



Issuing Date 11-May-2021

Revision date 11-May-2021

Safety Data Sheet

Revision Number 1

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Description RNJET 2.5 TIJ Black Ink-SG

Other means of identification

Part Number 100-1561-801

UN-No UN1210

Synonyms No information available

Recommended use of the chemical and restrictions on use

Recommended Use ink.

Uses advised against No information available

Details of the supplier of the safety data sheet

Company Name

RN Mark Inc.
25 – 16 Sims Cres.
Richmond Hill, ON M4S1C4
PH: 416-419-5512
Info@rnmark.com

Emergency telephone number 416 419 5512

Emergency Telephone 416 419 5512

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Flammable Liquids	Category 2

Label Elements

EMERGENCY OVERVIEW

Danger

Hazard statements

Causes serious eye damage
May cause an allergic skin reaction
May damage fertility or the unborn child
May cause drowsiness or dizziness
Highly flammable liquid and vapor



Appearance Black**Physical state** liquid**Odor** solvent**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves
 Use only outdoors or in a well-ventilated area
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting/equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Keep cool

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 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 or doctor/physician
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other Information**

- May be harmful if swallowed
- May be harmful in contact with skin
- Toxic to aquatic life with long lasting effects
- Toxic to aquatic life

Unknown acute toxicity

96.8065 % of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%	Trade secret
Ethyl alcohol	64-17-5	50 - 75	*
Propanol	71-23-8	1 - 25	*
Propylene glycol propyl ether	1569-01-3	1 - 10	*
Isopropyl alcohol	67-63-0	1 - 5	*
Yellow Dye	Proprietary	0.1 - <1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

NOTE

Remaining components are either not hazardous or below threshold limits.

4. First aid measures

Description of first aid measures

General advice	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Immediate medical attention is required. If symptoms persist, call a physician.
Eye contact	If symptoms persist, call a physician. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.
Skin Contact	Wash off immediately with plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Move to fresh air in case of accidental inhalation of vapors.
Ingestion	Do NOT induce vomiting. Drink plenty of water. Immediate medical attention is not required. Rinse mouth. Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider	Remove all sources of ignition. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms	Hives.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. Fire-fighting measures

Suitable extinguishing media

Use Carbon dioxide (CO₂) Dry chemical Water spray, fog or alcohol-resistant foam

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.
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Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

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 Pick up and transfer to properly labeled containers. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Soak up with inert absorbent material.

7. Handling and Storage

Precautions for safe handling

Handling Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place.

Incompatible materials Strong oxidizing agents. Acids. Chlorinated compounds. Strong acids.

8. Exposure Controls/Personal Protection

Control parameters

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethyl alcohol 64-17-5	1000 ppm STEL	TWA: 1000 ppm TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Propanol 71-23-8	TWA: 100 ppm	TWA: 200 ppm TWA: 500 mg/m ³	IDLH: 800 ppm TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 625 mg/m ³
Isopropyl alcohol 67-63-0	400 ppm STEL TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines Hexavalent Chrome may be formed during welding.

Appropriate engineering controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Chemical resistant apron.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures

When using do not eat or drink. Regular cleaning of equipment, work area and clothing is recommended.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state	liquid	Odor	solvent
Appearance	Black	Odor Threshold	No information available
Color	No information available		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	8 - 10		
Melting point / freezing point			
Boiling point / boiling range	> 75 °C		
Flash point	< 17 °C	Seta Closed Cup	
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	11.5 (volume % in Air)		
Lower flammability limit:	1.8 (volume % in Air)		
Vapor pressure	No information available		
Vapor density	No information available		
Specific gravity	0.700 - 0.900	Not applicable	
Water solubility	No information available		
Solubility(ies)	No information available		
Partition coefficient	No information available		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Kinematic viscosity	No information available		
Dynamic viscosity	No information available		
Explosive properties	No information available		
Oxidizing properties	No information available		

Other Information

Softening point	No information available
Molecular weight	No information available
VOC content	No information available
Liquid Density	No information available
Bulk density	No information available

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Heating in air. Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents. Acids. Chlorinated compounds. Strong acids.

Hazardous Decomposition Products

Carbon oxides.

11. Toxicological Information**Information on likely routes of exposure****Product Information**

The product has not been tested

Inhalation

Avoid breathing vapors or mists. May cause drowsiness and dizziness.

Eye contact

Avoid contact with eyes. Causes serious eye damage.

IF ON SKIN

Avoid contact with skin. May cause irritation. May cause sensitization by skin contact.

Ingestion

Do NOT taste or swallow. May be harmful if swallowed.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl alcohol 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h
Propanol 71-23-8	= 1870 mg/kg (Rat)	= 4049 mg/kg (Rabbit)	> 13548 ppm (Rat) 4 h
Propylene glycol propyl ether 1569-01-3	= 2490 mg/kg (Rat) = 2504 mg/kg (Rat)	= 3550 mg/kg (Rabbit)	-
Isopropyl alcohol 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h

Information on toxicological effects**Symptoms**

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Serious eye damage/eye irritation**

Risk of serious damage to eyes. Irritating to eyes. Causes serious eye damage. May cause irritation to the skin and respiratory system.

Sensitization

May cause an allergic skin reaction.

Mutagenic effects

No information available.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen. This product contains Ethanol which is classified as a possible carcinogen when ingested in the form of an alcoholic beverage. This is irrelevant as this product is used for ink jet ink applications not an alcoholic beverage.

Chemical name	ACGIH	IARC	NTP	OSHA
Ethyl alcohol 64-17-5	A3	Group 1	Known	X
Isopropyl alcohol 67-63-0	-	Group 3	-	X
Yellow Dye	-	Group 3	-	-

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

NTP: (National Toxicity Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

Known - Known Carcinogen

Reproductive toxicity

May cause harm to the unborn child. Possible risk of harm to the unborn child. May impair fertility. Possible risk of impaired fertility.

STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic toxicity	Avoid repeated exposure. Possible risks of irreversible effects. May impair fertility. Contains a known or suspected reproductive toxin. Prolonged exposure may cause chronic effects. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.
Target organ effects	liver, blood, Eyes, Skin, Central Nervous System (CNS), blood, Reproductive System, Gastrointestinal tract (GI), kidney, hematopoietic system.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

Unknown acute toxicity 96.8065 % 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)	4422 mg/kg
ATEmix (dermal)	4346 mg/kg
ATEmix (inhalation-dust/mist)	126.8 mg/l
ATEmix (inhalation-vapor)	39.2 mg/l

12. Ecological Information

Ecotoxicity

Toxic to aquatic life with long lasting effects

8.8815 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Toxicity to Fish	Crustacea
Ethyl alcohol 64-17-5	-	13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static 12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static	9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static
Propanol 71-23-8	-	4480: 96 h Pimephales promelas mg/L LC50 flow-through	3339 - 3977: 48 h Daphnia magna mg/L EC50 Static 3642: 48 h Daphnia magna mg/L EC50
Isopropyl alcohol 67-63-0	1000: 72 h Desmodesmus subspicatus mg/L EC50 1000: 96 h Desmodesmus subspicatus mg/L EC50	1400000: 96 h Lepomis macrochirus µg/L LC50 11130: 96 h Pimephales promelas mg/L LC50 static 9640: 96 h Pimephales promelas mg/L LC50 flow-through	13299: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical name	Partition coefficient
Ethyl alcohol 64-17-5	-0.32
Propanol 71-23-8	0.34
Isopropyl alcohol 67-63-0	0.05

Other adverse effects No information available

13. Disposal Considerations

Waste treatment methods

Waste treatment methods Disposal should be in accordance with applicable regional, national and local laws and

regulations. Should not be released into the environment. This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated packaging Do not re-use empty containers.

US EPA Waste Number D007

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
Ethyl alcohol 64-17-5	Toxic; Ignitable
Propanol 71-23-8	Toxic; Ignitable
Isopropyl alcohol 67-63-0	Toxic, Ignitable

14. Transport Information

DOT

UN-No UN1210
 Proper shipping name Printing Ink, Flammable
 Hazard Class 3
 Packing group II

TDG

Not regulated

MEX

Not regulated

ICAO

Not regulated

IATA

UN-No UN1210
 Proper shipping name Printing Ink, Flammable
 Hazard Class 3
 Packing group II

IMDG/IMO

Not regulated

RID

Not regulated

ADR

Not regulated

ADN

Not regulated

15. Regulatory Information

International Inventories

Chemical name	TSCA	DSL/NDL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Ethyl alcohol 64-17-5	X	X	X	X	X	X	X	X
Propanol 71-23-8	X	X	X	X	X	X	X	X
Propylene glycol propyl ether 1569-01-3	X	X	X	X	X	X	X	X
Isopropyl alcohol 67-63-0	X	X	X	X	X	X	X	X
Yellow Dye	X	X	-	-	X	-	X	X

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Legend Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Isopropyl alcohol - 67-63-0	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

U.S. State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical name	California Prop. 65
Ethyl alcohol - 64-17-5	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethyl alcohol 64-17-5	X	X	X
Propanol 71-23-8	X	X	X
Isopropyl alcohol 67-63-0	X	X	X
Yellow Dye	X	-	X

U.S. EPA Label Information

EPA Pesticide registration number Not applicable

16. Other Information

NEPA	Health hazard 2	flammability 3	Instability 0	Physical and chemical properties -
HMIS	Health hazard 2	flammability 3	Physical hazards 0	Personal precautions X

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Revision note
No information available

Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet