

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name **SecuJET® 2550R**
Synonym(s) Invisible 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

1.3. Details of the supplier of the safety data sheet

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

1.4. Emergency telephone number

Phone number: +84-294-3846-997

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



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.

Response	<p>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. P280 - Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>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. P303+P361+P353: IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water (or shower). 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.</p>
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	No other hazards

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	>85	200-578-6 603-002-00-5	Flam. Liq. 2, H225 Eye Irrit. 2, H319
Cyclohexanone	108-94-1	<5	203-631-1 606-010-00-7	Flam. Liq. 3, H226 Acute Tox. 4, H332
Invisible dye	Proprietary	<8	NA	Not classified
Additives	Proprietary	<2	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

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

In case of fire, smoke and other combustion products may be formed, the inhalation of such combustion products can have serious adverse effects on health.

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 Use personal protective clothing. Keep away sources of ignition.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Retain contaminated washing water and dispose it. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and materials for containment and cleaning up

Take up liquid spill into absorbent material, e.g.: sand/earth. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

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
	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

- 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

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.

Laundry contaminated clothing before reuse.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance Slight yellow 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-** Not available.**octanol/water****Auto-ignition temperature** Not available.**Decomposition temperature** Not available.**Viscosity (cPs)** 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 toxicological effects****Acute toxicity value****Components****Species****Test results****Ethanol (CAS 64-17-5)****Acute**

Inhalation (LC50)	Mouse	39 mg/l, 4 Hours
	Rat	20000 mg/l, 10 Hours
Oral (LD50)	Dog	5.5 g/kg
	Guinea pig	5.6 g/kg
	Mouse	Mouse 3450 mg/kg
	Rat	Rat 7060 mg/kg

6.2 g/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

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

Not available.

Skin sensitization

Not available.

Germ cell mutagenicity

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.

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
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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 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	UN1210
14.2 UN proper shipping name Hazardous ingredients	Printing ink, flammable (Ethanol, cyclohexanone)
14.3 Transport hazard class(es)	
Class 3	(flammable liquids)
14.4 Packing group	II
14.5 Environmental hazards	none (non-environmentally hazardous acc. to the dangerous goods regulations)
14.6 Special precautions for user	Provisions for dangerous goods (ADR) should be complied within the premises
14.7 Transport in bulk according to Annex II of MARPOL and the IBC	Not applicable
Code	
14.8 Information for each of the UN Model Regulations	
• Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)	
UN number	UN1210
UN proper shipping name	Printing ink
Transport hazard class(es)	Classes: 3 Flammable liquid Label :3
Packing group	II

Danger labels**• International Maritime Dangerous Goods Code (IMDG)**

UN number	UN1210
UN proper shipping name	Printing ink
Transport hazard class(es)	Classes: 3 Flammable liquid Label :3
Packing group	II

Danger labels**• International Civil Aviation Organization (ICAO-IATA/DGR)**

UN number	UN1210
UN proper shipping name	Printing ink
Transport hazard class(es)	Classes: 3 Flammable liquid Label :3
Packing group	II

Danger labels**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

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