GHS SAFETY DATA SHEET

1 - Identification

Product identifier	**SoluJET®2720B**
Other means of identification	Not available
Synonym(s)	SoluJET®2720B blue solvent- based ink
Recommended use	Inkjet Printing
Recommended restrictions	None Known
Issue date	12-January-2018
Company identification	**MYLAN GROUP** Long Duc Industrial Park Tra Vinh City, Tra Vinh Province, Vietnam Tel. +84-294-3846-997 Fax +84-294-3846-998

2 - Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, Oral (Category 3), H301 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 3), H311 Specific target organ toxicity - single exposure (Category 1), H370 Serious eye damage (Category 1), H318 Mild skin irritation (category 3), H316 Carcinogenicity (Category 2), H351 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335	
Label elements		
Signal word	Danger	
Hazard statement	H225- Highly flammable liquid and vapor. H301 + H311 + H331- Toxic if swallowed, in contact with skin or if inhaled. H370- Causes damage to organs. H318- Causes serious eye damage H316- Causes mild skin irritation. H351- Suspected of causing cancer. H335- May cause respiratory irritation	

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	P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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

Mixtures

Hazardous components **Chemical name**	**CAS Number**	**%**
Ethanol	64-17-5	>35
Methanol	67-56-1	<25
1-Vinyl-2-pyrrolidinone	88-12-0	<25
N-propanol	71-23-8	<5
Cyclohexanone	108-94-1	<5
Blue solvent dye	Proprietary	<5

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:	20°C (closed-cup)
Suitable extinguishing media	Suitable extinguishing media: sand, carbon dioxide (CO2) or dry chemical.
Unsuitable extinguishing media	Not available.
Specific hazards arising from the chemical	Carbon oxides, Nitrogen oxides (NOx)
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	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

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

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR1910.1000)

Components	Type	Value
Ethanol (CAS 64-17-5)	PEL	1900 mg/m3 1000 ppm
Methanol (CAS 67-56-1)	PEL	260mg/m^3 200ppm
Cyclohexanone (CAS 108-94-1)	PEL	200mg/m^3 50ppm
N-propanol (CAS 71-23-8)	PEL	500 mg/m3 200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Methanol (CAS 67-56-1)	STEL	250ppm
Cyclohexanone (CAS 108-94-1)	STEL	50ppm
N-propanol (CAS 71-23-8)	STEL	250ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value

Ethanol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm
Methanol (CAS 67-56-1)	TWA	260mg/m^3 200ppm
Cyclohexanone (CAS 108-94-1)	TWA	100mg/m^3 25ppm
N-propanol (CAS 71-23-8)	TWA	500 mg/m3 200 ppm

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	Not available.
Other	Wear appropriate chemical resistant clothing. Wear appropriate chemical resistant gloves.
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	Blue liquid
Odor	Vinous odor
Odor threshold	Not available
pH	Not available
Melting point/freezing point;	Not available
Initial boiling point and boiling range	>70°C
Flash point	20°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	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 Rat	5.5 g/kg 5.6 g/kg Mouse 3450 mg/kg Rat 7060 mg/kg 6.2 g/kg
Other		
LD50	Mouse Rat	933 mg/kg 1440 mg/kg
Methanol (CAS 67-56-1)		
Acute		
Inhalation		
LC50	Rat	128.2mg/l, 4 Hours 87.6mg/l, 6 Hours
Oral		
LD50 LDLO	Rat Human	1.187 - 2.769 mg/kg 143mg/kg
Dermal		
LD50	Rabbit	17.100 mg/kg
1-Vinyl-2-pyrrolidinone (CAS 88-12-0)		
Acute		
Inhalation	Harmful by inhalation	
Dermal	Harmful in contact with skin	

Oral		
LD50	Rat	1470mg/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
N-propanol (CAS 71-23-8)		
Acute		
Inhalation		
LC50	Rat	20000 mg/l, 1 Hour
Oral		
LD50	Rat	8.038mg/kg
Dermal		
LC50	Rabbit	4.000mg/kg
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: May be 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 toxicity - repeated exposure	Based on available data, the classification criteria are not met.	
Aspiration hazard	Based on available data, the classification criteria are not met.	

12. Ecological information

Aquatic toxicity

Ecotoxicity

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
Methanol (CAS 67-56-1)			
Fish	LC50 NOEC	Lepomis macrochirus (Bluegill) Oryzias latipes	15.400,0 mg/l - 96 h 7.900 mg/l - 200 h
Crustacea	EC50	Water flea (Daphnia magna)	10.000,00 mg/l - 48 h
1-Vinyl-2-pyrrolidinone (CAS 88-12-0)			
Fish	static test LC50	Oncorhynchus mykiss (rainbow trout)	913 mg/l - 96 h
Daphnia and other aquatic invertebrates	static test EC50	Daphnia magna (Water flea)	45 mg/l - 48 h
Algae	static test EC50	Desmodesmus subspicatus (green algae) -	1.000 mg/l - 72 h
Bacteria	EC20	activated sludge	1.995 mg/l - 30 min
Cyclohexanone (CAS 108-94-1)			
Daphnia and other aquatic invertebrates	LC50	Daphnia magna (Water flea)	820 mg/l - 24 h
N-propanol (CAS 71-23-8)			
Fish	LC50	Fathead minnow (Pimephales promelas)	4.555 mg/l, 96 hours
Daphnia and other aquatic invertebrates	EC50	Daphnia magna (Water flea)	3.642 mg/l - 48 h

Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Partition coefficient n-octanol / water (log Kow)	
Ethanol (CAS 64-17-5)	-0.31
Methanol (CAS 67-56-1)	-0.77
1-Vinyl-2-pyrrolidone (CAS 88-12-0)	0.4
Cyclohexanone(CAS 108-94-1)	0.81
N-propanol (CAS 71-23-8)	0.25
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, methanol, cyclohexanone, n-propanol)
Transport hazard class(es)	3
Subsidiary class(es)	Not available.

Packing group	II
Special precautions for user	**Passenger aircraft** Quantity limitation: 5 L **Cargo aircraft** Quantity limitation: 60 L **Special provisions** 24, IB2, T4, TP1
Labels required	Not available.
IATA	
UN number	UN1210
UN proper shipping name	Printing ink, flammable (Ethanol, methanol, cyclohexanone, n-propanol)
Transport hazard class(es)	3
Subsidiary class(es)	-
Packaging group	II
Environmental hazards	No
Labels required	Not available.
ERG Code	Not available.
Special precautions for user	**Passenger and Cargo Aircraft** Quantity limitation: 5 L **Cargo Aircraft Only** Quantity limitation: 60 L **Limited Quantities - Passenger Aircraft** Quantity limitation: 1 L
IMDG	
UN number	UN1210
UN proper shipping name	Printing ink, flammable (Ethanol, methanol, cyclohexanone, n-propanol)
Transport hazard class(es)	3
Subsidary class(es)	-
Packaging group	II

Environmental hazards	No
Marine pollutant	
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)	Methanol (CAS 67-56-1) Reportable quantity: 5000 lbs. Cyclohexanone(CAS 108-94-1) Reportable quantity: 5000 lbs. N-propanol (CAS 71-23-8) Reportable quantity: 100 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard – No SARA 302 Extremely hazardous substance-No SARA 311/312 Hazardous chemical-Yes
US state regulations	
US. Massachusetts RTK - Substance List	Ethanol (CAS 64-17-5) Methanol (CAS 67-56-1) Cyclohexanone (CAS 108-94-1) N-propanol (CAS 71-23-8)
US. New Jersey Worker and Community Right-to-Know Act	Methanol (CAS 67-56-1) Cyclohexanone (CAS 108-94-1) N-propanol (CAS 71-23-8)

US. Pennsylvania RTK - Hazardous Substances	Ethanol (CAS 64-17-5) Methanol (CAS 67-56-1) Cyclohexanone (CAS 108-94-1) N-propanol (CAS 71-23-8)
US. Rhode Island RTK	Ethanol (CAS 64-17-5) Methanol (CAS 67-56-1) Cyclohexanone (CAS 108-94-1)
US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance	Methanol (CAS 67-56-1)

Section 16 - Other Information

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