India's largest manufacturer of Digital Inkjet Printers

SAFETY DATA SHEET

Issue Date 20-Sep-2017 (DD-MM-YYYY)

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name ECOSOL JET CYAN

H- Product code 012202
E- Product code S6082247-M44C0292-M44C0292

Pure substance/mixture mixture

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

Recommended Use Ink jet ink (solvent-based)

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Company Name
SAKATA INX CORP.
4-1-12, Kitagawara, Itami,
Hyogo 664-8507 Japan
+81-72-785-7703

Importer / Supplier
ColorJet India Limited
B-195, Phase-II,
Noida, U.P.
+91 120-4548195

For further information, please contact

Contact Point HSE Group
81-72-785-7703
Email address -

1.4. Emergency telephone number

Emergency telephone -

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Serious eye damage/eye irritation	Category 2 - (H319)

2.2. Label elements

Symbols/Pictograms

signal word
WARNING

Hazard Statements
H319 - Causes serious eye irritation
Contains Methyl methacrylate, Butyl methacrylate EUH208 - May produce an allergic reaction

precautionary statements
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

Other Hazards Combustible liquid

General Hazards No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Ingredients contributing to the classification of the mixture, etc.

Chemical name	EC No	CAS No	weight-%	Classification according to 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP] / Other	REACH registration number
Diethylene glycol diethyl ether	203-963-7	112-36-7	50-60	-	Eye Irrit. 2A (H319)	-
Propylene carbonate	203-572-1	108-32-7	10-20	Xi; R36	Eye Irrit. 2 (H319)	-
Propanol, 1(or 2)-(2-methoxymethylethoxy)-, acetate	-	88917-22-0	5-10	-	STOT SE 3 (H336)	-
Phthalocyanine blue	205-685-1	147-14-8	1-5	-	-	-
Methyl methacrylate	201-297-1	80-62-6	< 1	F; R11 Xi; R37/38 R43 Xi; R36/37/38	Skin Irrit. 2 (H315) Skin Sens. 1 (H317) STOT SE 3 (H335) Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) Repr. 2 (H361) STOT RE 1 (H372) Aquatic Acute 3 (H402)	-
Butyl methacrylate	202-615-1	97-88-1	< 1	R10 Xi; R36/37/38 R43 Xi; R36/37/38	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) STOT SE 3 (H335) Flam. Liq. 3 (H226) Aquatic Acute 2 (H401)	-

Full text of R-phrases: see section 16

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice
Do not breathe dust/fume/gas/mist/vapors/spray
Do not get in eyes, on skin, or on clothing

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
If breathing is irregular or stopped, administer artificial respiration
Seek immediate medical attention/advice

Skin contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes
Get medical attention if irritation develops and persists

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
If eye irritation persists: Get medical advice/attention

INGESTION
Do NOT induce vomiting
Potential for aspiration if swallowed
Clean mouth with water
Get medical attention

4.2. Most important symptoms and effects, both acute and delayed

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

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media
CO2, dry chemical, dry sand, alcohol-resistant foam, mist of alkali salts water
Move containers from fire area if you can do it without risk
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Remove combustible materials from their surroundings immediately

Unsuitable Extinguishing Media
Do not use a solid water stream as it may scatter and spread fire

5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters

Special protective equipment for fire-fighters
Use personal protective equipment as required
In the event of fire and/or explosion do not breathe fumes
Special protective equipment for fire-fighters

Special Extinguishing Media
Cool container with water spray

Flammable properties
May re-ignite after fire is extinguished
flammable
Containers may explode when heated
Will form explosive mixtures with air
Vapors from liquefied gas are initially heavier than air and spread along ground

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Stay upwind Evacuate personnel to safe areas ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area) Use personal protective equipment as required Avoid contact with skin, eyes and inhalation of vapors In the case of vapor formation use a respirator with filter model In case of fire: Stop leak if safe to do so Do not touch damaged containers or spilled material unless wearing appropriate protective clothing Ensure adequate ventilation, especially in confined areas Wash thoroughly after handling Take precautionary measures against static discharges
other information	Ventilate the area

6.2. Environmental precautions

Environmental Precautions	See Section 12 for additional Ecological Information Dispose of contents/container to an approved waste disposal plant Do not flush into surface water or sanitary sewer system Avoid release to the environment Collect spillage

6.3. Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so
Methods for cleaning up	Soak up with inert absorbent material Dam up Use only non-sparking tools

6.4. Reference to other sections

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling	Take precautionary measures against static discharges Use personal protection recommended in Section 8 Use only in well-ventilated areas Avoid contact with skin, eyes or clothing Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea Do not breathe dust/fume/gas/mist/vapors/spray Wash contaminated clothing before reuse Wash hands thoroughly and gargle after handling Burn or dispose of the wiping cloths used to clean up the product at once

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity) Use spark-proof tools and explosion-proof equipment Incompatible with oxidizing agents Store locked up The product shall be stored in the original containers/vessels

7.3. Specific end use(s)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Chemical name	European Union	United Kingdom	France	Spain	Germany
Methyl methacrylate	TWA: 50 ppm STEL: 100 ppm	STEL: 100 ppm STEL: 416 mg/m^3 TWA: 50 ppm TWA: 208 mg/m^3	TWA: 50 ppm TWA: 205 mg/m^3 STEL: 100 ppm STEL: 410 mg/m^3	STEL: 100 ppm TWA: 50 ppm	TWA: 50 ppm TWA: 210 mg/m^3 Ceiling / Peak: 100 ppm Ceiling / Peak: 420 mg/m^3

Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Phthalocyanine blue	-	-	-	TWA: 1 mg/m^3	-
Methyl methacrylate	TWA: 50 ppm STEL: 100 ppm	STEL: 100 ppm TWA: 50 ppm	STEL: 410 mg/m^3 TWA: 205 mg/m^3	TWA: 10 ppm TWA: 42 mg/m^3 STEL: 50 ppm STEL: 210 mg/m^3	TWA: 25 ppm TWA: 102 mg/m^3 Skin
Butyl methacrylate	-	-	-	-	TWA: 25 ppm TWA: 145 mg/m^3

Chemical name	Austria	Switzerland	Poland	Norway	Ireland	Sweden	Czech Republic	Luxembourg
Phthalocyanine blue	STEL: 4 mg/m^3 STEL: 0.4 mg/m^3 TWA: 1 mg/m^3 TWA: 0.1 mg/m^3	-	-	-	-	-	-	-
Methyl methacrylate	STEL: 100 ppm STEL: 420 mg/m^3 TWA: 50 ppm TWA: 210 mg/m^3	STEL: 100 ppm STEL: 420 mg/m^3 TWA: 50 ppm TWA: 210 mg/m^3	STEL: 300 mg/m^3 TWA: 100 mg/m^3	TWA: 25 ppm TWA: 100 mg/m^3 Skin STEL: 100 ppm STEL: 400 mg/m^3	TWA: 50 ppm STEL: 100 ppm	50 ppm LLV; 200 mg/m^3 LLV Skin notation 150 ppm STV; 600 mg/m^3 STV	Ceiling: 150 mg/m^3 TWA: 50 mg/m^3 Skin	50 ppm TWA 100 ppm STEL
Butyl methacrylate	-	-	STEL: 300 mg/m^3 TWA: 100 mg/m^3	TWA: 10 ppm TWA: 59 mg/m^3 STEL: 20 ppm STEL: 88.5 mg/m^3	-	50 ppm LLV; 300 mg/m^3 LLV 75 ppm STV; 450 mg/m^3 STV	-	-

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2. Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas
Showers
Eyewash stations
Ventilation systems

Personal protective equipment

Eye/face Protection	Wear safety glasses with side shields (or goggles)
Hand Protection	Wear protective gloves
Skin and Body Protection	Wear suitable protective clothing Antistatic footwear
Respiratory protection	Wear suitable respiratory equipment Respirator cartridge should be exchanged at regular intervals or at proper time according to breakthrough time

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	liquid		
appearance	No information available	**ODR**	slight odor
color	colored	**odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	not applicable	
Melting point/freezing point	no data available	
Boiling point/boiling range	no data available	No information available
Flash Point	≧70℃	Ceta Closed Cup
Evaporation Rate	no data available	No information available
Combustibility	Combustible	
Flammability Limits in Air		
Upper flammability limits	no data available	
Lower Flammability Limit	no data available	
vapor pressure	no data available	No information available
Vapor Density	no data available	No information available
Specific gravity	0.9-1.1	
solubility(ies)		
Water solubility	Soluble in water	
Organic Solvent Solubility	soluble in organic solvents	
Partition coefficient	no data available	No information available
Autoignition Temperature	no data available	No information available
decomposition temperature	no data available	No information available
Kinematic viscosity	no data available	
Explosive properties	No information available	
Oxidizing properties	No information available	

9.2. Other information

Softening point	no data available
Density	no data available

Chemical name	Boiling point °C	Density	vapor pressure	Vapor Density	Flash Point	Autoignition Temperature
Diethylene glycol diethyl ether	188 °C	-	0.5 mmHg at 25 °C	-	82 °C open cup	-
Propylene carbonate	241.9 °C	1.204 g/cm3 at 20 °C	0.03 mmHg at 20 °C	3.52	135 °C open cup	510 °C
Phthalocyanine blue	-	-	0.0004 hPa at 384 °C	-	-	>350 °C
Methyl methacrylate	100.5 °C	0.936 g/cm3 at 20 °C	36 - 47 hPa at 20 °C	3.6	10 °C open cup	421 - 430 °C
Butyl methacrylate	163 °C	0.89 g/cm3 at 20 °C	4.9 hPa at 20 °C	4.8	52 °C open cup	294.44 °C

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Remarks no data available

10.2. Chemical stability

stability Stable under normal conditions
Heating may cause an explosion

Explosion data

Sensitivity to Mechanical Impact May be ignited by heat, sparks or flames
Sensitivity to Static Discharge May be ignited by heat, sparks or flames

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Conditions to Avoid Take precautionary measures against static discharges
Extremes of temperature and direct sunlight

10.5. Incompatible materials

Incompatible Materials Reference to other sections; 7

10.6. Hazardous decomposition products

Hazardous Decomposition Products May emit toxic fumes under fire conditions

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Inhalation Reference to other sections; 4
Eye contact Reference to other sections; 4
Skin contact Reference to other sections; 4
INGESTION Reference to other sections; 4

Unknown acute toxicity 84.7% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 29,498.00
ATEmix (dermal) 24,494.00

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50	Classification according to 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP] / Other	Japan GHS Classification / Other
Diethylene glycol diethyl ether	-	-	-	-	Eye Irrit. 2A (H319)	Eye Irrit. 2A Flam. Liq. 4

Propylene carbonate	29000 mg/kg (Rat)	> 20 mL/kg (Rabbit)	-	Xi; R36	Eye Irrit. 2 (H319)	Eye Irrit. 2A
Propanol, 1(or 2)-(2-methoxymethylethoxy)-, acetate	-	-	-	-	STOT SE 3 (H336)	STOT SE 3 Flam. Liq. 4
Methyl methacrylate	7900 mg/kg (Rat)	-	4632 ppm (Rat) 4 h	F; R11 Xi; R37/38 R43 Xi; R36/37/38	Skin Irrit. 2 (H315) Skin Sens. 1 (H317) STOT SE 3 (H335) Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) Repr. 2 (H361) STOT RE 1 (H372) Aquatic Acute 3 (H402)	Repr. 2 Skin Irrit. 2 Eye Irrit. 2A-2B Aquatic Acute 3 STOT RE 1 STOT SE 3 Skin Sens. 1 Resp. Sens. 1 Acute Tox. Inh. (Vap) 5 Flam. Liq. 2
Butyl methacrylate	-	10181 mg/kg (Rabbit)	4910 ppm (Rat) 4 h	R10 Xi; R36/37/38 R43 Xi; R36/37/38	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) STOT SE 3 (H335) Flam. Liq. 3 (H226) Aquatic Acute 2 (H401)	Skin Irrit. 2 Aquatic Acute 2 STOT SE 3 Skin Sens. 1 Flam. Liq. 3

GHS/CLP Classification Note:
Acute Tox. Der. :Acute toxicity - Dermal, Acute Tox. Inh. (D/M) :Acute toxicity - Inhalation - Dusts and Mists, Acute Tox. Inh. (Gas) :Acute toxicity - Inhalation - Gases, Acute Tox. Inh. (Vap) :Acute toxicity - Inhalation - Vapours, Acute Tox. Oral :Acute toxicity - Oral, Aquatic Acute :Acute Hazardous to the aquatic environment, Aquatic Chronic :Chronic Hazardous to the aquatic environment, Asp. Tox. :Aspiration hazard, Carc. :Carcinogenicity, Expl. :Explosives, Eye Dam. :Serious eye damage, Eye Irrit. :Eye irritation, Flam. Gas :Flammable gases (including chemically unstable gases), Flam. Liq. :Flammable liquids, Flam. Solid :Flammable solids, Lact. :Effects on or via lactation, Met. Corr. :Corrosive to metals, Muta. :Germ cell mutagenicity, Org. Perox. :Organic peroxides, Ox. Gas :Oxidizing gases, Ox. Liq. :Oxidizing liquids, Ox. Sol. :Oxidizing solids, Press. Gas :Gases under pressure, Pyr. Liq. :Pyrophoric liquids, Pyr. Sol. :Pyrophoric solids, Repr. :Reproductive toxicity, Resp. Sens. :Respiratory sensitization, Self-heat. :Self-heating substances and mixtures, Self-react. :Self-reactive substances and mixtures, Skin Corr. :Skin corrosion, Skin Irrit. :Skin irritation, Skin Sens. :Skin sensitization, STOT RE :Specific target organ toxicity – Repeated exposure, STOT SE :Specific target organ toxicity – Single exposure, Water-react. :Substances and mixtures which, in contact with water emit flammable gases

skin corrosion/irritation No information available

Serious eye damage/eye irritation No information available

Sensitization No information available

Germ cell mutagenicity No information available

Carcinogenicity No information available

Reproductive toxicity No information available

STOT - single exposure No information available

STOT - repeated exposure No information available

Aspiration hazard No information available

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

100% of the mixture consists of component(s) of unknown hazards to the aquatic environment

12.2. Persistence and degradability

Persistence and degradability No information available

12.3. Bioaccumulative potential

Bioaccumulation No information available

Chemical name	Partition coefficient
Propylene carbonate	0.48
Phthalocyanine blue	6.6
Methyl methacrylate	0.7
Butyl methacrylate	2.26

12.4. Mobility in soil

Mobility in soil No information available

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available

12.6. Other adverse effects

Other adverse effects No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused Products Should not be released into the environment
Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated packaging Improper disposal or reuse of this container may be dangerous and illegal

other information Store in a tightly sealed drum to prevent the spillage of the content

Section 14: TRANSPORT INFORMATION

Containers/vessels must be leakage-free. Loading must be done to prevent containers from falling, dropping down and being damaged
Take necessary steps to prevent collapse

UN Number not applicable
Packing Group not applicable
ERG Code 133
Proper Shipping Name not applicable

IMDG

14.1 UN Number not applicable
14.2 Proper Shipping Name Not regulated
14.3 Hazard Class Not regulated
14.4 Packing Group not applicable
14.5 Marine pollutant not applicable

14.6 Special Provisions None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

RID

14.1 UN Number not applicable
14.2 Proper Shipping Name Not regulated
14.3 Hazard Class Not regulated
14.4 Packing Group not applicable
14.5 Environmental hazard not applicable
14.6 Special Provisions None

ADR

14.1 UN Number not applicable
14.2 Proper Shipping Name Not regulated
14.3 Hazard Class Not regulated
14.4 Packing Group not applicable
14.5 Environmental hazard not applicable
14.6 Special Provisions None

ICAO (air)

14.1 UN Number not applicable
14.2 Proper Shipping Name Not regulated
14.3 Hazard Class Not regulated
14.4 Packing Group not applicable
14.5 Environmental hazard not applicable
14.6 Special Provisions None

IATA

14.1 UN Number not applicable
14.2 Proper Shipping Name Not regulated
14.3 Hazard Class Not regulated
14.4 Packing Group not applicable
14.5 Environmental hazard not applicable
14.6 Special Provisions None

Section 15: REGULATORY INFORMATION

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

Chemical name	CAS No	French RG number	Seveso III Derective
Diethylene glycol diethyl ether	112-36-7	RG 84	No information available
Propylene carbonate	108-32-7	-	No information available
Propanol, 1(or 2)-(2-methoxymethylethoxy)-, acetate	88917-22-0	RG 84	No information available
Phthalocyanine blue	147-14-8	-	No information available
Methyl methacrylate	80-62-6	RG 65,RG 82	No information available
Butyl methacrylate	97-88-1	RG 65	No information available

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use: This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Section 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3
R11 - Highly flammable
R36 - Irritating to eyes
R43 - May cause sensitization by skin contact
R36/37/38 - Irritating to eyes, respiratory system and skin
R37/38 - Irritating to respiratory system and skin

Full text of H-Statements referred to under section 3
H225 - Highly flammable liquid and vapor
H226 - Flammable liquid and vapor
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H361 - Suspected of damaging fertility or the unborn child
H372 - Causes damage to organs through prolonged or repeated exposure if inhaled
H401 - Toxic to aquatic life
H402 - Harmful to aquatic life

Key literature references and sources for data LOLI Database (ChemADVISOR, Inc.)

Issue Date 20-Sep-2017 (DD-MM-YYYY)

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet