

# **SAFETY DATA SHEET**

Date of last issue: 2020-07-01 Date of first issue: 2013-06-13

# **SECTION 1. IDENTIFICATION**

Product name : Eco Solvent Ultra Black

VJ-MSINK3A-BK220 / VJ-MSINK3A-BK440 /

VJ-MSINK3A-BK1000

Manufacturer or supplier's details

Company name of supplier : MUTOH America Inc

Address : 4405 East Baseline Road, Suite 120 Phoenix, Arizona 85042

Telephone : 480-968-7772

Emergency telephone : 480-968-7772

During normal opening times

Recommended use of the chemical and restrictions on use

Recommended use : Inkjet printing

#### **SECTION 2. HAZARDS IDENTIFICATION**

GHS Classification in accordance with 29 CFR 1910.1200

Flammable liquid : Category 4

Skin irritation : Category 2

Eye irritation : Category 2A

Reproductive toxicity : Category 1B

**GHS** label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Combustible liquid

Causes skin irritation

Causes serious eye irritation

May damage fertility or the unborn child

Precautionary Statements : **Prevention:** 

Do not handle until all safety precautions have been read and

understood.

Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

Wear protective gloves/protective clothing/eye protection/face

protection. **Response:** 

IF exposed or concerned: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue



rinsing.
Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/ container in accordance with related laws

and local/ regional regulations.

# Description of any hazards not otherwise classified;

Ink contact with skin may cause irritation, swelling or redness.

# **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Diethylene glycol diethyl ether	112-36-7	55 - 65
Tetraethylene glycol dimethyl ether	143-24-8	10 - 20
Gamma-butyrolactone	96-48-0	< 20
Proprietary organic materials	Trade secret	1 - 10
Tetraethylene glycol monobutyl ether	1559-34-8	1 - 5
Carbon black	1333-86-4	1 - 5

# **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

Inhalation : IF exposed or concerned: Get medical advice/attention.

Remove subject to ventilated fresh air. If not breathing, give

artificial respiration right away.

If breathing is difficult, give oxygen.

Skin : IF ON SKIN: Wash with plenty of soap and water. Take off

contaminated clothing and wash before reuse.

If skin irritation occurs: Get medical advice/attention.

Eyes : Immediately flush with room temperature, low pressure and

clean water for at least 15 minutes.

Seek medical attention if eye irritation continues.

Ingestion : IF exposed or concerned: Get medical advice/attention.

IF SWALLOWED: Do not induce vomiting.

Most important symptoms and :

effects, both acute and delayed

Skin: Ink contact with skin may cause irritation, swelling or

redness.

Indication of any immediate medical attention and special

treatment needed

Not necessary

# **SECTION 5. FIRE-FIGHTING MEASURES**

**Extinguishing Media** 

Suitable extinguishing media: Water spray

Dry chemical

Carbon dioxide (CO2) Alcohol-resistant foam

Unsuitable extinguishing

media

None known.

Special hazards arising from : None



the substance or mixture

: Extinguish to use fire fighting media or plentiful fog water. Put Advice for firefighters

protection wear without fail in case of fire fighting work; do not

work in the leeward.

# **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

For non-emergency

personnel

Eye or Skin protection required during clean-up. Use proper

ventilation.

For emergency responders: None

Environmental precautions Do not release to sewer, surface-or ground-water.

Methods and materials for containment and cleaning up

Advice on how to contain : Use sponges to wipe-up ink.

a spill

Advice how to clean-up

a spill

Rinse area with damp cloth. Place waste in closed container

for disposal. Wash hands with soap and water.

Any other information Do not dispose of waste to the sewer.

Reference to other sections Please refer SECTION 13 for disposal.

#### SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Recommendations Obtain special instructions before use.

Do not handle until all safety precautions have been read and

understood.

Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink ink.

Do not dismantle cartridge.

Advice on general

occupational hygiene

Avoid contact with skin, eyes or clothing.

In the case of skin contact, wash with soap and water.

Conditions for safe storage, including any incompatibilities Store locked up.

Do not store the cartridge in high or freezing temperatures.

Keep cartridge out of direct sunlight.

Do not store the cartridge with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.

Specific end use(s): Not specified.

# SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Diethylene glycol diethyl ether(CAS No.112-36-7)

California OELs(California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)

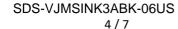
The 8-Hour TWA Exposure Value:5 ppm The 8-Hour TWA Exposure Value:33mg/m3

**Exposure Controls** 

Appropriate engineering : Proper ventilation.

controls

Individual protection measures, such as personal protective equipment





Use of personal protective Equipment Not required under suitable use as setting the cartridge on the

printer under ventilation.

If there is a possibility of exposure to raw ink: Wear protective gloves/ protective clothing/ eye protection/ face protection/

respiratory protection.

Detailed specification on equipment to provide adequate and suitable protection

(a) eye/face protection: Not required under suitable use as setting the cartridge on the

If there is a possibility of exposure to raw ink: Wear eye

protection/ face protection.

(b) skin protection:

hand protection &

Others

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear protective

gloves/ protective clothing

(c) respiratory protection

Not required under suitable use as setting the cartridge on the

printer under ventilation.

In case of inadequate ventilation wear respiratory protection.

(d) thermal hazards Not required under suitable use as setting the cartridge on the

printer.

Environmental exposure

controls

Not established

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties:

**Appearance** liquid

Color black

Odor Slightly

Odor Threshold No data available

pН No data available

Melting point/freezing point No data available

Initial boiling point and boiling:

range

No data available

about 71 °C Flash point

Method: Seta closed cup

**Evaporation rate** No data available

Flammability (solid, gas) Not applicable

Flammability (liquids) No data available

Upper explosion limit / Upper

flammability limit

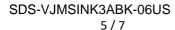
No data available

Lower explosion limit / Lower :

flammability limit

No data available

Vapor pressure No data available





Vapor density : Greater than 1(air=1)

Relative density : No data available

Solubility(ies) : Soluble

Partition coefficient:

n-octanol/water

: No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Explosive limits: 1.4-6.9v/v% as Gamma-butyrolactone

Oxidizing properties : None

Particle size : Not applicable

# **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under normal temperature

Chemical stability : Stable under normal temperature

Possibility of hazardous

reactions

None

Conditions to avoid : High and freezing temperatures

Incompatible materials : Oxidizers and explosives

Hazardous decomposition

products

No data available

# **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects:

Acute toxicity : Oral LD50: > 2500 mg/kg (Rat)

Dermal LD50: > 2000 mg/kg (Rat)

Irritation

Eye : Moderate irritant (Rabbit, OECD 405)

Not meet the criteria for classification according to EU Directive

1999/45/EC

Category2 for classification according to EU Directive (EC) No

1272/2008

Skin : Mild irritant (Rabbit, OECD 404)

Corrosivity : Not meet the criteria for classification according to EU Directive

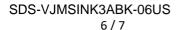
1999/45/EC

Sensitisation

Skin : Non-sensitizer (LLNA, OECD 429)

Carcinogenicity : With excessive exposure, carbon black has been listed as a

possible human carcinogen.





However, as engineered within this ink cartridge, emissions to air of carbon black during normal printing use have not been found. IARC, the International Agency for Research on Cancer,

has found printing inks to be not classifiable as human

carcinogens.

Mutagenicity : Negative (by Ames Test)

Toxicity for reproduction : T; R61,62 for classification according to EU Directive

1999/45/EC

Category1B for classification according to EU Directive (EC) No

1272/2008

#### **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity : No data available

Persistence and degradability : No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Results of PBT and vPvB

assessment

Has not carried out PBT and vPvB assessment

Other adverse effects : No data available

# **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods : Disposal should be in accordance with federal, state, and local

requirements.

in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

# **SECTION 14. TRANSPORT INFORMATION**

UN number : Not applicable

UN proper shipping name : Not applicable

Transport hazard class(es) : Not applicable

Packing group : Not applicable

Environmental hazards : Not applicable

Special precautions for user : Not applicable

Transport in bulk according to :

Annex II of MARPOL 73/78

and the IBC Code

Not applicable

# **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the product in question: US Information:

TSCA Section 4(a) Final : Not regulated

Test Rules Regulated

TSCA Section 5 Significant New Use Rule Regulation:



7/7



Ingredient : Diethylene glycol diethyl ether 112-36-7

Reference : 40 CFR 721.10229 (Listed)

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Reference : 76 FR 40850 (Proposed)

TSCA Section 8(a) : Not regulated

Preliminary Assessment Information Rule (PAIR)

TSCA Section 12(b) One-Time Export Notification Regulated:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Regulation : TSCA 5 SNUR

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Regulation : TSCA 5 Proposed SNUR

Clean Air Act Section 112, : Diethylene glycol diethyl ether 112-36-7

Hazardous Air Pollutants

EPCRA (SARA Title III) : Diethylene glycol diethyl ether 112-36-7

Section 313

NFPA/HMIS Hazard Rating: Health (3), Flammability (2), Instability/Reactivity (0), Other (0)

HMIS Hazard Rating : Health (3), Flammability (2), Instability/Reactivity (0), PPE (D)

California Proposition 65 : **MARNING:** This product can expose you to cher

**WARNING:** This product can expose you to chemicals including Carbon black, which is known to the State of

California to cause cancer. For more information go to

www.P65Warnings.ca.gov.

# **SECTION 16. OTHER INFORMATION**

Revision Date : 2020-07-01

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

This "Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or use and disposal information which accompanies the product. The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. It is subject to revision from time to time. MUTOH does not warrant the completeness or accuracy of the information contained herein.



# **SAFETY DATA SHEET**

Date of last issue: 2020-07-01 Date of first issue: 2013-06-13

# **SECTION 1. IDENTIFICATION**

Product name : Eco Solvent Ultra Cyan

VJ-MSINK3A-CY220 / VJ-MSINK3A-CY440 /

VJ-MSINK3A-CY1000

Manufacturer or supplier's details

Company name of supplier : MUTOH America Inc

Address : 4405 East Baseline Road, Suite 120 Phoenix, Arizona 85042

Telephone : 480-968-7772

Emergency telephone : 480-968-7772

During normal opening times

Recommended use of the chemical and restrictions on use

Recommended use : Inkjet printing

#### **SECTION 2. HAZARDS IDENTIFICATION**

GHS Classification in accordance with 29 CFR 1910.1200

Flammable liquid : Category 4

Skin irritation : Category 2

Reproductive toxicity : Category 1B

**GHS label elements** 

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Combustible liquid

Causes skin irritation

May damage fertility or the unborn child

Precautionary Statements : Prevention:

Do not handle until all safety precautions have been read and

understood.

Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

Wear protective gloves/protective clothing/eye protection/face

protection. Response:

IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/ container in accordance with related laws

and local/ regional regulations.



# Description of any hazards not otherwise classified;

Ink contact with skin may cause irritation, swelling or redness.

# **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous ingredients** 

Chemical name	CAS-No.	Concentration (% w/w)
Diethylene glycol diethyl ether	112-36-7	55 - 65
Tetraethylene glycol dimethyl ether	143-24-8	10 - 20
Gamma-butyrolactone	96-48-0	< 20
Proprietary organic materials	Trade secret	1 - 10
Tetraethylene glycol monobutyl ether	1559-34-8	1 - 5
Colorant	Trade secret	1 - 5

# **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

Inhalation : IF exposed or concerned: Get medical advice/attention.

Remove subject to ventilated fresh air. If not breathing, give

artificial respiration right away.

If breathing is difficult, give oxygen.

Skin : IF ON SKIN: Wash with plenty of soap and water. Take off

contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.

Eyes : Immediately flush with room temperature, low pressure and

clean water for at least 15 minutes.

Seek medical attention if eye irritation continues.

Ingestion : IF exposed or concerned: Get medical advice/attention.

IF SWALLOWED: Do not induce vomiting.

Most important symptoms and :

effects, both acute and delayed

Skin: Ink contact with skin may cause irritation, swelling or

redness.

Indication of any immediate medical attention and special

treatment needed

Not necessary

# **SECTION 5. FIRE-FIGHTING MEASURES**

Extinguishing Media

Suitable extinguishing media: Water spray

Dry chemical

Carbon dioxide (CO2) Alcohol-resistant foam

Unsuitable extinguishing

media

None known.

Special hazards arising from

the substance or mixture

None

Advice for firefighters

Extinguish to use fire fighting media or plentiful fog water. Put

protection wear without fail in case of fire fighting work; do not

work in the leeward.





# **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

For non-emergency : Eye or Skin protection required during clean-up. Use proper

personnel ventilation.

For emergency responders: None

Environmental precautions : Do not release to sewer, surface-or ground-water.

Methods and materials for containment and cleaning up

Advice on how to contain : Use sponges to wipe-up ink.

a spill

Advice how to clean-up

a spill

Rinse area with damp cloth. Place waste in closed container

for disposal. Wash hands with soap and water.

Any other information : Do not dispose of waste to the sewer.

Reference to other sections : Please refer SECTION 13 for disposal.

# **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling

Recommendations : Obtain special instructions before use.

Do not handle until all safety precautions have been read and

understood.

Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink ink.

Do not dismantle cartridge.

Advice on general

occupational hygiene

Avoid contact with skin, eyes or clothing.

In the case of skin contact, wash with soap and water.

Conditions for safe storage,

including any incompatibilities

Store locked up.

Do not store the cartridge in high or freezing temperatures.

Keep cartridge out of direct sunlight.

Do not store the cartridge with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.

Specific end use(s): : Not specified.

# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters:

Diethylene glycol diethyl ether(CAS No.112-36-7)

California OELs(California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)

The 8-Hour TWA Exposure Value:5 ppm The 8-Hour TWA Exposure Value:33mg/m3

**Exposure Controls** 

Appropriate engineering

Proper ventilation.

controls

Individual protection measures, such as personal protective equipment

Use of personal

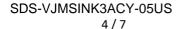
protective Equipment

Not required under suitable use as setting the cartridge on the

printer under ventilation.

If there is a possibility of exposure to raw ink: Wear protective gloves/ protective clothing/ eye protection/ face protection/

respiratory protection.





Detailed specification on equipment to provide adequate and suitable protection

Not required under suitable use as setting the cartridge on the (a) eye/face protection:

printer.

If there is a possibility of exposure to raw ink: Wear eye

protection/ face protection.

(b) skin protection: hand protection &

Others

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear protective

gloves/ protective clothing

(c) respiratory

protection

Not required under suitable use as setting the cartridge on the

printer under ventilation.

In case of inadequate ventilation wear respiratory protection.

(d) thermal hazards Not required under suitable use as setting the cartridge on the

printer.

Environmental exposure

controls

Not established

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties:

Appearance liquid

Color cyan

Odor Slightly

Odor Threshold No data available

pН No data available

Melting point/freezing point No data available

Initial boiling point and boiling:

range

No data available

about 71 °C Flash point

Method: Seta closed cup

Evaporation rate No data available

Flammability (solid, gas) Not applicable

Flammability (liquids) No data available

Upper explosion limit / Upper :

flammability limit

No data available

Lower explosion limit / Lower :

flammability limit

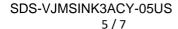
No data available

Vapor pressure No data available

Vapor density Greater than 1(air=1)

Relative density No data available

Soluble Solubility(ies)





Partition coefficient:

n-octanol/water

No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Explosive limits:1.4-6.9v/v% as Gamma-butyrolactone

Oxidizing properties : None

Particle size : Not applicable

# **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under normal temperature

Chemical stability : Stable under normal temperature

Possibility of hazardous

reactions

None

Conditions to avoid : High and freezing temperatures

Incompatible materials : Oxidizers and explosives

Hazardous decomposition

products

No data available

# **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects:

Acute toxicity : Oral LD50: > 2500 mg/kg (Rat)

Dermal LD50: > 2000 mg/kg (Rat)

Irritation

Eye : Mild irritant (Rabbit, OECD 405)

Skin : Mild irritant (Rabbit, OECD 404)

Corrosivity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Sensitisation

Skin : Non-sensitizer (LLNA, OECD 429)

Carcinogenicity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Not contain any substances listed in IARC Monographs (1,2A

and 2B)

Mutagenicity : Negative (by Ames Test)

Toxicity for reproduction : T; R61,62 for classification according to EU Directive

1999/45/EC

Category1B for classification according to EU Directive (EC) No

1272/2008



# **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity : No data available

Persistence and degradability: No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Results of PBT and vPvB

assessment

: Has not carried out PBT and vPvB assessment

Other adverse effects : No data available

#### SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods : Disposal should be in accordance with federal, state, and local

requirements.

in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

# **SECTION 14. TRANSPORT INFORMATION**

UN number : Not applicable

UN proper shipping name : Not applicable

Transport hazard class(es) : Not applicable

Packing group : Not applicable

Environmental hazards : Not applicable

Special precautions for user : Not applicable

Transport in bulk according to : Annex II of MARPOL 73/78

and the IBC Code

Not applicable

#### SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the product in question: US Information:

TSCA Section 4(a) Final : Not regulated

Test Rules Regulated

TSCA Section 5 Significant New Use Rule Regulation:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Reference : 40 CFR 721.10229 (Listed)

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Reference : 76 FR 40850 (Proposed)

TSCA Section 8(a) : Not regulated

Preliminary Assessment Information Rule (PAIR)

TSCA Section 12(b) One-Time Export Notification Regulated:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Regulation : TSCA 5 SNUR

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8





Regulation : TSCA 5 Proposed SNUR

Clean Air Act Section 112, : Diethylene glycol diethyl ether 112-36-7

Hazardous Air Pollutants

EPCRA (SARA Title III) : Diethylene glycol diethyl ether 112-36-7

Section 313

NFPA/HMIS Hazard Rating: Health (3), Flammability (2), Instability/Reactivity (0), Other (0)

HMIS Hazard Rating : Health (3), Flammability (2), Instability/Reactivity (0), PPE (D)

California Proposition 65 : Not regulated

# **SECTION 16. OTHER INFORMATION**

Revision Date : 2020-07-01

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# **SAFETY DATA SHEET**

Date of last issue: 2020-07-01 Date of first issue: 2013-06-13

# **SECTION 1. IDENTIFICATION**

Product name : Eco Solvent Ultra Magenta

VJ-MSINK3A-MA220 / VJ-MSINK3A-MA440 /

VJ-MSINK3A-MA1000

Manufacturer or supplier's details

Company name of supplier : MUTOH America Inc

Address : 4405 East Baseline Road, Suite 120 Phoenix, Arizona 85042

Telephone : 480-968-7772

Emergency telephone : 480-968-7772

During normal opening times

Recommended use of the chemical and restrictions on use

Recommended use : Inkjet printing

#### **SECTION 2. HAZARDS IDENTIFICATION**

GHS Classification in accordance with 29 CFR 1910.1200

Flammable liquid : Category 4

Skin irritation : Category 2

Reproductive toxicity : Category 1B

**GHS label elements** 

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Combustible liquid

Causes skin irritation

May damage fertility or the unborn child

Precautionary Statements : Prevention:

Do not handle until all safety precautions have been read and

understood.

Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

Wear protective gloves/protective clothing/eye protection/face

protection. Response:

IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/ container in accordance with related laws

and local/ regional regulations.



# Description of any hazards not otherwise classified;

Ink contact with skin may cause irritation, swelling or redness.

# **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous ingredients** 

<u></u>		
Chemical name	CAS-No.	Concentration (% w/w)
Diethylene glycol diethyl ether	112-36-7	55 - 65
Tetraethylene glycol dimethyl ether	143-24-8	10 - 20
Gamma-butyrolactone	96-48-0	< 20
Proprietary organic materials	Trade secret	1 - 10
Tetraethylene glycol monobutyl ether	1559-34-8	1 - 5
Colorant	Trade secret	1 - 5

# **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

Inhalation : IF exposed or concerned: Get medical advice/attention.

Remove subject to ventilated fresh air. If not breathing, give

artificial respiration right away.

If breathing is difficult, give oxygen.

Skin : IF ON SKIN: Wash with plenty of soap and water. Take off

contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.

Eyes : Immediately flush with room temperature, low pressure and

clean water for at least 15 minutes.

Seek medical attention if eye irritation continues.

Ingestion : IF exposed or concerned: Get medical advice/attention.

IF SWALLOWED: Do not induce vomiting.

Most important symptoms and :

effects, both acute and delayed

Skin: Ink contact with skin may cause irritation, swelling or

redness.

Indication of any immediate medical attention and special

treatment needed

Not necessary

# **SECTION 5. FIRE-FIGHTING MEASURES**

Extinguishing Media

Suitable extinguishing media: Water spray

Dry chemical

Carbon dioxide (CO2) Alcohol-resistant foam

Unsuitable extinguishing

media

None known.

Special hazards arising from

the substance or mixture

None

Advice for firefighters

Extinguish to use fire fighting media or plentiful fog water. Put protection wear without fail in case of fire fighting work; do not

protection wear without fall in case of fire fighting work, do not

work in the leeward.





# **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

For non-emergency : Eye or Skin protection required during clean-up. Use proper

personnel ventilation.

For emergency responders: None

Environmental precautions : Do not release to sewer, surface-or ground-water.

Methods and materials for containment and cleaning up

Advice on how to contain : Use sponges to wipe-up ink.

a spill

Advice how to clean-up

a spill

Rinse area with damp cloth. Place waste in closed container

for disposal. Wash hands with soap and water.

Any other information : Do not dispose of waste to the sewer.

Reference to other sections : Please refer SECTION 13 for disposal.

# **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling

Recommendations : Obtain special instructions before use.

Do not handle until all safety precautions have been read and

understood.

Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink ink.

Do not dismantle cartridge.

Advice on general

occupational hygiene

Avoid contact with skin, eyes or clothing.

In the case of skin contact, wash with soap and water.

Conditions for safe storage,

including any incompatibilities

Store locked up.

Do not store the cartridge in high or freezing temperatures.

Keep cartridge out of direct sunlight.

Do not store the cartridge with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.

Specific end use(s): : Not specified.

# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters:

Diethylene glycol diethyl ether(CAS No.112-36-7)

California OELs(California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)

The 8-Hour TWA Exposure Value:5 ppm The 8-Hour TWA Exposure Value:33mg/m3

**Exposure Controls** 

Appropriate engineering

Proper ventilation.

controls

Individual protection measures, such as personal protective equipment

Use of personal : Not required under

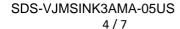
protective Equipment

Not required under suitable use as setting the cartridge on the

printer under ventilation.

If there is a possibility of exposure to raw ink: Wear protective gloves/ protective clothing/ eye protection/ face protection/

respiratory protection.





Detailed specification on equipment to provide adequate and suitable protection

(a) eye/face protection : Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear eye

protection/ face protection.

(b) skin protection: hand protection &

others

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear protective

gloves/ protective clothing

(c) respiratory

protection

Not required under suitable use as setting the cartridge on the

printer under ventilation.

In case of inadequate ventilation wear respiratory protection.

(d) thermal hazards : Not required under suitable use as setting the cartridge on the

printer.

Environmental exposure

controls

Not established

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties:

Appearance : liquid

Color : magenta

Odor : Slightly

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling:

range

No data available

Flash point : about 71 °C

Method: Seta closed cup

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit / Upper :

flammability limit

No data available

Lower explosion limit / Lower :

flammability limit

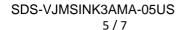
No data available

Vapor pressure : No data available

Vapor density : Greater than 1(air=1)

Relative density : No data available

Solubility(ies) : Soluble





Partition coefficient:

n-octanol/water

No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Explosive limits:1.4-6.9v/v% as Gamma-butyrolactone

Oxidizing properties : None

Particle size : Not applicable

# **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under normal temperature

Chemical stability : Stable under normal temperature

Possibility of hazardous

reactions

None

Conditions to avoid : High and freezing temperatures

Incompatible materials : Oxidizers and explosives

Hazardous decomposition

products

No data available

# **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects:

Acute toxicity : Oral LD50: > 2500 mg/kg (Rat)

Dermal LD50: > 2000 mg/kg (Rat)

Irritation

Eye : Moderate irritant (Rabbit, OECD 405)

Skin : Mild irritant (Rabbit, OECD 404)

Corrosivity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Sensitisation

Skin : Non-sensitizer (LLNA, OECD 429)

Carcinogenicity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Not contain any substances listed in IARC Monographs (1,2A

and 2B)

Mutagenicity : Negative (by Ames Test)

Toxicity for reproduction : T; R61,62 for classification according to EU Directive

1999/45/EC

Category1B for classification according to EU Directive (EC) No

1272/2008



# **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity : No data available

Persistence and degradability: No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Results of PBT and vPvB

assessment

: Has not carried out PBT and vPvB assessment

Other adverse effects : No data available

#### SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods : Disposal should be in accordance with federal, state, and local

requirements.

in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

# **SECTION 14. TRANSPORT INFORMATION**

UN number : Not applicable

UN proper shipping name : Not applicable

Transport hazard class(es) : Not applicable

Packing group : Not applicable

Environmental hazards : Not applicable

Special precautions for user : Not applicable

Transport in bulk according to : Annex II of MARPOL 73/78

and the IBC Code

Not applicable

#### **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the product in question: US Information:

TSCA Section 4(a) Final : Not regulated

Test Rules Regulated

TSCA Section 5 Significant New Use Rule Regulation:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Reference : 40 CFR 721.10229 (Listed)

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Reference : 76 FR 40850 (Proposed)

TSCA Section 8(a) : Not regulated

Preliminary Assessment Information Rule (PAIR)

TSCA Section 12(b) One-Time Export Notification Regulated:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Regulation : TSCA 5 SNUR

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8





Regulation : TSCA 5 Proposed SNUR

Clean Air Act Section 112, : Diethylene glycol diethyl ether 112-36-7

Hazardous Air Pollutants

EPCRA (SARA Title III) : Diethylene glycol diethyl ether 112-36-7

Section 313

NFPA/HMIS Hazard Rating: Health (3), Flammability (2), Instability/Reactivity (0), Other (0)

HMIS Hazard Rating : Health (3), Flammability (2), Instability/Reactivity (0), PPE (D)

California Proposition 65 : Not regulated

# **SECTION 16. OTHER INFORMATION**

Revision Date : 2020-07-01

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

This "Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or use and disposal information which accompanies the product. The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. It is subject to revision from time to time. MUTOH does not warrant the completeness or accuracy of the information contained herein.



# **SAFETY DATA SHEET**

Date of last issue: 2020-07-01 Date of first issue: 2014-10-06

# **SECTION 1. IDENTIFICATION**

Product name : Eco Solvent Ultra Metalic

VJ-MSINK3A-MT220

Manufacturer or supplier's details

Company name of supplier : MUTOH America Inc

Address : 4405 East Baseline Road, Suite 120 Phoenix, Arizona 85042

Telephone : 480-968-7772

Emergency telephone : 480-968-7772

During normal opening times

Recommended use of the chemical and restrictions on use

Recommended use : Inkjet printing

#### SECTION 2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910.1200

Flammable liquid : Category 4

Skin irritation : Category 2

Reproductive toxicity : Category 1B

**GHS** label elements

Hazard pictograms



Signal Word : Danger

Hazard Statements : Combustible liquid

Causes skin irritation

May damage fertility or the unborn child

Precautionary Statements : **Prevention**:

Do not handle until all safety precautions have been read and

understood.

Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

Wear protective gloves/protective clothing/eye protection/face

protection. Response:

IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/ container in accordance with related laws

and local/ regional regulations.



# Description of any hazards not otherwise classified;

Ink contact with skin may cause irritation, swelling or redness.

# **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous ingredients** 

Chemical name	CAS-No.	Concentration (% w/w)
Diethylene glycol diethyl ether	112-36-7	70 - 80
Tetraethylene glycol dimethyl ether	143-24-8	10 - 20
Gamma-butyrolactone	96-48-0	about 10
Proprietary organic materials	Trade secret	1 - 5
Colorant	Trade secret	1 - 5

# **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

Inhalation : IF exposed or concerned: Get medical advice/attention.

Remove subject to ventilated fresh air. If not breathing, give

artificial respiration right away.

If breathing is difficult, give oxygen.

Skin : IF ON SKIN: Wash with plenty of soap and water. Take off

contaminated clothing and wash before reuse.

If skin irritation occurs: Get medical advice/attention.

Eyes : Immediately flush with room temperature, low pressure and

clean water for at least 15 minutes.

Seek medical attention if eye irritation continues.

Ingestion : IF exposed or concerned: Get medical advice/attention.

IF SWALLOWED: Do not induce vomiting.

Most important symptoms and:

effects, both acute and delayed

Skin: Ink contact with skin may cause irritation, swelling or

redness.

Indication of any immediate

medical attention and special

treatment needed

Not necessary

# **SECTION 5. FIRE-FIGHTING MEASURES**

**Extinguishing Media** 

Suitable extinguishing media: Water spray

Dry chemical

Carbon dioxide (CO2) Alcohol-resistant foam

Unsuitable extinguishing

media

None known.

Special hazards arising from

the substance or mixture

None

Advice for firefighters : Extinguish to use fire fighting media or plentiful fog water. Put

protection wear without fail in case of fire fighting work; do not

work in the leeward.

# **SECTION 6. ACCIDENTAL RELEASE MEASURES**



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Personal precautions, protective equipment and emergency procedures

For non-emergency : Eye or Skin protection required during clean-up. Use proper

personnel ventilation.

For emergency responders: None

Environmental precautions : Do not release to sewer, surface-or ground-water.

Methods and materials for containment and cleaning up

Advice on how to contain : Use sponges to wipe-up ink.

a spill

Advice how to clean-up

a spill

Rinse area with damp cloth. Place waste in closed container

for disposal. Wash hands with soap and water.

Any other information : Do not dispose of waste to the sewer.

Reference to other sections : Please refer SECTION 13 for disposal.

# **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling

Recommendations : Obtain special instructions before use.

Do not handle until all safety precautions have been read and

understood.

Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink ink.

Do not dismantle cartridge.

Advice on general occupational hygiene

Avoid contact with skin, eyes or clothing.

Store locked up.

Conditions for safe storage,

including any incompatibilities

Do not store the cartridge in high or freezing temperatures.

In the case of skin contact, wash with soap and water.

Keep cartridge out of direct sunlight.

Do not store the cartridge with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.

Specific end use(s): : Not specified.

# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters:

Diethylene glycol diethyl ether(CAS No.112-36-7)

California OELs(California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)

The 8-Hour TWA Exposure Value:5 ppm The 8-Hour TWA Exposure Value:33mg/m3

**Exposure Controls** 

Appropriate engineering

Proper ventilation.

controls

Individual protection measures, such as personal protective equipment

Use of personal : Not required under suitable use as setting

protective Equipment

Not required under suitable use as setting the cartridge on the

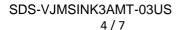
printer under ventilation.

If there is a possibility of exposure to raw ink: Wear protective gloves/ protective clothing/ eye protection/ face protection/

respiratory protection.

Detailed specification on equipment to provide adequate and suitable protection

(a) eye/face protection : Not required under suitable use as setting the cartridge on the





printer.

If there is a possibility of exposure to raw ink: Wear eye

protection/ face protection.

(b) skin protection: hand protection &

others

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear protective

gloves/ protective clothing

(c) respiratory protection

Not required under suitable use as setting the cartridge on the

printer under ventilation.

In case of inadequate ventilation wear respiratory protection.

(d) thermal hazards

Not required under suitable use as setting the cartridge on the

printer.

Environmental exposure

controls

Not established

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties:

Appearance : liquid

Color : silver

Odor : Slightly

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling:

range

No data available

Flash point : about 78.7 °C

Method: Seta closed cup

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit / Upper :

flammability limit

No data available

Lower explosion limit / Lower :

flammability limit

No data available

Vapor pressure : No data available

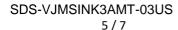
Vapor density : No data available

Relative density : No data available

Solubility(ies) : Soluble

Partition coefficient: : No data available

n-octanol/water





Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity : Less than 5 mPa⋅s at 20°C

Explosive properties : Explosive limits:1.4-6.9v/v% as Gamma-butyrolactone

Oxidizing properties : None

Particle size : Not applicable

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable under normal temperature

Chemical stability : Stable under normal temperature

Possibility of hazardous

reactions

None

Conditions to avoid : High and freezing temperatures

Incompatible materials : Oxidizers and explosives

Hazardous decomposition

products

No data available

# **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects:

Acute toxicity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Irritation

Eye : Not meet the criteria for classification according to EU Directive

1999/45/EC

Skin : Xi; R38 for classification according to EU Directive 1999/45/EC

Category2 for classification according to EU Directive (EC) No

1272/2008

Corrosivity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Sensitisation

Skin : Not meet the criteria for classification according to EU Directive

1999/45/EC

Carcinogenicity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Not contain any substances listed in IARC Monographs (1,2A

and 2B)

Mutagenicity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Toxicity for reproduction : T; R61,62 for classification according to EU Directive

1999/45/EC

Category1B for classification according to EU Directive (EC) No



1272/2008

# **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity : No data available

Persistence and degradability: No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Results of PBT and vPvB

assessment

Has not carried out PBT and vPvB assessment

Other adverse effects : No data available

# **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods : Dispose of contents/container to an appropriate treatment and

disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

#### **SECTION 14. TRANSPORT INFORMATION**

UN number : Not applicable

UN proper shipping name : Not applicable

Transport hazard class(es) : Not applicable

Packing group : Not applicable

Environmental hazards : Not applicable

Special precautions for user : Not applicable

Transport in bulk according to:

Annex II of MARPOL 73/78

and the IBC Code

Not applicable

# **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the product in question: US Information:

TSCA Section 4(a) Final : Not regulated

Test Rules Regulated

TSCA Section 5 Significant New Use Rule Regulation:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Reference : 40 CFR 721.10229 (Listed)

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Reference : 76 FR 40850 (Proposed)

TSCA Section 8(a) : Not regulated

Preliminary Assessment Information Rule (PAIR)

TSCA Section 12(b) One-Time Export Notification Regulated:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Regulation : TSCA 5 SNUR



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Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Regulation : TSCA 5 Proposed SNUR

Clean Air Act Section 112, : Diethylene glycol diethyl ether 112-36-7

Hazardous Air Pollutants

EPCRA (SARA Title III) : Diethylene glycol diethyl ether 112-36-7

Section 313

NFPA/HMIS Hazard Rating: Health (3), Flammability (2), Instability/Reactivity (0), Other (0)

HMIS Hazard Rating : Health (3), Flammability (2), Instability/Reactivity (0), PPE (D)

California Proposition 65 : Not regulated

# **SECTION 16. OTHER INFORMATION**

Revision Date : 2020-07-01

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

This "Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or use and disposal information which accompanies the product. The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. It is subject to revision from time to time. MUTOH does not warrant the completeness or accuracy of the information contained herein.



# **SAFETY DATA SHEET**

Date of last issue: 2020-07-01 Date of first issue: 2014-10-06

# **SECTION 1. IDENTIFICATION**

Product name : Eco Solvent Ultra White

VJ-MSINK3A-WH220

Manufacturer or supplier's details

Company name of supplier : MUTOH America Inc

Address : 4405 East Baseline Road, Suite 120 Phoenix, Arizona 85042

Telephone : 480-968-7772

Emergency telephone : 480-968-7772

During normal opening times

Recommended use of the chemical and restrictions on use

Recommended use : Inkjet printing

#### SECTION 2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910.1200

Flammable liquid : Category 4

Skin irritation : Category 2

**GHS** label elements

Hazard pictograms



Signal Word : Warning

Hazard Statements : Combustible liquid

Causes skin irritation

Precautionary Statements : Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

Wear protective gloves/protective clothing/eye protection/face

protection. Response:

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/ container in accordance with related laws

and local/regional regulations.

# Description of any hazards not otherwise classified;

Ink contact with skin may cause irritation, swelling or redness.

# **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**



Substance / Mixture : Mixture

**Hazardous ingredients** 

Chemical name	CAS-No.	Concentration (% w/w)
Diethylene glycol diethyl ether	112-36-7	50 - 60
Diethylene Glycol Methyl Ethyl Ether	1002-67-1	15 - 25
Titanium dioxide	13463-67-7	10 - 20
Proprietary organic materials	Trade secret	5 - 15

# **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

Inhalation : Remove subject to ventilated fresh air. If not breathing, give

artificial respiration right away.

If breathing is difficult, give oxygen. Seek immediate medical

attention.

Skin : IF ON SKIN: Wash with plenty of soap and water. Take off

contaminated clothing and wash before reuse.

If skin irritation occurs: Get medical advice/attention.

Eyes : Immediately flush with room temperature, low pressure and

clean water for at least 15 minutes.

Seek medical attention if eye irritation continues.

Ingestion : Seek medical advice; and attention if stomach continues to be

upset.

IF SWALLOWED: Do not induce vomiting.

Most important symptoms and: SI

effects, both acute and delayed

Skin: Ink contact with skin may cause irritation, swelling or

redness.

Indication of any immediate

medical attention and special

treatment needed

Not necessary

# **SECTION 5. FIRE-FIGHTING MEASURES**

**Extinguishing Media** 

Suitable extinguishing media: Water spray

Dry chemical

Carbon dioxide (CO2) Alcohol-resistant foam

Unsuitable extinguishing

media

None known.

Special hazards arising from

the substance or mixture

None

Advice for firefighters : Extinguish to use fire fighting media or plentiful fog water. Put

protection wear without fail in case of fire fighting work; do not

work in the leeward.

# **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

For non-emergency : Eye or Skin protection required during clean-up. Use proper

personnel ventilation.



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For emergency responders: None

Environmental precautions : Do not release to sewer, surface-or ground-water.

Methods and materials for containment and cleaning up

Advice on how to contain:

a spill

Use sponges to wipe-up ink.

Advice how to clean-up

a spill

Rinse area with damp cloth. Place waste in closed container

for disposal. Wash hands with soap and water.

Any other information : Do not dispose of waste to the sewer.

Reference to other sections : Please refer SECTION 13 for disposal.

#### **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling

Recommendations : Use p

Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink ink.

Do not dismantle cartridge.

Advice on general occupational hygiene

Avoid contact with skin, eyes or clothing.

In the case of skin contact, wash with soap and water.

Conditions for safe storage, including any incompatibilities

Do not store the cartridge in high or freezing temperatures.

Keep cartridge out of direct sunlight.

Do not store the cartridge with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.

Specific end use(s): : Not specified.

# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

# Control parameters:

Diethylene glycol diethyl ether(CAS No.112-36-7)

California OELs(California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)

The 8-Hour TWA Exposure Value:5 ppm
The 8-Hour TWA Exposure Value:33mg/m3

**Exposure Controls** 

Appropriate engineering

controls

Proper ventilation, in prevention.

Individual protection measures, such as personal protective equipment

Use of personal protective equipment

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Detailed specification on equipment to provide adequate and suitable protection

(a) eye/face protection:

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear eye

protection/ face protection.

(b) skin protection:

hand protection &

Not required under suitable use as setting the cartridge on the

printer.

others If there is a possibility of exposure to raw ink: Wear protective

gloves/ protective clothing



# SDS-VJMSINK3AWH-04US 4 / 7

(c) respiratory protection

Not required under suitable use as setting the cartridge on the

printer.

(d) thermal hazards : Not required under suitable use as setting the cartridge on the

printer.

Environmental exposure

controls

Not established

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties:

Appearance : liquid

Color : white

Odor : Slightly

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling:

range

No data available

Flash point : 73.7 °C

Method: Seta closed cup

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit / Upper :

flammability limit

No data available

Lower explosion limit / Lower :

flammability limit

No data available

Vapor pressure : No data available

Vapor density : No data available

Relative density : No data available

Solubility(ies) : Soluble

Partition coefficient:

n-octanol/water

No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity : Less than 5 mPa·s at 20°C

Explosive properties : None

Oxidizing properties : None



Particle size : Not applicable

# **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under normal temperature

Chemical stability : Stable under normal temperature

Possibility of hazardous

reactions

None

Conditions to avoid : High and freezing temperatures

Incompatible materials : Oxidizers and explosives

Hazardous decomposition

products

No data available

# **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects:

Acute toxicity : Oral LD50: Not meet the criteria for classification according to

EU Directive 1999/45/EC

Dermal LD50: Not meet the criteria for classification according to

EU Directive 1999/45/EC

Irritation

Eye : Not meet the criteria for classification according to EU Directive

1999/45/EC

Skin : Xi; R38 for classification according to EU Directive 1999/45/EC

Category2 for classification according to EU Directive (EC) No

1272/2008

Corrosivity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Sensitisation

Skin : Not meet the criteria for classification according to EU Directive

1999/45/EC

Carcinogenicity : Titanium dioxide is classified as "possibly carcinogen to human"

(Group 2B) in animal chronic inhalation studies. The tumor formulation observed in only rats with animal chronic inhalation study are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Use of this product, as intended does not result in inhalation of excessive dust. Epidemiological study to date have not revealed any evidence of the relation between exposure to titanium dioxide and diseases of the reparatory tract

beyond general effects of dust.

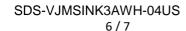
Mutagenicity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Toxicity for reproduction : Not meet the criteria for classification according to EU Directive

1999/45/EC

# **SECTION 12. ECOLOGICAL INFORMATION**





Toxicity : No data available

Persistence and degradability: No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Results of PBT and vPvB

assessment

Has not carried out PBT and vPvB assessment

Other adverse effects : No data available

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods : Dispose of contents/container to an appropriate treatment and

disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

# **SECTION 14. TRANSPORT INFORMATION**

UN number : Not applicable

UN proper shipping name : Not applicable

Transport hazard class(es) : Not applicable

Packing group : Not applicable

Environmental hazards : Not applicable

Special precautions for user : Not applicable

Transport in bulk according to:

Annex II of MARPOL 73/78

and the IBC Code

Not applicable

# **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the product in question: US Information:

TSCA Section 4(a) Final : Not regulated

Test Rules Regulated

TSCA Section 5 Significant New Use Rule Regulation:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Reference : 40 CFR 721.10229 (Listed)

TSCA Section 8(a) : Not regulated

Preliminary Assessment Information Rule (PAIR)

TSCA Section 12(b) One-Time Export Notification Regulated:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Regulation : TSCA 5 SNUR

Clean Air Act Section 112, : Diethylene glycol diethyl ether 112-36-7 Hazardous Air Pollutants Diethylene Glycol Methyl Ethyl Ether 1002-67-1

EPCRA (SARA Title III) : Diethylene glycol diethyl ether 112-36-7 Section 313 : Diethylene Glycol Methyl Ethyl Ether 1002-67-1





NFPA/HMIS Hazard Rating: Health (1), Flammability (2), Instability/Reactivity (0), Other (0)

HMIS Hazard Rating : Health (1), Flammability (2), Instability/Reactivity (0), PPE (D)

California Proposition 65

 $\Lambda$ 

**WARNING:** This product can expose you to chemicals including Titanium dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

# **SECTION 16. OTHER INFORMATION**

Revision Date : 2020-07-01

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

This "Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or use and disposal information which accompanies the product. The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. It is subject to revision from time to time. MUTOH does not warrant the completeness or accuracy of the information contained herein.



# **SAFETY DATA SHEET**

Date of last issue: 2020-07-01 Date of first issue: 2013-06-13

# **SECTION 1. IDENTIFICATION**

Product name : Eco Solvent Ultra Yellow

VJ-MSINK3A-YE220 / VJ-MSINK3A-YE440 /

VJ-MSINK3A-YE1000

Manufacturer or supplier's details

Company name of supplier : MUTOH America Inc

Address : 4405 East Baseline Road, Suite 120 Phoenix, Arizona 85042

Telephone : 480-968-7772

Emergency telephone : 480-968-7772

During normal opening times

Recommended use of the chemical and restrictions on use

Recommended use : Inkjet printing

#### **SECTION 2. HAZARDS IDENTIFICATION**

GHS Classification in accordance with 29 CFR 1910.1200

Flammable liquid : Category 4

Skin irritation : Category 2

Serious eye damage : Category 1

Reproductive toxicity : Category 1B

**GHS** label elements

Hazard pictograms :





Signal Word : Danger

Hazard Statements : Combustible liquid

Causes skin irritation

Causes serious eye damage

May damage fertility or the unborn child

Precautionary Statements : **Prevention:** 

Do not handle until all safety precautions have been read and

understood.

Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

Wear protective gloves/protective clothing/eye protection/face

protection. **Response:** 

IF exposed or concerned: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue



rinsing. **Storage:** 

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/ container in accordance with related laws

and local/ regional regulations.

## Description of any hazards not otherwise classified;

Ink contact with skin may cause irritation, swelling or redness.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Diethylene glycol diethyl ether	112-36-7	55 - 65
Tetraethylene glycol dimethyl ether	143-24-8	10 - 20
Gamma-butyrolactone	96-48-0	< 20
Proprietary organic materials	Trade secret	1 - 10
Tetraethylene glycol monobutyl ether	1559-34-8	1 - 5
Colorant	1333-86-4	1 - 5

## **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

Inhalation : IF exposed or concerned: Get medical advice/attention.

Remove subject to ventilated fresh air. If not breathing, give

artificial respiration right away.

If breathing is difficult, give oxygen.

Skin : IF ON SKIN: Wash with plenty of soap and water. Take off

contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.

Eyes : Immediately flush with room temperature, low pressure and

clean water for at least 15 minutes.

Seek medical attention if eye irritation continues.

Ingestion : IF exposed or concerned: Get medical advice/attention.

IF SWALLOWED: Do not induce vomiting.

Most important symptoms and:

effects, both acute and delayed

Skin: Ink contact with skin may cause irritation, swelling or

redness.

Indication of any immediate medical attention and special

treatment needed

Not necessary

## **SECTION 5. FIRE-FIGHTING MEASURES**

**Extinguishing Media** 

Suitable extinguishing media: Water spray

Dry chemical

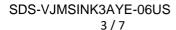
Carbon dioxide (CO2) Alcohol-resistant foam

Unsuitable extinguishing

media

None known.

Special hazards arising from : None





the substance or mixture

: Extinguish to use fire fighting media or plentiful fog water. Put Advice for firefighters

protection wear without fail in case of fire fighting work; do not

work in the leeward.

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

For non-emergency

Eye or Skin protection required during clean-up. Use proper

personnel ventilation.

For emergency responders: None

Environmental precautions Do not release to sewer, surface-or ground-water.

Methods and materials for containment and cleaning up

Advice on how to contain : Use sponges to wipe-up ink.

a spill

Advice how to clean-up

a spill

Rinse area with damp cloth. Place waste in closed container

for disposal. Wash hands with soap and water.

Any other information Do not dispose of waste to the sewer.

Reference to other sections Please refer SECTION 13 for disposal.

#### SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Recommendations Obtain special instructions before use.

Do not handle until all safety precautions have been read and

understood.

Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink ink.

Do not dismantle cartridge.

Advice on general occupational hygiene Avoid contact with skin, eyes or clothing.

In the case of skin contact, wash with soap and water.

Conditions for safe storage, including any incompatibilities Store locked up.

Do not store the cartridge in high or freezing temperatures.

Keep cartridge out of direct sunlight.

Do not store the cartridge with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.

Specific end use(s): Not specified.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Diethylene glycol diethyl ether(CAS No.112-36-7)

California OELs(California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)

The 8-Hour TWA Exposure Value:5 ppm

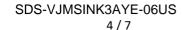
The 8-Hour TWA Exposure Value:33mg/m3

**Exposure Controls** 

Appropriate engineering : Proper ventilation.

controls

Individual protection measures, such as personal protective equipment





Use of personal protective Equipment Not required under suitable use as setting the cartridge on the

printer under ventilation.

If there is a possibility of exposure to raw ink: Wear protective gloves/ protective clothing/ eye protection/ face protection/

respiratory protection.

Detailed specification on equipment to provide adequate and suitable protection

(a) eye/face protection: Not required under suitable use as setting the cartridge on the

If there is a possibility of exposure to raw ink: Wear eye

protection/ face protection.

(b) skin protection: hand protection &

Others

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear protective

gloves/ protective clothing

(c) respiratory protection

Not required under suitable use as setting the cartridge on the

printer under ventilation.

In case of inadequate ventilation wear respiratory protection.

(d) thermal hazards Not required under suitable use as setting the cartridge on the

printer.

Environmental exposure

controls

Not established

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties:

**Appearance** liquid

Color vellow

Odor Slightly

Odor Threshold No data available

pН No data available

Melting point/freezing point No data available

Initial boiling point and boiling:

range

No data available

about 71 °C Flash point

Method: Seta closed cup

Evaporation rate No data available

Flammability (solid, gas) Not applicable

Flammability (liquids) No data available

Upper explosion limit / Upper

flammability limit

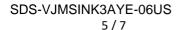
No data available

Lower explosion limit / Lower :

flammability limit

No data available

Vapor pressure No data available





Vapor density : Greater than 1(air=1)

Relative density : No data available

Solubility(ies) : Soluble

Partition coefficient:

Autoignition temperature

No data available

n-octanol/water

: No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Explosive limits:1.4-6.9v/v% as Gamma-butyrolactone

Oxidizing properties : None

Particle size : Not applicable

## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under normal temperature

Chemical stability : Stable under normal temperature

Possibility of hazardous

reactions

None

Conditions to avoid : High and freezing temperatures

Incompatible materials : Oxidizers and explosives

Hazardous decomposition

products

No data available

## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects:

Acute toxicity : Oral LD50: > 2500 mg/kg (Rat)

Dermal LD50: > 2000 mg/kg (Rat)

Irritation

Eye : Corrosive effects (Rabbit, OECD 405)

Xi; R-41 for classification according to EU Directive 1999/45/EC Category1 for classification according to EU Directive (EC) No

1272/2008

Skin : Mild irritant (Rabbit, OECD 404)

Corrosivity : Not meet the criteria for classification according to EU Directive

1999/45/EC

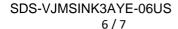
Sensitisation

Skin : Non-sensitizer (LLNA, OECD 429)

Carcinogenicity : Contains Nickel compounds

IARC : Group 1

NTP : Known to be human carcinogen





Proposition 65 : Known to cause cancer

Mutagenicity : Negative (by Ames Test)

Toxicity for reproduction : T; R61,62 for classification according to EU Directive

1999/45/EC

Category1B for classification according to EU Directive (EC) No

1272/2008

# **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity : No data available

Persistence and degradability : No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Results of PBT and vPvB

assessment

: Has not carried out PBT and vPvB assessment

Other adverse effects : No data available

## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods : Disposal should be in accordance with federal, state, and local

requirements.

in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

## **SECTION 14. TRANSPORT INFORMATION**

UN number : Not applicable

UN proper shipping name : Not applicable

Transport hazard class(es) : Not applicable

Packing group : Not applicable

Environmental hazards : Not applicable

Special precautions for user : Not applicable

Transport in bulk according to : Annex II of MARPOL 73/78

and the IBC Code

Not applicable

## **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the product in question: US Information:

TSCA Section 4(a) Final : Not regulated

Test Rules Regulated

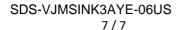
TSCA Section 5 Significant New Use Rule Regulation:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Reference : 40 CFR 721.10229 (Listed)

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Reference : 76 FR 40850 (Proposed)





TSCA Section 8(a) : Not regulated

Preliminary Assessment Information Rule (PAIR)

TSCA Section 12(b) One-Time Export Notification Regulated:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Regulation : TSCA 5 SNUR

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Regulation : TSCA 5 Proposed SNUR

Clean Air Act Section 112, : Diethylene glycol diethyl ether 112-36-7

Hazardous Air Pollutants

EPCRA (SARA Title III) : Diethylene glycol diethyl ether 112-36-7

Section 313

NFPA/HMIS Hazard Rating: Health (3), Flammability (2), Instability/Reactivity (0), Other (0)

HMIS Hazard Rating : Health (3), Flammability (2), Instability/Reactivity (0), PPE (D)

California Proposition 65 : MARNING: 7

**WARNING:** This product can expose you to chemicals including Nickel compounds, which is known to the State

of California to cause cancer. For more information go to

www.P65 Warnings.ca.gov.

## **SECTION 16. OTHER INFORMATION**

Revision Date : 2020-07-01

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

This "Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or use and disposal information which accompanies the product. The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. It is subject to revision from time to time. MUTOH does not warrant the completeness or accuracy of the information contained herein.



# **SAFETY DATA SHEET**

Date of last issue: 2020-07-01 Date of first issue: 2013-06-13

## **SECTION 1. IDENTIFICATION**

Product name : Eco Solvent Ultra Cleaner

VJ-MSINK3-CL220 / VJ-MSINK3-CL1000

Manufacturer or supplier's details

Company name of supplier : MUTOH America Inc

Address : 4405 East Baseline Road, Suite 120 Phoenix, Arizona 85042

Telephone : 480-968-7772

Emergency telephone : 480-968-7772

During normal opening times

Recommended use of the chemical and restrictions on use

Recommended use : Inkjet printing

## **SECTION 2. HAZARDS IDENTIFICATION**

GHS Classification in accordance with 29 CFR 1910.1200

Flammable liquid : Category 4

Skin irritation : Category 2

**GHS** label elements

Hazard pictograms



Signal Word : Warning

Hazard Statements : Combustible liquid

Causes skin irritation

Precautionary Statements : Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

Wear protective gloves/protective clothing/eye protection/face

protection. Response:

IF ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/ container in accordance with related laws

and local/ regional regulations.

# Description of any hazards not otherwise classified;

Ink contact with skin may cause irritation, swelling or redness.

## **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**



Substance / Mixture : Mixture

**Hazardous ingredients** 

Chemical name	CAS-No.	Concentration (% w/w)
Dipropylene Glycol Monomethyl Ether	34590-94-8	35 - 45
Diethylene glycol diethyl ether	112-36-7	35 - 45
Triethylene glycol monomethyl ether	112-35-6	15 - 25

## **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

Inhalation : IF exposed or concerned: Get medical advice/attention.

Remove subject to ventilated fresh air. If not breathing, give

artificial respiration right away.

If breathing is difficult, give oxygen. Seek immediate medical

attention.

Skin : IF ON SKIN: Wash with plenty of soap and water. Take off

contaminated clothing and wash before reuse.

If skin irritation occurs: Get medical advice/attention.

Eyes : Immediately flush with room temperature, low pressure and

clean water for at least 15 minutes.

Seek medical attention if eye irritation continues.

Ingestion : Seek medical advice; and attention if stomach continues to be

upset.

IF SWALLOWED: Do not induce vomiting.

Most important symptoms and : Skin: The liquid contact with skin may cause irritation, swelling

effects, both acute and delayed or redness.

Indication of any immediate medical attention and special

treatment needed

Not necessary

## **SECTION 5. FIRE-FIGHTING MEASURES**

Extinguishing Media

Suitable extinguishing media: Water spray

Dry chemical

Carbon dioxide (CO2) Alcohol-resistant foam

Unsuitable extinguishing

media

None known.

Special hazards arising from

the substance or mixture

None

Advice for firefighters : Extinguish to use fire fighting media or plentiful fog water. Put

protection wear without fail in case of fire fighting work; do not

work in the leeward.

# **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

For non-emergency : Eye or Skin protection required during clean-up. Use proper

personnel ventilation.





For emergency responders: None

**Environmental precautions** Do not release to sewer, surface-or ground-water.

Methods and materials for containment and cleaning up

a spill

Advice on how to contain : Use sponges to wipe-up ink.

Advice how to clean-up

Rinse area with damp cloth. Place waste in closed container

for disposal. Wash hands with soap and water.

Any other information Do not dispose of waste to the sewer.

Please refer SECTION 13 for disposal. Reference to other sections

#### SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Recommendations Use proper ventilation and no fire in work place.

Keep out of reach of children and do not drink ink.

Do not dismantle cartridge.

Advice on general

occupational hygiene

: Avoid contact with skin, eves or clothing.

In the case of skin contact, wash with soap and water.

Conditions for safe storage. including any incompatibilities Do not store the cartridge in high or freezing temperatures.

Keep cartridge out of direct sunlight.

Do not store the cartridge with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.

Specific end use(s): Not specified.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Control parameters:

Dipropylene glycol monomethyl ether(CAS No.34590-94-8)

ACGIH: TLV

TWA: 100ppm STEL: 150ppm

USA OSHA:

**PEL** 

TWA: 600mg/m3, 100ppm STEL: 900mg/m3, 150ppm

## Dipropylene glycol monomethyl ether (CAS No. 34590-94-8)

California OELs (California Code of Regulations, Title 8, Section 5155, Airborne Contaminants)

The 8-Hour TWA Exposure Value: 100 ppm The 8-Hour TWA Exposure Value: 600 mg/m3

## Diethylen glycol diethyl ether(CAS No.112-36-7)

California OELs (California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)

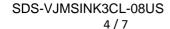
The 8-Hour TWA Exposure Value:5 ppm The 8-Hour TWA Exposure Value:33mg/m3

## **Exposure Controls**

Appropriate engineering : Proper ventilation, in prevention.

controls

Individual protection measures, such as personal protective equipment





Use of personal protective equipment

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw liquid: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Detailed specification on equipment to provide adequate and suitable protection

(a) eye/face protection:

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw liquid: Wear eye

protection/ face protection.

(b) skin protection: hand protection &

others

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw liquid: Wear protective

gloves/ protective clothing

(c) respiratory protection

Not required under suitable use as setting the cartridge on the

printer.

(d) thermal hazards : Not required under suitable use as setting the cartridge on the

printer.

Environmental exposure

controls

Not established

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties:

Appearance : liquid

Color : clear

Odor : Slightly

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling:

range

No data available

Flash point : 76 °C

Method: Seta closed cup

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit / Upper :

flammability limit

No data available

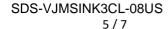
Lower explosion limit / Lower :

flammability limit

No data available

Vapor pressure : No data available

Vapor density : No data available





Relative density : No data available

Solubility(ies) : Soluble

Partition coefficient:

: No data available

n-octanol/water

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity : Less than 5 mPa·s at 20°C

Explosive properties : Explosive limits: 1.3~10.4v/v% as Dipropylene glycol

monomethyl ether

Oxidizing properties : None

Particle size : Not applicable

## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under normal temperature

Chemical stability : Stable under normal temperature

Possibility of hazardous

reactions

None

Conditions to avoid : High and freezing temperatures

Incompatible materials : Oxidizers and explosives

Hazardous decomposition

products

No data available

## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects:

Acute toxicity : Oral LD50: Not meet the criteria for classification according to

EU Directive 1999/45/EC

Dermal LD50: Not meet the criteria for classification according to

EU Directive 1999/45/EC

Irritation

Eye : Mild irritant (Rabbit, OECD 405)

Skin : Mild irritant (Rabbit, OECD 404)

Corrosivity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Sensitisation

Skin : Not meet the criteria for classification according to EU Directive

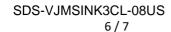
1999/45/EC

Carcinogenicity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Not contain any substances listed in IARC Monographs (1,2A

and 2B)





Mutagenicity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Negative (by Ames Test)

Toxicity for reproduction : Not meet the criteria for classification according to EU Directive

1999/45/EC

## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity : No data available

Persistence and degradability: No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Results of PBT and vPvB

assessment

: Has not carried out PBT and vPvB assessment

Other adverse effects : No data available

## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods : Disposal should be in accordance with federal, state, and local

requirements.

in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

## **SECTION 14. TRANSPORT INFORMATION**

UN number : Not applicable

UN proper shipping name : Not applicable

Transport hazard class(es) : Not applicable

Packing group : Not applicable

Environmental hazards : Not applicable

Special precautions for user : Not applicable

Transport in bulk according to : Annex II of MARPOL 73/78

and the IBC Code

Not applicable

# **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the product in question: US Information:

TSCA Section 4(a) Final : Not regulated

Test Rules Regulated

TSCA Section 5 Significant New Use Rule Regulation:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Reference : 40 CFR 721.10229 (Listed)

TSCA Section 8(a) : Not regulated

Preliminary Assessment Information Rule (PAIR)



TSCA Section 12(b) One-Time Export Notification Regulated:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Regulation : TSCA 5 SNUR

Clean Air Act Section 112, : Diethylene glycol diethyl ether 112-36-7

Hazardous Air Pollutants

EPCRA (SARA Title III) : Diethylene glycol diethyl ether 112-36-7

Section 313

NFPA/HMIS Hazard Rating: Health (1), Flammability (2), Instability/Reactivity (0), Other (0)

HMIS Hazard Rating : Health (1), Flammability (2), Instability/Reactivity (0), PPE (D)

California Proposition 65 : Not regulated

## **SECTION 16. OTHER INFORMATION**

Revision Date : 2020-07-01

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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# **SAFETY DATA SHEET**

Date of last issue: 2020-07-01 Date of first issue: 2013-06-13

## **SECTION 1. IDENTIFICATION**

Product name : Eco Solvent Ultra Light Cyan

VJ-MSINK3-LC220 / VJ-MSINK3-LC440

Manufacturer or supplier's details

Company name of supplier : MUTOH America Inc

Address : 4405 East Baseline Road, Suite 120 Phoenix, Arizona 85042

Telephone : 480-968-7772

Emergency telephone : 480-968-7772

During normal opening times

Recommended use of the chemical and restrictions on use

Recommended use : Inkjet printing

#### SECTION 2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910.1200

Flammable liquid : Category 4

Skin irritation : Category 2

Reproductive toxicity : Category 1B

**GHS** label elements

Hazard pictograms



Signal Word : Danger

Hazard Statements : Combustible liquid

Causes skin irritation

May damage fertility or the unborn child

Precautionary Statements : Prevention:

Do not handle until all safety precautions have been read and

understood.

Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

Wear protective gloves/protective clothing/eye protection/face

protection. Response:

IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/ container in accordance with related laws

and local/ regional regulations.



# Description of any hazards not otherwise classified;

Ink contact with skin may cause irritation, swelling or redness.

## **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous ingredients** 

Chemical name	CAS-No.	Concentration (% w/w)
Diethylene glycol diethyl ether	112-36-7	55 - 65
Tetraethylene glycol dimethyl ether	143-24-8	10 - 20
Gamma-butyrolactone	96-48-0	< 20
Proprietary organic materials	Trade secret	1 - 5
Tetraethylene glycol monobutyl ether	1559-34-8	1 - 5
Colorant	Trade secret	< 1

## **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

Inhalation : IF exposed or concerned: Get medical advice/attention.

Remove subject to ventilated fresh air. If not breathing, give

artificial respiration right away.

If breathing is difficult, give oxygen.

Skin : IF ON SKIN: Wash with plenty of soap and water. Take off

contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.

Eyes : Immediately flush with room temperature, low pressure and

clean water for at least 15 minutes.

Seek medical attention if eye irritation continues.

Ingestion : IF exposed or concerned: Get medical advice/attention.

IF SWALLOWED: Do not induce vomiting.

Most important symptoms and : Skin: Ink contact with skin may cause irritation, swelling or

effects, both acute and delayed redness.

Indication of any immediate medical attention and special

treatment needed

Not necessary

## **SECTION 5. FIRE-FIGHTING MEASURES**

**Extinguishing Media** 

Suitable extinguishing media: Water spray

Dry chemical

Carbon dioxide (CO2) Alcohol-resistant foam

Unsuitable extinguishing

media

None known.

Special hazards arising from

the substance or mixture

None

Advice for firefighters : Extinguish to use fire fighting media or plentiful fog water. Put

protection wear without fail in case of fire fighting work; do not

work in the leeward.





Personal precautions, protective equipment and emergency procedures

For non-emergency

personnel

: Eye or Skin protection required during clean-up. Use proper

ventilation.

For emergency responders: None

**Environmental precautions** Do not release to sewer, surface-or ground-water.

Methods and materials for containment and cleaning up

Advice on how to contain: Use sponges to wipe-up ink.

a spill

Advice how to clean-up

a spill

Rinse area with damp cloth. Place waste in closed container

for disposal. Wash hands with soap and water.

Any other information Do not dispose of waste to the sewer.

Reference to other sections Please refer SECTION 13 for disposal.

## **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling

Recommendations Obtain special instructions before use.

Do not handle until all safety precautions have been read and

understood.

Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink ink.

Do not dismantle cartridge.

Advice on general

occupational hygiene

Avoid contact with skin, eyes or clothing.

In the case of skin contact, wash with soap and water.

Conditions for safe storage.

including any incompatibilities

Store locked up.

Do not store the cartridge in high or freezing temperatures.

Keep cartridge out of direct sunlight.

Do not store the cartridge with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.

Specific end use(s): Not specified.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters:

Diethylene glycol diethyl ether(CAS No.112-36-7)

California OELs(California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)

The 8-Hour TWA Exposure Value:5 ppm The 8-Hour TWA Exposure Value:33mg/m3

**Exposure Controls** 

Appropriate engineering : Proper ventilation.

controls

Individual protection measures, such as personal protective equipment

Use of personal

Not required under suitable use as setting the cartridge on the

protective equipment printer under ventilation.

> If there is a possibility of exposure to raw ink: Wear protective gloves/ protective clothing/ eye protection/ face protection/

respiratory protection.

Detailed specification on equipment to provide adequate and suitable protection



## SDS-VJMSINK3LC-08US 4/7

(a) eye/face protection : Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear eye

protection/ face protection.

(b) skin protection: hand protection &

others

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear protective

gloves/ protective clothing

(c) respiratory protection

Not required under suitable use as setting the cartridge on the

printer under ventilation.

In case of inadequate ventilation wear respiratory protection.

(d) thermal hazards : Not required under suitable use as setting the cartridge on the

printer.

Environmental exposure

controls

Not established

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties:

Appearance : liquid

Color : cyan

Odor : Slightly

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling:

range

No data available

Flash point : about 71 °C

Method: Seta closed cup

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit / Upper :

flammability limit

No data available

Lower explosion limit / Lower :

flammability limit

No data available

Vapor pressure : No data available

Vapor density : Greater than 1(air=1)

Relative density : No data available

Solubility(ies) : Soluble

Partition coefficient: : No data available



n-octanol/water

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Explosive limits: 1.4-6.9v/v% as Gamma-butyrolactone

Oxidizing properties : None

Particle size : Not applicable

# **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under normal temperature

Chemical stability : Stable under normal temperature

Possibility of hazardous

reactions

None

Conditions to avoid : High and freezing temperatures

Incompatible materials : Oxidizers and explosives

Hazardous decomposition

products

No data available

## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects:

Acute toxicity : Oral LD50: > 2500 mg/kg (Rat)

Dermal LD50: > 2000 mg/kg (Rat)

Irritation

Eye : Mild irritant (Rabbit, OECD 405)

Skin : Mild irritant (Rabbit, OECD 404)

Corrosivity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Sensitisation

Skin : Non-sensitizer (LLNA, OECD 429)

Carcinogenicity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Not contain any substances listed in IARC Monographs (1,2A

and 2B)

Mutagenicity : Negative (by Ames Test)

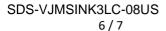
Toxicity for reproduction : T; R61,62 for classification according to EU Directive

1999/45/EC

Category1B for classification according to EU Directive (EC) No

1272/2008

## **SECTION 12. ECOLOGICAL INFORMATION**





Toxicity : No data available

Persistence and degradability: No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Results of PBT and vPvB

assessment

: Has not carried out PBT and vPvB assessment

Other adverse effects : No data available

## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods : Disposal should be in accordance with federal, state, and local

requirements.

in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

## **SECTION 14. TRANSPORT INFORMATION**

UN number : Not applicable

UN proper shipping name : Not applicable

Transport hazard class(es) : Not applicable

Packing group : Not applicable

Environmental hazards : Not applicable

Special precautions for user : Not applicable

Transport in bulk according to:

Annex II of MARPOL 73/78

and the IBC Code

Not applicable

## **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the product in question: US Information:

TOOM Continue 4/s

TSCA Section 4(a) Final : Not regulated

Test Rules Regulated

TSCA Section 5 Significant New Use Rule Regulation:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Reference : 40 CFR 721.10229 (Listed)

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Reference: 76 FR 40850 (Proposed)

TSCA Section 8(a) : Not regulated

Preliminary Assessment Information Rule (PAIR)

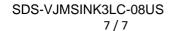
TSCA Section 12(b) One-Time Export Notification Regulated:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Regulation : TSCA 5 SNUR

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Regulation : TSCA 5 Proposed SNUR





Clean Air Act Section 112, : Diethylene glycol diethyl ether 112-36-7

Hazardous Air Pollutants

EPCRA (SARA Title III) : Diethylene glycol diethyl ether 112-36-7

Section 313

NFPA/HMIS Hazard Rating: Health (3), Flammability (2), Instability/Reactivity (0), Other (0)

HMIS Hazard Rating : Health (3), Flammability (2), Instability/Reactivity (0), PPE (D)

California Proposition 65 : Not regulated

## **SECTION 16. OTHER INFORMATION**

Revision Date : 2020-07-01

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

This "Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or use and disposal information which accompanies the product. The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. It is subject to revision from time to time. MUTOH does not warrant the completeness or accuracy of the information contained herein.



# **SAFETY DATA SHEET**

Date of last issue: 2020-07-01 Date of first issue: 2013-06-13

## **SECTION 1. IDENTIFICATION**

Product name : Eco Solvent Ultra Light Black

VJ-MSINK3-LK440

Manufacturer or supplier's details

Company name of supplier : MUTOH America Inc

Address : 4405 East Baseline Road, Suite 120 Phoenix, Arizona 85042

Telephone : 480-968-7772

Emergency telephone : 480-968-7772

During normal opening times

Recommended use of the chemical and restrictions on use

Recommended use : Inkjet printing

#### SECTION 2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910.1200

Flammable liquid : Category 4

Skin irritation : Category 2

Reproductive toxicity : Category 1B

**GHS** label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Combustible liquid

Causes skin irritation

May damage fertility or the unborn child

Precautionary Statements : Prevention:

Do not handle until all safety precautions have been read and

understood.

Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

Wear protective gloves/protective clothing/eye protection/face

protection. Response:

IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/ container in accordance with related laws

and local/ regional regulations.



# Description of any hazards not otherwise classified;

Ink contact with skin may cause irritation, swelling or redness.

## **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous ingredients** 

Chemical name	CAS-No.	Concentration (% w/w)
Diethylene glycol diethyl ether	112-36-7	40 - 50
Tetraethylene glycol dimethyl ether	143-24-8	10 - 20
Gamma-butyrolactone	96-48-0	< 20
Proprietary organic materials	Trade secret	5 – 10
Diethylene Glycol Methyl Ethyl Ether	1002-67-1	15 - 25
Carbon black	1333-86-4	< 1

## **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

Inhalation : IF exposed or concerned: Get medical advice/attention.

Remove subject to ventilated fresh air. If not breathing, give

artificial respiration right away.

If breathing is difficult, give oxygen.

Skin : IF ON SKIN: Wash with plenty of soap and water. Take off

contaminated clothing and wash before reuse.

If skin irritation occurs: Get medical advice/attention.

Eyes : Immediately flush with room temperature, low pressure and

clean water for at least 15 minutes.

Seek medical attention if eye irritation continues.

Ingestion : IF exposed or concerned: Get medical advice/attention.

IF SWALLOWED: Do not induce vomiting.

Most important symptoms and : Skin: Ink contact with skin may cause irritation, swelling or

effects, both acute and delayed redness.

Indication of any immediate medical attention and special

treatment needed

Not necessary

## **SECTION 5. FIRE-FIGHTING MEASURES**

**Extinguishing Media** 

Suitable extinguishing media: Water spray

Dry chemical

Carbon dioxide (CO2) Alcohol-resistant foam

Unsuitable extinguishing

media

None known.

Special hazards arising from

the substance or mixture

None

Advice for firefighters : Extinguish to use fire fighting media or plentiful fog water. Put

protection wear without fail in case of fire fighting work; do not

work in the leeward.

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**





Personal precautions, protective equipment and emergency procedures

For non-emergency

: Eye or Skin protection required during clean-up. Use proper

personnel

ventilation.

For emergency responders: None

**Environmental precautions** Do not release to sewer, surface-or ground-water.

Methods and materials for containment and cleaning up

Advice on how to contain: Use sponges to wipe-up ink.

a spill

Advice how to clean-up

a spill

Rinse area with damp cloth. Place waste in closed container

for disposal. Wash hands with soap and water.

Any other information Do not dispose of waste to the sewer.

Reference to other sections Please refer SECTION 13 for disposal.

## **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling

Recommendations Obtain special instructions before use.

Do not handle until all safety precautions have been read and

understood.

Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink ink.

Do not dismantle cartridge.

Advice on general

occupational hygiene

Avoid contact with skin, eyes or clothing.

In the case of skin contact, wash with soap and water.

Conditions for safe storage.

including any incompatibilities

Store locked up.

Do not store the cartridge in high or freezing temperatures.

Keep cartridge out of direct sunlight.

Do not store the cartridge with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.

Specific end use(s): Not specified.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters:

Diethylene glycol diethyl ether(CAS No.112-36-7)

California OELs(California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)

The 8-Hour TWA Exposure Value:5 ppm The 8-Hour TWA Exposure Value:33mg/m3

**Exposure Controls** 

Appropriate engineering

: Proper ventilation.

controls

Individual protection measures, such as personal protective equipment

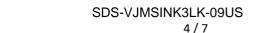
Use of personal protective Equipment Not required under suitable use as setting the cartridge on the

printer under ventilation.

If there is a possibility of exposure to raw ink: Wear protective gloves/ protective clothing/ eye protection/ face protection/

respiratory protection.

Detailed specification on equipment to provide adequate and suitable protection





Not required under suitable use as setting the cartridge on the (a) eye/face protection:

printer.

If there is a possibility of exposure to raw ink: Wear eye

protection/ face protection.

(b) skin protection: hand protection &

others

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear protective

gloves/ protective clothing

(c) respiratory

protection

Not required under suitable use as setting the cartridge on the

printer under ventilation.

In case of inadequate ventilation wear respiratory protection.

Not required under suitable use as setting the cartridge on the (d) thermal hazards

printer.

Environmental exposure

controls

Not established

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties:

liquid **Appearance** 

Color black

Odor Slightly

Odor Threshold No data available

pН No data available

Melting point/freezing point No data available

Initial boiling point and boiling:

range

No data available

about 71 °C Flash point

Method: Seta closed cup

Evaporation rate No data available

Flammability (solid, gas) Not applicable

Flammability (liquids) No data available

Upper explosion limit / Upper :

flammability limit

No data available

Lower explosion limit / Lower :

flammability limit

No data available

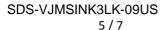
Vapor pressure No data available

Vapor density Greater than 1(air=1)

Relative density No data available

Solubility(ies) Soluble

Partition coefficient: No data available





n-octanol/water

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Explosive limits:1.4-6.9v/v% as Gamma-butyrolactone

Oxidizing properties : None

Particle size : Not applicable

## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under normal temperature

Chemical stability : Stable under normal temperature

Possibility of hazardous

reactions

None

Conditions to avoid : High and freezing temperatures

Incompatible materials : Oxidizers and explosives

Hazardous decomposition

products

No data available

## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects:

Acute toxicity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Irritation

Eye : Not meet the criteria for classification according to EU Directive

1999/45/EC

Skin : Xi; R38 for classification according to EU Directive 1999/45/EC

Cat.2 (classification according to EU Directive (EC) No

1272/2008)

Corrosivity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Sensitisation

Skin : Not meet the criteria for classification according to EU Directive

1999/45/EC

Carcinogenicity : With excessive exposure, carbon black has been listed as a

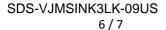
possible human carcinogen.

However, as engineered within this ink cartridge, emissions to air of carbon black during normal printing use have not been found. IARC, the International Agency for Research on Cancer,

has found printing inks to be not classifiable as human

carcinogens.

Mutagenicity : Negative (by Ames Test)





Toxicity for reproduction : T; R61,62 for classification according to EU Directive

1999/45/EC

Category1B for classification according to EU Directive (EC) No

1272/2008

## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity : No data available

Persistence and degradability: No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Results of PBT and vPvB

assessment

Has not carried out PBT and vPvB assessment

Other adverse effects : No data available

## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods : Disposal should be in accordance with federal, state, and local

requirements.

in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

## **SECTION 14. TRANSPORT INFORMATION**

UN number : Not applicable

UN proper shipping name : Not applicable

Transport hazard class(es) : Not applicable

Packing group : Not applicable

Environmental hazards : Not applicable

Special precautions for user : Not applicable

Transport in bulk according to:

Annex II of MARPOL 73/78

and the IBC Code

Not applicable

## **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the product in question: US Information:

TSCA Section 4(a) Final : Not regulated

Test Rules Regulated

TSCA Section 5 Significant New Use Rule Regulation:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Reference : 40 CFR 721.10229 (Listed)

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Reference : 76 FR 40850 (Proposed)

TSCA Section 8(a) : Not regulated

Preliminary Assessment



## Information Rule (PAIR)

TSCA Section 12(b) One-Time Export Notification Regulated:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Regulation : TSCA 5 SNUR

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Regulation : TSCA 5 Proposed SNUR

Clean Air Act Section 112, : Diethylene glycol diethyl ether 112-36-7 Hazardous Air Pollutants Diethylene Glycol Methyl Ethyl Ether 1002-67-1

EPCRA (SARA Title III) : Diethylene glycol diethyl ether 112-36-7 Section 313 : Diethylene Glycol Methyl Ethyl Ether 1002-67-1

NFPA/HMIS Hazard Rating: Health (3), Flammability (2), Instability/Reactivity (0), Other (0)

HMIS Hazard Rating : Health (3), Flammability (2), Instability/Reactivity (0), PPE (D)

California Proposition 65

 $\triangle$ 

**WARNING:** This product can expose you to chemicals including Carbon black, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

#### **SECTION 16. OTHER INFORMATION**

Revision Date : 2020-07-01

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

This "Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or use and disposal information which accompanies the product. The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. It is subject to revision from time to time. MUTOH does not warrant the completeness or accuracy of the information contained herein.



# **SAFETY DATA SHEET**

Date of last issue: 2020-07-01 Date of first issue: 2013-06-13

## **SECTION 1. IDENTIFICATION**

Product name : Eco Solvent Ultra Light Magenta

VJ-MSINK3-LM220 / VJ-MSINK3-LM440

Manufacturer or supplier's details

Company name of supplier : MUTOH America Inc

Address : 4405 East Baseline Road, Suite 120 Phoenix, Arizona 85042

Telephone : 480-968-7772

Emergency telephone : 480-968-7772

During normal opening times

Recommended use of the chemical and restrictions on use

Recommended use : Inkjet printing

#### SECTION 2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910.1200

Flammable liquid : Category 4

Skin irritation : Category 2

Reproductive toxicity : Category 1B

**GHS** label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Combustible liquid

Causes skin irritation

May damage fertility or the unborn child

Precautionary Statements : Prevention:

Do not handle until all safety precautions have been read and

understood.

Keep away from heat/sparks/open flames/hot surfaces. - No

smoking.

Wear protective gloves/protective clothing/eye protection/face

protection. Response:

IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/ container in accordance with related laws

and local/ regional regulations.



# Description of any hazards not otherwise classified;

Ink contact with skin may cause irritation, swelling or redness.

## **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous ingredients** 

Chemical name	CAS-No.	Concentration (% w/w)
Diethylene glycol diethyl ether	112-36-7	55 - 65
Tetraethylene glycol dimethyl ether	143-24-8	10 - 20
Gamma-butyrolactone	96-48-0	< 20
Proprietary organic materials	Trade secret	1 - 5
Tetraethylene glycol monobutyl ether	1559-34-8	1 - 5
Colorant	Trade secret	< 1

## **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

Inhalation : IF exposed or concerned: Get medical advice/attention.

Remove subject to ventilated fresh air. If not breathing, give

artificial respiration right away.

If breathing is difficult, give oxygen.

Skin : IF ON SKIN: Wash with plenty of soap and water. Take off

contaminated clothing and wash before reuse.

If skin irritation occurs: Get medical advice/attention.

Eyes : Immediately flush with room temperature, low pressure and

clean water for at least 15 minutes.

Seek medical attention if eye irritation continues.

Ingestion : IF exposed or concerned: Get medical advice/attention.

IF SWALLOWED: Do not induce vomiting.

Most important symptoms and : Skin: Ink contact with skin may cause irritation, swelling or

effects, both acute and delayed redness.

Indication of any immediate medical attention and special

treatment needed

Not necessary

## **SECTION 5. FIRE-FIGHTING MEASURES**

**Extinguishing Media** 

Suitable extinguishing media: Water spray

Dry chemical

Carbon dioxide (CO2) Alcohol-resistant foam

Unsuitable extinguishing

media

None known.

Special hazards arising from

the substance or mixture

None

Advice for firefighters : Extinguish to use fire fighting media or plentiful fog water. Put

protection wear without fail in case of fire fighting work; do not

work in the leeward.

3/7



Personal precautions, protective equipment and emergency procedures

For non-emergency

: Eye or Skin protection required during clean-up. Use proper

personnel

ventilation.

For emergency responders: None

**Environmental precautions** Do not release to sewer, surface-or ground-water.

Methods and materials for containment and cleaning up

Advice on how to contain: Use sponges to wipe-up ink.

a spill

Advice how to clean-up

a spill

Rinse area with damp cloth. Place waste in closed container

for disposal. Wash hands with soap and water.

Any other information Do not dispose of waste to the sewer.

Reference to other sections Please refer SECTION 13 for disposal.

## **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling

Recommendations

Obtain special instructions before use.

Do not handle until all safety precautions have been read and

understood.

Use proper ventilation and no fire in work place. Keep out of reach of children and do not drink ink.

Do not dismantle cartridge.

Advice on general

occupational hygiene

Avoid contact with skin, eyes or clothing.

In the case of skin contact, wash with soap and water.

Conditions for safe storage.

Store locked up.

including any incompatibilities

Do not store the cartridge in high or freezing temperatures.

Keep cartridge out of direct sunlight.

Do not store the cartridge with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.

Specific end use(s): Not specified.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters:

Diethylene glycol diethyl ether(CAS No.112-36-7)

California OELs(California Code of Regulations, Title 8, Section 5155. Airborne Contaminants)

The 8-Hour TWA Exposure Value:5 ppm The 8-Hour TWA Exposure Value:33mg/m3

**Exposure Controls** 

Appropriate engineering

: Proper ventilation.

controls

Individual protection measures, such as personal protective equipment

Use of personal

Not required under suitable use as setting the cartridge on the

protective equipment printer under ventilation.

> If there is a possibility of exposure to raw ink: Wear protective gloves/ protective clothing/ eye protection/ face protection/

respiratory protection.

Detailed specification on equipment to provide adequate and suitable protection





(a) eye/face protection : Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear eye

protection/ face protection.

(b) skin protection: hand protection &

others

Not required under suitable use as setting the cartridge on the

printer.

If there is a possibility of exposure to raw ink: Wear protective

gloves/ protective clothing

(c) respiratory protection

Not required under suitable use as setting the cartridge on the

printer under ventilation.

In case of inadequate ventilation wear respiratory protection.

(d) thermal hazards : Not required under suitable use as setting the cartridge on the

printer.

Environmental exposure

controls

Not established

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties:

Appearance : liquid

Color : magenta

Odor : Slightly

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling:

range

No data available

Flash point : about 71 °C

Method: Seta closed cup

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit / Upper :

flammability limit

No data available

Lower explosion limit / Lower :

flammability limit

No data available

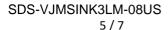
Vapor pressure : No data available

Vapor density : Greater than 1(air=1)

Relative density : No data available

Solubility(ies) : Soluble

Partition coefficient: : No data available





n-octanol/water

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Explosive limits:1.4-6.9v/v% as Gamma-butyrolactone

Oxidizing properties : None

Particle size : Not applicable

# **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under normal temperature

Chemical stability : Stable under normal temperature

Possibility of hazardous

reactions

None

Conditions to avoid : High and freezing temperatures

Incompatible materials : Oxidizers and explosives

Hazardous decomposition

products

No data available

## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects:

Acute toxicity : Oral LD50: > 2500 mg/kg (Rat)

Dermal LD50: > 2000 mg/kg (Rat)

Irritation

Eye : Moderate irritant (Rabbit, OECD 405)

Skin : Mild irritant (Rabbit, OECD 404)

Not meet the criteria for classification according to EU Directive

1999/45/EC

Category2 for classification according to EU Directive (EC) No

1272/2008

Corrosivity : Not meet the criteria for classification according to EU Directive

1999/45/EC

Sensitisation

Skin : Non-sensitizer (LLNA, OECD 429)

Carcinogenicity : Not meet the criteria for classification according to EU Directive

1999/45/EC

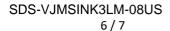
Not contain any substances listed in IARC Monographs (1,2A

and 2B)

Mutagenicity : Negative (by Ames Test)

Toxicity for reproduction : T; R61,62 for classification according to EU Directive

1999/45/EC





Category1B for classification according to EU Directive (EC) No 1272/2008

## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity : No data available

Persistence and degradability: No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Results of PBT and vPvB

assessment

Has not carried out PBT and vPvB assessment

Other adverse effects : No data available

## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods : Disposal should be in accordance with federal, state, and local

requirements.

in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

## **SECTION 14. TRANSPORT INFORMATION**

UN number : Not applicable

UN proper shipping name : Not applicable

Transport hazard class(es) : Not applicable

Packing group : Not applicable

Environmental hazards : Not applicable

Special precautions for user : Not applicable

Transport in bulk according to:

Annex II of MARPOL 73/78

and the IBC Code

Not applicable

#### **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the product in question: US Information:

TSCA Section 4(a) Final : Not regulated

Test Rules Regulated

TSCA Section 5 Significant New Use Rule Regulation:

Ingredient : Diethylene glycol diethyl ether 112-36-7

Reference : 40 CFR 721.10229 (Listed)

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Reference : 76 FR 40850 (Proposed)

TSCA Section 8(a) : Not regulated

Preliminary Assessment Information Rule (PAIR)

TSCA Section 12(b) One-Time Export Notification Regulated:



## SDS-VJMSINK3LM-08US

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Ingredient	:	Diethylene glycol diethyl ether	112-36-7
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Regulation : TSCA 5 SNUR

Ingredient : Tetraethylene glycol dimethyl ether 143-24-8

Regulation : TSCA 5 Proposed SNUR

Clean Air Act Section 112, : Diethylene glycol diethyl ether 112-36-7

Hazardous Air Pollutants

EPCRA (SARA Title III) : Diethylene glycol diethyl ether 112-36-7

Section 313

NFPA/HMIS Hazard Rating: Health (3), Flammability (2), Instability/Reactivity (0), Other (0)

HMIS Hazard Rating : Health (3), Flammability (2), Instability/Reactivity (0), PPE (D)

California Proposition 65 : Not regulated

## **SECTION 16. OTHER INFORMATION**

Revision Date : 2020-07-01

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

This "Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or use and disposal information which accompanies the product. The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. It is subject to revision from time to time. MUTOH does not warrant the completeness or accuracy of the information contained herein.