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Revision Number: 1

1. Identification of Substance/Preparation and the Company Undertaking

GHS Product Identifier

Product Name Detergent Removable Ink Marker for Nonporous Surfaces used for temporary marking

Other Means of Identification

Item Color	Item Number	Description
Pink	09910	XV-12520-NBA

Recommended use of the chemical and restrictions on use

Recommended Use Marking Stainless Steel (Temporary Use)

Uses Advised against No information available

Supplier's Details

Supplier Address

Arro-Mark LLC.

158 West Forest Ave

Englewood, New Jersey, 07631 USA

Phone: 201 6-57-4112 * FAX: 201 5-67-1373

Emergency Telephone Number

Chemtrec US 800-424-9300 International 703-527-3887

2. Hazards Identification

Classification

This chemical is considered hazardous according to the OSHA Hazard Communications Standard 2012 (29 CFR 1910.1200)

Physical Hazards

Flammable Liquids – Category 3

Health Hazards

Serious Eye Damage – Category 1

Specific Target Organ Toxicity – Category 3

Carcinogenicity – Category 2

Skin Corrosion/Irritation - Category 2

GHS Label Elements, including precautionary statements Emergency Overview

Signal Word – Danger



This Product is NOT corrosive to metal, only to eyes

Hazard Statements –

H226: Flammable liquid and vapor * **H318:** Causes serious eye damage * **H336:** May cause drowsiness or dizziness

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Precautionary Statements –

Prevention

- 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/lighting/equipment.
- P242: Use only non-sparking tools.
- P243: Take precautionary measures against static discharge.
- P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
- P271: Use only outdoors or in a well-ventilated area.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

- P370+378: In case of fire: Use water spray, carbon dioxide, dry chemical, or alcohol foam for extinction.
- P303+P361+P353: If on skin: Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
- P310: Immediately call a poison center or doctor/physician.
- P304+P340: If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P213: Call a poison center or doctor/physician if you feel unwell.

Storage

- P403+P235: Store in a well-ventilated place. Keep cool.
- P233: Keep container tightly closed.
- P405: Store locked up

Disposal

- 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.

Hazard not Otherwise Classified (HNOC)

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS -No	Weight %	Trade Secret
Ethyl Alcohol	64-17-5	25-30	*
Methyl Alcohol	67-63-0	1-5	*
1-butanol	71-38-3	40-50	*
Propan-1-ol	71-23-8	10-15	*

* 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 In case of doubt, or when symptoms persist, seek medical attention. Do not leave victim unattended.

Eye Contact Immediately flush eyes with plenty of water for at least fifteen (15) minutes. Remove contact lenses. Get medical attention immediately.

Skin Contact Flush skin with plenty of water. Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleanser.

Inhalation: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Ingestion Seek medical attention immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Protection of First Aiders Use personal protection equipment.

Most important symptoms/effects, acute and delayed

Most important symptoms/effects Drowsiness, blurred vision if concentrated and inhaled.

Indication of immediate medical attention and special treatment needed, if necessary

Note to physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

FLASH POINT: 57°F 14°C (TCC) ASTM D56

FLAMMABLE LIMITS: LEL 2.1 UEL 13.7

Suitable Extinguishing Media

Dry chemical, carbon dioxide, alcohol resistant foam. For large fires, use foam. Shut off flow and allow to burn out.

Unsuitable extinguishing media None known.

Specific Hazards arising from the chemical Vapors explosive if collected. Vapors are heavier than air and may travel along ground, or be moved by ventilation and be ignited by ignition source. Do not allow run off from fire-fighting to run into drains or water courses. If run-off occurs, notify proper authorities.

Protective Equipment and Precautions for Firefighters

Wear appropriate self-contained breathing apparatus MSHA/NIOSH (approved or equivalent) and full protective gear. Cool closed containers exposed to fire with water spray. Avoid inhalation of material or combustion by-products; stay upwind.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid breathing vapors. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment.

Environmental Precautions Avoid release into the environment. Do not allow to enter drains or watercourses. If the product contaminates rivers, lakes or drains, inform respective authorities.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Contain the spillage with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth to soak up the product and place in a suitable container for disposal in accordance with the waste regulations

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Avoid skin and eye contact. Avoid the inhalation of vapor and mist. Keep away from open flame and sources of ignition.

Conditions for safe storage, including any incompatibilities

Storage Keep away for open flame, hot surfaces and sources of ignition. Keep containers tightly closed. Observe label precautions. Store between 5-25° C in a dry, well ventilated place. Prevent unauthorized access.

Information on this Material Safety Data Sheets refers to ink used in pens and markers; however, it applies to these inks in bulk. The inks are contained in capillary or valve reservoirs and will not spill or leak under normal conditions

Incompatible products Strong oxidizing and reducing agents, strong alkalis and strong acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION Occupational Exposure Limits

Chemical	Exposure Limit
Ethyl alcohol	ACGIH TLV: 1000 ppm OSHA PEL: 1000 ppm NIOSH REL: 1000 ppm IDLH: 3300 ppm
Butan-1-ol; n-butanol	ACGIH TLV: TWA: 20 ppm OSHA PEL: 100 ppm, 300 mg/m ³
Propan-1-ol	PEL: 500 mg/m ³ , 200 ppm REL: Short term: 625 mg/m ³ , 250 ppm REL: Long-term value: 500 mg/m ³ , 200 ppm TLV: 246 mg/m ³ , 100 ppm

*Carbon black in solid form has exposure limits that are not applicable to this liquid product

Appropriate engineering controls

Engineering Measures Showers, eyewash stations, ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face protection None under normal use conditions. Avoid eye contact. Wear chemical splash goggles in compliance with OSHA regulation if splashing is possible

Skin and body Protection None under normal use conditions. Avoid repeated or prolonged contact with skin. Wear impervious gloves if needed to prevent possible skin irritation.

Respiratory Protection None under normal use conditions. Use with adequate ventilation. If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn

Hygiene Measures Use in a well-ventilated area. When using do not eat, drink, or smoke. Provide regular cleaning of equipment, work areas and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Property Value

Boiling Point: 207°F
Specific Gravity (H2O = 1) <1@70°F
Vapor Pressure: 20.8mm-Hg @ 70°F

Melting Point: No data
Vapor Density (Air=1) 2.1
Evaporation (BA=1) 1.3
Solubility in Water: 70%-80%
Appearance and Order: Thin viscosity liquid with alcohol odor.
Order Alochol odor
VoC: 81.6%, 733.29 g/L

10. STABILITY AND REACTIVITY

Reactivity No data available

Chemical Stability Stable under normal storage and handling conditions

Possibility of Hazardous reactions None under normal use

Hazardous Polymerization Will not occur

Conditions to Avoid Heat, open flame, sparks, and sources of ignition

Incompatible Materials Strong oxidizing and reducing agents, strong alkalis and strong acids

Hazardous Decomposition Products No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information There is no data available on the product itself.

Acute Toxicity

Chemical	Result	Species	Dose	Exposure
Ethyl alcohol	LD50 – Oral	Rat	7,060 mg/kg	-
	LC50 – Inhalation	Rat	5,420 ppm	-
Methyl Alcohol	LD50 – Oral	Rat	5,628 mg/kg	-
	LC50 – Inhalation	Rat	64,000 ppm	4 Hours
	LD50 – Dermal	Rabbit	15,800 mg/kg	-
1-Butanol	LD50 – Oral	Rat	790 mg/kg	-
	LC50 – Inhalation	Rat	>17.9 mg/l	4 hours
	LD50 – Dermal	Rabbit	5,620 mg/kg	-
Propan-1-ol	LD50 – Oral	Rat	1870 mg/kg	-
	LD50 – Dermal	Rabbit	5040 mg/kg	-

Carcinogenicity: IARC: Carbon black is identified as Group 2B: Possibly carcinogenic to humans.

12. ECOLOGICAL INFORMATION

Toxicity
Fish

Product: No data available.

Specified substance(s)

n-propanol	LC50 (Fathead Minnow, 96 hours): >804 mg/l LC50 (sideswimmer, 96 hours): >804 mg/l
Diacetone Alcohol	LC50 (Lepomis Macrochirus, 96 hours): 420 ppm LC50 (Menidia Beryllina, 96 hours): 420 ppm
Ethyl alcohol	LC50 (Salmo Gairdneri, 96 hours): 13 g/l
1-Butanol	LC-50 (Fathead Minnow, 96 h): 1,376 mg/l

Aquatic Invertebrates

Product: No data available.

Specified Substance(s)

n-propanol	LC50 (daphnid, 96 hours): 804 mg/l LC50 (snail, 96 hours): > 804 mg/l
1-Butanol	LC-50 (Water Flea, 48h): 1,328 mg/l

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with all applicable local, state and federal regulations. Do not allow to enter into drains, water courses or the soil.

Contaminated Packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOMESTIC HIGHWAY (Containers < 1 Quart are ORM-D)
PROPER SHIPPING NAME: Ink/Paint, Consumer Commodity
HAZARD CLASS/SUBSIDIARY HAZARD: 3
UN/NA NO. UN1263
PACKING GROUP: III
LABEL REQUIRED: Flammable Liquid (3)

DOMESTIC AIR SHIPMENTS (PENS)
PROPER SHIPPING NAME: Consumer Commodity
HAZARD CLASS/SUBSIDIARY HAZARD: 9
UN/NA NO. I.D. 8000
PACKING GROUP: None
LABEL REQUIRED: Class 9

15. Regulatory Information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: B/2, D/2/B

SARA 311-312 Hazard Classification(s):

immediate (acute) health hazard

fire hazard

US EPCRA (SARA Title III) Section 313 - Toxic Chemical List

N-BUTANOL

OSHA: hazardous

SDSUS / EN / TUS01

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL or otherwise complies with CEPA new substance notification requirements.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.KE-03867

Philippines Inventory (PICCS) : This product is listed on the Philippine Inventory or otherwise complies with PICCS.

Inventory of Existing Chemical Substances in China: All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC)

16. OTHER INFORMATION

Health Hazard 2 Flammability 3 Reactivity 0 Personal Protection B

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End of Safety Data Sheet