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Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**GHS product identifier****Product Name** All Purpose Permanent Marker**Other means of identification****Product Code(s)** Black# 404960, Red #404961**UN-Number** UN1210**Synonyms** None**Recommended use of the chemical and restrictions on use****Recommended Use** Solvent based marker**Uses advised against** Keep away from children. Not for use on skin.**Supplier's details****Supplier Address**Applied Maintenance Supplies & Solutions
12420 Plaza Drive
Cleveland, OH 44130
TEL: 800-458-4018**Emergency telephone number****Emergency Telephone Number** 24-hour Emergency Phone: Infotrac 1-800-535-5053 (USA & Canada), 1-352-323-3500 (International)**2. HAZARDS IDENTIFICATION****Classification**

This product is an article as defined by the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200). No exposure to hazardous chemicals is expected to occur during intended product use. Misuse of the product may result in exposure to hazardous chemicals. The classification below applies to the liquid ink in this marker.

This product is not a toxic or hazardous substance as defined by 16 CFR 1500.3 of the Federal Hazardous Substances Act (FHSA) and as such does not require acute or chronic hazard labeling. Reviews were conducted using guidelines set forth by the CPSC (Consumer Product Safety Commission). Inks are certified as compliant under ASTM D-4236

GHS Label elements, including precautionary statements**Emergency Overview**

Keep away from children.

Appearance Varies The product contains no substances which at their given concentration are considered to be hazardous to health**Physical State** Liquid.**Odor** Mild

Precautionary Statements**Prevention**

- None

General Advice

- None

Storage

- None

Disposal

- None

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade secret
n-Propyl alcohol	71-23-8	<45	*
Ethanol	64-17-5	<45	*
Ethylene glycol monopropyl ether	2807-30-9	<5	*

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

4. FIRST AID MEASURES

Description of necessary first-aid measures**General Advice**

Under normal conditions of use first aid is not required.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or Poison Control Center immediately.

Skin Contact

Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects None known

Indication of immediate medical attention and special treatment needed, if necessary**Notes to Physician**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None

Specific Hazards Arising from the Chemical

The ink contained in this product is flammable but not readily ignited.

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Remove all sources of ignition.

Environmental Precautions

Environmental Precautions Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for Containment None required.

Methods for Cleaning Up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Keep away from open flames, hot surfaces and sources of ignition.

Conditions for safe storage, including any incompatibilities

Storage Store in a well-ventilated place. Keep cool.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines The following exposure limits are provided for information only; exposure is not expected under normal conditions of use or storage.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm 10% LEL TWA: 1000 ppm TWA: 1900 mg/m ³
n-Propyl alcohol 71-23-8	TWA: 100 ppm	TWA: 200 ppm TWA: 500 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 500 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 625 mg/m ³	IDLH: 800 ppm TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 625 mg/m ³

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures None under normal use conditions.

Individual protection measures, such as personal protective equipment

Eye/Face Protection No protective equipment is needed under normal use conditions.
Skin and Body Protection No protective equipment is needed under normal use conditions.
Respiratory Protection No protective equipment is needed under normal use conditions.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State	Liquid.	Appearance	Varies.
Odor	Mild.	Odor Threshold	No information available.

Property	Values	Remarks/ - Method
pH	No data available	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	96 °C / 205 °F	None known
Flash Point	23 °C / 73 °F	(Liquid Ink only)
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	13.5%	
lower flammability limit	2.1%	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Specific Gravity	.9418	None known
Water Solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	No data available	None known

Flammable Properties Highly flammable.

Explosive Properties No data available

Oxidizing Properties No data available

Other information

VOC Content (%) No data 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

None known based on information supplied.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors.

1 1 . T O X I C O L O G I C A L I N F O R M A T I O N

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information.
Inhalation	None under normal use conditions
Eye Contact	None under normal use conditions.
Skin Contact	None under normal use conditions.
Ingestion	None under normal use conditions.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethanol	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h
n-Propyl alcohol	= 1870 mg/kg (Rat)	= 4049 mg/kg (Rabbit)	> 13548 ppm (Rat) 4 h
Ethylene glycol monopropyl ether	= 3089 mg/kg (Rat)	= 960 µL/kg (Rabbit)	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms None under normal use.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	Ethanol has been shown to be carcinogenic in long-term studies only when consumed and abused as an alcoholic beverage. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethanol	A3	Group 1	Known	X

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration Hazard	No information available.

Numerical measures of toxicity - Product

The following values are calculated based on chapter 3.1 of the GHS document: Not applicable

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not Applicable

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Ethanol 64-17-5		LC50 96 h: 12.0 - 16.0 mL/L static (Oncorhynchus mykiss) LC50 96 h: > 100 mg/L static (Pimephales promelas) LC50 96 h: 13400 - 15100 mg/L flow-through (Pimephales promelas)	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	LC50 48 h: 9268 - 14221 mg/L (Daphnia magna) EC50 24 h: = 10800 mg/L (Daphnia magna) EC50 48 h: = 2 mg/L Static (Daphnia magna)
n-Propyl alcohol 71-23-8		LC50 96 h: = 4480 mg/L flow-through (Pimephales promelas)	EC50 = 17700 mg/L 5 min EC50 = 45000 mg/L 5 h EC50 = 8686 mg/L 15 min EC50 = 980 mg/L 12 h	EC50 48 h: = 3642 mg/L (Daphnia magna) EC50 48 h: 3339 - 3977 mg/L Static (Daphnia magna)

Persistence and Degradability No information available.**Bioaccumulation** No information available.

Chemical Name	Log Pow
n-Propyl alcohol	0.34
Ethanol	-0.32

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with local regulations.**Contaminated Packaging** Not Applicable

14. TRANSPORT INFORMATION

DOT

UN-Number UN1210
Proper shipping name Printing ink
Hazard Class 3
Packing Group III
Description UN1210, Printing ink, 3, III, Limited Quantity
Emergency Response Guide Number 129

TDG

UN-Number UN1210
Proper Shipping Name Printing ink
Hazard Class 3
Packing Group III
Description UN1210, Printing ink, 3, III, Limited Quantity

MEX

UN-Number UN1210
Proper Shipping Name Printing ink
Hazard Class 3
Packing Group III
Description UN1210, Printing ink, 3, III, Limited Quantity

ICAO

UN-Number UN1210
Proper shipping name Printing ink

Hazard Class	3
Packing Group	III
Description	UN1210, Printing ink, 3, III, Limited Quantity

IATA

UN-Number	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	III
ERG Code	3L
Description	UN1210, Printing ink, 3, III, Limited Quantity

IMDG/IMO

UN-Number	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	III
EmS No.	F-E, S-D
Description	UN1210, Printing ink, 3, III, (23°C c.c.), Limited Quantity

RID

UN-Number	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	III
Classification Code	F1
Description	UN1210, Printing ink, 3, III, Limited Quantity

ADR

UN-Number	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	III
Classification Code	F1
Tunnel Restriction Code	(D/E)
Description	UN1210, Printing ink, 3, III, (D/E), Limited Quantity

ADN

Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	III
Classification Code	F1
Special Provisions	163, 640E
Description	UN1210, Printing ink, 3, III, Limited Quantity
Limited Quantity	5 L
Ventilation	VE01

15. REGULATORY INFORMATION

International Inventories

TSCA	Not determined
DSL	Not determined

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

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	CAS-No	Weight %	SARA 313 - Threshold Values %
Ethylene glycol monopropyl ether	2807-30-9	<5	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
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**

Ethyl alcohol is only considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

Chemical Name	CAS-No	California Prop. 65
Ethanol	64-17-5	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Ethanol	X	X	X		
n-Propyl alcohol	X	X	X		X
Ethylene glycol monopropyl ether			X	X	

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA	Health Hazard 0	Flammability 2	Instability 0	Physical and Chemical Hazards - Personal Protection X
HMIS	Health Hazard 0	Flammability 2	Physical Hazard 0	

Prepared By Product Stewardship
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Revision Note No information available.

General 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