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Revision Number:

1. Identification of the Substance/Preparation and the Company Undertaking**GHS Product Identifier****Product Name** Permall XV-146**Other Means of Identification****Part Number****Color** Black**Recommended use of the chemical and restrictions on use****Recommended Use** Marking Pen**Uses Advised Against** No information available**Supplier's Details****Supplier Address**

Arro-Mark LLC.

158 West Forest Ave

Englewood, New Jersey, 07631 USA

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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

Germ Cell mutagenicity – Category 1B

Specific Target Organ Toxicity – Category 3

Carcinogenicity – Category 2

Aspiration Toxicity – Category 1

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

H316: Causes mild skin irritation

H340: May cause genetic defects

H351: Suspected of causing cancer

H335: May cause respiratory irritation

H304: May be fatal if swallowed and enters airways

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
Solvent Naphtha (Petroleum), Light Aromatic	64742-95-6	50-60	*
Cumene	98-82-8	<1	*
1,2,4 – Trimethylbenzene	95-63-6	<5	*
Xylene	1330-20-7	<5	*
N-methyl-2-pyrrolidone	872-50-4	<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	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 of 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: 108°F
FLAMMABLE LIMITS: No data

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
Cumene	ACGIH TLV TWA: 50 ppm OSHA PEL TWA: 50 ppm TWA: 245 mg/m ³ NIOSH IDLH IDLH: 900 ppm TWA: 50 ppm TWA: 245 mg/m ³
1,2,4 – Trimethylbenzene	ACGIH TLV TWA: 25 ppm OSHA PEL TWA: 25 ppm TWA: 125 mg/m ³ NIOSH IDLH TWA: 25 ppm TWA: 125 mg/m ³
Xylene, mixed isomers	ACGIH TLV TWA: 20 ppm OSHA PEL TWA: 100 ppm TWA: 435 mg/m ³ NIOSH IDLH IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³

*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

<u>Property</u>	<u>Value</u>
Boiling Point:	318-330°F
Specific Gravity (H2O = 1)	<1 @ 70°F
Vapor Pressure:	No data
Melting Point:	No data
Vapor Density (Air=1)	>1
Evaporation (BA=1)	No Data
Solubility in Water:	No Data
Appearance and Order:	Black, thin viscosity liquid with Aromatic odor.
Order	Aromatic Odor
VoC:	60%, 555 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
Cumene	LD50 – Oral	Rat	>10,000 mg/kg	
1,2,4 – Trimethylbenzene	LD50 – Oral	Rat	3,280 mg/kg	-
	LD50 – Dermal	Rabbit	>3160 mg/kg	-
	LC50 – Inhalation	Rat	18 g/m ³	4 hours
Xylene, mixed isomers	LD50 – Oral	Rat	4300 mg/kg	-
	LD50 – Dermal	Rabbit	>1700 mL/kg	-
	LC50 – Inhalation	Rat	5000 ppm	4 hours
				47635 mg/L

Carcinogenicity: IARC has listed the following ingredients as carcinogens: Xylene, mixed isomers (Group 3), 1,2,4 trimethylbenzene (Group 2B), Cumene (Group 2B)

12. ECOLOGICAL INFORMATION

Toxicity

Fish

Product: No data available.

Specified substance(s)

Aquatic Invertebrates

Product: No data available.

Specified Substance(s)

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: III
 LABEL REQUIRED: Class 9

15. Regulatory Information

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:

1,2,4 trimethylbenzene
Xylene, mixed isomers
Cumene

SARA 311/312 Hazard categories

Acute Health Hazard – Yes

Chronic Health Hazard – Yes

Fire Hazard – Yes

Sudden release of Pressure Hazard – No

Reactive Hazard – No

This product contains a chemical or chemicals which are subject to the reporting requirements of CERCLA:

Xylene mixed isomers, Cumene

California Proposition 65: The following chemicals are listed on California Proposition 65 as causing cancer: Ethylbenzene, cumene

16. OTHER INFORMATION

Health Hazard 2

Flammability 3

Reactivity 0

Personal Protection B

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End of Safety Data Sheet