

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

PRODUCT IDENTIFIER

Product Code GP-1420

Product Name EMERALD GREEN

Product Category GENERAL PURPOSE SERIES SCREEN INK (GP)

RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE

Recommended Use PRINTING OPERATION

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

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EMERGENCY TELEPHONE NUMBER

Chemtrec 1-613-996-6666

SECTION 2. HAZARDS IDENTIFICATION

CLASSIFICATION

Acute Toxicity - Oral	Category 4 - (H302)
Acute Toxicity - Dermal	Category 4 - (H312)
Acute Toxicity - Inhalation	Category 4 - (H332)
Skin Irritation	Category 2 - (H315)
Serious Eye Damage/ Irritation	Category 2 - (H319)
Carcinogenicity	Category 2 - (H351)
Reproductive Toxicity	Category 1A - (H360)
Specific Organ Toxicity	Category 2 - (H373)

LABEL ELEMENTS





SIGNAL WORD: DANGER!

HAZARD STATEMENTS

H302 Harmful if swallowed

H312 Harmful in contact with skin

H315 Causes skin irritation

H319 Causes serious eye irritation

H332 Harmful if inhaled

H351 Suspected of causing cancer

H360 May damage fertility or the unborn child

H373 May cause damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENTS

- P201 Obtain special instruction 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.
- P270 Do not eat, drink or some when using this product.
- P280 Wear protective clothing.
- P308 +P313 If exposed or concerned, get medical attention.
- P331 Do not induce vomiting

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

May be harmful in contact with skin.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

COMPONENTS	WEIGHT %	CAS NO	NOTE
DIACETONE ALCOHOL	30-60	123-42-2	
2-BUTOXYETHANOL	10-20	111-76-2	
PETROLEUM NAPHTHA, LIGHT AROMATIC	5-15	64742-95-6	
PIGMENT YELLOW 34	5-25	1344-37-2	

SECTION 4. FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

General Advice

Show this safety data sheet to the doctor in attendance.

Eye Contact

Immediately flush with plenty of water. After flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation develops and persists.

Skin Contact

Wash immediately with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation such as redness, rash, blistering develops, get medical attention.

Inhalation

Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.

Ingestion

Do Not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control immediately.

MOST IMPORTANT SYMPTOMS AND EFECTS, BOTH ACCUTE AND DELAYED

None under normal use conditions.

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT

Notes to Physician: Treat symptomatically.

SECTION 5. FIRE FIGHTING PROCEDURE

SUITABLE EXTINGUISHING MEDIA

Foam, Dry chemical, and Water Spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

UNSUITABLE EXTINGUISHING MEDIA:

Carbon Dioxide

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

Thermal decomposition can lead to release of irritating gases and vapors. May emit toxic fumes under fire conditions.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

As in any fire, wear self contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers/ tanks with water spray. Sealed containers may rupture when heated.

SECTION 6. ACCIDENTAL RELEASE MEASURE

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions

Remove all sources of ignition. Ventilate the area. Avoid contact with eyes, skin, and clothing. Avoid breathing dust or vapor. Evacuate personnel to safe areas. Keep people away from upwind of spill/leak.

Environmental Precautions

Prevent products from entering drains. Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches. Local authorities should be notified if significant spillages cannot be contained.

Methods and Material for Containment and Cleanup

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/ national regulations (see section 13). Use clean non-sparking tools to collect absorbed material.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Handling

Use personal protective equipment as required. Do not eat, drink, or smoke when using this product. Ensure adequate ventilation.

CONDITIONS FOR SAFE STORAGE INCLUDING ANY INCOMPATIBILITES

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep container closed when not in use. Keep out of reach of children.

Incompatible Products

Strong acids, strong bases, strong oxidizing and reducing agents.

SECTION 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

CONTROL PARAMETERS

Exposure Limits

Component	ACGIH TLV	OSHA PEL
2-Butoxyethanol	TWA: 20 ppm	TWA: 25 ppm
111-76-2		TWA: 120mg/ ³
		TWA: 50 ppm
		TWA: 240 mg/m³
		Skin
Diacetone Alcohol	TWA: 50 ppm	TWA: 50 ppm
123-42-2		TWA: 240 mg/m ³
Pigment Yellow 34	TWA: 0.05 mg.m³ Lead	TWA: 0.05 mg.m³ Lead
1344-37-2	TWA: 0.012 mg/m³ Chromium (VI)	TWA: 0.005 mg/m³ Chromium (VI)

Component	Ontario TWAEV	Mexico OEL (TWA)
		TWA/LMPE-PPT: 26 ppm
2-Butoxyethanol	TWA: 20 ppm	TWA/LMPE-PPT: 120 mg/m ³
111-76-2		STEL/LMPE-CT: 75 ppm
		STEL/LMPE-CT: 360 mg/m ³
Diacetone Alcohol	TWA: 50 ppm	TWA/LMPE-PPT: 50 ppm
123-42-2	TWA: 240 mg/m ³	TWA/LMPE-PPT: 240 mg/m ³
	STEL: 75 ppm	STEL/LMPE-CT: 75 ppm
	STEL: 360 mg/m ³	STEL/LMPE-CT: 360 mg/m ³

APPROPRIATE ENGINEERING CONTROLS

Engineering Measures

Provide a good standard of general ventilation. Natural ventilation is from doors, windows, etc. Controlled ventilation means air is supplied or removed by powered fan. Users are advised to consider national Occupational Exposure Limits or other equivalent values. In case of insufficient ventilation, wear suitable respiratory equipment.

INDIVIDUAL PROTECTION MEASURES SUCH AS PERSONAL PROTECTIVE EQUIPMENT

Eye /Face Protection:

Wear safety glasses with side shields (or goggle). If splashes are likely to occur, wear suitable face shield. Ensure the eye wash stations and safety showers are close to the workstation location.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent contact.

Respiratory Protection:

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking or smoking. Wash contaminated clothing before reuse. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical StateViscous LiquidAppearanceColored LiquidOdorMildOdor ThresholdNo information Available

PropertyValuesRemarks/ MethodPHNo Data AvailableMelting Point/ Freezing PointNo Data Available

Boiling Point/ Boiling Range > 145 °C/ 293 °F

Flash Point 52 °C/ 126 °F Penskey Martens Closed Cup (PMCC)

Evaporation Rate No Data Available

Flammability Limit in Air

Upper Flammability Limit (% vol) 8.3 % Lower Flammability Limit (% vol) 1.2 %

Vapor Pressure No Data Available Vapor Density Heavier than air

Specific Gravity 0.98-1.3

Water Solubility

Solubility in Other Solvents

Partition Coefficient: N-Octanol/ Water

Auto Ignition Temperature

Decomposition Temperature

Kinetic Viscosity

No Data Available

Explosive Property No Data Available Oxidizing Property No Data Available

SECTION 10. STABILITY AND REACTIVITY

Reactivity Chemical Stability

No information Available Stable under normal condition

Possibility of Hazardous Reactions Conditions to Avoid

None under normal processing Keep away from open flames, hot surfaces and sources of ignition

Incompatible Materials

Strong acids, strong bases, reducing agent.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors, Carbon Dioxide (CO2), Carbon Monoxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation There is no data for this product Eye Contact There is no data for this product Skin Contact There is no data for this product Ingestion There is no data for this product

Component	CAS No.	Oral LD50
Petroleum Naphtha, Light Aromatic	64742-95-6	8400 mg/kg (Rat)
Diacetone Alcohol	123-42-2	4000 mg/kg (Rat)
2-Butoxyethanol	111-76-2	470 mg/kg (Rat)
Pigment Yellow 34	1344-37-2	>10000 mg/kg body weight (OECD 401 method)

Component	CAS No.	LD50 Dermal
Petroleum Naphtha, Light Aromatic	64742-95-6	>2000 mg/kg (Rabbit)
Diacetone Alcohol	123-42-2	13500 mg/kg (Rabbit)
2-Butoxyethanol	111-76-2	220 mg/kg (Rabbit)
		2270 mg/kg (Rat)
Pigment Yellow 34	1344-37-2	No data available

Component	CAS No.	Inhalation LC50	
Petroleum Naphtha, Light Aromatic	64742-95-6	3400 ppm (Rat) 4h	
		>5.2 mg/L (Rat) 4h	
2-Butoxyethanol	111-76-2	2.21 mg/L (Rat) 4h	
		450 ppm (Rat) 4h	
Diacetone Alcohol	123-42-2	7.23 gg/m³ (Rat) 4h	
Pigment Yellow 34	1344-37-2	No data available	

Information on Toxicological Effects

Symptoms There is no data for this product.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long Term Exposure.

Skin Corrosion/ Irritation

Eye Damage/ Irritation

Irritation

There is no data for this product.

Reproductive Effects May damage the unborn child. Suspected of damaging fertility.

STOT – Single exposure There is no data for this product.

STOT- Repeated Exposure May cause damage to organs through prolonged or repeated exposure

Chronic Toxicity
Aspiration Hazard
Carcinogenicity

There is no data for this product.
There is no data for this product.
Suspected of causing cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No.	ACGIH	IARC
2-Butoxyethanol	111-76-2	A3	
Pigment Yellow 34	1344-37-2	A2	2B

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

None known

Component	CAS No.	Algae/Aquatic Plants	
2-Butoxyethanol	111-76-2	72 h Pseudokirchneriella Subcapita: 911 mg/l	
Component	CAS No.	Fish	
Petroleum Naphtha, light aromatic	64742-95-6	96 h LC50 Oncorhynchus Mykiss: 9.22 mg/L	
2-Butoxyethanol	111-76-2	96 h LC50 Lepomis Macrochirus: 1490 mg/L (static)	
		96 h LC50 Lepomis Macrochirus: 2950mg/L	
Diacetone Alcohol	123-42-2	96 h LC50 Lepomis Macrochirus: 420 mg/L	
		96 h LC50 Lepomis Macrochirus: 420 mg/L (Static)	
Pigment Yellow 34	1344-37-2	96 h LC50 Leuciscus Idus: 10000 mg/L	

Component	CAS No.	Crustacea
Diacetone Alcohol	123-42-2	24 h EC50 Daphnia Magna: 8750 mg/L
2-Butoxyethanol	111-76-2	24 h EC50 Daphnia Magna: 1698-1940 mg/L
		48 h EC50 Daphnia Magna: >1000 mg/L
Pigment Yellow 34	1344-37-2	48 h EC50 Daphnia Magna: >100 mg/L
		Base on review of lead (Pb): 300 ug/L Daphnia Magna (3 weeks)
		Base on review of Hex. Chromium: 2000 ug/L Daphnia Magna (3wks)
		30m EC50 Pseudomonas Putida: >10000 mg/L Pseudomonas Putida
		72 h Desmodesmus Subspicatus: >100 ml/L

Persistence and Degradability

No information Available

Bioaccumulation

No information Available

Component	CAS No.	Partition Coefficient
Diacetone Alcohol	123-42-2	1.03
2-Butoxyethanol	111-76-2	0.81

Other Adverse Effects: No information available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Treatments Methods

Waste Disposal Methods Contain and dispose of waste according to local regulations.

Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

DOT In Canada and US, this material may be reclassified as a combustible liquid and is not regulated, via

Surface transportation, in containers less than 119 gallons or 450 liters [per 49 CFR 173.150 (f)] [per

Transportation of Dangerous Goods Regulations/ Clear Language Part 1.33]

UN/ ID No. UN 1210
Proper Shipping name: Printing Ink

Hazard Class: 3
Packing Group: III

ICAO/ IATA/ IMDG/ IMO

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SECTION 15. REGULATORY INFORMATION

International Inventories

All components are listed on the TSCA Inventory. For further information, please contact: Supplier (manufacturer/importer/downstream user/ distributor.

US Federal Regulations

Pigment Yellow 34 CAS 1344-37-2

OSHA Regulatory Status: Chronic exposure may cause effects of chronic lead toxicity.

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.

Component	CAS NO.	Weight %	SARA 313 Threshold Values
2 Butoxyethanol	111-76-2	10-30	1.0
Chromium (in Pigment Yellow 34)	7440-47-3	1-5	1.0
Aluminum (in Piigment Yellow 34)	7429-90-5	< 1	1.0
Lead (in Pigment Yellow 34)	7439-92-1	10-15	0.1
Antimony (in Pigment Yellow 34)	7440-36-0	< 1	1.0

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPS) (see 40 CFR 61)

This product does not contain air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

U.S. State Regulations

Component	CAS NO.	Massachusetts Right to Know
2-Butoxyethanol	111-76-2	X
Diacetone Alcohol	123-42-2	X
Chromium (in Pigment Yellow 34)	7440-47-3	X
Aluminum (in Piigment Yellow 34)	7429-90-5	X
Lead (in Pigment Yellow 34)	7439-92-1	Х
Antimony (in Pigment Yellow 34)	7440-36-0	X

Component	CAS NO.	Minnesota Right to Know
2-Butoxyethanol	111-76-2	х
Diacetone Alcohol	123-42-2	Х
Chromium (in Pigment Yellow 34)	7440-47-3	X
Aluminum (in Piigment Yellow 34)	7429-90-5	X
Lead (in Pigment Yellow 34)	7439-92-1	X
Antimony (in Pigment Yellow 34)	7440-36-0	Y

Component	CAS NO.	New Jersey Right to Know
2-Butoxyethanol	111-76-2	X
Diacetone Alcohol	123-42-2	X
Chromium (in Pigment Yellow 34)	7440-47-3	X
Aluminum (in Piigment Yellow 34)	7429-90-5	X
Lead (in Pigment Yellow 34)	7439-92-1	X
Antimony (in Pigment Yellow 34)	7440-36-0	Х

Component	CAS NO.	Pennsylvania Right to Know
2-Butoxyethanol	111-76-2	X
Diacetone Alcohol	123-42-2	X
Chromium (in Pigment Yellow 34)	7440-47-3	X
Aluminum (in Piigment Yellow 34)	7429-90-5	X
Lead (in Pigment Yellow 34)	7439-92-1	X
Antimony (in Pigment Yellow 34)	7440-36-0	X

California Prop. 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Component	California Prop. 65
Pigment Yellow 34 1344-37-2	Carcinogen

Canada

Component	NPRI – National Pollutant Release Inventory
Petroleum Naphtha, Light Aromatic	Part 5. Other Groups and Mixtures
64742-95-6	
Diacetone Alcohol	Part 4. Substances as set out in Section 65 of the List of Toxic Substances in
123-42-2	Schedule 1 of the Canadian Environmental Protection Act 1999
2 Butoxyethanol	Part 1. Group A substance, Part 5 Individual Substance, Part 4, Substances as
111-76-2	set out in Section 65 of the List of Toxic Substance in Schedule 1 of the
	Canadian Environmental Protection Act 1999
Pigment Yellow 34	Part 1. Group B substance, Part 4, Substances as set out in Section 65
1344-37-2	of the List of Toxic Substance in Schedule 1 of the Canadian Environmental
	Protection Act 1999

SECTION 16. OTHER INFORMATION

HMISHealthFlammabilityReactivityPersonal Protection2*20x

Key or legend to abbreviations and acronyms used in safety data sheet.

Legend - Section 8: Exposure Controls/Personal Protection

TWA Time Weighted Average STEL Short Term Average Ceiling Maximum Limit Value

ACGIH American Conference of Governmental Industrial Hygienist

A1 Known Human Carcinogen A2 Suspended Human Carcinogen

A3 Animal Carcinogen

IARC International Agency for Research on Cancer

Group 1 Carcinogenic to Humans

Group 2A Probably Carcinogenic to Humans Group 2B Possibly Carcinogenic to Human

NTP National Toxicity Program
Known Carcinogen

Reasonably Anticipated to be a Human Carcinogen

OSHA Occupational Health and Safety Administration

X Present

Date Jan. 24, 2019

DISCLAIMER

This information provided in this 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 guide 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.