

DPI-74 Orange Ink**SECTION 1: IDENTIFICATION**

Product Identifier: DPI-74 Orange Ink
Other Means of Identification: Orange Marking Ink
Recommended Use: Identification Marking Ink
Restrictions on Use: None known
Supplier Identifier: Sterling Marking Products Inc., 349 Ridout Street North, London, ON
Canada N6A 2N8 1-800-265-5957, 519-434-5785
Emergency Phone Number: CANUTEC (613) 966-6666, Cellular *666

SECTION 2: HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the U.S. Hazardous Communication Standard (HCS 2012)

Classification

Physical, Flammable Liquids, 2
Health, Acute toxicity, 4 Oral
Health, Skin corrosion/irritation, 2
Health, Acute toxicity, 4 Inhalation
Health, Reproductive toxicity, 2
Health, Specific target organ toxicity - Repeated exposure, 2

Label Elements:

Signal Word: Danger

Hazard Statements:

H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H315 - Causes skin irritation
H332 - Harmful if inhaled
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary Statements:

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
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/light/equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
 P302+352 - IF ON SKIN: Wash with soap and water.
 P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P308+313 - IF exposed or concerned: Get medical advice/attention.
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 P314 - Get Medical advice/attention if you feel unwell.
 P330 - Rinse mouth.
 P332+313 - If skin irritation occurs: Get medical advice/attention.
 P362 - Take off contaminated clothing and wash before reuse.
 P370+378 - In case of fire: Use water spray, carbon dioxide, dry chemical or foam for extinction.
 P403+235 - Store in a well ventilated place. Keep cool.
 P405 - Store locked up.
 P501 - Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Percentage (%)	Other Identifiers
Methyl Ethyl Ketone	78-93-3	30 – 40%	Not Applicable
Ethanol	64-17-5	20 - 30%	Not Applicable
Molybdenum Orange	12656-85-8	5 – 10%	Not Applicable
Ethyl Acetate	141-78-6	5 - 10%	Not Applicable
Toluene	108-88-3	1 – 5%	Not Applicable
Isopropyl Alcohol	67-63-0	1 – 5%	Not Applicable
Resin	9004-70-0	1 – 5%	Not Applicable

Note: All ingredients are listed on the Domestic Substances List (DSL) and the Toxic Substances Control Act (TSCA) list.

The substances that are contained over 0.1% in this ink are not carcinogens. This product is intended for industrial use only.

SECTION 4: FIRST AID MEASURES

Eye Contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur consult a physician, preferably an ophthalmologist.

Skin Contact: Immediately wash affected area with soap and water for at least 15. Remove contaminated clothing and launder before reuse.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Ingestion: Do **NOT** induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Notes to Physician: No specific antidote. Treatment based on sound judgement of physician and individual reactions of patient. First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).

SECTION 5: FIRE-FIGHTING MEASURES**Extinguishing Media****Suitable Extinguishing Media:**

Water fog or fine spray, carbon dioxide, dry chemical, foam. Alcohol resistant foams (ATC type) are preferred if available. General purpose synthetic foams (including AFFF) or protein foams may function but much less effectively.

Unsuitable Extinguishing Media:

Do not use direct water stream, which will spread fire.

Specific Hazards arising from the Product:

Isolate and restrict area access. Stay upwind. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Vapours are heavier than air and may accumulate in low areas. Vapours may travel along the ground to be ignited at distant locations. Spills of these organic liquids on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion. Do not direct a solid stream of water or foam into burning molten material; this may cause spattering and spread the fire.

Hazardous Decomposition/Combustion Materials (under fire conditions):

The smoke may contain unidentified toxic and/or irritating compounds. Carbon monoxide. Carbon dioxide.

Special Protective Equipment:

Fire fighters should wear full protective clothing including self-contained breathing equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautionary Measures:**

Wear appropriate protective equipment.

Environmental Precautionary Measures:

Prevent entry into sewers or streams, dike if needed.

Procedure for Clean-up:

SMALL SPILL: Absorb liquid with non-combustible floor absorbent and place in non-leaking container; seal properly and dispose of properly in compliance with federal, state, and local regulations.

LARGE SPILL: Evacuate area of unprotected personnel. Eliminate all ignition sources. Stop spill at source if safe to do so. Handling equipment must be grounded to prevent sparking and static discharge. Prevent spill from entering drains, sewers, streams or other bodies of water. If run-off occurs, notify proper authorities. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

Dispose of properly in compliance with federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE**Precautions for Safe Handling:****Precautions for safe handling, additional hazards when processed :**

Handle empty containers with care because vapors are potentially flammable. In use, may form flammable vapour-air mixture.

Precautions for safe handling: Use personal protective equipment as required. Use only in well-ventilated areas. Use earthed equipment. Take precautionary measures against static discharge.

Safety showers and eye wash fountains should be readily available in handling and storage areas. No naked lights. No smoking. Keep containers away from heat and open flame. Avoid breathing vapours/mist/spray.

Hygiene measures: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product.

Keep away from heat, sparks and open flames. Keep out of reach of children. Keep container tightly sealed when not in use. Store in a cool, well-ventilated place away from incompatible materials. Store in accordance with good industrial practice.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls: Local exhaust not usually needed.

Mechanical (General): General area ventilation is recommended.

HMIS PP, B | Safety Glasses, Gloves

Personal protective equipment: Avoid all unnecessary exposure.

Eye protection: Wear chemical splash goggles in compliance with OSHA regulation if splashing is possible or when transfilling or breaking transfer connections.

Hand protection: Chemical resistant gloves if skin contact is possible. Nitrile gloves or consult your safety equipment supplier.

Skin and body protection: Protective clothing not usually necessary. For bulk material, if direct contact is possible, wear apron, boots, face shield, etc. as needed.

Work/Hygienic Practices: Follow label instructions. Wash hands after use and before eating, drinking, smoking, using restrooms, etc.

Ethanol (64-17-5)

USA ACGIH STEL (ppm) 1000 ppm; USA OSHA PEL (TWA) (ppm) 1000 ppm

Ethyl Acetate (141-78-6)

USA ACGIH (TWA) (ppm) 400 ppm; USA OSHA PEL (TWA) (ppm) 400 ppm; USA NIOSH REL (TWA) (ppm) 400 ppm

Methyl Ethyl Ketone (78-93-3)

USA ACGIH TWA (ppm) 50 ppm; USA OSHA PEL (TWA) (ppm) 100 ppm

Toluene (108-88-3)

USA ACGIH TWA (ppm) 20 ppm; USA OSHA PEL (TWA) (ppm) 200 ppm; USA OSHA PEL (Ceiling) (ppm) 300 ppm; USA OSHA Remark 500 ppm 10 minute peak per 8-hr shift.

Isopropyl Alcohol (67-63-0)

USA ACGIH TWA (ppm) 200 ppm; USA ACGIH STEL (ppm) 400 ppm; USA OSHA PEL (TWA) (ppm) 400 ppm; USA NIOSH REL (TWA) (ppm) 400 ppm; USA NIOSH REL (STEL) (ppm) 500 ppm.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work station location.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Orange colored thin viscosity liquid with sweet solvent odor.

Physical State: Liquid

Odor: Sweet solvent odor

Odor Threshold: No data available

Molecular Formula: Mixture

Particle Size: Not applicable

Solubility: Partially soluble in water

Spec Grav./Density: 0.97

Softening Point: No data available

Viscosity: Thin liquid.

Percent Volatile: 71% Volatile

Saturated Vapor Concentration: No data available

Heat Value: No data available

Boiling Point: 77° C.
Freezing/Melting Pt.: No data available
Flammability: Flammable
Flash Point: -5° C.
Partition Coefficient: No data available
Octanol: No data available
Vapor Pressure: No data available
Vapor Density: Heavier than air.
pH: Not applicable
VOC: 2.9 lbs/gal
Evap. Rate: Faster than N-butyl Acetate = 1
Bulk Density: No data available
Molecular weight: No data available
Auto-Ignition Temp: No data available
Decomp Temp: No data available
UFL/LFL: 1.0/19.0

SECTION 10: STABILITY AND REACTIVITY

Reactivity

No additional information available

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

No additional information available

Conditions to avoid

Heat. Sparks. Open flame. DO NOT distill or evaporate to near dryness. potential peroxide formation.

Incompatible materials

Oxidizing agent. strong acids. Strong bases.

Hazardous decomposition products

Carbon dioxide. Carbon monoxide

Conditions to Avoid: Avoid strong oxidizing and reducing agents, strong alkalides and strong acids.

SECTION 11: TOXICOLOGICAL INFORMATION

Ethanol (64-17-5)

LD50 oral rat 10740 mg/kg body weight; LD50 dermal rabbit > 16000 mg/kg (Rabbit)

Ethyl Acetate (141-78-6)

LD50 oral rat: 5620 mg/kg; LD50 dermal rabbit: > 18000 mg/kg; LC50 inhalation rat (mg/l): 70.56 mg/l/4H; LC50 inhalation rat (ppm): 19600 ppm/4H (Rat)

Methyl Ethyl Ketone (78-93-3)

LD50 oral rat 2737 mg/kg; LD50 dermal rabbit 6480 mg/kg; LC50 inhalation rat 23.5 gm/m³/8H

Toluene (108-88-3) LD50 oral rat 636 mg/kg; LD50 dermal rabbit 12223 mg/kg (>5000 mg/kg bodyweight; Rabbit; Rabbit; Experimental value; Other, >5000 mg/kg bodyweight; Rabbit; Rabbit; Experimental value; Other); LC50 inhalation rat (mg/l) > 20 mg/l/4h (Rat); Additional information Target organs: liver, kidneys, CNS, blood, heart, adrenals, spleen, auditory

Isopropyl Alcohol (67-63-0)

LD50 oral rat 5045 mg/kg; LD50 dermal rabbit 12870 mg/kg; LC50 inhalation rat (mg/l) 73 mg/l/4H

Molybdenum Orange (12656-85-8) LD50 oral rat 400 mg/kg, slight irritation skin, rabbit

Resin (9004-70-0) LD50 oral rat >5000 mg/kg

Repeated dose toxicity: No data available
Skin corrosion/Irritation: Causes skin irritation
Serious eye damage/eye irritation: Causes serious eye irritation
Respiratory or skin sensitization: Not classified
Mutagenicity: No data available
Carcinogenicity: No data available
Reproductive toxicity: No data available
Specific target organ toxicity-single exposure-: No data available
Specific target organ toxicity-repeated exposure: No data available
Aspiration hazard: No data available
Other adverse effects: No data available

SECTION 12: ECOLOGICAL INFORMATION

Ethanol (64-17-5)

LC50 fish 1 14200 mg/l (96 h; Pimephales promelas; NOMINAL CONCENTRATION); EC50 Daphnia 1 9300 mg/l (48 h; Daphnia magna); LC50 fish 2 13000 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); EC50 Daphnia 2 10800 mg/l (24 h; Daphnia magna); Threshold limit other aquatic organisms 1 65 mg/l (72 h; Protozoa); Threshold limit algae 1 1450 mg/l (192 h; Microcystis aeruginosa; GROWTH RATE); Threshold limit algae 2 5000 mg/l (168 h; Scenedesmus quadricauda; GROWTH RATE)

Ethyl Acetate (141-78-6)

LC50 fishes 1 54.7 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); EC50 Daphnia 1 2500 mg/l (24 h; Daphnia magna); LC50 fish 2 230 mg/l (96 h; Pimephales promelas); EC50 Daphnia 2 154 mg/l (48 h; Daphnia magna); TLM fish 1 100 - 1000,96 h; Pisces; TLM other aquatic organisms 1 100 - 1000,96 h; Threshold limit algae 1 2000 mg/l (96 h; Selenastrum capricornutum; Biomass); Threshold limit algae 2 15 mg/l (192 h; Scenedesmus quadricauda; Growth rate)

Methyl Ethyl Ketone (78-93-3)

LC50 fish 131 mg/l (Fathead Minnow, 96H)

Toluene (108-88-3)

LC50 fish 1 24 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); EC50 Daphnia 1 84 mg/l (24 h; Daphnia magna; LOCOMOTOR EFFECT); LC50 fish 2 13 mg/l (96 h; Lepomis macrochirus); EC50 Daphnia 2 11.5 - 19.6 mg/l (48 h; Daphnia magna); Threshold limit algae 1 > 400 mg/l (168 h; Scenedesmus quadricauda; TOXICITY TEST); Threshold limit algae 2 105 mg/l (192 h; Microcystis aeruginosa)

Isopropyl Alcohol (67-63-0)

LC50 fish 1 4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system); EC50 Daphnia 1 > 10000 mg/l (48 h; Daphnia magna); LC50 fish 2 9640 mg/l (96 h; Pimephales promelas; LETHAL); EC50 Daphnia 2 13299 mg/l (48 h; Daphnia magna); Threshold limit algae 1 > 1000 mg/l (72 h; Scenedesmus subspicatus; GROWTH RATE) Threshold limit algae 2 1800 mg/l (72 h; Algae; CELL NUMBERS)

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste disposal recommendations: In its manufactured form this material is hazardous for ignitability (D001) under federal RCRA disposal criteria. Spent material may contain other hazardous components or lend other hazardous properties to this material. Generators are advised to perform analysis on all waste streams for proper characterization and disposal.

Additional information: Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

DOT Class: Flammable Liquid (3) #3

UN #: UN 1210, Class: 3, Proper Shipping Name: Printing ink, flammable

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination.

Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Domestic Highway:

Proper Shipping Name: Printing Ink

Hazard Class/Subsidiary Hazard: 3 Flammable liquid

UN/NA No: 1210
Packing Group: II
Label Required: Flammable Liquid
Domestic Air Shipments:
Proper Shipping Name: Printing Ink
Hazard Class/Subsidiary Hazard: 3 Flammable liquid
UN/NA No: 1210
Packing Group: II
Label Required: Flammable Liquid

**SECTION 15: REGULATORY INFORMATION****COMPONENT / (CAS/PERC) / CODES**

- *Ethanol (64175 20- 30%) MASS, OSHAWAC, PA, TSCA, TXAIR
- *Ethyl acetate (141786 5-10%) CERCLA, MASS, OSHAWAC, PA, TOXICRCRA, TSCA, TXAIR, TXHWL
- *Methyl Ethyl ketone (78-93-3 30 - 40%) MASS, OSHAWAC, PA, TSCA, TXAIR
- *Toluene (108883 1-5%) CERCLA, CSWHS, EPCRAWPC, HAP, MASS, NJHS, OSHAWAC, PA, PRIPOL, PROP65, SARA313, TOXICPOL, TOXICRCRA, TSCA, TXAIR, TXHWL
- *Isopropanol (67630 1-5%) MASS, NJHS, NRC, OSHAWAC, PA, SARA313, TSCA, TXAIR

Canada:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by these regulations, -DSL/NDL; All materials in this product are listed on the DSL.

WHMIS Classifications: B2, D2A, D2B

Regulatory Key Descriptions

MASS = MA Massachusetts Hazardous Substances List
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level
CERCLA = Superfund Clean-Up Substance
CSWHS = Clean Water Act Hazardous Substances
EPCRAWPC = EPCRA Water Purity Chemicals
HAP = Hazardous Air Pollutants
NJHS = NJ Right-To-Know Hazardous Substances
PRIPOL = Clean Water Act Priority Pollutants
PROP65 = CA Prop 65
SARA313 = SARA 313 Title III Toxic Chemicals
TOXICPOL = Clean Water Act Toxic Pollutants
TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)
TXHWL = TX Hazardous Waste List
ACUTERCRA = RCRA Acute Hazardous Wastes (P-List)
EHS302 = Extremely Hazardous Substance
NJEHS = NY Extraordinarily Hazardous Substances
OSHAPSM = OSHA Chemicals Requiring Process Safety Management
NRC = Nationally Recognized Carcinogens
APP9 = Appendix 9
HWRCRA = RCRA Hazardous Wastes
OSHAHTS = OSHA Hazardous and Toxic Substances

TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)



WHMIS Hazardous Class:
Flammable Liquids, Acute Toxicity

SECTION 16: OTHER INFORMATION

Additional Information: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

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Do not use ingredient information and/or ingredient percentages in this SDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from your local Sterling Marking Products Inc. Sales Office.

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End of SDS.