SAFETY DATA SHEET



1. Identification

Product identifier Other means of identification Recommended use Recommended restrictions	Twine Light Magenta Ink - TLMI None. Digital thread dyeing. To be used with TS1800 system only.
Manufacturer/Importer/Supplier/I	Distributor information
Company	Twine Solutions LTD
Address	7 Hatnufa Street (Kodak Building)
	Petach-Tiqua - 4951025
	ISRAEL
Telephone	+972-35589505
Website	www.twine-s.com
E-mail	info@twine-s.com
Emergency telephone number	+972-35589505

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 4
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
OSHA defined hazards	Not classified.	

OSHA defined hazards





Signal word	Warning
Hazard statement	Combustible liquid. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation.
Precautionary statement	
Prevention	Keep away from flames and hot surfaces-No smoking. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/eye protection/face protection.
Response	If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use alcohol-resistant foam, carbon dioxide, dry powder or water fog to extinguish.
Storage	Store in a well-ventilated place. Keep cool.
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	%
Proprietary ingredient 1		Proprietary	<70
Proprietary ingredient 2		Proprietary	<70
Composition comments	All concentrations are in percent by weight u percent by volume. The specific chemical identity and/or exact p trade secret.		
4. First-aid measures			
nhalation	Move to fresh air. Call a physician if symptor	ns develop or persist.	
Skin contact	Remove contaminated clothing. Wash with p medical advice/attention. Wash contaminate		n irritation occurs: C
Eye contact	Immediately flush eyes with plenty of water for present and easy to do. Continue rinsing. Get		
ngestion	Rinse mouth. If vomiting occurs, keep head I Get medical advice/attention if you feel unwe		oesn't get into the l
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include vision. Skin irritation. May cause redness and		velling, and blurred
ndication of immediate nedical attention and special reatment needed	Provide general supportive measures and tre under observation. Symptoms may be delayed		tim warm. Keep vict
General information	Ensure that medical personnel are aware of protect themselves. Show this safety data sh		
5. Fire-fighting measures			
uitable extinguishing media	Water fog. Dry chemical powder. Carbon dio	xide (CO2). Alcohol resistant	foam.
Insuitable extinguishing nedia	Do not use water jet as an extinguisher, as the	his will spread the fire.	
Specific hazards arising from the chemical	The product is combustible, and heating may mixtures. During fire, gases hazardous to he		form explosive vapo
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full p	protective clothing must be wo	rn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breath so without risk.	ne fumes. Move containers fro	m fire area if you ca
Specific methods	Use standard firefighting procedures and cor	nsider the hazards of other inv	olved materials.
General fire hazards	Combustible liquid.		
6. Accidental release meas	ures		
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep per ignition sources (no smoking, flares, sparks, protective equipment and clothing during cle- material unless wearing appropriate protective authorities should be advised if significant sp see section 8 of the SDS.	or flames in immediate area). an-up. Do not touch damaged ve clothing. Ensure adequate	Wear appropriate containers or spille ventilation. Local
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, fla combustibles (wood, paper, oil, etc.) away fro		ediate area). Keep
	Large Spills: Stop the flow of material, if this possible. Use a non-combustible material like and place into a container for later disposal.	e vermiculite, sand or earth to	soak up the produc
	Small Spills: Absorb with earth, sand or othe for later disposal. Clean surface thoroughly to		
	Never return spills to original containers for r	e-use Forwaste disposal se	e section 13 of the

7. Handling and storage

Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in 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

Components	Туре	Value		
Proprietary ingredient 1	TWA	44.2 mg/m3		
		10 ppm		
iological limit values	No biological exposure limits noted for	or the ingredient(s).		
ppropriate engineering ontrols	Good general ventilation 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 and safe shower.			
ndividual protection measure	s, such as personal protective equipm			
Eye/face protection	Wear safety glasses with side shield	s (or goggles).		
Skin protection				
Hand protection	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.			
Skin protection				
Other	Wear appropriate chemical resistant	clothing.		
Respiratory protection	limits (where applicable) or to an acc been established), an approved resp	in airborne concentrations below recommended exposure eptable level (in countries where exposure limits have not irator must be worn. In the United States of America, if ald be instituted to assure compliance with OSHA 29 CFR		
Thermal hazards	Wear appropriate thermal protective	clothing, when necessary.		
eneral hygiene onsiderations	When using do not smoke. Keep away from food and drink. Always observe good person hygiene measures, such as washing after handling the material and before eating, drinkir smoking. Routinely wash work clothing and protective equipment to remove contaminant			

9. Physical and chemical properties

Appearance		
Physical state	Liquid.	
Form	Liquid.	
Color	Not available.	
Odor	Not available.	
Odor threshold	Not available.	
рН	Not available.	
Melting point/freezing point	Not available.	
Initial boiling point and boiling range	395.6 - 402.8 °F (202 - 206 °C)	
Flash point	179.6 °F (82.0 °C) (Lowest Flashing Component)	
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.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	1 - 10 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	No dangerous reaction known under conditions of normal use.

reactions	
Conditions to avoid	Keep away from heat, hot surfaces, 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	Thermal decomposition of this product can generate carbon monoxide and carbon dioxide.

11. Toxicological information

Information on likely routes of e	exposure
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Harmful if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	Harmful if swallowed.		
Components	Species	Test Results	
Proprietary ingredient 1 (0	CAS Proprietary)		
<u>Acute</u>			
Dermal			
LD50	Rabbit	> 2000 mg/kg	
Inhalation Aerosol			
LC50	Rat	> 4178 mg/m³, 4 Hours	
Oral			
LD50	Rat	1620 mg/kg	
Proprietary ingredient 2 (0	CAS Proprietary)		
<u>Acute</u>			
Oral			
LC50	Rat	1000 mg/kg	

Skin corrosion/irritation Causes skin irritation. Serious eye damage/eye Causes serious eye irritation. irritation Causes serious eye irritation. Respiratory or skin sensitization Not a respiratory sensitization. Skin corrosilization Not a respiratory sensitization. Gern cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. Carcinogenicity No data savialable to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. No data available as to carcinogenicity Not fassified. NTP Report on Carcinogens Not assified. NTP Report on Carcinogens Not classified. Not regulated. Not classified. Specific target organ toxicity Not classified. Specific target organ toxicity Not an aspiration hazard. Chronic effects Prolonged inhalation may be harmful. Further information No other specific as environmentally hazardous. However, this does not exclude the possibility tha large or frequent splits can have a harmful or damaging effect on the ervironment possibility that large or frequent splits can have a harmful or damaging effect on the ervironment po	Skin corrosion/irritation				
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Bioaccumulative potential Partition coefficient n-octanol / water (log Kow) Proprietary ingredient 1 1.1 Mobility in soil No data available. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation	Proprietary ingredient 1 (CAS Aquatic Fish Proprietary ingredient 2 (CAS Aquatic Acute	LC50 Proprietary)	Fathead minnow (Pimephales	s promelas) 460 mg/l, 96 hours	
Proprietary ingredient 11.1Mobility in soilNo data available.Other adverse effectsNo other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation	Proprietary ingredient 1 (CAS Aquatic Fish Proprietary ingredient 2 (CAS Aquatic Acute	LC50 Proprietary) EC50	Fathead minnow (Pimephales	s promelas) 460 mg/l, 96 hours > 102.2 mg/l, 48 hours	
Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation	Proprietary ingredient 1 (CAS Aquatic Fish Proprietary ingredient 2 (CAS Aquatic Acute Crustacea Persistence and degradability	LC50 Proprietary) EC50	Fathead minnow (Pimephales	s promelas) 460 mg/l, 96 hours > 102.2 mg/l, 48 hours	
	Proprietary ingredient 1 (CAS Aquatic Fish Proprietary ingredient 2 (CAS Aquatic Acute Crustacea Persistence and degradability Bioaccumulative potential Partition coefficient n-octan	LC50 Proprietary) EC50 No data is av	Fathead minnow (Pimephales Daphnia magna ailable on the degradability of a Kow)	s promelas) 460 mg/l, 96 hours > 102.2 mg/l, 48 hours	
potential, endocrine disruption, global warming potential) are expected from this component.	Proprietary ingredient 1 (CAS Aquatic Fish Proprietary ingredient 2 (CAS Aquatic Acute Crustacea Persistence and degradability Bioaccumulative potential Partition coefficient n-octan Proprietary ingredient 1	LC50 Proprietary) EC50 No data is ava	Fathead minnow (Pimephales Daphnia magna ailable on the degradability of a Kow) 1.1	s promelas) 460 mg/l, 96 hours > 102.2 mg/l, 48 hours	
13. Disposal considerations	Proprietary ingredient 1 (CAS Aquatic Fish Proprietary ingredient 2 (CAS Aquatic Acute Crustacea Persistence and degradability Bioaccumulative potential Partition coefficient n-octan Proprietary ingredient 1 Mobility in soil	LC50 Proprietary) EC50 No data is availa nol / water (log No data availa No other adve	Fathead minnow (Pimephales Daphnia magna ailable on the degradability of a Kow) 1.1 able. erse environmental effects (e.g.	s promelas) 460 mg/l, 96 hours > 102.2 mg/l, 48 hours ny ingredients in the mixture. ozone depletion, photochemical ozone creation	
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.	Proprietary ingredient 1 (CAS Aquatic Fish Proprietary ingredient 2 (CAS Aquatic Acute Crustacea Persistence and degradability Bioaccumulative potential Partition coefficient n-octan Proprietary ingredient 1 Mobility in soil Other adverse effects	LC50 Proprietary) EC50 No data is availant No data availant No data availant No other adva potential, end	Fathead minnow (Pimephales Daphnia magna ailable on the degradability of a Kow) 1.1 able. erse environmental effects (e.g.	s promelas) 460 mg/l, 96 hours > 102.2 mg/l, 48 hours ny ingredients in the mixture. ozone depletion, photochemical ozone creation	
	Proprietary ingredient 1 (CAS Aquatic Fish Proprietary ingredient 2 (CAS Aquatic Acute Crustacea Persistence and degradability Bioaccumulative potential Partition coefficient n-octan Proprietary ingredient 1 Mobility in soil Other adverse effects 13. Disposal consideration	LC50 Proprietary) EC50 No data is availa No data availa No other adve potential, end	Fathead minnow (Pimephales Daphnia magna ailable on the degradability of a Kow) 1.1 able. erse environmental effects (e.g. locrine disruption, global warmir	s promelas) 460 mg/l, 96 hours > 102.2 mg/l, 48 hours ny ingredients in the mixture. ozone depletion, photochemical ozone creation ng potential) are expected from this component. ainers at licensed waste disposal site. Dispose of	
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.	Proprietary ingredient 1 (CAS Aquatic Fish Proprietary ingredient 2 (CAS Aquatic Acute Crustacea Persistence and degradability Bioaccumulative potential Partition coefficient n-octan Proprietary ingredient 1 Mobility in soil Other adverse effects 13. Disposal consideration	LC50 Proprietary) EC50 No data is availand No data availand No other adver potential, end No Collect and recontents/cont	Fathead minnow (Pimephales Daphnia magna ailable on the degradability of a Kow) 1.1 able. erse environmental effects (e.g. locrine disruption, global warmir eclaim or dispose in sealed cont tainer in accordance with local/re	s promelas) 460 mg/l, 96 hours > 102.2 mg/l, 48 hours ny ingredients in the mixture. ozone depletion, photochemical ozone creation ng potential) are expected from this component. ainers at licensed waste disposal site. Dispose of egional/national/international regulations.	
Waste from residues / unused Dispose of in accordance with local regulations. Empty containers or liners may retain some 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).	Proprietary ingredient 1 (CAS Aquatic Fish Proprietary ingredient 2 (CAS Aquatic Acute Crustacea Persistence and degradability Bioaccumulative potential Partition coefficient n-octan Proprietary ingredient 1 Mobility in soil Other adverse effects 13. Disposal consideration Disposal instructions Local disposal regulations	LC50 Proprietary) EC50 No data is availant No data availant No other advertile No other advertile potential, end S Collect and recontents/cont Dispose in act The waste co	Fathead minnow (Pimephales Daphnia magna ailable on the degradability of a Kow) 1.1 able. erse environmental effects (e.g. locrine disruption, global warmir eclaim or dispose in sealed cont tainer in accordance with local/re cordance with all applicable reg de should be assigned in discus	s promelas) 460 mg/l, 96 hours > 102.2 mg/l, 48 hours ny ingredients in the mixture. ozone depletion, photochemical ozone creation ng potential) are expected from this component. ainers at licensed waste disposal site. Dispose of egional/national/international regulations. ulations.	
Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.	Proprietary ingredient 1 (CAS Aquatic Fish Proprietary ingredient 2 (CAS Aquatic Acute Crustacea Persistence and degradability Bioaccumulative potential Partition coefficient n-octan Proprietary ingredient 1 Mobility in soil Other adverse effects 13. Disposal consideration Disposal instructions Local disposal regulations Hazardous waste code Waste from residues / unused	LC50 Proprietary) EC50 No data is availant No data availant No other adver potential, end ns Collect and recontents/cont Dispose in act The waste coordisposal comp Dispose of in product reside	Fathead minnow (Pimephales Daphnia magna ailable on the degradability of a Kow) 1.1 able. erse environmental effects (e.g. locrine disruption, global warmin eclaim or dispose in sealed cont cainer in accordance with local/re cordance with all applicable reg de should be assigned in discus pany. accordance with local regulation ues. This material and its contai	s promelas) 460 mg/l, 96 hours > 102.2 mg/l, 48 hours ny ingredients in the mixture. ozone depletion, photochemical ozone creation ng potential) are expected from this component. ainers at licensed waste disposal site. Dispose of egional/national/international regulations. ulations. ssion between the user, the producer and the waste ns. Empty containers or liners may retain some	

14. Transport information

DOT

Not regulated as dangerous goods.

This material is classified as a combustible liquid when shipped in bulk packaging >119 G/450 L.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods. **Transport in bulk according to** Not applicable. **Annex II of MARPOL 73/78 and the IBC Code**

15. Regulatory information

15. Regulatory information	
US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Exp	port Notification (40 CFR 707, Subpt. D)
Not regulated.	
CERCLA Hazardous Su	bstance List (40 CFR 302.4)
Not listed.	
SARA 304 Emergency r	elease notification
Not regulated.	
	ulated Substances (29 CFR 1910.1001-1053)
Not regulated.	
Toxic Substances Control Act (TSCA)	All components of the mixture on the TSCA 8(b) inventory are designated "active".
Superfund Amendments and Re	eauthorization Act of 1986 (SARA)
SARA 302 Extremely hazard	dous substance
Not listed.	
SARA 311/312 Hazardous chemical	Yes
Classified hazard	Flammable (gases, aerosols, liquids, or solids)
categories	Acute toxicity (any route of exposure)
	Skin corrosion or irritation Serious eye damage or eye irritation
SARA 313 (TRI reporting)	
Not regulated.	
Other federal regulations	
Clean Air Act (CAA) Section	112 Hazardous Air Pollutants (HAPs) List
Not regulated.	
Clean Air Act (CAA) Section	112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.	
Safe Drinking Water Act (SDWA)	Not regulated.
US state regulations	
US. Massachusetts RTK - S	ubstance List
Proprietary ingredient 1 (CAS Proprietary)
US. New Jersey Worker and	Community Right-to-Know Act
Not listed.	
US. Pennsylvania Worker a	nd Community Right-to-Know Law
Proprietary ingredient 1 (US. Rhode Island RTK	CAS Proprietary)
Not regulated.	
California Proposition 65	
California Safe Drinking V	Nater and Toxic Enforcement Act of 1986 (Proposition 65): This material
	ny chemicals currently listed as carcinogens or reproductive toxins. For
more information go to w	ww.Poovvarnings.ca.gov.

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

	· · · ·
Issue date	28-Jan-2021
Revision date	-
Version #	01
HMIS® ratings	Health: 2 Flammability: 2 Physical hazard: 0
Disclaimer	Twine Solutions LTD 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.