

SAFETY DATA SHEETS FOR CLEANING AGENTS

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Polar Dynamics Robotics, Inc.

Effective Date: January 1, 2024

Document Reference: PDR-SDS-2024-001

1. PURPOSE AND SCOPE

1. This document contains the Safety Data Sheets (SDS) for all cleaning agents used in the BlueCore(TM) system.
2. These SDS apply to all cleaning agents used in the BlueCore(TM) system.

2. PRIMARY CLEANING AGENTS

2.1. CryoClean-X(TM) (Proprietary Cold-Resistant Surface Cleaner)

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Chemical Composition: Proprietary blend of modified alcohol ethoxylates

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Physical Properties: Clear liquid, freezing point -58 F (-50 C)

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Hazard Classification: Category 2 (moderate)

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Emergency Procedures: See Section 5

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Storage Requirements: Sealed container, temperature range -60 F to 100 F

2.2. FrøstGuard-7(TM) (Sensor Array Cleaning Solution)

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Chemical Composition: Modified siloxanes (45-50%), synthetic hydrocarbons

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Physical Properties: Low-viscosity liquid, freezing point -67 F (-55 C)

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Hazard Classification: Category 1 (mild)

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Emergency Procedures: See Section 5

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Storage Requirements: UV-protected container, temperature range -70 F to 100 F

3. HANDLING AND SAFETY PROTOCOLS

1. Personal Protective Equipment (PPE)

- - 3 -

Chemical-resistant gloves (nitrile, minimum 15 mil thickness)

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Safety goggles with side shields

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Cold-environment protective clothing

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Respiratory protection when used in enclosed spaces

2. Application Procedures

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Maintain ventilation requirements per OSHA standard 1910.134

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Apply only in designated maintenance areas

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Maximum application temperature: 50 F (10 C)

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Minimum application temperature: -40 F (-40 C)

4. EMERGENCY RESPONSE PROCEDURES

1. Spill Management

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Contain spill using appropriate absorbent materials

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Notify facility safety coordinator

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Document incident per EPA requirements

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Dispose of contaminated materials per Section 6

2. First Aid Measures

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Eye Contact: Flush with water for 15 minutes

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Skin Contact: Remove contaminated clothing, wash affected area

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Inhalation: Move to fresh air, seek medical attention

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Ingestion: Do not induce vomiting, seek immediate medical attention

5. STORAGE AND HANDLING

1. Storage Requirements

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Temperature-controlled environment (-60 F to 86 F)

- - 6 -

Segregated from incompatible materials

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Secondary containment required

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Monthly inventory reconciliation

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FIFO (First In, First Out) rotation policy

2. Transportation

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DOT Classification: Non-hazardous

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UN Number: Not applicable

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Packing Group: III

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Limited Quantity Exceptions: Apply per 49 CFR 173.150

6. DISPOSAL PROCEDURES

1. Waste Classification

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Non-RCRA hazardous waste

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EPA Waste Code: None

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State-specific requirements may apply

2. Disposal Methods

- - 8 -

Licensed waste disposal facility only

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Container triple-rinsing required

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Documentation retention: 3 years

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Annual disposal audit required

7. REGULATORY COMPLIANCE

1. Applicable Regulations

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OSHA Hazard Communication Standard (29 CFR 1910.1200)

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EPA TSCA Inventory listed

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California Proposition 65 compliant

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REACH Registration (EU) compliant

2. Documentation Requirements

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Monthly inspection records

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Employee training records

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Exposure monitoring data

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Incident reports

8. REVISION AND CONTROL

1. Document Control

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Review Frequency: Annual

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Next Review Date: January 1, 2025

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Document Owner: Safety Compliance Manager

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Version: 2024.1

2. Change History

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2024.1: Initial release

- - 11 -

Previous versions: None

CERTIFICATION

The undersigned hereby certifies that this Safety Data Sheet compilation is complete and accurate as of the effective date stated above.

/s/ _

Sarah Nordstrom

Chief Operating Officer

Polar Dynamics Robotics, Inc.

Date: January 1, 2024

