



SAFETY DATA SHEET

Issuing Date 30-May-2018

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Revision Number 0

This document complies with the US OSHA Hazard Communication Standard (29 CFR 1910.1200), Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR), and Mexico's NMX-R-019-SC-2011.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name WASHOFF™ Water Removable Paint Marker

Other means of identification

Product Code(s) 10451 Black, 10452 Blue, 10453 Green, 10454 Red, 10455 White, 10456 Yellow

UN-Number UN1210

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Markers

Uses advised against Keep away from children. Not for use on skin.

Supplier's details

Supplier Address
U-Mark, Inc
102 Iowa Ave.
Belleville, IL 62220
TEL: 618-235-7500

Emergency telephone number

Emergency Telephone Number INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

This product is an article as defined by the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200), Canada WHMIS 2015, which includes the amended Hazardous Products Act (HPA) and the Hazardous Product Regulations (HPR), and Mexico's NMX-R-019-SC-2011. No exposure to hazardous chemicals is expected to occur during intended product use. Misuse of the product may result in exposure to hazardous chemicals.

Label Elements

Signal Word
None

Hazard Statements
None

Physical and Health Hazards Not Otherwise Classified

Not applicable.

Precautionary Statements**Other information**

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
n-Propyl alcohol	71-23-8	55-60	-	-
Diacetone alcohol	123-42-2	15-35	-	-
Copper	7440-50-8	1-5	-	-
Cobalt	7440-48-4	1-5	-	-

Trade Secret

*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. Get medical attention if irritation persists.

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

Not an expected route of exposure.

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.

Explosion Data**Sensitivity to Mechanical Impact**

None.

Sensitivity to Static Discharge

Yes.

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 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
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
Diacetone alcohol 123-42-2	TWA: 50 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 240 mg/m ³	IDLH: 1800 ppm TWA: 50 ppm TWA: 240 mg/m ³
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³
Cobalt 7440-48-4	TWA: 0.02 mg/m ³	TWA: 0.1 mg/m ³ dust and fume (vacated) TWA: 0.05 mg/m ³ dust and fume	IDLH: 20 mg/m ³ dust and fume TWA: 0.05 mg/m ³ dust and fume
Copper 7440-50-8	TWA: 0.2 mg/m ³ fume	TWA: 0.1 mg/m ³ fume TWA: 1 mg/m ³ dust and mist (vacated) TWA: 0.1 mg/m ³ Cu dust, fume, mist	IDLH: 100 mg/m ³ dust, fume and mist TWA: 1 mg/m ³ dust and mist TWA: 0.1 mg/m ³ fume
Ethylene glycol 107-21-1	STEL: 50 ppm vapor fraction STEL: 10 mg/m ³ inhalable particulate matter, aerosol only TWA: 25 ppm vapor fraction	(vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 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 Showers

Eyewash stations
Ventilation systems

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	Alcohol-like.	Odor Threshold	No information available.

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	No data available	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	No data available	None known
Flash Point	21.11 °C / 70 °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	No data available	
lower flammability limit	No data available	
Vapor Pressure	No data available	None known
Vapor Density	>2.5 (air = 1)	None known
Relative Density	No data available	None known
Specific Gravity	~1	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	Not 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 Heat, flames and sparks.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	No known effect based on information supplied.
Eye Contact	No known effect based on information supplied
Skin Contact	No known effect based on information supplied
Ingestion	No known effect based on information supplied

Numerical measures of toxicity - Product

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral	1636 mg/kg; Acute toxicity estimate
Acute Oral Toxicity	20% of the mixture consists of ingredient(s) of unknown acute oral toxicity
Acute Dermal Toxicity	56% of the mixture consists of ingredient(s) of unknown acute dermal toxicity
Acute Inhalation (dust/mist) Toxicity	121% of the mixture consists of ingredient(s) of unknown acute inhalation (dust/mist) toxicity
Acute Inhalation (vapor) Toxicity	121% of the mixture consists of ingredient(s) of unknown acute inhalation (vapor) toxicity
Acute Inhalation (gas) Toxicity	121% of the mixture consists of ingredient(s) of unknown acute inhalation (gas) toxicity

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
n-Propyl alcohol	= 1870 mg/kg (Rat)	= 4049 mg/kg (Rabbit)	> 13548 ppm (Rat) 4 h
Diacetone alcohol	> 4 g/kg (Rat)	= 13630 mg/kg (Rabbit) = 13500 mg/kg (Rabbit)	> 7.23 g/m ³ (Rat) 8 h
Titanium dioxide	> 10000 mg/kg (Rat)	-	-
Cobalt	= 6171 mg/kg (Rat)	-	> 10 mg/L (Rat) 1 h
Ethylene glycol	4000 mg/kg (Rat)	9530 µL/kg (Rabbit)	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms None known

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

Respiratory or Skin Sensitization No information available
Germ Cell Mutagenicity No information available
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Cobalt	A3	Group 2B	Reasonably Anticipated	X

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human 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.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not Classified

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
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: 3339 - 3977 mg/L Static (Daphnia magna) EC50 48 h: = 3642 mg/L (Daphnia magna)
Diacetone alcohol 123-42-2		LC50 96 h: = 420 mg/L (Lepomis macrochirus) LC50 96 h: = 420 mg/L static (Lepomis macrochirus)		EC50 24 h: = 8750 mg/L (Daphnia magna)
Cobalt 7440-48-4	-	LC50 96 h: > 100 mg/L static (Brachydanio rerio)	-	-
Copper 7440-50-8	EC50 96 h: 0.031 - 0.054 mg/L static (Pseudokirchneriella subcapitata) EC50 72 h: 0.0426 - 0.0535 mg/L static (Pseudokirchneriella subcapitata)	LC50 96 h: 0.0068 - 0.0156 mg/L (Pimephales promelas) LC50 96 h: < 0.3 mg/L static (Pimephales promelas) LC50 96 h: = 0.052 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: = 0.112 mg/L flow-through (Poecilia reticulata) LC50 96 h: = 0.2 mg/L flow-through (Pimephales promelas) LC50 96 h: = 0.3 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 0.8 mg/L static (Cyprinus carpio) LC50 96 h: = 1.25 mg/L static (Lepomis macrochirus)	-	EC50 48 h: = 0.03 mg/L Static (Daphnia magna)
Ethylene glycol 107-21-1	EC50 96 h: 6500 - 13000 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: 14 - 18 mL/L static (Oncorhynchus mykiss) LC50 96 h: 40000 - 60000 mg/L static (Pimephales promelas) LC50 96 h: = 16000 mg/L static (Poecilia reticulata) LC50 96 h: = 27540 mg/L static (Lepomis macrochirus) LC50 96 h: = 40761 mg/L static (Oncorhynchus mykiss) LC50 96 h: = 41000 mg/L (Oncorhynchus mykiss)	EC50 = 10000 mg/L 16 h EC50 = 620 mg/L 30 min EC50 = 620.0 mg/L 30 min	EC50 48 h: = 46300 mg/L (Daphnia magna)

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

Chemical Name	Log Pow
n-Propyl alcohol	0.34
Diacetone alcohol	1.03

Mobility No information available**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 II
 Description UN1210, PRINTING INK, 3, II
 Emergency Response Guide Number 129

TDG

UN-Number UN1210
 Proper Shipping Name PRINTING INK
 Hazard Class 3
 Packing Group II
 Description UN1210, PRINTING INK, 3, II

MEX

UN-Number Not regulated
 UN1210
 Proper Shipping Name PRINTING INK
 Hazard Class 3
 Packing Group II
 Description UN1210, PRINTING INK, 3, II

IATA

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

15. REGULATORY INFORMATION

International Regulations

Ozone depleting substances Not applicable
 Persistent Organic Pollutants Not applicable
 Hazardous Waste Not applicable

Chemical Name	Basel Convention (Hazardous Wastes)
Copper	Y22

The Rotterdam Convention (Prior Informed Consent) Not applicable
 International Convention for the Prevention of Pollution from Ships (MARPOL) Not applicable

International Inventories

TSCA Contact supplier for inventory compliance status
 DSL/NDL Contact supplier for inventory compliance status

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - 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 %
Cobalt	7440-48-4	1-5	0.1
Copper	7440-50-8	1-5	1.0
Ethylene glycol	107-21-1	0.1-1.0	1.0

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

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):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper		X	X	

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):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Copper	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

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

Ethylene Glycol has been shown to be a developmental toxin only when ingested. The classification listed below only applies to respirable Titanium dioxide. This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Titanium dioxide	13463-67-7	Carcinogen
Cobalt	7440-48-4	Carcinogen
Ethylene glycol	107-21-1	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
n-Propyl alcohol	X	X	X		X
Diacetone alcohol	X	X	X		X
Titanium dioxide	X	X	X		X
Cobalt	X	X	X	X	X
Copper	X	X	X	X	X
Ethylene glycol	X	X	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA Health Hazard 0 Flammability 3 Instability 0 Physical and Chemical Hazards -

HMIS Health Hazard 0 Flammability 3 Physical Hazard 0 Personal Protection X

Prepared By Product Stewardship
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1-800-572-6501

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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