

Section 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name	Smart-Jet® 80415
Synonym(s)	Red ink
Registration number REACH	Not applicable (mixture)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use	Ink for inkjet printing
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1.3. Details of the supplier of the safety data sheet

Company identification	MSSC, LLC. 926 McDonough Lake Road, Collinsville, IL 62234, USA Tel: 618-343-1006 Website: www.msscllc.com
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1.4. Emergency telephone number

Phone number:	618-343-1006
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Section 2: Hazard(s) identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [CLP]:**

Physical hazards	Flammable liquids. Category 2, H225
Health hazards	Eye irritation (Category 2), H319

2.2. Label elements**Labeling according to Regulation (EC) No 1272/2008 [CLP]:**

Pictograms

**GHS02****GHS07**Signal word **Danger**Hazard statements
H225- Highly flammable liquid and vapor.
H319- Causes serious eye irritation.

Precautionary statements

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.

2.3. Other hazards

PBT Substances	None
vPvB Substances:	None
Other hazards	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 59(1) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 3: Composition/information on ingredients

3.1. Substance No

3.2. Mixtures

Hazardous Components (Chemical Name)/ REACH Registration No.	CAS Number	Concentration (%)	EC No./ EC index No	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; H226 STOT SE 3; H336
Cyclohexanone	108-94-1	≤4	20203-631-1 606-010-00-7	Flam. Liq. 3, H226 Acute Tox. 4, H332
Acetone	67-64-1	≤5	200-662-2 606-001-00-8	Flam. Liq. 1: H225 Eye Irrit. 2: H319 STOT SE 3: H336
Red dye	Proprietary	<4	NA	Not classified

Section 4: First-aid measures

4.1. Description of first aid measures

In case of:

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.

4.2. Most important symptoms/ effects, acute and delayed

See section 11

4.3. Indication of any immediate medical attention and special treatment needed

Product name: Smart-Jet® 80415
Version: 3.3

No special treatment needed, treat symptomatically.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media sand, carbon dioxide (CO₂) or dry chemical.

Unsuitable extinguishing media Not available.

5.2. Special hazards arising from the substance or mixture

Not applicable.

5.3. Advice for firefighters

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.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel Keep unprotected people away, allow only well-trained experts wearing suitable protective clothing to abide in the field of accident.

6.1.2. For emergency responders 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.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Not available.

6.4. Reference to other sections

For further and detailed information see section 8 and 13.

Section 7. Handling and storage

7.1 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.

7.2 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.

Section 8. Exposure controls/personal protection

8.1 Control parameters National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Source
EU	Cyclohexanone	108-94-1		IOELV	10	40.8	20	81.6	2000/39/EC
MT	Cyclohexanone	108-94-1		OELV	10	40.8	20	81.6	L.N. 227
EU	Acetone	67-64-1			500	1210			2000/39/EC

EU	1-methoxy-2-propanol	107-98-2		IOELV	100	375	150	568	2000/39/EC
MT	1-methoxy-2-propanol	107-98-2		OELV	100	375	150	568	CAP. 424
	Ethanol	64-17-5	Data are not available						
Relevant DNELs/DMELs/PNECs and other threshold levels									
• human health values									
	End point	Threshold level	Protection goal, route of exposure	Used in	Exposure time				
Ethanol	DNEL	1.900 mg/m ³	human, inhalatory	worker (industry)	acute- systemic effects				
	DNEL	343 mg/kg	human, dermal	worker (industry)	chronic - systemic effects				
	DNEL	950 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects				
Cyclohexanone	DNEL	20 mg/kg	human, dermal	worker (industry)	chronic - systemic effects				
	DNEL	20 mg/m ³	human, inhalatory	worker (industry)	chronic – local effects				
	DNEL	20 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects				
Acetone	DNEL	2.400 mg/m ³	human, inhalatory	worker (industry)	acute- systemic effects				
	DNEL	1 210 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects				
	DNEL	186 mg/kg	human, dermal	worker (industry)	chronic - systemic effects				
1-methoxy-2-propanol	DNEL	553.5 mg/m ³	human, inhalatory	worker (industry)	acute- systemic effects				
	DNEL	369 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects				
	DNEL	183 mg/kg	human, dermal	worker (industry)	chronic - systemic effects				
• environmental values									
	End point	Threshold level	Environmental compartment						
Ethanol	PNEC	0,79 mg/cm ³	marine water						
	PNEC	2,75 mg/cm ³	air						
	PNEC	3,6 mg/cm ³	freshwater sediment						
	PNEC	580 mg/cm ³	sewage treatment plant (STP)						
	PNEC	0,63 mg/cm ³	soil						
	PNEC	0,96 mg/cm ³	freshwater						
Cyclohexanone	PNEC	0,0329 mg/cm ³	marine water						
	PNEC	0,0951 mg/cm ³	freshwater sediment						
	PNEC	0,0329 mg/cm ³	freshwater						
	PNEC	0,0143 mg/cm ³	soil						
Acetone	PNEC	10.6 mg/L	freshwater						
	PNEC	1.06 mg/L	marine water						

	PNEC	100 mg/L	sewage treatment plant (STP)
	PNEC	30.4 mg/kg	freshwater sediment
	PNEC	29.5 mg/kg	soil
1-methoxy-2-propanol	PNEC	10 mg/L	freshwater
	PNEC	1 mg/L	marine water
	PNEC	100 mg/L	sewage treatment plant (STP)
	PNEC	5.2 mg/kg	freshwater sediment
	PNEC	4.59 mg/kg	soil

8.2 Exposure controls

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.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Color	Red
Odor	Characteristic
Melting point/freezing point;	Not available.
Initial boiling point and boiling range	>70°C at 1,013 hPa - lit.
Flammability (solid, gas)	Not available.
Lower and upper explosion limit	Not available.
Flash point	15°C (closed-cup)
Decomposition temperature	Not available.
pH	Not available.

Viscosity (cPs)	Not available.
Solubility(ies)	Soluble in ethanol.
Partition coefficient: n-octanol/water	Not available.
Vapor pressure	Not available.
Density	Not available.
9.2 Other information	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	Not available.
10.2 Chemical stability	Stable at normal conditions.
10.3 Possibility of hazardous reactions	None known.
10.4 Conditions to avoid	Heat, flames and sparks.
10.5 Incompatible materials	Not available.
10.6 Hazardous decomposition products	Hazardous combustion products: see section 5

Section 11. Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity value

Components	Species	Test results
Ethanol (CAS 64-17-5)		
Acute		
Inhalation (LC50)	Rat	124.7 mg/l – vapor 4 h
Oral (LD50)	Rat	10,470 mg/kg
Cyclohexanone (CAS 108-94-1)		
Acute		
Inhalation (LC50)	Rat	> 6.2 mg/l, 4 Hours
Dermal (LD50)	rabbit	3,160 mg/kg
Oral (LD50)	Rat	1,534 mg/kg
Acetone (CAS 67-64-1)		
Acute		
Inhalation (LC50)	Rat	50.100 mg/m ³
Oral (LD50)	Rat	5.800 mg/kg
Dermal (LD50)	Guinea pig	7.426 mg/kg
1-methoxy-2-propanol (CAS 107-98-2)		
Acute		
Inhalation (LC50)	Rat	10,000 mg/l, 5 Hour
Oral (LD50)	Mouse	11,700mg/kg
Dermal (LD50)	Rabbit	13,000mg/kg
Skin corrosion/irritation	Not available.	
Serious eye damage/eye irritation	Causes serious eye damage	

Respiratory or skin sensitization	Not available.
Germ cell mutagenicity	Not available.
Reproductive toxicity	Not available.
Carcinogenicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

Section 12. Ecological information

12.1 Toxicity

Aquatic 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
1-methoxy-2-propanol (CAS 107-98-2)			
Fish	LC50	Oncorhynchus mykiss (rainbow trout)	>1000 mg/l - 96 h
12.2 Persistence and degradability	Not available.		
12.3 Bioaccumulative potential	Not available.		
12.4 Mobility in soil	Not available.		
12.5 Results of PBT and vPvB assessment	Not available.		
12.6 Endocrine disrupting properties	Not available.		
12.7 Other adverse effects	Not available.		

Section 13. Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains.

Contaminated packaging

Not available.

13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

Section 14. Transport information

14.1 UN number

ADR/RID: UN1210

AND: UN1210

IMDG: UN1210

IATA: UN1210

14.2 UN proper shipping name

ADR/RID: Printing Ink

AND: Printing Ink

IMDG: Printing Ink

IATA: Printing Ink

14.3 Transport hazard class(es)

ADR/RID: Class 3

AND: Class 3

IMDG: Class 3

IATA: Class 3

14.4 Packaging group

ADR/RID: II

AND: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: None

AND: None

IMDG: None

IATA: None

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable

Section 15 - Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Guidance

Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Section 16 - Other Information

Issue date

16-October-2018

Revision date

20-April-2023

Version

3.3

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