

Preparation Date 01-Aug-2019

Revision Date 01-Aug-2019

Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product Identifier**

Product Description IDS-17239-V LED Varnish
Product Identifier 3.865.4.017239
Product Class Acrylate Based Inkjet ink

Other means of identification**Recommended use of the chemical and restrictions on use**

Intended Use Printing Ink
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address
Innovative Digital Systems
2000 Innovation Drive
Indian Trail, NC, 28079 USA

E-mail address Company sales@ids-digital.com
Phone Number 704-628-7679

Emergency telephone number

For Transportation Emergencies within the U.S. Call CHEMTREC (800) 424-9300
For Canadian Transportation Emergencies Call CANUTEC (613) 996-6666

2. HAZARDS IDENTIFICATION**Classification****OSHA Regulatory status**

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1

Label elements**Emergency Overview****Danger****Hazard Statements**

Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
Suspected of damaging fertility or the unborn child
Causes damage to organs through prolonged or repeated exposure

**Appearance** Product Specific**Physical state** Low Viscosity Liquid**Odor** Acrylic**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves
 Do not breathe dust/fume/gas/mist/vapors/spray
 Do not eat, drink or smoke when using this product

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician
 IF ON SKIN: Wash with plenty of soap and water
 Take off contaminated clothing and wash before reuse
 If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other information

- Toxic to aquatic life
- Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%	Trade Secret
1,6-Hexanediol diacrylate	13048-33-4	25 - 40	*
Dipentaerythritol hexacrylate	1384855-91-7	10 - 25	*
Trimethylolpropane triacrylate	15625-89-5	10 - 25	*
Vinyl caprolcatam	2235-00-9	5 - 10	*
Dipropylene glycol diacrylate	57472-68-1	10 - 25	*
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	75980-60-8	5 - 10	*

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

4. FIRST AID MEASURES

First Aid Measures

General advice	Take off contaminated clothing and shoes immediately. If symptoms persist, call a physician. Do not get in eyes, on skin, or on clothing. Show this safety data sheet to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	Wash off with soap and water. Remove contaminated clothing. If irritation develops, get medical attention.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms May cause skin sensitization, irritation or dermatitis.

Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Extinguishing media**

Water spray. Carbon dioxide (CO₂). Dry chemical.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. Hazardous polymerization may occur.

Explosion Data

Sensitivity to mechanical impact No.

Sensitivity to static discharge No.

Advice for firefighters

Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

For emergency responders Use personal protective equipment as required.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. Do not flush into surface water or sanitary sewer system. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. The product should not be allowed to enter drains, water courses or the soil. Construct a dike to prevent spreading.

Methods and material for containment and cleaning up

Clean contaminated surface thoroughly. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear personal protective equipment. Handle in accordance with good industrial hygiene and safety practice. Keep away from open flames, hot surfaces and sources of ignition.

Conditions for safe storage, including any incompatibilities

Keep away from open flames, hot surfaces and sources of ignition. Keep in properly labeled containers. Keep at temperature not exceeding 40°C.

Incompatible materials	Strong oxidizing agents. Polymerization initiators. Peroxides. Carbon steel, copper and copper alloys.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

<u>Exposure guidelines</u>	If this product contains any hazardous materials with occupational exposure limits established by the region specific regulatory bodies, the information is shown directly below this statement.
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Appropriate engineering controls

Engineering controls	Ensure adequate ventilation, especially in confined areas.
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Individual protection measures, such as personal protective equipment

Eye/face protection	Safety glasses with side-shields
Skin and body protection	Wear protective nitrile rubber gloves.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General industrial hygiene practice	Handle in accordance with good industrial hygiene and safety practice. Wear suitable gloves and eye/face protection.
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9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state	Low Viscosity Liquid
Appearance	Product Specific
Odor	Acrylic
Color	No information available
Odor Threshold	No information available
PH	Not applicable
Melting point / Freezing point	Not available
Boiling point / boiling range	
Flash point	> 94 °C
Method	Calculated
Evaporation rate	No information available
Flammability Limit in Air	
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable
Vapor pressure	No information available
Vapor density	Not available
Specific Gravity	1.1001
Water solubility	Insoluble
Solubility in other solvents	No information available

Partition coefficient	Not available
Autoignition temperature	Not available
Decomposition temperature	Not available
Kinematic viscosity	No information available
Dynamic viscosity	Not available
Explosive properties	No information available
Oxidizing Properties	No information available

Other information

Weight % VOC	0.1902
Weight % Solids	99.8098
Density (US)	9.1805

10. STABILITY AND REACTIVITY**Reactivity**

Stable under normal conditions

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing. Hazardous polymerization may occur upon depletion of inhibitor - may cause heat and pressure build-up in closed containers.

Conditions to avoid

Temperatures above 40°C. Protect from light. Loss of air. Loss of inhibitor. Container may rupture on heating.

Incompatible materials

Strong oxidizing agents. Polymerization initiators. Peroxides. Carbon steel, copper and copper alloys.

Hazardous decomposition products

Carbon monoxide. Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Product Information	The product itself has not been tested.
Inhalation	No data available.
Eye contact	No data available.
Skin contact	No data available.
Ingestion	No data available.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Trimethylolpropane triacrylate 15625-89-5	5190 mg/kg (Rat)	5000 mg/kg (Rabbit)	

Information on toxicological effects

Symptoms	No information available.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.

Carcinogenicity	If any carcinogenic components are present, a table below will indicate which agencies have listed the substance as a carcinogen.
Reproductive toxicity	Not available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic toxicity	Repeated contact may cause allergic reactions in very susceptible persons.
Aspiration hazard	No information available.

Numerical measures of toxicity

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

ATEmix (oral)	6024 Mg/kg
ATEmix (inhalation-gas)	54217 mg/L

12. ECOLOGICAL INFORMATION**Toxicity**

Harmful to aquatic life

Persistence and degradability

No information available.

Bioaccumulation/ Accumulation

No information available.

Mobility in Environmental Media

Available information on the mobility of specific components is listed below.

Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Waste disposal methods**

In accordance with local, state/provincial and national regulations.

Disposal of contaminated packaging

In accordance with local and national regulations. Empty containers should be taken to local recyclers for disposal.

US EPA Waste Number: Consult 40 CFR Part 261

14. TRANSPORT INFORMATION**DOT**

Refer to Bill of Lading or container label for DOT or other transportation hazard classification, if any.

TDG**ICAO****IATA**

IMDG**15. REGULATORY INFORMATION**Inventories

TSCA	Complies
DSL/NDSL	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Federal RegulationsSARA Section 313 Toxic Chemical List

This product does not contain any components reportable under Section 313 (40 CFR 372).

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactivity Hazard	Yes

CERCLAUS State RegulationsCalifornia Prop. 65

This product does not contain any California Prop 65 ingredients at levels that require consumer warning

State Right-to-KnowU.S. EPA Label information

EPA Pesticide registration number Not applicable

Canada

All components of this product are included on the DSL or NDSL or are not required to be listed.

This product has been classified according to GHS hazard criteria and the SDS contains all of the information required by the HPA.

16. OTHER INFORMATIONNFPA

Health 2

Flammability 1

Reactivity 2

Prepared by:	Responsible Department
Preparation Date	01-Aug-2019
Revision Date	01-Aug-2019
Reason for revision:	New/Revised Formula

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet