

Safety Data Sheet

Issue Date: 26-Jan-2009

Revision Date: 19-Jan-2021

Version 3

1. IDENTIFICATION

Product identifier

Product Name Universal Type D Black Ink

Other means of identification

SDS # USM-001

Product Code IU-D14, IU-D1PT, IU-D1QT, IU-D1QTH, IU-D1GL
UN/ID No UN1210

Recommended use of the chemical and restrictions on use

Recommended Use Printing ink.

Details of the supplier of the safety data sheet

Manufacturer Address

Universal Stenciling & Marking Systems, Inc.
205 15th Avenue S.E.
St. Petersburg, FL 33701
PH: 727-894-3027

Emergency telephone number

Emergency Telephone INFOTRAC: 1-800-535-5053

2. HAZARDS IDENTIFICATION

Appearance Black liquid

Physical state Liquid

Odor Alcohol

Classification

Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2
Flammable liquids	Category 3

Signal Word

Danger

Hazard statements

Causes serious eye damage
Suspected of causing cancer
Flammable liquid and vapor



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
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Use explosion-proof equipment

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 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 (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards

Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Ethylene Glycol Monobutyl Ether	111-76-2	37-40
Ethanol	64-17-5	19-27
Carbon Black	1333-86-4	9-11
n-Propyl Alcohol	71-23-8	5-8
Methylisobutyl ketone	108-10-1	1
Solvent naphtha (petroleum), light aliphatic	64742-89-8	<1
Heptane	142-82-5	<1
Toluene	108-88-3	Trace
Acetaldehyde	75-07-0	Trace

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Get immediate medical advice/attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If irritation persists or feeling unwell, obtain medical advice.
Inhalation	Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician/poison center if individual's condition declines or if symptoms persist.
Ingestion	Do not induce vomiting without medical advice. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

Most important symptoms and effects, both acute and delayed

Symptoms Causes skin irritation and serious eye damage. May cause irritation to the mucous membranes and upper respiratory tract.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water fog or fine spray, carbon dioxide, dry chemical or foam.

Unsuitable Extinguishing Media Direct water stream may spread fire.

Specific Hazards Arising from the Chemical

Flammable liquid and vapor. Vapors may travel to source of ignition and flash back.

Hazardous combustion products Carbon oxides.

Explosion Data

Sensitivity to Static Discharge May be ignited by heat, sparks or flames. Take precautionary measures against static discharge.

Protective equipment and precautions for firefighters

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

Personal Precautions Wear protective clothing as described in Section 8 of this safety data sheet. Remove all sources of ignition & ventilate area. Evacuate unnecessary personnel.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so. Soak up and contain spill with an inert (i.e. vermiculite, dry sand or earth) absorbent material.

Methods for Clean-Up Use clean non-sparking tools to collect absorbed material. Sweep up absorbed material and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling

Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when handling this product. Use personal protection recommended in Section 8. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only with adequate ventilation. Ground/bond container and receiving equipment. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Use spark-proof tools and explosion-proof equipment. Keep container tightly closed. Take precautionary measures against static discharges. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene Glycol Monobutyl Ether 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m ³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m ³
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Carbon Black 1333-86-4	TWA: 3 mg/m ³ inhalable particulate matter	TWA: 3.5 mg/m ³ (vacated) TWA: 3.5 mg/m ³	IDLH: 1750 mg/m ³ TWA: 3.5 mg/m ³ TWA: 0.1 mg/m ³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH
n-Propyl Alcohol 71-23-8	TWA: 100 ppm	TWA: 200 ppm TWA: 500 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 500 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 625 mg/m ³	IDLH: 800 ppm TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 625 mg/m ³
Methylisobutyl ketone 108-10-1	STEL: 75 ppm TWA: 20 ppm	TWA: 100 ppm TWA: 410 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 205 mg/m ³ (vacated) STEL: 75 ppm (vacated) STEL: 300 mg/m ³	IDLH: 500 ppm TWA: 50 ppm TWA: 205 mg/m ³ STEL: 75 ppm STEL: 300 mg/m ³
Heptane 142-82-5	STEL: 500 ppm TWA: 400 ppm	TWA: 500 ppm TWA: 2000 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 1600 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 2000 mg/m ³	IDLH: 750 ppm Ceiling: 440 ppm 15 min Ceiling: 1800 mg/m ³ 15 min TWA: 85 ppm TWA: 350 mg/m ³
Acetaldehyde 75-07-0	Ceiling: 25 ppm	TWA: 200 ppm TWA: 360 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 180 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 270 mg/m ³	IDLH: 2000 ppm

Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm (vacated) TWA: 100 ppm (vacated) TWA: 375 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 560 mg/m ³ Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³
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Appropriate engineering controls

Engineering Controls

Apply technical measures to comply with the occupational exposure limits. Maintain eye wash fountain and quick-drench facilities in work area. Local exhaust ventilation recommended.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Use safety glasses or chemical splash goggles. Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection

Gloves are recommended. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection

MSHA/ NIOSH-approved vapor respirator is recommended with handling in areas where adequate ventilation is not available. Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations

Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Alcohol
Appearance	Black liquid	Odor Threshold	Not determined
Color	Black		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	Not determined		
Melting point / freezing point	Not determined		
Boiling point / boiling range	Not determined		
Flash point	24.72 °C / 76.5 °F		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Not determined		
Flammability Limit in Air			
Upper flammability or explosive limits	Not determined		
Lower flammability or explosive limits	Not determined		
Vapor Pressure	Not determined		
Vapor Density	Heavier than air	(Air=1)	
Relative Density	Not determined		
Water Solubility	Not determined		
Solubility in other solvents	Not determined		
Partition Coefficient	Not determined		
Autoignition temperature	Not determined		
Decomposition temperature	Not determined		
Kinematic viscosity	Not determined		
Dynamic Viscosity	Not determined		
Explosive Properties	Not determined		
Oxidizing Properties	Not determined		

Other information

VOC Content (%) 71.05
Liquid Density 7.72 lbs/gal

10. STABILITY AND REACTIVITY**Reactivity**

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Heat, sparks and open flames.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

None known based on information supplied.

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

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Do not inhale.

Ingestion Do not ingest.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene Glycol Monobutyl Ether 111-76-2	= 470 mg/kg (Rat)	= 435 mg/kg (Rabbit)	= 486 ppm (Rat) 4 h = 450 ppm (Rat) 4 h
Ethanol 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Carbon Black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
n-Propyl Alcohol 71-23-8	= 1870 mg/kg (Rat)	= 4049 mg/kg (Rabbit)	> 13548 ppm (Rat) 4 h
Methylisobutyl ketone 108-10-1	= 2080 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	2000 - 4000 ppm (Rat) 4 h
Heptane 142-82-5	-	= 3000 mg/kg (Rabbit)	= 103 g/m ³ (Rat) 4 h
Solvent naphtha (petroleum), light aliphatic 64742-89-8	-	= 3000 mg/kg (Rabbit)	-
Acetaldehyde 75-07-0	= 660 mg/kg (Rat)	= 3540 mg/kg (Rabbit)	= 13000 ppm (Rat) 4 h

Toluene 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
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Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

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

Serious eye damage/eye irritation Causes serious eye damage.

Carcinogenicity Suspected of causing cancer. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as an alcoholic beverage. Carbon black is a possible carcinogen when it appears as a respirable dust. Group 3 IARC components are "not classifiable as human carcinogens".

Chemical name	ACGIH	IARC	NTP	OSHA
Ethylene Glycol Monobutyl Ether 111-76-2	A3	Group 3		
Ethanol 64-17-5	A3	Group 1	Known	X
Carbon Black 1333-86-4	A3	Group 2B		X
Methylisobutyl ketone 108-10-1	A3	Group 2B		X
Acetaldehyde 75-07-0	A2	Group 1 Group 2B	Reasonably Anticipated	X
Toluene 108-88-3		Group 3		

Legend**ACGIH (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 IARC components are "not classifiable as human carcinogens"

NTP (National Toxicology Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical measures of toxicity

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

Oral LD50 6,453.80 mg/kg

Dermal LD50 10,046.70 mg/kg

ATEmix (inhalation-dust/mist) 67.90 mg/L

ATEmix (inhalation-vapor) 165.7034 mg/L

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Harmful to aquatic life with long lasting effects.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Ethylene Glycol Monobutyl Ether 111-76-2		2950: 96 h Lepomis macrochirus mg/L LC50 1490: 96 h Lepomis macrochirus mg/L LC50 static	1000: 48 h Daphnia magna mg/L EC50 1698 - 1940: 24 h Daphnia magna mg/L EC50

n-Propyl Alcohol 71-23-8		4480: 96 h Pimephales promelas mg/L LC50 flow-through	3642: 48 h Daphnia magna mg/L EC50 3339 - 3977: 48 h Daphnia magna mg/L EC50 Static
Ethyl Alcohol 64-17-5		13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static	10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static 9268 - 14221: 48 h Daphnia magna mg/L LC50
Carbon Black 1333-86-4			5600: 24 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Chemical name	Partition coefficient
Ethylene Glycol Monobutyl Ether 111-76-2	0.81
Ethanol 64-17-5	-0.32
n-Propyl Alcohol 71-23-8	0.34
Methylisobutyl ketone 108-10-1	1.19
Heptane 142-82-5	4.66
Toluene 108-88-3	2.7
Acetaldehyde 75-07-0	0.5

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

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

Contaminated Packaging

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

US EPA Waste Number

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methylisobutyl ketone 108-10-1		Included in waste stream: F039		U161
Acetaldehyde 75-07-0				U001
Toluene 108-88-3	U220	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151		U220

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Toluene 108-88-3			Toxic waste waste number F025 Waste description: Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	

California Hazardous Waste Status

Chemical name	California Hazardous Waste Status
Ethanol 64-17-5	Toxic Ignitable
n-Propyl Alcohol 71-23-8	Toxic Ignitable
Heptane 142-82-5	Toxic Ignitable
Toluene 108-88-3	Toxic Ignitable
Acetaldehyde 75-07-0	Toxic Ignitable

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN1210
 Proper Shipping Name Printing ink
 Hazard class 3
 Packing Group III

IATA

UN number UN1210
 Proper Shipping Name Printing ink
 Transport hazard class(es) 3
 Packing Group III

IMDG

UN number UN1210
 Proper Shipping Name Printing ink
 Transport hazard class(es) 3
 Packing Group III

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Ethylene Glycol Monobutyl Ether	X	ACTIVE	X	X	X	X	X	X	X
Ethanol	X	ACTIVE	X	X	X	X	X	X	X
Water	X	ACTIVE	X	X	X	X	X	X	X
Carbon Black	X	ACTIVE	X	X	X	X	X	X	X
n-Propyl Alcohol	X	ACTIVE	X	X	X	X	X	X	X
Methylisobutyl ketone	X	ACTIVE	X	X	X	X	X	X	X
Heptane	X	ACTIVE	X	X	X	X	X	X	X
Solvent naphtha (petroleum), light aliphatic	X	ACTIVE	X	X		X	X	X	X
Acetaldehyde	X	ACTIVE	X	X	X	X	X	X	X
Toluene	X	ACTIVE	X	X	X	X	X	X	X

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Methylisobutyl ketone 108-10-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Acetaldehyde 75-07-0	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Toluene 108-88-3	1000 lb 1 lb		RQ 1000 lb final RQ RQ 454 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ

SARA 311/312 Hazard Categories

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

SARA 313

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Ethylene Glycol Monobutyl Ether - 111-76-2	111-76-2	30-40	1.0

CWA (Clean Water Act)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Toluene	1000 lb	X	X	X
Acetaldehyde	1000 lb			X

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Ethanol - 64-17-5	Carcinogen Developmental
Carbon Black - 1333-86-4	Carcinogen
Methylisobutyl ketone - 108-10-1	Carcinogen Developmental
Toluene - 108-88-3	Developmental
Acetaldehyde - 75-07-0	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethylene Glycol Monobutyl Ether 111-76-2	X	X	X
Ethanol 64-17-5	X	X	X
Carbon Black 1333-86-4	X	X	X
n-Propyl Alcohol 71-23-8	X	X	X
Methylisobutyl ketone 108-10-1	X	X	X
Heptane 142-82-5	X	X	X
Acetaldehyde 75-07-0	X	X	X
Toluene 108-88-3	X	X	X

16. OTHER INFORMATION**NFPA****Health Hazards**

Not determined

Flammability

Not determined

Instability

Not determined

Special Hazards

Not determined

HMIS**Health Hazards**

2

Flammability

3

Physical hazards

0

Personal Protection

Not determined

Issue Date:

26-Jan-2009

Revision Date:

19-Jan-2021

Revision Note:

Regulatory review

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