

Issue Date 20-June-2023

Revision Date -

Version 1

Section 1: PRODUCT AND COMPANY INFORMATION

Product Code(s) IKUU000238 (1L) / IKUU000242 (4L)

Product Name NuviINK GUS-SF Cyan

Description UV LED Cyan Inkjet Ink

Synonyms None

Recommended Use UV LED Printing Ink for Industry Use Only by Qualified Personnel

Supplier:

Innovative Digital Systems
 2000 Innovation Drive Indian Trail, NC 28079
 PH: +1(704)628-7679
 www.ids-digital.com
 www.digitalprintsupplies.com

Emergency:

Health Emergency
 Poison Control Center +1(800)222-1222
 Chemical Emergency
 INFOTRAC Domestic +1(800)535-5053
 INFOTRAC International +1(352)323-3500

Section 2: HAZARD IDENTIFICATION

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910/1200)

Acute toxicity – Oral	Category 5
Acute toxicity – Dermal	Category 5
Acute toxicity – Inhalation	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Reproductive toxicity	Category 1B
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

GHS Label Elements

Signal Word

DANGER

Hazard Statements

H303 - May be harmful if swallowed.
 H313 - May be harmful in contact with skin.
 H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H318 - Causes serious eye damage.
 H332 - Harmful if inhaled.
 H335 - May cause respiratory irritation.

H351	- Suspected of causing cancer.
H360	- May damage fertility or the unborn child.
H373	- May cause damage to organs (respiratory tract, liver) through prolonged or repeated exposure.
H400	- Very toxic to aquatic life.
H410	- Very toxic to aquatic life with long lasting effects.

Precautionary Statements – Prevention

P203	- Obtain, read and follow all safety instructions before use.
P260	- Do not breathe dust/fume/gas/mist/vapors/spray.
P261	- Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	- Wash face, hands and any exposed skin thoroughly after handling.
P265	- Do not touch eyes.
P271	- Use only outdoors or in a well-ventilated area.
P272	- Contaminated work clothing should not be allowed out of the workplace.
P273	- Avoid release to the environment.
P280	- Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response

P301+P317	- IF SWALLOWED: Get medical help.
P304+P340	- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P317	- Get medical help.
P305+P354+P338	- IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P317	- Get medical help.
P302+P317	- IF ON SKIN: Get medical help.
P302+P352	- IF ON SKIN: Wash with plenty of soap and water.
P321	- Specific treatment (see medical advice on this label).
P332+P317	- IF SKIN irritation occurs: Get medical help.
P362+P364	- Take off contaminated clothing. And wash it before reuse.
P333+P317	- If skin irritation or rash occurs: Get medical help.
P318	- IF exposed or concerned, get medical advice.
P319	- Get medical help if you feel unwell.
P391	- Collect spillage.

Precautionary Statements – Storage

P405	- Store locked up.
P403+P233	- Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements – Disposal

P501	- Dispose of contents/container to an approved waste disposal plant.
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Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

This Material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Chemical name	CAS No.	Weight %	Classification (Reg. 1272/2008)
Acrylic Monomer Blend	Proprietary	20-40*	Skin Irrit. 2 (H315), Eye Irrit. 2A (H319), Skin Sens. 1 (H317), Aquatic Acute 2 (H401), Aquatic Chronic 2 (H411)
Isobornyl acrylate	5888-33-5	20-40*	Skin Irrit. 2 (H315), Eye Irrit. 2A (H319), Skin Sens. 1 (H317), STOT SE 3 (H335), Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410)
Lactam	Proprietary	10-30*	Acute Tox. 4 (H302, H312, H332), Eye Dam. 1 (H318), Carcin. 2 (H351), STOT SE 3 (H335), STOT RE 2 (H373)
2-Phenoxyethyl Acrylate	48145-04-6	1-10*	Repr. 2 (H361), Skin Sens. 1A (H317), Aquatic Acute 2 (H401), Aquatic Chronic 2 (H411)
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	1-10*	Skin Sens. 1B (H317), Repr. 1B (H360), Aquatic Acute 2 (H401), Aquatic Chronic 2 (H411)
Photoinitiator Blend	Proprietary	1-10*	Skin Sens. 1 (H317), Repr. 2 (H361), Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410)

Remaining ingredients are not considered hazardous in accordance with the Globally Harmonized System (GHS)

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

General Advice	In case of serious or persistent conditions, call a doctor or emergency medical care.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while flushing. If symptoms persist, call a physician.
Skin Contact	Immediately wash skin with plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
Ingestion	Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Clean mouth with water and afterwards drink plenty of water. Consult a physician.
Inhalation	Remove to fresh air. Avoid direct contact with skin. Immediate medical attention is required. If not breathing, give artificial respiration. Artificial respiration and/or oxygen may be necessary. If symptoms persist, call a physician.
Notes to Physician	Eye Contact - Emergency Medical Treatment Procedures: Some photoinitiators cure in the near UV and visible light range. Keep overhead lighting OFF as a precaution. Flush eyes for an additional 15-30 minutes prior to examination under light. DO NOT use UV light with fluorescent stain to examine injured eye without copious irrigation of the eye. May cause sensitization of susceptible persons. Use of epinephrine may be indicated. Treat symptomatically.
Self-Protection of the First Aider	Use personal protective equipment as required. Avoid contact with skin, eyes and clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Section 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use Carbon dioxide (CO ₂), Dry chemical, or foam. Cool containers with flooding quantities of water until well after fire is out.
Special Protective Equipment for Firefighters	Wear self-contained breathing apparatus and full protective gear for firefighting if necessary.

Section 6: ACCIDENTAL RELEASE MEASURES

Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent the material from entering drains or water courses. Do not flush into surface water or sanitary sewer system.
Personal Precautions	Evacuate personnel to safe areas. Ensure adequate ventilation, wear protective gloves/clothing and eye/face protection.
Methods for Cleaning Up	Take up with sand or other non-combustible absorbent material and place into containers for later disposal. Use personal protective equipment as required.

Section 7: HANDLING AND STORAGE

Handling	Use personal protective equipment as required. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation. Protect from light.
Storage	Keep container tightly closed in a dry and well-ventilated place. Protect from light. Keep out of the reach of children. Keep in properly labeled containers.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Measures	Ventilation systems. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
Personal Protective Equipment	
Respiratory Protection	Provide adequate ventilation. Provide extract ventilation at the points where emissions occur. Static electricity and formation of sparks must be prevented. Do not breathe vapors, mist or gas.
Skin and Body Protection	Wear protective nitrile rubber gloves and impervious protective clothing.
Eye/Face Protection	Wear tight-fitting safety glasses with side-shields.
Environmental Exposure Controls	Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains.
Hygiene Measures	When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food and drink.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Color	Blue
Odor	Acrylic
<u>Property</u>	<u>Values</u>
pH	No information available
Melting point/range (°C)	No information available
Boiling point/range (°C)	No information available
Flash point	> 95°C
Flammability limit in air	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific gravity	No information available
VOC content	No information available
Evaporation rate	No information available
Water Solubility	Practically insoluble
Viscosity at 25 °C	10-25 cP

Section 10: STABILITY AND REACTIVITY

Conditions to Avoid	Protect from light. Polymerization occurs when exposed to white light, ultraviolet light or heat. Heat, flames, and sparks.
Materials to Avoid	Avoid contact with radical forming initiators, strong oxidizing agents, peroxides, strong acids and bases or reactive metals.
Hazardous Decomposition Products	No decomposition if stored and applied as directed.
Hazardous Polymerization	None under normal processing.

Section 11: TOXICOLOGY INFORMATION

Acute Toxicity

Information on Likely Routes of Exposure

Inhalation	Harmful if inhaled. Irritating to respiratory tract. Avoid breathing vapors or mists.
Eye contact	Causes serious eye damage.
Skin contact	Irritating to skin. May cause allergic skin reaction.
Ingestion	Moderately Toxic. Do NOT taste or swallow.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Irritating to skin.
Serious eye damage/eye irritation	Risk of serious damage to eyes. Irritating to eyes.
Sensitization	May cause an allergic skin reaction.
Mutagenic effects	No information available.
Carcinogenic effects	Suspected of causing cancer.
Reproductive toxicity	May damage fertility. May cause harm to the unborn child.
STOT – single exposure	May cause respiratory irritation.
STOT – repeated exposure	May cause damage to respiratory tract and liver through prolonged or repeated exposure.
Aspiration hazard	No information available.

Numerical measures of toxicity – Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (Oral)	2273 mg/kg
ATEmix (dermal)	2364 mg/kg
ATEmix (inhalation-mist)	>1 mg/l

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acrylic Monomer Blend	>2000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	
Isobornyl acrylate	4350 mg/kg (Rat)	>3000 mg/kg (Rabbit)	
Lactam	1022 mg/kg (Rat)	1043 mg/kg (Rabbit)	>1.0 mg/L (Rat, dust 4hr)
2-Phenoxyethyl Acrylate	>5000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	>5000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	
Photoinitiator Blend	>2000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	

Section 12: ECOLOGICAL INFORMATION

Acute aquatic toxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Acrylic Monomer Blend	EC ₅₀ , 72 hours: 11.23mg/L	LC ₅₀ , 96 hours: 3.70mg/L	EC ₅₀ , 48 hours: 22.59mg/L
Isobornyl acrylate	EC ₅₀ , 72 hours: 1.98mg/L	LC ₅₀ , 96 hours: 0.704mg/L	EC ₅₀ , 48 hours: 0.092mg/L
Lactam	-	-	-
2-Phenoxyethyl Acrylate	EC ₅₀ , 72 hours: 4.4mg/L	LC ₅₀ , 96 hours: 10mg/L	LC ₅₀ , 48 hours: 1.21mg/L
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	EC ₅₀ , 72 hours: >2.01mg/L	LC ₅₀ , 48 hours: 1.4mg/L	EC ₅₀ , 48 hours: 3.53mg/L
Photoinitiator Blend	EC ₅₀ , 72 hours: 0.07mg/L	LC ₅₀ , 96 hours: 0.11mg/L	EC ₅₀ , 48 hours: 0.05mg/L

Persistence and degradability No information available

Bioaccumulation/Accumulation No information available

Mobility No information available

Other Adverse Effects No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Dispose of in accordance with local and national regulations. All waste should be disposed of using a Registered Waste Carrier operating under the Environmental Protection Act (Duty of Care) Regulations 1992 (S.I. No. 2839).

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

Other Information According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

DOT

UN Number UN3082
 UN Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.(Acrylate)
 Transport Hazard Class(es)
 Class 9
 Label(s) 9
 Packing Group III
 Environmental Hazards Yes
 Special precautions for user Not regulated if packaging <= 5L

IATA

UN Number UN3082
 UN Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.(Acrylate)
 Transport Hazard Class(es)
 Class 9
 Label(s) 9MI (Miscellaneous)
 Packing Group III
 Environmental Hazards Yes
 Special precautions for user SPECIAL PROVISION A197

Other information

Passenger and cargo aircraft Allowed.
 Cargo aircraft only Allowed.

IMDG

UN Number UN3082
 UN Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Acrylate)
 Transport Hazard Class(es)
 Class 9
 Label(s) 9
 EmS No. F-A, S-F
 Packing Group III
 Limited quantity 5.00L
 Excepted quantity E1

Environmental Hazards	Yes
Special precautions for user	CODE 2.10.2.7

Section 15: REGULATORY INFORMATION

US. Toxic Substances Control Act (TSCA)

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substance Control Act (U.S. EPA TSCA) 8(b) inventory.

US. OSHA Classification

This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

US State Regulations

California Proposition 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

US State Right-to-Know Regulations

This product does not contain any chemicals that are specifically listed by individual states. Other product specific health and safety data in other sections of the SDS may also be applicable for state requirements.

Section 16: OTHER INFORMATION

Supplied To	Innovative Digital Systems 2000 Innovation Drive Indian Trail, NC, 28079
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Issue Date	20-June-2023
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Revision Date	-
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Revision Note	No information available
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Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet