

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product name 4053BK Black Ink

Other means of identification

Product Code(s) 4053BK
UN-No UN1210
Synonyms No information available

Recommended use of the chemical and restrictions on use

Recommended Use ink.
Uses advised against No information available

Details of the supplier of the safety data sheet

Company Name

Digital Design Inc.
 67 Sand Park Rd.
 Cedar Grove NJ 07009
 PH: (973) 857-9500

Emergency telephone number Chemtel 1-800-255-3924 (Domestic)
 01-813-248-0585 (International)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 1
Reproductive Toxicity	Category 2
Flammable Liquids	Category 3

Label Elements

EMERGENCY OVERVIEW

Danger

Hazard statements

Causes serious eye damage
 Suspected of damaging fertility or the unborn child
 Flammable liquid and vapor



Appearance black

Physical state liquid

Odor slight amine

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 explosion-proof electrical/ventilating/lighting/ .? /equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge

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

Hazards not otherwise classified (HNOC)

Other Information

- May be harmful if swallowed
 - May be harmful in contact with skin
 - Harmful to aquatic life with long lasting effects
- Unknown acute toxicity 7.1515% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/information on Ingredients

Chemical Name	CAS-No	Weight-%	Trade secret
Butyrolactone	96-48-0	1 - 15	*
Glycol Ether	Proprietary	1 - 10	*
Oxo-hexyl acetate	88230-35-7	1 - 5	*
Glycol Ether # 2	Proprietary	1 - 5	*

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

NOTE

Remaining components are either not hazardous or below threshold limits.

4. First aid measures

Description of first aid measures

General advice	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Immediate medical attention is required.
Eye contact	If symptoms persist, call a physician. 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 rinsing.
IF ON SKIN	Wash off immediately with plenty of water.
Inhalation	If breathing is irregular or stopped, administer artificial respiration. Remove to fresh air. Consult a physician. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.
Ingestion	Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a

physician.

Self-protection of the first aider Remove all sources of ignition.

Most important symptoms and effects, both acute and delayed

Symptoms Hives.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Use Carbon dioxide (CO₂) Dry chemical Alcohol resistant foam

Unsuitable extinguishing media None.

Specific hazards arising from the chemical

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for containment Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. Handling and Storage

Precautions for safe handling

Handling Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

Conditions for safe storage, including any incompatibilities

Storage Keep tightly closed in a dry and cool place. Keep in properly labeled containers.

Incompatible materials Strong oxidizing agents.

8. Exposure Controls/Personal Protection

Control parameters

Exposure guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glycol Ether # 2	TWA: 10 ppm	-	-

NIOSH IDLH: *Immediately Dangerous to Life or Health*

Appropriate engineering controls

Engineering Measures Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tight sealing safety goggles.

Skin and body protection For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

Respiratory protection None under normal use conditions.

Hygiene Measures When using do not eat or drink. Regular cleaning of equipment, work area and clothing is recommended.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical state	liquid	Odor	slight amine
Appearance	black	Odor Threshold	No information available
Color	No information available		
Property	Values	Remarks • Method	
pH	7 - 9		
Melting point / freezing point			
Boiling point/range (°C) VALUE	No information available		
Flash point	51 - 55 °C		Seta closed cup
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Specific gravity	0.9 - 1.1		Not applicable
Water solubility	Practically insoluble (~0.4 ug/mL)		
Solubility(ies)	No information available		
Partition coefficient	No information available		
Autoignition temperature	>200 °C		
Decomposition temperature	No information available		
Kinematic viscosity	No information available		
Dynamic viscosity	No information available		
Explosive properties	No information available		
Oxidizing properties	No information available		

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content	No information available
Density	No information available
Bulk density	No information available

10. Stability and Reactivity

Reactivity

No data available

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Heating in air.

Incompatible materials

Strong oxidizing agents.

Hazardous Decomposition Products

Carbon oxides.

11. Toxicological Information

Information on likely routes of exposure

Product Information	The product has not been tested
Inhalation	Avoid breathing vapors or mists. May cause irritation of respiratory tract.
Eye contact	Causes serious eye damage. Avoid contact with eyes.
IF ON SKIN	May cause irritation. Avoid contact with skin.
Ingestion	May cause gastrointestinal discomfort if consumed in large amounts. May be harmful if swallowed. Do NOT taste or swallow.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Butyrolactone 96-48-0	= 1540 mg/kg (Rat)	-	> 5100 mg/m ³ (Rat) 4 h
Glycol Ether	= 4 mL/kg (Rat)	= 650 mg/kg (Rabbit) = 2500 µL/kg (Rabbit)	-
Glycol Ether # 2	= 3384 mg/kg (Rat)	= 2700 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

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

Serious eye damage/eye irritation	Risk of serious damage to eyes. Irritating to eyes.
irritation	May cause irritation of respiratory tract. May cause skin and eye irritation.
Sensitization	No information available.
Mutagenic effects	No information available.
<i>ACGIH: (American Conference of Governmental Industrial Hygienists)</i>	
<i>A3 - Animal Carcinogen</i>	
<i>IARC: (International Agency for Research on Cancer)</i>	
<i>Group 2B - Possibly Carcinogenic to Humans</i>	
Reproductive toxicity	May cause harm to the unborn child. Possible risk of harm to the unborn child. May impair fertility. Possible risk of impaired fertility.

STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic toxicity May cause harm to the unborn child.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown acute toxicity 7.1515% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 3760 mg/kg
ATEmix (dermal) 4497 mg/kg

12. Ecological Information

ecotoxicity

53.097% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Toxicity to Fish	Crustacea
Butyrolactone 96-48-0	360: 72 h Desmodemus subspicatus mg/L EC50 79: 96 h Desmodemus subspicatus mg/L EC50	220 - 460: 96 h Leuciscus idus mg/L LC50 static	500: 48 h Daphnia magna Straus mg/L EC50
Glycol Ether	500: 72 h Desmodemus subspicatus mg/L EC50	7500: 96 h Lepomis macrochirus mg/L LC50 static 5741: 96 h Pimephales promelas mg/L LC50 7500: 96 h Lepomis macrochirus mg/L LC50	500: 48 h Daphnia magna mg/L EC50
Glycol Ether # 2	100: 96 h Desmodemus subspicatus mg/L EC50	1300: 96 h Lepomis macrochirus mg/L LC50 static	100: 48 h Daphnia magna mg/L EC50 2850: 24 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical Name	Partition coefficient
Butyrolactone 96-48-0	-0.566
Glycol Ether	-0.682

Other adverse effects No information available

13. Disposal Considerations

Waste treatment methods

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

Contaminated packaging Do not re-use empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport Information

DOT

UN-No

UN1210

Proper shipping name	Printing Ink, Flammable
Hazard Class	3
Packing group	III
TDG	Not regulated
MEX	Not regulated
ICAO	Not regulated
IATA	
UN-No	UN1210
Proper shipping name	Printing Ink, Flammable
Hazard Class	3
Packing group	III
IMDG/IMO	Not regulated
RID	Not regulated
ADR	Not regulated
ADN	Not regulated

15. Regulatory Information

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Butyrolactone 96-48-0	X	X	X	X	X	X	X	X
Glycol Ether	X	X	X	X	X	X	X	X
Oxo-hexyl acetate 88230-35-7	X	X	-	-	X	X	X	X
Glycol Ether # 2	X	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 Commercial Chemical Substances/EU 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

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Glycol Ether -	1.0
Glycol Ether # 2 -	1.0

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

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CAS-No	Weight-%	HAPS data	VOC Chemicals	Class 1 Ozone Depleters	Class 2 Ozone Depleters
Butyrolactone	96-48-0	1 - 15		Group I		
Glycol Ether		1 - 10		Group I		
Glycol Ether # 2		1 - 5		Group I		

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

U.S. State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Glycol Ether	X	X	X
Glycol Ether # 2	X	-	X

U.S. EPA Label Information

EPA Pesticide registration number Not applicable

16. Other Information

NFPA	Health hazard 2	flammability 2	Instability 0	Physical and chemical properties -
HMIS	Health hazard 2	flammability 2	Physical Hazards 0	Personal precautions X

Issuing Date
Revision date
Revision note

Cincinnati, Ohio 45216
21-Jul-2015
21-Jul-2015

No information available

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