

SAFETY DATA SHEET

According to 1907/2006/EC (REACH), 453/2010 (EC), 1272/2008/EC (CLP) and OSHA GHS

1 – Identification

Product identifier	Smart-Jet® 81815
Other means of identification	Not available.
Synonym(s)	Not available.
Recommended use	Inkjet Printing
Recommended restrictions	None Known.
Issue date	16-Oct-2018
Company identification	MSSC, LLC. 926 McDonough Lake Road, Collinsville, IL 62234, USA Tel: 618-343-1006 Website: www.msscllc.com

2 - Hazard(s) identification

Classification according to Regulation (EC) No 1272/2008 [CLP]: Flammable liquids. Category 2

Health hazards Eye irritation (Category 2), H319
Mild skin irritation (category 3), H316

Labeling according to Regulation (EC) No 1272/2008 [CLP]:



GHS02 GHS07

GHS signal word Danger

GHS hazard statement H225- Highly flammable liquid and vapor.
H319- Causes serious eye irritation.
H316- Causes mild skin irritation.

GHS Precautionary statement

Prevention P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P370+P378- In case of fire: for small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam to extinguish. For large fires, use water spray, fog, or alcohol-resistant foam to extinguish. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Response	P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	P403 + P235 - Store in a well-ventilated place. Keep cool.
Disposal	P501- Dispose of contents/container in accordance with local/regional/national/international regulations.
Environmental hazards	Not available

3 - Composition/information on ingredients

Hazardous Components (Chemical Name)/ REACH Registration No.	CAS Number	%	EC No./ EC indexNo	GHS Classification
Ethanol	64-17-5	>77	200-578-6 603-002-00-5	Flam. Liq. 2, H225 Eye Irrit. 2, H319
1-methoxy-2-propanol	107-98-2	≤10	203-539-1 603-064-00-3	Flam. Liq. 3; STOT SE 3; H226, H336
Cyclohexanone	108-94-1	≤4	20203-631-1 606-010-00-7	Flam. Liq. 3, H226 Acute Tox. 4, H302, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318
Acetone	67-64-1	≤5	200-662-2 606-001-00-8	Flam. Liq. 1: H224 Eye Irrit. 2: H319 STOT SE 3: H336
Red dyes mixture	Proprietary	<4	NA	Not classified

4. First-aid measures

Inhalation	Move person to fresh air immediately. If symptoms persist, get immediate medical attention.
Skin contact	In case of contact, immediately remove contaminated clothing and flush skin with copious amounts of water. Wash clothing separately before reuse. Get medical attention, if needed.
Eye contact	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately.
Ingestion	Rinse mouth out with water. If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Most important symptoms/ effects, acute and delayed	See section 8.

5. Fire-fighting measures

FLASH POINT: 15°C (closed-cup).

Suitable extinguishing media	Suitable extinguishing media: sand, carbon dioxide (CO ₂) or dry chemical.
Unsuitable extinguishing media	Not available.
Specific hazards arising from the chemical	Not applicable.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self-contained breathing apparatus. Avoid run off into storm sewers and ditches which lead to waterways.
Fire-fighting equipment/instructions	Move containers from fire area if you can do it without risk.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid contact with skin. Avoid inhalation of vapors or mists. Do not touch or walk through spilled material. Ensure adequate ventilation. Remove all sources of ignition. Use personal protective equipment to minimize exposure to skin and eye. In the case of vapor formation use a respirator with an approved filter.
Environmental precautions	Do not flush into surface water or sanitary sewer system.
Methods and materials for containment and cleaning up	Not available.



7. Handling and storage

Precautions for safe handling	Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Wear personal protective equipment.
Conditions for safe storage, including any incompatibilities	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame.

8. Exposure controls/personal protection

Occupational exposure limits

Component	CAS	US	EU	UK
Ethanol	64-17-5	1000 ppm TWA OSHA PEL 1000 ppm STEL ACGIH TLV	None Established	1000 ppm TWA
Cyclohexanone	108-94-1	1000 ppm TWA OSHA PEL	None Established	None Established
Acetone	67-64-1	590 mg/m ³ TWA OSHA PEL 750 ppm STEL ACGIH TLV	None Established	590 mg/m ³ TWA, 750 ppm STEL
1-methoxy-2-propanol	107-98-2	None: TWA OSHA PEL 150ppm, 553mg/m ³ STEL ACGIH TLV	375mg/m ³ TWA 568mg/m ³ STEL	375mg/m ³ TWA 150ppm STEL

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering Controls	Not available.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses; chemical goggles (if splashing is possible). Eye wash fountain and emergency showers are recommended.
	
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
	
Other	Wear appropriate chemical resistant clothing. .
Respiratory protection	Provide adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment.
Thermal hazards	Not available.
General hygiene considerations	Do not get this material in contact with skin. Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Launder contaminated clothing before reuse.

9. Physical and chemical properties

Appearance	Red liquid
Odor	Characteristic
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point;	Not available.
Initial boiling point and boiling range	>70°C
Flash point	15°C (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	Not available.
Solubility(ies)	Soluble in ethanol
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity (cPs)	Not available.

10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	None known.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Not available.
Hazardous decomposition products	Not available.

11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics Not available.

Information on toxicological effects

Acute toxicity value

Components	Species	Test results
Ethanol (CAS 64-17-5)		
Acute		
Inhalation		
LC50	Mouse Rat	39 mg/l, 4 Hours 20000 mg/l, 10 Hours
Oral		
LD50	Dog Guinea pig Mouse	5.5 g/kg 5.6 g/kg Mouse 3450 mg/kg

	Rat	Rat 7060 mg/kg 6.2 g/kg
Other		
LD50	Mouse Rat	933 mg/kg 1440 mg/kg

**Cyclohexanone
(CAS 108-94-1)**

Acute

Inhalation

LC50	Rat	> 6.2 mg/l, 4 Hours
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Dermal

LD50	rabbit	3,160 mg/kg
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Acetone (CAS 67-64-1)

Acute

Inhalation

LC50	Rat	50.100 mg/m ³
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Oral

LD50	Rat	5.800 mg/kg
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Dermal

LD50	Guinea pig	7.426 mg/kg
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**1-methoxy-2-propanol (CAS
107-98-2)**

Acute

Inhalation

LC50	Rat	10,000 mg/l, 5 Hour
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Oral

LD50	Mouse	11,700mg/kg
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Dermal

LC50	Rabbit	13,000mg/kg
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Skin corrosion/irritation

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.

**Serious eye damage/eye
irritation**

Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: Harmful if swallowed.

Respiratory sensitization

Based on available data, the classification criteria are not met.

Skin sensitization

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

**Specific target organ
toxicity
- single exposure**

Based on available data, the classification criteria are not met.

Specific target organ

Based on available data, the classification criteria are not met.

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**toxicity
- repeated exposure**

Aspiration hazard Based on available data, the classification criteria are not met.

12. Ecological information

Aquatic toxicity

Eco toxicity

Components		Species	Test Results
Ethanol (CAS 64-17-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	7.7 - 11.2 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)			
Daphnia and other aquatic invertebrates	LC50	Daphnia magna (Water flea)	820 mg/l - 24 h
Acetone (CAS 67-64-1)			
Fish	LC50	Oncorhynchus mykiss (rainbow trout)	5.540 mg/l - 96 h
Daphnia and other aquatic invertebrates	LC50	Daphnia magna (Water flea)	8.800 mg/l - 48 h
Bioaccumulative potential	Not available.		
Partition coefficient n-octanol / water (log Kow)			
Ethanol (CAS 64-17-5)	-0.31		
Cyclohexanone (CAS 108-94-1)	0.81		
Acetone (CAS 67-64-1)	-0.24		
1-methoxy-2-propanol (CAS 107-98-2)	-0.49		
Mobility in soil	Not available.		
Other adverse effects	Not available.		

13. Disposal considerations

Disposal instructions Do not dispose of together with general office waste.

Do not allow this material to drain into sewers/water supplies.
 Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.
 Ensure collection and disposal with an appropriately licensed waste contractor.


Local disposal regulations	Not available.
Hazardous waste code	Not regulated.
Waste from residues / unused products	Not available.
Contaminated packaging	Not available.

14. Transport information


DOT

UN number	UN1210
UN proper shipping name	Printing ink, flammable (Ethanol, Cyclohexanone, Acetone, 1-methoxy-2-propanol)
Transport hazard class(es)	 Classes: 3 Flammable liquid Label :3
Subsidiary class(es)	Not available.
Packing group	II
Special precautions for user	DOT Classification only applies to shipments within the US and Puerto Rico.
Labels required	Not available.

IATA

UN number	UN1210
UN proper shipping name	Printing ink, flammable (Ethanol, Cyclohexanone, Acetone, 1-methoxy-2-propanol)
Transport hazard class(es)	 Classes: 3 Flammable liquid Label :3
Subsidiary class(es)	-
Packaging group	II
Environmental hazards	No
Labels required	Not available.
ERG Code	Not available.
Special precautions for user	Not available.

IMDG

UN number	UN1210
UN proper shipping name	Printing ink, flammable (Ethanol, Cyclohexanone, Acetone, 1-methoxy-2-propanol)
Transport hazard class(es)	 Classes: 3 Flammable liquid Label :3
Subsidiary class(es)	-
Packaging group	II
Environmental hazards	
Marine pollutant	No
Labels required	Not available.
Ems	Not available.
Special precautions for user	Not available.

Section 15 - Regulatory Information

US federal regulations	US EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not on regulatory list.
CERCLA Hazardous Substance List (40 CFR 302.4)	1-methoxy-2-propanol (CAS 107-98-2)
NIOSH-Ca (National Institute for Occupational Safety and Health)	Not on regulatory list.
Canadian Domestic Substances List (DSL)	Not on regulatory list.
Canadian Ingredient Disclosure list (limit 0.1%)	Ethanol(CAS 64-17-5)
Canadian Ingredient Disclosure list (limit 1%)	Not on regulatory list.
Other regulations, limitations and prohibitive regulations	

Substances of very high concern (SVHC) according to REACH, None of the ingredients are listed.

Article 57

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard – No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

US state regulations

US. Massachusetts RTK - Substance List Ethanol (CAS 64-17-5)
Cyclohexanone (CAS 108-94-1)
Acetone (CAS 67-64-1)
1-methoxy-2-propanol (CAS 107-98-2)

US. New Jersey Worker and Community Right-to-Know Act Cyclohexanone (CAS 108-94-1)

US. Pennsylvania RTK - Hazardous Substances Ethanol (CAS 64-17-5)
Cyclohexanone (CAS 108-94-1)
Acetone (CAS 67-64-1)
1-methoxy-2-propanol (CAS 107-98-2)

US. Rhode Island RTK Ethanol (CAS 64-17-5)
Cyclohexanone (CAS 108-94-1)
Acetone (CAS 67-64-1)

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance Not on regulatory list.

Section 16 - Other Information

Issue date 16-October-2018

Revision date 20-February-2020

Version # 3.1

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