



PRINTER
EVOLUTION

MSDS: Material Safety Data Sheet

PrinterEvolution AquaSub 33 Cyan | October 1, 2012 MSDS Number: OSHA 29CFR1910.1200





* SECTION I – PRODUCT IDENTIFICATION

Product Name: PrinterEvolution AquaSub 33 Ink Cyan
Product code: FB-0016-01
Intended use: Ink-Jet ink

Company Identification:
Printer Evolution
2011 Cherry St, Ste 116
Louisville, CO 80027
Contact: FOR REGULATORY INFORMATION CALL
Telephone: 855.593.4089
E-mail: info@PrinterEvolution.com

* SECTION II – COMPOSITION

INGREDIENT AND HAZARD INFORMATION PER USA OSHA 29CFR1910.1200

| | | |
|----------|--|--------|
| 57-55-6 | Propane -1, 2-diol | 25-50% |
| 56-81-5 | Glycerol | 5-10% |
| 616-45-5 | 2-pyrrolidone  Xn; R 22  Xi; R 36/38 <hr/>  H315, H319, H303  H311 | 2.5-5% |
| 102-71-6 | Triethanolamine | 1-2.5% |

* SECTION III – HAZARDS IDENTIFICATION

HAZARD DESCRIPTION: -

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

The product is not classified according to the Globally Harmonized System (GHS).

CLASSIFICATION ACCORDING TO DIRECTIVE 67/548/EEC OR DIRECTIVE 1999/45/EC

-

None

INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT:

The product is considered an eye irritant per OSHA.

CLASSIFICATION SYSTEM:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

LABEL ELEMENTS

• Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals.

The product is considered to be an eye irritant.

This product has been classified and marked in accordance with national laws.



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NFPA RATINGS (SCALE 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

HMIS-RATINGS (SCALE 0 – 4)

| | |
|---------------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | B |

Health = 1
Fire = 1
Reactivity = 0

OTHER HAZARDS:

Results of PBT and vPvB assessment
PBT: Not Applicable
vPvB: Not Applicable

PREVENTION:

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.

RESPONSE:

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.

DISPOSAL:

Dispose of contents/container in accordance with local/regional/national/international regulations.

IV – FIRST AID MEASURES

GENERAL INFORMATION:

No special measures required.
In all cases of doubt, when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

AFTER INHALATION:

No adverse effect anticipated by this route of exposure. If symptoms show up, remove to fresh air.

AFTER SKIN CONTACT:

Do not use solvents or thinners.
Remove contaminated clothing.
Immediately wash with water and soap and rinse thoroughly.

AFTER EYE CONTACT:

Flush eyes thoroughly with water for 15 minutes. Seek medical attention if irritation persists.

AFTER SWALLOWING:

Keep at rest.
Do not induce vomiting; immediately call for medical help.

SECTION V – FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING AGENTS:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

UNSUITABLE EXTINGUISHING AGENTS:

Water with full jet

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Formation of toxic gases is possible during heating or in case of fire.



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ADVICE FOR FIREFIGHTERS:

Protective equipment: Mount respiratory protective device.

ADDITIONAL INFORMATION

Collect contaminated fire fighting water separately. It must not enter the sewage system.
Cool endangered receptacles with water spray.

SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSON-RELATED SAFETY PRECAUTIONS: Ensure adequate ventilation

MEASURES FOR ENVIRONMENTAL PROTECTION:

Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.

MEASURES FOR CLEANING/COLLECTING:

Absorb with liquid-binding material (sand, diatomite, sawdust).
Send for recovery or disposal in suitable containers.
Dispose contaminated material as waste according to item 13.
Avoid use of solvents.

REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION VII – HANDLING AND STORAGE

HANDLING:

INFORMATION FOR SAFE HANDLING: No special measures required.

INFORMATION ABOUT PROTECTION AGAINST EXPLOSIONS AND FIRES: No special measures required.

STORAGE:

REQUIREMENTS TO BE MET BY STOREROOMS AND CONTAINERS:

Ideal storage temperature: 50 - 90°F.
Store in a cool location.
Use only containers specifically designed for this product.

FURTHER INFORMATION ABOUT STORAGE CONDITIONS:

Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.
Specific end use(s) No further relevant information available.

SECTION VIII – EXPOSURE CONTROL/PERSONAL PROTECTION

ADDITIONAL INFORMATION ABOUT DESIGN OF TECHNICAL SYSTEMS: No further data; see item 7.

| COMPONENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORKPLACE: | |
|---|--|
| 57-55-6 propane-1, 2-diol | |
| WEEL | 10 mg/m3 |
| 56-81-5 glycerol | |
| PEL | 15* 5** mg/m3 *total dust **respirable fraction |
| TLV | 10* ppm *Mist |
| 102-71-6 triethanolamine | |
| TLV | 5 mg/m3 |



PERSONAL PROTECTIVE EQUIPMENT:

GENERAL PROTECTIVE AND HYGIENIC MEASURES:

The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
Do not eat or drink while working.

BREATHING EQUIPMENT: Not required.

PROTECTION OF HANDS:



Protective Gloves

EYE PROTECTION:



Safety Glasses

BODY PROTECTION: Protective work clothing

* **SECTION IX – PHYSICAL & CHEMICAL PROPERTIES**

GENERAL INFORMATION

- Physical form: Liquid
- Color: Blue
- Odor: Odorless
- Odor Threshold: Not determined

pH-value at 20°C (68°F): 8.5

Change in condition

- Melting point/Melting range: Not applicable
- Boiling point/Boiling range: 100°C (212°F)

Flash point: > 100°C (> 212°F)

Ignition temperature: > 240°C (> 464°F)

- Decomposition Temperature: Not determined

Auto igniting: Not determined

DANGER OF EXPLOSION:

Product does not present an explosion hazard.

- Explosion limits: Not applicable
- Lower: Not applicable
- Upper: Not applicable

Vapor pressure at 20°C (68°F): 23 hPa (17 mm Hg)

Density at 20°C (68°F): 1.1 g/cm³ (9.18 lbs/gal)

- Relative Density: Not determined
- Vapor Density: Not determined
- Evaporation Rate: Not determined

Segregation coefficient (n-octanol/water): Not determined.

Solubility In / Miscibility With

- Water: Miscible

VISCOSITY:

- Viscosity: Not determined

Other Information: No further relevant information available



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SECTION X – STABILITY AND REACTIVITY

THERMAL DECOMPOSITION / CONDITIONS TO BE AVOIDED:

Stable under recommended storage and handling conditions.

MATERIALS TO BE AVOIDED: Strong oxidizers.

Dangerous reactions No dangerous reactions known if used according to specifications.

DANGEROUS PRODUCTS OF DECOMPOSITION:

In case of fire, carbon and nitrogen oxides are the main combustion gases

SECTION XI – TOXICOLOGICAL INFORMATION

GENERAL NOTES:

There is no experimentally determined data available on the preparation itself.
The product is considered to be an eye irritant.

SECTION XII – ECOLOGICAL INFORMATION

TOXICITY

Acquatic toxicity: No further relevant information available.

PERSISTENCE AND DEGRADABILITY: No further relevant information available.

BEHAVIOR IN ENVIRONMENTAL SYSTEMS:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

ADDITIONAL ECOLOGICAL INFORMATION:

General notes:

At present there are no ecotoxicological assessments.
Do not allow product to reach ground water, water course or sewage system.

RESULTS of PBT and vPvB ASSESSMENT

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

SECTION XIII – DISPOSAL CONSIDERATIONS

PRODUCT:

Recommendation: Waste material must be disposed of in accordance with local regulations.

UNCLEANED PACKAGINGS:

Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

SECTION XIV – TRANSPORT INFORMATION

DOT regulations:

- **Hazard class:** -

Land transport ADR/RID (cross-border):

- **ADR/RID class:** -

Maritime transport IMDG:

- **IMDG Class:** -
- **Marine pollutant:** No

Air transport ICAO-TI and IATA-DGR:

- **ICAO/IATA Class:** -
- **UN "Model Regulation":** -
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.



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* **SECTION XV – OTHER INFORMATION**

SARA

Section 355 (Extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (TOXIC SUBSTANCES CONTROL ACT):

All components are included in the TSCA inventory and/or comply with TSCA regulations.

CALIFORNIA PROPOSITION 65

Chemicals known to cause cancer:

None of the ingredients are listed.

CARCINOGENIC CATEGORIES

OSHA (Occupational Safety & Health Administration)

The product does not contain any carcinogenic substances according to OSHA criterias.

PRODUCT RELATED HAZARD INFORMATIONS:

Observe the general safety regulations when handling chemicals.

The product is considered to be an eye irritant.

The product has been classified and marked in accordance with national laws.

Chemical Safety Assessment: A chemical safety assessment has not been carried out.

SECTION XVI – OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The chapters that have been modified, are indicated in the left margin by an asterisk.

RELEVANT PHRASES:

H303 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

ABBREVIATIONS AND ACRONYMS:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

THE INFORMATION CONTAINED HEREIN IS CORRECT TO THE BEST OF OUR KNOWLEDGE. THE RECOMMENDATIONS AND SUGGESTIONS CONTAINED IN THIS BULLETIN ARE MADE WITHOUT GUARANTEE OR REPRESENTATION AS TO RESULTS. IF POSSIBLE, WE SUGGEST THAT YOU EVALUATE THESE RECOMMENDATIONS AND SUGGESTIONS PRIOR TO USE.



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M S D S : M a t e r i a l S a f e t y D a t a S h e e t

PrinterEvolution AquaSub 33 Magenta | October 1, 2012 MSDS Number: OSHA 29CFR1910.1200

* SECTION I – PRODUCT IDENTIFICATION

Product Name: PrinterEvolution AquaSub 33 Ink Magenta
Product code: FB-0017-01
Intended use: Ink-Jet ink

Company Identification:
Printer Evolution
2011 Cherry St, Ste 116
Louisville, CO 80027
Contact: FOR REGULATORY INFORMATION CALL
Telephone: 855.593.4089
E-mail: info@PrinterEvolution.com

* SECTION II – COMPOSITION

INGREDIENT AND HAZARD INFORMATION PER USA OSHA 29CFR1910.1200

| | | |
|------------|---|--------|
| 57-55-6 | Propane -1, 2-diol | 25-50% |
| 56-81-5 | Glycerol | 5-10% |
| 616-45-5 | 2-pyrrolidone Xn; R 22 Xi; R 36/38 <hr/> H315, H319, H303 H311 | 2.5-5% |
| | Modified acrylic polymer Xi R 36/38 <hr/> H315; H319 | 1-2.5% |
| 102-71-6 | Triethanolamine | 1-2.5% |
| 68425-94-5 | Sodium salt of an alkylnaphtalene sulfonic acid formaldehyde condensate Xi R 36/38 <hr/> H315; H319 | 1-2.5% |

* SECTION III – HAZARDS IDENTIFICATION

HAZARD DESCRIPTION: -

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

The product is not classified according to the Globally Harmonized System (GHS).

CLASSIFICATION ACCORDING TO DIRECTIVE 67/548/EEC OR DIRECTIVE 1999/45/EC

-

None

INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT:

The product is considered an eye irritant per OSHA.



CLASSIFICATION SYSTEM:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

LABEL ELEMENTS

- Labelling according to EU guidelines:
Observe the general safety regulations when handling chemicals.
The product is considered to be an eye irritant.
This product has been classified and marked in accordance.

NFPA RATINGS (SCALE 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

HMIS-RATINGS (SCALE 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

OTHER HAZARDS:

Results of PBT and vPvB assessment
PBT: Not Applicable
vPvB: Not Applicable

PREVENTION:

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.

RESPONSE:

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.

DISPOSAL:

Dispose of contents/container in accordance with local/regional/national/international regulations.

IV – FIRST AID MEASURES

GENERAL INFORMATION:

No special measures required.
In all cases of doubt, when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

AFTER INHALATION:

No adverse effect anticipated by this route of exposure. If symptoms show up, remove to fresh air.

AFTER SKIN CONTACT:

Do not use solvents or thinners.
Remove contaminated clothing.
Immediately wash with water and soap and rinse thoroughly.

AFTER EYE CONTACT:

Flush eyes thoroughly with water for 15 minutes. Seek medical attention if irritation persists.

AFTER SWALLOWING:



Keep at rest.
Do not induce vomiting; immediately call for medical help.

SECTION V – FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING AGENTS:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

UNSUITABLE EXTINGUISHING AGENTS: Water with full jet

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Formation of toxic gases is possible during heating or in case of fire.

ADVICE FOR FIREFIGHTERS:

Protective equipment: Mount respiratory protective device.

ADDITIONAL INFORMATION

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Cool endangered receptacles with water spray.

SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSON-RELATED SAFETY PRECAUTIONS: Ensure adequate ventilation

MEASURES FOR ENVIRONMENTAL PROTECTION:

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

MEASURES FOR CLEANING/COLLECTING:

Absorb with liquid-binding material (sand, diatomite, sawdust).

Send for recovery or disposal in suitable containers.

Dispose contaminated material as waste according to item 13.

Avoid use of solvents.

REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION VII – HANDLING AND STORAGE

HANDLING:

INFORMATION FOR SAFE HANDLING: No special measures required.

INFORMATION ABOUT PROTECTION AGAINST EXPLOSIONS AND FIRES: No special measures required.

STORAGE:

REQUIREMENTS TO BE MET BY STOREROOMS AND CONTAINERS:

Ideal storage temperature: 50 - 90°F.

Store in a cool location.

Use only containers specifically designed for this product.

FURTHER INFORMATION ABOUT STORAGE CONDITIONS:

Store in cool, dry conditions in well sealed containers.

Protect from heat and direct sunlight.



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SECTION VIII – EXPOSURE CONTROL/PERSONAL PROTECTION

ADDITIONAL INFORMATION ABOUT DESIGN OF TECHNICAL SYSTEMS: No further data; see item 7.

| COMPONENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORKPLACE: | |
|--|-----------------------------------|
| 57-55-6 propane-1, 2-diol | |
| WEEL | 10 mg/m3 |
| 56-81-5 glycerol | |
| PEL | 15* 5** mg/m3 |
| TLV | *total dust **respirable fraction |
| | 10* ppm |
| | *Mist |
| 102-71-6 triethanolamine | |
| TLV | 5 mg/m3 |

PERSONAL PROTECTIVE EQUIPMENT:

GENERAL PROTECTIVE AND HYGIENIC MEASURES:

The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
Do not eat or drink while working.

BREATHING EQUIPMENT: Not required.

PROTECTION OF HANDS:



Protective Gloves

EYE PROTECTION:



Safety Glasses

BODY PROTECTION: Protective work clothing

SECTION IX – PHYSICAL & CHEMICAL PROPERTIES

GENERAL INFORMATION

- Physical form: Liquid
- Color: Red
- Odor: Odorless
- Odor Threshold: Not determined

pH-value at 20°C (68°F): 8.5

Change in condition

- Melting point/Melting range: Not applicable
- Boiling point/Boiling range: 100°C (212°F)

Flash point: > 100°C (> 212°F)

Ignition temperature: > 350°C (> 662°F)

- Decomposition Temperature: Not determined

Auto igniting: Not determined



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| | |
|---|---|
| DANGER OF EXPLOSION: | Product does not present an explosion hazard. |
| Explosion limits: | |
| • Lower: | Not applicable |
| • Upper: | Not applicable |
| Vapor pressure at 20°C (68°F): | 23 hPa (17 mm Hg) |
| Density at 20°C (68°F): | 1.1 g/cm ³ (9.18 lbs/gal) |
| • Relative Density: | Not determined |
| • Vapor Density: | Not determined |
| • Evaporation Rate: | Not determined |
| Segregation coefficient (n-octanol/water): | Not determined. |
| Solubility In / Miscibility With | |
| • Water: | Miscible |
| VISCOSITY: | |
| • Viscosity: | Not determined |
| Other Information: | No further relevant information available |

SECTION X – STABILITY AND REACTIVITY

THERMAL DECOMPOSITION / CONDITIONS TO BE AVOIDED:

Stable under recommended storage and handling conditions.

MATERIALS TO BE AVOIDED: Strong oxidizers.

Dangerous reactions No dangerous reactions known if used according to specifications.

DANGEROUS PRODUCTS OF DECOMPOSITION:

In case of fire, carbon and nitrogen oxides are the main combustion gases

SECTION XI – TOXICOLOGICAL INFORMATION

GENERAL NOTES:

There is no experimentally determined data available on the preparation itself.

The product is considered to be an eye irritant.

SECTION XII – ECOLOGICAL INFORMATION

TOXICITY

Acquatic toxicity: No further relevant information available.

PERSISTENCE AND DEGRADABILITY: No further relevant information available.

BEHAVIOR IN ENVIRONMENTAL SYSTEMS:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

ADDITIONAL ECOLOGICAL INFORMATION:

General notes:

At present there are no ecotoxicological assessments.

Do not allow product to reach ground water, water course or sewage system.

RESULTS of PBT and vPvB ASSESSMENT

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

SECTION XIII – DISPOSAL CONSIDERATIONS

PRODUCT:

Recommendation: Waste material must be disposed of in accordance with local regulations.

UNCLEANED PACKAGINGS:

Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.



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SECTION XIV – TRANSPORT INFORMATION

DOT regulations:

- **Hazard class:** -

Land transport ADR/RID (cross-border):

- **ADR/RID class:** -

Maritime transport IMDG:

- **IMDG Class:** -
- **Marine pollutant:** No

Air transport ICAO-TI and IATA-DGR:

- **ICAO/IATA Class:** -

- **UN "Model Regulation":** -
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

SECTION XV – OTHER INFORMATION

SARA

Section 355 (Extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (TOXIC SUBSTANCES CONTROL ACT):

All components are included in the TSCA inventory and/or comply with TSCA regulations.

CALIFORNIA PROPOSITION 65

Chemicals known to cause cancer:

None of the ingredients are listed.

CARCINOGENIC CATEGORIES

OSHA (Occupational Safety & Health Administration)

The product does not contain any carcinogenic substances according to OSHA criterias.

PRODUCT RELATED HAZARD INFORMATIONS:

Observe the general safety regulations when handling chemicals.

The product is considered to be an eye irritant.

The product has been classified and marked in accordance with national laws.

Chemical Safety Assessment: A chemical safety assessment has not been carried out.

SECTION XVI – OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The chapters that have been modified are indicated in the left margin by an asterisk.

RELEVANT PHRASES:

H303 Harmful if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation

R22 Harmful if swallowed.
R36/38 Irritating to eyes and skin.



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ABBREVIATIONS AND ACRONYMS:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

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MSDS: Material Safety Data Sheet

PrinterEvolution AquaSub 33 Yellow | October 1, 2012 MSDS Number: OSHA 29CFR1910.1200







* **SECTION I – PRODUCT IDENTIFICATION**

Product Name: PrinterEvolution AquaSub 33 Ink Yellow
Product code: FB-0018-01
Intended use: Ink-Jet ink

Company Identification:
Printer Evolution
2011 Cherry St, Ste 116
Louisville, CO 80027
Contact: FOR REGULATORY INFORMATION CALL
Telephone: 855.593.4089
E-mail: info@PrinterEvolution.com

* **SECTION II – COMPOSITION**

INGREDIENT AND HAZARD INFORMATION PER USA OSHA 29CFR1910.1200

| | | |
|----------|--|--------|
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| 56-81-5 | Glycerol | 5-10% |
| 616-45-5 | 2-pyrrolidone  Xn; R 22  Xi; R 36/38 <hr/>  H315, H319, H303  H311 | 2.5-5% |
| | Modified acrylic polymer  Xi R 36/38 <hr/>  H315; H319 | 1-2.5% |

* **SECTION III – HAZARDS IDENTIFICATION**

HAZARD DESCRIPTION: -

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

The product is not classified according to the Globally Harmonized System (GHS).
CLASSIFICATION ACCORDING TO DIRECTIVE 67/548/EEC OR DIRECTIVE 1999/45/EC

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None

INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT:

The product is considered an eye irritant per OSHA.

CLASSIFICATION SYSTEM:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

LABEL ELEMENTS

- Labelling according to EU guidelines:
Observe the general safety regulations when handling chemicals.



The product is considered to be an eye irritant.
This product has been classified and marked in accordance with national laws.

NFPA RATINGS (SCALE 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

HMIS-RATINGS (SCALE 0 – 4)

| | |
|---------------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | B |

Health = 1
Fire = 1
Reactivity = 0

OTHER HAZARDS:

Results of PBT and vPvB assessment
PBT: Not Applicable
vPvB: Not Applicable

PREVENTION:

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.

RESPONSE:

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.

DISPOSAL:

Dispose of contents/container in accordance with local/regional/national/international regulations.

IV – FIRST AID MEASURES

GENERAL INFORMATION:

No special measures required.
In all cases of doubt, when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

AFTER INHALATION:

No adverse effect anticipated by this route of exposure. If symptoms show up, remove to fresh air.

AFTER SKIN CONTACT:

Do not use solvents or thinners.
Remove contaminated clothing.
Immediately wash with water and soap and rinse thoroughly.

AFTER EYE CONTACT:

Flush eyes thoroughly with water for 15 minutes. Seek medical attention if irritation persists.

AFTER SWALLOWING:

Keep at rest.
Do not induce vomiting; immediately call for medical help.

SECTION V – FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING AGENTS:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

UNSUITABLE EXTINGUISHING AGENTS: Water with full jet



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SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Formation of toxic gases is possible during heating or in case of fire.

ADVICE FOR FIREFIGHTERS:

Protective equipment: Mount respiratory protective device.

ADDITIONAL INFORMATION

Collect contaminated fire fighting water separately. It must not enter the sewage system.
Cool endangered receptacles with water spray.

SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSON-RELATED SAFETY PRECAUTIONS: Ensure adequate ventilation

MEASURES FOR ENVIRONMENTAL PROTECTION:

Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.

MEASURES FOR CLEANING/COLLECTING:

Absorb with liquid-binding material (sand, diatomite, sawdust).
Send for recovery or disposal in suitable containers.
Dispose contaminated material as waste according to item 13.

Avoid use of solvents.

REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION VII – HANDLING AND STORAGE

HANDLING:

INFORMATION FOR SAFE HANDLING: No special measures required.

INFORMATION ABOUT PROTECTION AGAINST EXPLOSIONS AND FIRES: No special measures required.

STORAGE:

REQUIREMENTS TO BE MET BY STOREROOMS AND CONTAINERS:

Ideal storage temperature: 50 - 90°F.
Store in a cool location.
Use only containers specifically designed for this product.

FURTHER INFORMATION ABOUT STORAGE CONDITIONS:

Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.
Specific end use(s) No further relevant information available.

* **SECTION VIII – EXPOSURE CONTROL/PERSONAL PROTECTION**

ADDITIONAL INFORMATION ABOUT DESIGN OF TECHNICAL SYSTEMS: No further data; see item 7.

| COMPONENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORKPLACE: | |
|---|-----------------------------------|
| 57-55-6 propane-1, 2-diol | |
| WEEL | 10 mg/m3 |
| 56-81-5 glycerol | |
| PEL | 15* 5** mg/m3 |
| TLV | *total dust **respirable fraction |
| | 10* ppm |
| | *Mist |

PERSONAL PROTECTIVE EQUIPMENT:



GENERAL PROTECTIVE AND HYGIENIC MEASURES:

The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
Do not eat or drink while working.

BREATHING EQUIPMENT: Not required.

PROTECTION OF HANDS:



Protective Gloves

EYE PROTECTION:



Safety Glasses

BODY PROTECTION: Protective work clothing

* **SECTION IX – PHYSICAL & CHEMICAL PROPERTIES**

GENERAL INFORMATION

- Physical form: Liquid
- Color: Yellow
- Odor: Odorless
- Odor Threshold: Not determined

pH-value at 20°C (68°F): 8.5

Change in condition

- Melting point/Melting range: Not applicable
- Boiling point/Boiling range: 100°C (212°F)

Flash point: > 100°C (> 212°F)

Ignition temperature: > 200°C (> 392°F)

- Decomposition Temperature: Not determined

Auto igniting: Not determined

DANGER OF EXPLOSION:

Product does not present an explosion hazard.

- Explosion limits: Not applicable
- Lower: Not applicable
- Upper: Not applicable

Vapor pressure at 20°C (68°F): 23 hPa (17 mm Hg)

Density at 20°C (68°F): 1.1 g/cm³ (9.18 lbs/gal)

- Relative Density: Not determined
- Vapor Density: Not determined
- Evaporation Rate: Not determined

Segregation coefficient (n-octanol/water): Not determined.

Solubility In / Miscibility With

- Water: Miscible

VISCOSITY:

- Viscosity: Not determined

Other Information: No further relevant information available



SECTION X – STABILITY AND REACTIVITY

THERMAL DECOMPOSITION / CONDITIONS TO BE AVOIDED:

Stable under recommended storage and handling conditions.

MATERIALS TO BE AVOIDED: Strong oxidizers.

Dangerous reactions No dangerous reactions known if used according to specifications.

DANGEROUS PRODUCTS OF DECOMPOSITION:

In case of fire, carbon and nitrogen oxides are the main combustion gases

SECTION XI – TOXICOLOGICAL INFORMATION

GENERAL NOTES:

There is no experimentally determined data available on the preparation itself.

The product is considered to be an eye irritant.

SECTION XII – ECOLOGICAL INFORMATION

TOXICITY

Acquatic toxicity: No further relevant information available.

PERSISTENCE AND DEGRADABILITY: No further relevant information available.

BEHAVIOR IN ENVIRONMENTAL SYSTEMS:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

ADDITIONAL ECOLOGICAL INFORMATION:

General notes:

At present there are no ecotoxicological assessments.

Do not allow product to reach ground water, water course or sewage system.

RESULTS of PBT and vPvB ASSESSMENT

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

SECTION XIII – DISPOSAL CONSIDERATIONS

PRODUCT:

Recommendation: Waste material must be disposed of in accordance with local regulations.

UNCLEANED PACKAGINGS:

Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

SECTION XIV – TRANSPORT INFORMATION

DOT regulations:

- **Hazard class:** -

Land transport ADR/RID (cross-border):

- **ADR/RID class:** -

Maritime transport IMDG:

- **IMDG Class:** -

- **Marine pollutant:** No

Air transport ICAO-TI and IATA-DGR:

- **ICAO/IATA Class:** -



- **UN "Model Regulation":** -
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

* **SECTION XV – OTHER INFORMATION**

SARA

Section 355 (Extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (TOXIC SUBSTANCES CONTROL ACT):

All components are included in the TSCA inventory and/or comply with TSCA regulations.

CALIFORNIA PROPOSITION 65

Chemicals known to cause cancer:

None of the ingredients are listed.

CARCINOGENIC CATEGORIES

OSHA (Occupational Safety & Health Administration)

The product does not contain any carcinogenic substances according to OSHA criteria.

PRODUCT RELATED HAZARD INFORMATIONS:

Observe the general safety regulations when handling chemicals.

The product is considered to be an eye irritant.

The product has been classified and marked in accordance with national laws.

Chemical Safety Assessment: A chemical safety assessment has not been carried out.

SECTION XVI – OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The chapters that have been modified, are indicated in the left margin by an asterisk.

RELEVANT PHRASES:

H303 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

ABBREVIATIONS AND ACRONYMS:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)



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THE INFORMATION CONTAINED HEREIN IS CORRECT TO THE BEST OF OUR KNOWLEDGE. THE RECOMMENDATIONS AND SUGGESTIONS CONTAINED IN THIS BULLETIN ARE MADE WITHOUT GUARANTEE OR REPRESENTATION AS TO RESULTS. IF POSSIBLE, WE SUGGEST THAT YOU EVALUATE THESE RECOMMENDATIONS AND SUGGESTIONS PRIOR TO USE.



PRINTER
EVOLUTION

MSDS: Material Safety Data Sheet

PrinterEvolution AquaSub 33 Black | October 1, 2012 MSDS Number: OSHA 29CFR1910.1200

* SECTION I – PRODUCT IDENTIFICATION

Product Name: PrinterEvolution AquaSub 33 Ink Black
Product code: FB-0019-01
Intended use: Ink-Jet ink

Company Identification:
Printer Evolution
2011 Cherry St, Ste 116
Louisville, CO 80027
Contact: FOR REGULATORY INFORMATION CALL
Telephone: 855.593.4089
E-mail: info@PrinterEvolution.com

* SECTION II – COMPOSITION

INGREDIENT AND HAZARD INFORMATION PER USA OSHA 29CFR1910.1200

| | | |
|------------|--|--------|
| 57-55-6 | Propane -1, 2-diol | 25-50% |
| 56-81-5 | Glycerol | 10-25% |
| 616-45-5 | 2-pyrrolidone Xn; R 22 Xi; R 36/38 ----- H315, H319, H303 H311 | 2.5-5% |
| | Monoazo dye Xi R 36/37/38-43; F R 11 ----- H228; H315; H319 | 1-2.5% |
| 102-71-6 | Triethanolamine | 1-2.5% |
| 68425-94-5 | Sodium salt of an alkylnaphtalene sulfonic acid formaldehyde condensate Xi R 36/38 ----- H315; H319 | 1-2.5% |

Additional information: For the wording of the listed risk phrases refer to section 16.



* **SECTION III – HAZARDS IDENTIFICATION**

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:



GHS07

H317 MAY CAUSE AN ALLERGIC SKIN REACTION

Classification according to directive 67/548/EEC Or Directive 1999/45/EC



Xi Irritant

R43: May cause sensitization by skin contact.

INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT:

The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
The product is considered an eye irritant per OSHA.

CLASSIFICATION SYSTEM:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

LABEL ELEMENTS

Label elements

• **Hazard-determining components of labelling:**

Monoazo dye

• **Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product is considered to be an eye irritant.

The product has been classified and marked in accordance with national laws.

The product has been marked in accordance with national laws.

• **Code letter and hazard designation of product:**



Xi Irritant

• **Hazard-determining components of labelling:**

Monoazo dye

• **Risk phrases:**

43 May cause sensitization by skin contact.

• **Safety phrases:**

23 Do not breathe vapours.

24 Avoid contact with skin.

37 Wear suitable gloves.

60 This material and its container must be disposed of as hazardous waste.



**CLASSIFICATION SYSTEM:
NFPA RATINGS (SCALE 0 - 4)**



Health = 2
Fire = 1
Reactivity = 0

HMIS-RATINGS (SCALE 0 - 4)



Health = 2
Fire = 1
Reactivity = 0

GHS LABEL ELEMENTS

Other hazards

- Results of PBT and vPvB assessment
 - PBT: Not applicable.
 - vPvB: Not applicable.

IV – FIRST AID MEASURES

GENERAL INFORMATION:

In all cases of doubt, when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

AFTER INHALATION:

Supply fresh air.

AFTER SKIN CONTACT:

Do not use solvents or thinners.

Remove contaminated clothing.

Immediately wash with water and soap and rinse thoroughly.

AFTER EYE CONTACT:

Flush eyes thoroughly with water for 15 minutes. Seek medical attention if irritation persists.

AFTER SWALLOWING:

Keep at rest.

Do not induce vomiting; immediately call for medical help.

INFORMATION FOR DOCTOR:

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION V – FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING AGENTS:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

UNSUITABLE EXTINGUISHING AGENTS: Water with full jet

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Formation of toxic gases is possible during heating or in case of fire.



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ADVICE FOR FIREFIGHTERS:

Protective equipment: Mount respiratory protective device.

ADDITIONAL INFORMATION

Collect contaminated fire fighting water separately. It must not enter the sewage system.
Cool endangered receptacles with water spray.

SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSON-RELATED SAFETY PRECAUTIONS: Ensure adequate ventilation

MEASURES FOR ENVIRONMENTAL PROTECTION:

Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.

MEASURES FOR CLEANING/COLLECTING:

Absorb with liquid-binding material (sand, diatomite, sawdust).
Send for recovery or disposal in suitable containers.
Dispose contaminated material as waste according to item 13.

Avoid use of solvents.

REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION VII – HANDLING AND STORAGE

HANDLING:

INFORMATION FOR SAFE HANDLING: No special precautions are necessary if used correctly.

INFORMATION ABOUT PROTECTION AGAINST EXPLOSIONS AND FIRES: No special measures required.

STORAGE:

REQUIREMENTS TO BE MET BY STOREROOMS AND CONTAINERS:

Ideal storage temperature: 50 - 90°F.
Store in a cool location.
Use only containers specifically designed for this product.

FURTHER INFORMATION ABOUT STORAGE CONDITIONS:

Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.

Specific end use(s) No further relevant information available.

SECTION VIII – EXPOSURE CONTROL/PERSONAL PROTECTION

ADDITIONAL INFORMATION ABOUT DESIGN OF TECHNICAL SYSTEMS: No further data; see item 7.

| COMPONENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORKPLACE: | |
|---|--|
| 57-55-6 propane-1, 2-diol | |
| WEEL | 10 mg/m3 |
| 56-81-5 glycerol | |
| PEL | 15* 5** mg/m3 *total dust **respirable fraction |
| TLV | 10* ppm *Mist |
| 102-71-6 triethanolamine | |
| TLV | 5 mg/m3 |



PERSONAL PROTECTIVE EQUIPMENT:

GENERAL PROTECTIVE AND HYGIENIC MEASURES:

The usual precautionary measures for handling chemicals should be followed.
Avoid close or long term contact with the skin.
Clean skin thoroughly immediately after handling the product.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not eat or drink while working.

BREATHING EQUIPMENT: Not required.

PROTECTION OF HANDS:



Protective Gloves

EYE PROTECTION:



Safety Glasses

BODY PROTECTION: Protective work clothing

* **SECTION IX – PHYSICAL & CHEMICAL PROPERTIES**

GENERAL INFORMATION

- Physical form: Liquid
- Color: Black
- Odor: Odorless
- Odor Threshold: Not determined

pH-value at 20°C (68°F): 8.5

Change in condition

- Melting point/Melting range: Not applicable
- Boiling point/Boiling range: 100°C (212°F)

Flash point: > 100°C (> 212°F)

Flammability (solid, gaseous): Not applicable

Ignition temperature: > 350°C (> 662°F)

- Decomposition Temperature: Not determined

Auto igniting: Not determined

DANGER OF EXPLOSION: Product does not present an explosion hazard.

- Explosion limits: Not applicable
- Lower: Not applicable
- Upper: Not applicable

Vapor pressure at 20°C (68°F): 23 hPa (17 mm Hg)

Density at 20°C (68°F): 1.1 g/cm³ (9.18 lbs/gal)

- Relative Density: Not determined
- Vapor Density: Not determined
- Evaporation Rate: Not determined

Segregation coefficient (n-octanol/water): Not determined.

Solubility In / Miscibility With

- Water: Miscible

VISCOSITY:

- Viscosity at 20°C (68°F): 14 mPas



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• Viscosity: Not determined
Other Information: No further relevant information available

SECTION X – STABILITY AND REACTIVITY

THERMAL DECOMPOSITION / CONDITIONS TO BE AVOIDED:

Stable under recommended storage and handling conditions.

MATERIALS TO BE AVOIDED: Strong oxidizers.

Dangerous reactions No dangerous reactions known if used according to specifications.

DANGEROUS PRODUCTS OF DECOMPOSITION:

In case of fire, carbon and nitrogen oxides are the main combustion gases

SECTION XI – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Sensitization: Sensitization possible through skin contact.

ADDITIONAL TOXICOLOGICAL INFORMATION:

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

GENERAL NOTES:

There is no experimentally determined data available on the preparation itself.
This product is considered to be an eye irritant.

SECTION XII – ECOLOGICAL INFORMATION

TOXICITY

Acquatic toxicity: No further relevant information available.

PERSISTENCE AND DEGRADABILITY: No further relevant information available.

BEHAVIOR IN ENVIRONMENTAL SYSTEMS:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

ADDITIONAL ECOLOGICAL INFORMATION:

General notes:

At present there are no ecotoxicological assessments.
Do not allow product to reach ground water, water course or sewage system.

RESULTS of PBT and vPvB ASSESSMENT

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

SECTION XIII – DISPOSAL CONSIDERATIONS

PRODUCT:

Recommendation: Waste material must be disposed of in accordance with local regulations.

UNCLEANED PACKAGINGS:

Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.



SECTION XIV – TRANSPORT INFORMATION

DOT regulations:

- Hazard class: -

Land transport ADR/RID (cross-border):

- ADR/RID class: -

Maritime transport IMDG:

- IMDG Class: -
- Marine pollutant: No

Air transport ICAO-TI and IATA-DGR:

- ICAO/IATA Class: -
- UN "Model Regulation": -
- Special precautions for user: Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

* SECTION XV – OTHER INFORMATION

SARA

Section 355 (Extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (TOXIC SUBSTANCES CONTROL ACT):

All components are included in the TSCA inventory and/or comply with TSCA regulations.

CALIFORNIA PROPOSITION 65

Chemicals known to cause cancer:

None of the ingredients are listed.

CARCINOGENIC CATEGORIES

OSHA (Occupational Safety & Health Administration)

The product does not contain any carcinogenic substances according to OSHA criterias.

PRODUCT RELATED HAZARD INFORMATIONS:

Observe the general safety regulations when handling chemicals.

The product is considered to be an eye irritant.

The product has been classified and marked in accordance with national laws.

HAZARD SYMBOLS:



Xi Irritant

Hazard-determining components of labelling:

Monoazo dye

Risk phrases:

43 May cause sensitization by skin contact.

Safety phrases:

23 Do not breathe vapours.

24 Avoid contact with skin.

37 Wear suitable gloves.

60 This material and its container must be disposed of as hazardous waste.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION XVI – OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The chapters that have been modified, are indicated in the left margin by an asterisk.



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RELEVANT PHRASES

H228 Flammable solid.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
R11 Highly flammable.
R36/37 Irritating to eyes and respiratory system.
R36/37/38 Irritating to eyes, respiratory system and skin.
R43 May cause sensitization by skin contact.

ABBREVIATIONS AND ACRONYMS:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)

THE INFORMATION CONTAINED HEREIN IS CORRECT TO THE BEST OF OUR KNOWLEDGE. THE RECOMMENDATIONS AND SUGGESTIONS CONTAINED IN THIS BULLETIN ARE MADE WITHOUT GUARANTEE OR REPRESENTATION AS TO RESULTS. IF POSSIBLE, WE SUGGEST THAT YOU EVALUATE THESE RECOMMENDATIONS AND SUGGESTIONS PRIOR TO USE.



PRINTER
EVOLUTION

MSDS: Material Safety Data Sheet

PrinterEvolution AquaSub 33 Orange | October 1, 2012 MSDS Number: OSHA 29CFR1910.1200





* SECTION I – PRODUCT IDENTIFICATION

Product Name: PrinterEvolution AquaSub 33 Ink Orange
Product code: FB-0021-01
Intended use: Ink-Jet ink

Company Identification:
Printer Evolution
2011 Cherry St, Ste 116
Louisville, CO 80027
Contact: FOR REGULATORY INFORMATION CALL
Telephone: 855.593.4089
E-mail: info@PrinterEvolution.com

* SECTION II – COMPOSITION

INGREDIENT AND HAZARD INFORMATION PER USA OSHA 29CFR1910.1200

| | | |
|----------|---|--------|
| 57-55-6 | Propane -1, 2-diol | 25-50% |
| 56-81-5 | Glycerol | 5-10% |
| 616-45-5 | 2-pyrrolidone  Xn; R 22  Xi; R 36/38 -----  H315, H319, H303  H311 | 2.5-5% |

* SECTION III – HAZARDS IDENTIFICATION

HAZARD DESCRIPTION: -

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

The product is not classified according to the Globally Harmonized System (GHS).

CLASSIFICATION ACCORDING TO DIRECTIVE 67/548/EEC OR DIRECTIVE 1999/45/EC

-

None

INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT:

The product is considered an eye irritant per OSHA.

CLASSIFICATION SYSTEM:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

LABEL ELEMENTS

• Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals.

The product is considered to be an eye irritant.

This product has been classified and marked in accordance with national laws.



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NFPA RATINGS (SCALE 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

HMIS-RATINGS (SCALE 0 – 4)

| | |
|---------------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | B |

Health = 1
Fire = 1
Reactivity = 0

OTHER HAZARDS:

Results of PBT and vPvB assessment
PBT: Not Applicable
vPvB: Not Applicable

PREVENTION:

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.

RESPONSE:

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.

DISPOSAL:

Dispose of contents/container in accordance with local/regional/national/international regulations.

IV – FIRST AID MEASURES

GENERAL INFORMATION:

No special measures required.
In all cases of doubt, when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

AFTER INHALATION:

No adverse effect anticipated by this route of exposure. If symptoms show up, remove to fresh air.

AFTER SKIN CONTACT:

Do not use solvents or thinners.
Remove contaminated clothing.
Immediately wash with water and soap and rinse thoroughly.

AFTER EYE CONTACT:

Flush eyes thoroughly with water for 15 minutes. Seek medical attention if irritation persists.

AFTER SWALLOWING:

Keep at rest.
Do not induce vomiting; immediately call for medical help.

SECTION V – FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING AGENTS:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

UNSUITABLE EXTINGUISHING AGENTS:

Water with full jet

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Formation of toxic gases is possible during heating or in case of fire.



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ADVICE FOR FIREFIGHTERS:

Protective equipment: Mount respiratory protective device.

ADDITIONAL INFORMATION

Collect contaminated fire fighting water separately. It must not enter the sewage system.
Cool endangered receptacles with water spray.

SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSON-RELATED SAFETY PRECAUTIONS: Ensure adequate ventilation

MEASURES FOR ENVIRONMENTAL PROTECTION:

Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.

MEASURES FOR CLEANING/COLLECTING:

Absorb with liquid-binding material (sand, diatomite, sawdust).
Send for recovery or disposal in suitable containers.
Dispose contaminated material as waste according to item 13.
Avoid use of solvents.

REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION VII – HANDLING AND STORAGE

HANDLING:

INFORMATION FOR SAFE HANDLING: No special measures required.

INFORMATION ABOUT PROTECTION AGAINST EXPLOSIONS AND FIRES: No special measures required.

STORAGE:

REQUIREMENTS TO BE MET BY STOREROOMS AND CONTAINERS:

Ideal storage temperature: 50 - 90°F.
Store in a cool location.
Use only containers specifically designed for this product.

FURTHER INFORMATION ABOUT STORAGE CONDITIONS:

Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.
Specific end use(s) No further relevant information available.

SECTION VIII – EXPOSURE CONTROL/PERSONAL PROTECTION

ADDITIONAL INFORMATION ABOUT DESIGN OF TECHNICAL SYSTEMS: No further data; see item 7.

| COMPONENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORKPLACE: | |
|---|--|
| 57-55-6 propane-1, 2-diol | |
| WEEL | 10 mg/m3 |
| 56-81-5 glycerol | |
| PEL | 15* 5** mg/m3 *total dust **respirable fraction |
| TLV | 10* ppm *Mist |

PERSONAL PROTECTIVE EQUIPMENT:

GENERAL PROTECTIVE AND HYGIENIC MEASURES:

The usual precautionary measures for handling chemicals should be followed.



Wash hands before breaks and at the end of work.
Do not eat or drink while working.

BREATHING EQUIPMENT: Not required.

PROTECTION OF HANDS:



Protective Gloves

EYE PROTECTION:



Safety Glasses

BODY PROTECTION: Protective work clothing

* **SECTION IX – PHYSICAL & CHEMICAL PROPERTIES**

GENERAL INFORMATION

- Physical form: Liquid
- Color: Orange
- Odor: Characteristic
- Odor Threshold: Not determined

pH-value at 20°C (68°F): 8.5

Change in condition

- Melting point/Melting range: Not applicable
- Boiling point/Boiling range: 100°C (212°F)

Flash point: > 100°C (> 212°F)

Ignition temperature: > 200°C (> 392°F)

- Decomposition Temperature: Not determined

Auto igniting: Not determined

DANGER OF EXPLOSION: Product does not present an explosion hazard.

- Explosion limits: Not applicable
- Lower: Not applicable
- Upper: Not applicable

Vapor pressure at 20°C (68°F): 23 hPa (17 mm Hg)

Density at 20°C (68°F): 1.1 g/cm³ (9.18 lbs/gal)

- Relative Density: Not determined
- Vapor Density: Not determined
- Evaporation Rate: Not determined

Segregation coefficient (n-octanol/water): Not determined.

Solubility In / Miscibility With

- Water: Miscible

VISCOSITY:

- Viscosity: Not determined

Other Information: No further relevant information available

SECTION X – STABILITY AND REACTIVITY

THERMAL DECOMPOSITION / CONDITIONS TO BE AVOIDED:

Stable under recommended storage and handling conditions.



MATERIALS TO BE AVOIDED: Strong oxidizers.

Dangerous reactions No dangerous reactions known if used according to specifications.

DANGEROUS PRODUCTS OF DECOMPOSITION:

In case of fire, carbon and nitrogen oxides are the main combustion gases

SECTION XI – TOXICOLOGICAL INFORMATION

GENERAL NOTES:

There is no experimentally determined data available on the preparation itself.

The product is considered to be an eye irritant.

SECTION XII – ECOLOGICAL INFORMATION

TOXICITY

Acquatic toxicity: No further relevant information available.

PERSISTENCE AND DEGRADABILITY: No further relevant information available.

BEHAVIOR IN ENVIRONMENTAL SYSTEMS:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

ADDITIONAL ECOLOGICAL INFORMATION:

General notes:

At present there are no ecotoxicological assessments.

Do not allow product to reach ground water, water course or sewage system.

RESULTS of PBT and vPvB ASSESSMENT

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

SECTION XIII – DISPOSAL CONSIDERATIONS

PRODUCT:

Recommendation: Waste material must be disposed of in accordance with local regulations.

UNCLEANED PACKAGINGS:

Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

SECTION XIV – TRANSPORT INFORMATION

DOT regulations:

- **Hazard class:** -

Land transport ADR/RID (cross-border):

- **ADR/RID class:** -

Maritime transport IMDG:

- **IMDG Class:** -

- **Marine pollutant:** No

Air transport ICAO-TI and IATA-DGR:

- **ICAO/IATA Class:** -

- **UN "Model Regulation":** -

- **Special precautions for user:** Not applicable.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

* **SECTION XV – OTHER INFORMATION**

SARA



PRINTER EVOLUTION

Section 355 (Extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (TOXIC SUBSTANCES CONTROL ACT):

All components are included in the TSCA inventory and/or comply with TSCA regulations.

CALIFORNIA PROPOSITION 65

Chemicals known to cause cancer:

None of the ingredients are listed.

CARCINOGENIC CATEGORIES

OSHA (Occupational Safety & Health Administration)

The product does not contain any carcinogenic substances according to OSHA criterias.

PRODUCT RELATED HAZARD INFORMATIONS:

Observe the general safety regulations when handling chemicals.

The product is considered to be an eye irritant.

The product has been classified and marked in accordance with national laws.

Chemical Safety Assessment: A chemical safety assessment has not been carried out.

SECTION XVI – OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The chapters that have been modified, are indicated in the left margin by an asterisk.

RELEVANT PHRASES:

H303 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

ABBREVIATIONS AND ACRONYMS:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

THE INFORMATION CONTAINED HEREIN IS CORRECT TO THE BEST OF OUR KNOWLEDGE. THE RECOMMENDATIONS AND SUGGESTIONS CONTAINED IN THIS BULLETIN ARE MADE WITHOUT GUARANTEE OR REPRESENTATION AS TO RESULTS. IF POSSIBLE, WE SUGGEST THAT YOU EVALUATE THESE RECOMMENDATIONS AND SUGGESTIONS PRIOR TO USE.



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M S D S : M a t e r i a l S a f e t y D a t a S h e e t

PrinterEvolution AquaSub 33 Violet | October 1, 2012 MSDS Number: OSHA 29CFR1910.1200





* SECTION I – PRODUCT IDENTIFICATION

Product Name: PrinterEvolution AquaSub 33 Ink Violet
Product code: FB-0020-01
Intended use: Ink-Jet ink

Company Identification:
Printer Evolution
2011 Cherry St, Ste 116
Louisville, CO 80027
Contact: FOR REGULATORY INFORMATION CALL
Telephone: 855.593.4089
E-mail: info@PrinterEvolution.com

* SECTION II – COMPOSITION

INGREDIENT AND HAZARD INFORMATION PER USA OSHA 29CFR1910.1200

| | | |
|----------|---|--------|
| 57-55-6 | Propane -1, 2-diol | 25-50% |
| 56-81-5 | Glycerol | 5-10% |
| 616-45-5 | 2-pyrrolidone  Xn; R 22  Xi; R 36/38 -----  H315, H319, H303  H311 | 2.5-5% |
| 102-71-6 | Triethanolamine | 1-2.5% |

* SECTION III – HAZARDS IDENTIFICATION

HAZARD DESCRIPTION: -

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

The product is not classified according to the Globally Harmonized System (GHS).

CLASSIFICATION ACCORDING TO DIRECTIVE 67/548/EEC OR DIRECTIVE 1999/45/EC

-

None

INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT:

The product is considered an eye irritant per OSHA.

CLASSIFICATION SYSTEM:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

LABEL ELEMENTS

• Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals.

The product is considered to be an eye irritant.

This product has been classified and marked in accordance with national laws.



NFPA RATINGS (SCALE 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

HMIS-RATINGS (SCALE 0 – 4)

| | |
|---------------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | B |

Health = 1
Fire = 1
Reactivity = 0

OTHER HAZARDS:

Results of PBT and vPvB assessment
PBT: Not Applicable
vPvB: Not Applicable

PREVENTION:

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.

RESPONSE:

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.

DISPOSAL:

Dispose of contents/container in accordance with local/regional/national/international regulations.

IV – FIRST AID MEASURES

GENERAL INFORMATION:

No special measures required.
In all cases of doubt, when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

AFTER INHALATION:

No adverse effect anticipated by this route of exposure. If symptoms show up, remove to fresh air.

AFTER SKIN CONTACT:

Do not use solvents or thinners.
Remove contaminated clothing.
Immediately wash with water and soap and rinse thoroughly.

AFTER EYE CONTACT:

Flush eyes thoroughly with water for 15 minutes. Seek medical attention if irritation persists.

AFTER SWALLOWING:

Keep at rest.
Do not induce vomiting; immediately call for medical help.

SECTION V – FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING AGENTS:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

UNSUITABLE EXTINGUISHING AGENTS:

Water with full jet

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Formation of toxic gases is possible during heating or in case of fire.



ADVICE FOR FIREFIGHTERS:

Protective equipment: Mount respiratory protective device.

ADDITIONAL INFORMATION

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Cool endangered receptacles with water spray.

SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSON-RELATED SAFETY PRECAUTIONS: Ensure adequate ventilation

MEASURES FOR ENVIRONMENTAL PROTECTION:

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

MEASURES FOR CLEANING/COLLECTING:

Absorb with liquid-binding material (sand, diatomite, sawdust).

Send for recovery or disposal in suitable containers.

Dispose contaminated material as waste according to item 13.

Avoid use of solvents.

REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION VII – HANDLING AND STORAGE

HANDLING:

INFORMATION FOR SAFE HANDLING: No special measures required.

INFORMATION ABOUT PROTECTION AGAINST EXPLOSIONS AND FIRES: No special measures required.

STORAGE:

REQUIREMENTS TO BE MET BY STOREROOMS AND CONTAINERS:

Ideal storage temperature: 50 - 90°F.

Store in a cool location.

Use only containers specifically designed for this product.

FURTHER INFORMATION ABOUT STORAGE CONDITIONS:

Store in cool, dry conditions in well sealed containers.

Protect from heat and direct sunlight.

Specific end use(s) No further relevant information available.

SECTION VIII – EXPOSURE CONTROL/PERSONAL PROTECTION

ADDITIONAL INFORMATION ABOUT DESIGN OF TECHNICAL SYSTEMS: No further data; see item 7.

| COMPONENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORKPLACE: | |
|---|--|
| 57-55-6 propane-1, 2-diol | |
| WEEL | 10 mg/m3 |
| 56-81-5 glycerol | |
| PEL | 15* 5** mg/m3 *total dust **respirable fraction |
| TLV | 10* ppm *Mist |
| 102-71-6 triethanolamine | |
| TLV | 5 mg/m3 |



PERSONAL PROTECTIVE EQUIPMENT:

GENERAL PROTECTIVE AND HYGIENIC MEASURES:

The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
Do not eat or drink while working.

BREATHING EQUIPMENT: Not required.

PROTECTION OF HANDS:



Protective Gloves

EYE PROTECTION:



Safety Glasses

BODY PROTECTION: Protective work clothing

* **SECTION IX – PHYSICAL & CHEMICAL PROPERTIES**

GENERAL INFORMATION

- Physical form: Liquid
- Color: Violet
- Odor: Characteristic
- Odor Threshold: Not determined

pH-value at 20°C (68°F):

8.5

Change in condition

- Melting point/Melting range: Not applicable
- Boiling point/Boiling range: 100°C (212°F)

Flash point:

> 100°C (> 212°F)

Ignition temperature:

> 350°C (> 662°F)

- Decomposition Temperature: Not determined

Auto igniting:

Not determined

DANGER OF EXPLOSION:

Product does not present an explosion hazard.

- Explosion limits:
- Lower:
- Upper:

Not applicable
Not applicable

Vapor pressure at 20°C (68°F):

23 hPa (17 mm Hg)

Density at 20°C (68°F):

1.1 g/cm³ (9.18 lbs/gal)

- Relative Density: Not determined
- Vapor Density: Not determined
- Evaporation Rate: Not determined

Segregation coefficient (n-octanol/water): Not determined.

Solubility In / Miscibility With

- Water:

Miscible

VISCOSITY:

- Viscosity:

Not determined

Other Information:

No further relevant information available



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SECTION X – STABILITY AND REACTIVITY

THERMAL DECOMPOSITION / CONDITIONS TO BE AVOIDED:

Stable under recommended storage and handling conditions.

MATERIALS TO BE AVOIDED: Strong oxidizers.

Dangerous reactions No dangerous reactions known if used according to specifications.

DANGEROUS PRODUCTS OF DECOMPOSITION:

In case of fire, carbon and nitrogen oxides are the main combustion gases

SECTION XI – TOXICOLOGICAL INFORMATION

GENERAL NOTES:

There is no experimentally determined data available on the preparation itself.
The product is considered to be an eye irritant.

SECTION XII – ECOLOGICAL INFORMATION

TOXICITY

Acquatic toxicity: No further relevant information available.

PERSISTENCE AND DEGRADABILITY: No further relevant information available.

BEHAVIOR IN ENVIRONMENTAL SYSTEMS:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

ADDITIONAL ECOLOGICAL INFORMATION:

General notes:

At present there are no ecotoxicological assessments.

Do not allow product to reach ground water, water course or sewage system.

RESULTS of PBT and vPvB ASSESSMENT

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

SECTION XIII – DISPOSAL CONSIDERATIONS

PRODUCT:

Recommendation: Waste material must be disposed of in accordance with local regulations.

UNCLEANED PACKAGINGS:

Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

SECTION XIV – TRANSPORT INFORMATION

DOT regulations:

- **Hazard class:** -

Land transport ADR/RID (cross-border):

- **ADR/RID class:** -

Maritime transport IMDG:

- **IMDG Class:** -

- **Marine pollutant:** No

Air transport ICAO-TI and IATA-DGR:

- **ICAO/IATA Class:** -

- **UN "Model Regulation":** -

- **Special precautions for user:** Not applicable.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.



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* **SECTION XV – OTHER INFORMATION**

SARA

Section 355 (Extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (TOXIC SUBSTANCES CONTROL ACT):

All components are included in the TSCA inventory and/or comply with TSCA regulations.

CALIFORNIA PROPOSITION 65

Chemicals known to cause cancer:

None of the ingredients are listed.

CARCINOGENIC CATEGORIES

OSHA (Occupational Safety & Health Administration)

The product does not contain any carcinogenic substances according to OSHA criterias.

PRODUCT RELATED HAZARD INFORMATIONS:

Observe the general safety regulations when handling chemicals.

The product is considered to be an eye irritant.

The product has been classified and marked in accordance with national laws.

Chemical Safety Assessment: A chemical safety assessment has not been carried out.

SECTION XVI – OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The chapters that have been modified, are indicated in the left margin by an asterisk.

RELEVANT PHRASES:

H303 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

ABBREVIATIONS AND ACRONYMS:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

THE INFORMATION CONTAINED HEREIN IS CORRECT TO THE BEST OF OUR KNOWLEDGE. THE RECOMMENDATIONS AND SUGGESTIONS CONTAINED IN THIS BULLETIN ARE MADE WITHOUT GUARANTEE OR REPRESENTATION AS TO RESULTS. IF POSSIBLE, WE SUGGEST THAT YOU EVALUATE THESE RECOMMENDATIONS AND SUGGESTIONS PRIOR TO USE.



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MSDS: Material Safety Data Sheet

PrinterEvolution AquaSub 33 Priming Fluid | October 1, 2012

MSDS Number: OSHA 29CFR1910.1200

* SECTION I – PRODUCT IDENTIFICATION



Product Name: PrinterEvolution AquaSub 33 Priming Fluid
Product code: FB-0010-01
Intended use: Priming Fluid

Company Identification:

Printer Evolution
2011 Cherry St, Ste 116
Louisville, CO 80027
Contact: FOR REGULATORY INFORMATION CALL
Telephone: 855.593.4089
E-mail: info@PrinterEvolution.com

* SECTION II – COMPOSITION

INGREDIENT AND HAZARD INFORMATION PER USA OSHA 29CFR1910.1200

| | | |
|----------|---|--------|
| 57-55-6 | Propane-1, 2-diol | 2.2-5% |
| 107-21-1 | Ethenediol  Xn; R 22 -----  H302 | 2.5-5% |

Additional information: For the wording of the listed risk phrases refer to section 16.

* SECTION III – HAZARDS IDENTIFICATION

HAZARD DESCRIPTION: -

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

The product is not classified according to the Globally Harmonized System (GHS).

CLASSIFICATION ACCORDING TO DIRECTIVE 67/548/EEC OR DIRECTIVE 1999/45/EC

-Not Applicable

INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT:

No hazards to be particularly mentioned

CLASSIFICATION SYSTEM:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

LABEL ELEMENTS

- Labelling according to EU guidelines:
Observe the general safety regulations when handling chemicals.
The product is considered to be an eye irritant.
This product has been classified and marked in accordance



NFPA RATINGS (SCALE 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

HMIS-RATINGS (SCALE 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

OTHER HAZARDS:

Results of PBT and vPvB assessment

PBT: Not Applicable

vPvB: Not Applicable

IV – FIRST AID MEASURES

GENERAL INFORMATION:

No special measures required.

In all cases of doubt, when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

AFTER INHALATION:

No adverse effect anticipated by this route of exposure. If symptoms show up, remove to fresh air.

AFTER SKIN CONTACT:

Do not use solvents or thinners.

Remove contaminated clothing.

Immediately wash with water and soap and rinse thoroughly.

AFTER EYE CONTACT:

Flush eyes thoroughly with water for 15 minutes. Seek medical attention if irritation persists.

AFTER SWALLOWING:

Keep at rest.

Do not induce vomiting; immediately call for medical help.

INFORMATION FOR DOCTOR:

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION V – FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING AGENTS:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

UNSUITABLE EXTINGUISHING AGENTS: Water with full jet

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Formation of toxic gases is possible during heating or in case of fire.

ADVICE FOR FIREFIGHTERS:



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Protective equipment: Mount respiratory protective device.

ADDITIONAL INFORMATION

Collect contaminated fire fighting water separately. It must not enter the sewage system.
Cool endangered receptacles with water spray.

SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSON-RELATED SAFETY PRECAUTIONS: Ensure adequate ventilation

MEASURES FOR ENVIRONMENTAL PROTECTION:

Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.

MEASURES FOR CLEANING/COLLECTING:

Absorb with liquid-binding material (sand, diatomite, sawdust).
Send for recovery or disposal in suitable containers.
Dispose contaminated material as waste according to item 13.

Avoid use of solvents.

REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION VII – HANDLING AND STORAGE

HANDLING:

INFORMATION FOR SAFE HANDLING: No special measures required.

INFORMATION ABOUT PROTECTION AGAINST EXPLOSIONS AND FIRES: No special measures required.

STORAGE:

REQUIREMENTS TO BE MET BY STOREROOMS AND CONTAINERS:

Ideal storage temperature: 50 - 90°F.
Store in a cool location.
Use only containers specifically designed for this product.

FURTHER INFORMATION ABOUT STORAGE CONDITIONS:

Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.

Specific end use(s) No further relevant information available.

* **SECTION VIII – EXPOSURE CONTROL/PERSONAL PROTECTION**

ADDITIONAL INFORMATION ABOUT DESIGN OF TECHNICAL SYSTEMS: No further data; see item 7.

CONTROL PARAMETERS

| COMPONENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORKPLACE: | |
|---|-------------------------------|
| 57-55-6 Propane-1, 2-diol | |
| WEEL | 10 mg/m3 |
| 107-21-1 Ethanediol | |
| TLV | Short-term value: C 100 mg/m3 |
| | H |

PERSONAL PROTECTIVE EQUIPMENT:

GENERAL PROTECTIVE AND HYGIENIC MEASURES:

The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
Do not eat or drink while working.



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BREATHING EQUIPMENT: Not required.

PROTECTION OF HANDS:



Protective Gloves

EYE PROTECTION:



Safety Glasses

BODY PROTECTION: Protective work clothing

* **SECTION IX – PHYSICAL & CHEMICAL PROPERTIES**

GENERAL INFORMATION

- Physical form: Liquid
- Color: Colorless
- Odor: Weak
- Odor Threshold: Not determined

pH-value at 20°C (68°F):

7

Change in condition

- Melting point/Melting range: Not determined
- Boiling point/Boiling range: 100°C (212°F)

Flash point:

> 100°C (> 212°F)

Ignition temperature:

> 350°C (> 662°F)

- Decomposition Temperature: Not determined

Auto igniting:

Not determined

DANGER OF EXPLOSION:

Product does not present an explosion hazard.

- Explosion limits: Not applicable
- Lower: Not applicable
- Upper: Not applicable

Vapor pressure at 20°C (68°F):

Not determined

Density at 20°C (68°F):

1 g/cm³ (8.345 lbs/gal)

- Relative Density: Not determined
- Vapor Density: Not determined
- Evaporation Rate: Not determined

Segregation coefficient (n-octanol/water): Not determined.

Solubility In / Miscibility With

- Water: Miscible

VISCOSITY:

- Viscosity at 20°C (68°F): 5 mPas
- Viscosity: Not determined

Other Information:

No further relevant information available



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SECTION X – STABILITY AND REACTIVITY

THERMAL DECOMPOSITION / CONDITIONS TO BE AVOIDED:

Stable under recommended storage and handling conditions.

MATERIALS TO BE AVOIDED: Strong oxidizers.

CONDITIONS TO BE AVOIDED: No further relevant information available

Dangerous reactions No dangerous reactions known if used according to specifications.

DANGEROUS PRODUCTS OF DECOMPOSITION:

In case of fire, carbon and nitrogen oxides are the main combustion gases

SECTION XI – TOXICOLOGICAL INFORMATION

GENERAL NOTES:

There is no experimentally determined data available on the preparation itself.

The product is not classified as hazardous through scientific evaluation of information in the literature for ingredients.

When used and handled according to recommended storage and handling conditions, the product does not have any harmful effects according to our experience and the information provided to us.

Splashes in the eyes may cause irritation but no permanent harm.

SECTION XII – ECOLOGICAL INFORMATION

TOXICITY

Acquatic toxicity: No further relevant information available.

PERSISTENCE AND DEGRADABILITY: No further relevant information available.

BEHAVIOR IN ENVIRONMENTAL SYSTEMS:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

ADDITIONAL ECOLOGICAL INFORMATION:**General notes:**

At present there are no ecotoxicological assessments.

Do not allow product to reach ground water, water course or sewage system.

RESULTS of PBT and vPvB ASSESSMENT

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

SECTION XIII – DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS:

Recommendation: Waste material must be disposed of in accordance with local regulations.

UNCLEANED PACKAGINGS:**Recommendation:**

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

SECTION XIV – TRANSPORT INFORMATION

DOT regulations:

- **Hazard class:** -

Land transport ADR/RID (cross-border):

- **ADR/RID class:** -

Maritime transport IMDG:

- **IMDG Class:** -

- **Marine pollutant:** No

Air transport ICAO-TI and IATA-DGR:

- **ICAO/IATA Class:** -

- **UN "Model Regulation":** -



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- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

SECTION XV – OTHER INFORMATION

SARA

Section 355 (Extremely hazardous substances):
None of the ingredients are listed.

| | |
|--|------------|
| Section 313 (Specific toxic chemical listings): | |
| 107-21-1 | Ethenediol |

TSCA (TOXIC SUBSTANCES CONTROL ACT):

All components are included in the TSCA inventory and/or comply with TSCA regulations.

CALIFORNIA PROPOSITION 65

Chemicals known to cause cancer:
None of the ingredients are listed.

CARCINOGENIC CATEGORIES

| | |
|---|------------|
| TLV (Threshold Limit Value established by ACGIH) | |
| 107-21-1 | Ethenediol |

OSHA (Occupational Safety & Health Administration)

The product does not contain any carcinogenic substances according to OSHA criterias.

PRODUCT RELATED HAZARD INFORMATIONS:

Observe the general safety regulations when handling chemicals.
The product is considered to be an eye irritant.

The product has been classified and marked in accordance with national laws.

Chemical Safety Assessment: A chemical safety assessment has not been carried out.

SECTION XVI – OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The chapters that have been modified are indicated in the left margin by an asterisk.

RELEVANT PHRASES:

- H302 Harmful if swallowed.
- R22 Harmful if swallowed.

ABBREVIATIONS AND ACRONYMS:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- ACGIH: American Conference of Governmental Industrial Hygienists
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
- ICAO: International Civil Aviation Organization
- ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)

THE INFORMATION CONTAINED HEREIN IS CORRECT TO THE BEST OF OUR KNOWLEDGE. THE RECOMMENDATIONS AND SUGGESTIONS CONTAINED IN THIS BULLETIN ARE MADE WITHOUT GUARANTEE OR REPRESENTATION AS TO RESULTS. IF POSSIBLE, WE SUGGEST THAT YOU EVALUATE THESE RECOMMENDATIONS AND SUGGESTIONS PRIOR TO USE.