

SAFETY DATA SHEET

1. Identification

Product identifier	Eco Solvent for Epson DX Heads
Other means of identification	
Product code	1401Black,1402Cyan,1403Magenta,1404Yellow,1406LMag,1405LCyan,1510Green,1511Orange 1514 Fluorescent Magenta,1515 Fluorescent Yellow,1517Fluorescent Cyan and 1334 Flush #34
Recommended use	Ink.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Company name	SIGNWarehouse Inc.
Address	2614 Texoma Drive Denison, TX 75020
Telephone	903462-7700 Office Hours Monday - Friday 8am - 5pm CDT
E-mail	Customer.service@signwarehouse.com
Contact person	
Emergency phone number	

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 4
Health hazards	Acute toxicity, inhalation	Category 4
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2 (Blood, Kidney)
OSHA defined hazards	Not classified.	
Label elements		
Signal word	Warning	
Hazard statement	Combustible liquid. Causes serious eye irritation. Harmful if inhaled. May cause drowsiness or dizziness. May cause damage to organs (Blood, Kidney) through prolonged or repeated exposure.	
Precautionary statement		
Prevention	Keep away from flames and hot surfaces-No smoking. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection.	
Response	If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.	
Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	None.	

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Diethylene glycol diethyl ether	112-36-7	20-50

Eco Sol for DX Heads

929667 Version #: 04 Revision date:31- July 2025 - Issue date: 25-January-2017

SDS US

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Ethylene glycol monobutyl ether acetate	112-07-2	20-30
Dipropylene glycol dimethyl ether	111109-77-4	10-20
Butyrolactone	96-48-0	5-15
Diacetone alcohol	123-42-2	2-10

Composition comments Components not listed are either non-hazardous or are below reportable limits.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Edema. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will spread on the water surface. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Do not breathe mist or vapor. Avoid contact with eyes. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	PEL	240 mg/m3
		50 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	TWA	50 ppm
Ethylene glycol monobutyl ether acetate (CAS 112-07-2)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	TWA	240 mg/m3
		50 ppm
Ethylene glycol monobutyl ether acetate (CAS 112-07-2)	TWA	33 mg/m3
		5 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines**US - California OELs: Skin designation**

Diethylene glycol diethyl ether (CAS 112-36-7)

Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Skin protection**Other**

Wear suitable protective clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Color liquid.
Physical state	Liquid.
Form	Liquid.
Color	Various.
Odor	Slight odor.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	156.0 °F (68.9 °C) Tag Closed Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	0.96
Relative density temperature	77 °F (25 °C)
Solubility(ies)	
Solubility (water)	< 0.1 % (Insoluble)
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	4 - 5 cP
Viscosity temperature	77 °F (25 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes serious eye irritation.
Ingestion	Hazardous when ingested.

Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Edema.
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Information on toxicological effects

Acute toxicity	Harmful if inhaled. Narcotic effects.
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Components	Species	Test Results
Diethylene glycol diethyl ether (CAS 112-36-7)		
Acute		
<i>Oral</i>		
LD50	Guinea pig	1850 mg/kg
	Rat	4970 mg/kg

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
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Serious eye damage/eye irritation	Causes serious eye irritation.
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Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.
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Skin sensitization	This product is not expected to cause skin sensitization.
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Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
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Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
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IARC Monographs. Overall Evaluation of Carcinogenicity

Butyrolactone (CAS 96-48-0)	3 Not classifiable as to carcinogenicity to humans.
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NTP Report on Carcinogens

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
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Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
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Specific target organ toxicity - repeated exposure	May cause damage to organs (Blood, Kidney) through prolonged or repeated exposure.
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Aspiration hazard	Not an aspiration hazard.
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Chronic effects	May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.
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12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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Persistence and degradability	No data is available on the degradability of this product.
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Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Butyrolactone (CAS 96-48-0)	-0.64
Diacetone alcohol (CAS 123-42-2)	-0.098

Mobility in soil	No data available.
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Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
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13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	Not regulated
UN proper shipping name	
Transport hazard class(es)	-
Class	-
Subsidiary risk	None
Label(s)	-
Packing group	
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	-
Packaging exceptions	-
Packaging non bulk	-
Packaging bulk	-

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All the components of this product are on the TSCA inventory list.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Diethylene glycol diethyl ether (CAS 112-36-7) 1.0 % One-Time Export Notification only.
Dipropylene glycol dimethyl ether (CAS 111109-77-4) 1.0 % One-Time Export Notification only.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Diethylene glycol diethyl ether (CAS 112-36-7) LISTED
Ethylene glycol monobutyl ether acetate (CAS 112-07-2) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard – Yes
Fire Hazard –FP 156.0 °F
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Diethylene glycol diethyl ether	112-36-7	20-30
Ethylene glycol monobutyl ether acetate	112-07-2	20-30

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Diethylene glycol diethyl ether (CAS 112-36-7)
 Ethylene glycol monobutyl ether acetate (CAS 112-07-2)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Butyrolactone (CAS 96-48-0) 70 %WV

DEA Exempt Chemical Mixtures Code Number

Butyrolactone (CAS 96-48-0) 2011

US state regulations**US. Massachusetts RTK - Substance List**

Diacetone alcohol (CAS 123-42-2)

US. New Jersey Worker and Community Right-to-Know Act

Diacetone alcohol (CAS 123-42-2)
 Diethylene glycol diethyl ether (CAS 112-36-7)
 Ethylene glycol monobutyl ether acetate (CAS 112-07-2)

US. Pennsylvania Worker and Community Right-to-Know Law

Diacetone alcohol (CAS 123-42-2)
 Diethylene glycol diethyl ether (CAS 112-36-7)
 Ethylene glycol monobutyl ether acetate (CAS 112-07-2)

US. Rhode Island RTK

Diethylene glycol diethyl ether (CAS 112-36-7)
 Ethylene glycol monobutyl ether acetate (CAS 112-07-2)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Toluene (CAS 108-88-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 25 January-2017

Revision date

31- July 2025

Version #

04

HMIS® ratings

Health: 2*

Flammability: 2

Physical hazard: 0

NFPA ratings



Disclaimer

SIGNWarehouse Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.