No ozone depleting chemical data available

Other adverse effects *No data available.*

13. Disposal Considerations

Waste Disposal: Dispose according to Federal, State and Local regulations.
EPA Hazardous Waste: No

14. Transport Information

US Department of Transportation: Not Regulated

15. Regulatory Information

Inventory Status: All components included on **TSCA, DSL, EINECS/ELINCS, AICS, MITI, KECL** inventory lists.

Federal Regulations: All functional components of this product are listed on the **TSCA** inventory.

SARA Title III Hazard Classes:

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	No

Other Information:

NFPA Ratings

Health:	1 (Slight)
Fire:	1 (Slight)
Stability:	0 (Minimal)

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