SAFETY DATA SHEET

JOHN™ 647L
Medium body low VOC ABS solvent cement

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name
John™ 647L Low VOC

Product Codes
55938, 55940, 55942, 55944, 55946

Chemical Family
Organic

Use
ABS solvent cement

Manufacturer’s Name
The RectorSeal Corporation
2601 Spenwick Drive
Houston, Texas 77055 USA

Date of Validation
January 23, 2015

Date of Preparation
October 27, 2014

HMIS Codes
Health 2
Flammability 3
Reactivity 0
PPI B

SECTION 2 – HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Physical Hazards
Flammable Liquid, Category 2

Health Hazards
Acute Toxicity:
Skin Corrosion/Irritation: Category 3
Serious Eye Damage/Eye Irritation: Category 2A
Skin Sensitization: Not Classified
Respiratory Sensitization: Not Classified
Germ Cell Mutagenicity: Not Classified
Carcinogenicity: See Section 11
Reproductive Toxicology: Not Classified
Target Organ Systemic Toxicity - Single Exposure: Category 3
Target Organ Systemic Toxicity - Repeated Exposure: Not Classified
Aspiration Toxicity: Not Classified

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Target Organ Systemic Toxicity - Repeated Exposure: Not Classified
Aspiration Toxicity: Not Classified

Emergency Telephone No.
Chemtrec 24 Hours
(800)-424-9300 USA
(703)-527-3887 International

Technical Service Telephone No.
(800)-231-3345 or (713)-263-8001
GHS Label elements, including precautionary statements

- GHS02: Flammable
- GHS08: Health Hazard
- Signal Word: Danger

Hazard Statements:
- H225 - Highly flammable liquid and vapor
- H302 - Harmful if swallowed.
- H316 - Causes mild skin irritation.
- H319 - Causes serious eye irritation
- H335 + H336 - May cause respiratory irritation, and drowsiness or dizziness.

Precautionary Statements:
- P102 - Keep out of reach of children.
- P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P240 - Ground/Bond container and receiving equipment.
- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
- P262 - Do not get in eyes, on skin, or on clothing.
- P264 - Wash hands thoroughly after handling.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P362 - Take off contaminated clothing and wash before reuse.

EUH066 - Repeated exposure may cause skin dryness or cracking

Precautionary Statements - EU No. 1272/2008

Summary Of Acute Hazards
- Overexposure may cause coughing, shortness of breath, dizziness, central nervous system depression, intoxication and collapse. It may cause irritation to the respiratory tract and to other mucous membranes.

Route Of Exposure, Signs And Symptoms

INHALATION
- Overexposure may cause coughing, shortness of breath, dizziness, central nervous system depression, intoxication and collapse. It may cause irritation to the respiratory tract and to other mucous membranes.

EYE CONTACT
- Severely irritating. If not removed promptly, will injure eye tissue, which can result in permanent damage.

SKIN CONTACT
- Frequent or prolonged contact may irritate and cause dermatitis. Low order of toxicity.

INGESTION
- Low order of toxicity. Small amounts of the liquid aspirated into the respiratory system during ingestion, or from vomiting, may cause bronchiopneumonia or pulmonary edema.
SUMMARY OF CHRONIC HAZARDS
Repeated or prolonged exposure may cause signs of central nervous system depression and respiratory irritation. This material has been shown to induce tumors in laboratory animals.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
Individuals with pre-existing or chronic diseases of the eyes, skin, respiratory system, cardiovascular system, gastrointestinal system, liver, or kidneys may have increased susceptibility to excessive exposure.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Methyl Ethyl Ketone</th>
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<tr>
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<td>CAS Number:</td>
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SECTION 4 – FIRST AID MEASURES

If inhaled: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

If on skin: Immediately flush with large amounts of water; use soap if available. Remove contaminated clothing.

If in eyes: Immediately flush with large amounts of water for at least 15 minutes. Get prompt medical attention.

If swallowed: If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

SECTION 5 – FIRE FIGHTING MEASURES

Extinguishing Media
Foam, dry chemical, carbon dioxide or water fog.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus (SCBA) and other protective clothing. Hazardous decomposition products possible (see Section 10).

Unusual Fire And Explosion Hazards: Extremely flammable – very low flash point. Vapors are heavier than air and may travel along ground or to low spots at considerable distance to a source of ignition resulting in potential flashback. Burning liquid may float on water. Heat may build up pressure and rupture closed containers.
SECTION 6 – ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled: Remove all sources of ignition. Use absorbent materials to prevent footing hazard and to contain. Ventilate area with natural or explosion-proof, forced air ventilation. Avoid flushing into sewers, drains, waterways, and soil. Wear protective clothing and respiratory protection during cleanup.

SECTION 7 – HANDLING AND STORAGE

Precautions To Be Taken In Handling And Storing: Keep container closed and upright when not in use. Do not store near heat, sparks, or open flames. If transferring this material to other containers, ground all containers to avoid static electricity buildup and discharge which may ignite flammable vapors.

Other Precautions: Avoid prolonged or repeated contact with skin or clothing. Empty containers may contain residues; treat as if full and observe all products precautions. Do not reuse empty containers.

KEEP OUT OF REACH OF CHILDREN.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Ingredient</th>
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<td>ACGIH TLV:</td>
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<td>OSHA PEL:</td>
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<td>STEL:</td>
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<td>Acetone</td>
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Respiratory Protection (Specify Type): In confined poorly ventilated areas, use NIOSH/MSHA approved air purifying or supplied air purifying or supplied air respirators.

Ventilation – Local Exhaust: Acceptable

Special: Explosion-proof equipment.

Mechanical (General): Preferable.

Other: N/A

Protective Gloves: Wear rubber gloves.

Eye Protection: Chemical splash goggles (ANSI Z-87.1 or equivalent)

Other Protective Clothing Or Equipment: Coveralls recommended.

Work/Hygienic Practices: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.
Section 9 – Physical and Chemical Properties

- Boiling point: 151°F (66°C) @ 760 mmHg
- Specific gravity (H2O = 1): < 1.0
- Vapor pressure (mmHg): 129 @ 68°F (20°C)
- Melting point: N/A
- Vapor Density (Air = 1): 2.5
- Evaporation rate (Ethyl Acetate = 1): 8 – 14.5
- Appearance/Odor: Liquid/Pungent odor
- Solubility in water: Soluble
- Volatile Organic Compounds (VOC) Content (theoretical percentage by weight): 325 g/L per SCAQMD Test Method 316A
- Flash point: 4.1°F (-17°C)
- Lower explosion limit: 1.8%
- Upper explosion limit: 10%

Section 10 – Stability and Reactivity

Stability: Can form potentially explosive peroxides upon long standing in air.

Conditions To Avoid: Heat, sparks, open flames, and strong oxidizing, acidic and basic conditions.

Incompatibility (Materials To Avoid): Oxidizers, acids and bases.

Hazardous Decomposition Products: CO, CO₂, HCl and fragmented hydrocarbons.

Hazardous Polymerization: Will not occur.

Section 11 – Toxicology Information

Chronic Health Hazards

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Toxicology Data

Ingredient Name

**Methyl Ethyl Ketone**
- Oral-Rat LD50: 2737 mg/kg
- Inhalation-Rat LC50: 23,500 mg/m3/8H

**Acetone**
- Oral-Rat LD50: 5800 mg/kg
- Inhalation-Rat LC50: 50,100 mg/m3
SECTION 12 – ECOLOGICAL INFORMATION

Ecological Data

Ingredient Name: **Methyl Ethyl Ketone**

- Food Chain Concentration Potential: None
- Waterfowl Toxicity: N/A
- **BOD**: 214%
- Aquatic Toxicity: 5640 mg/L/48 hr/bluegill/TLm/fresh water

Ingredient Name: **Acetone**

- Food Chain Concentration Potential: None
- Waterfowl Toxicity: N/A
- BOD: N/A
- Aquatic Toxicity: LC50/96-hour for fish > 100 mg/L

SECTION 13 – DISPOSAL CONSIDERATIONS

**Waste Classification:** RCRA classified hazardous waste. Dispose of absorbed materials and liquid waste in approved, controlled incineration facility in accordance with all local, state and federal regulations.

**Disposal Method:** Incineration.

SECTION 14 – TRANSPORTATION INFORMATION

- **DOT:** UN1133, Adhesives, Class 3, PG II, ERG#127.
- Quarts and less: Consumer Commodity, ORM-D
- **Ocean (IMDG):** UN1133, Adhesives, Class 3, PG II, EMS-No: F-E, S-D
  Quarts and less: Adhesives, Class 3, UN 1133, PG II, Limited Quantities or Ltd. Qty.
- **Air (IATA):** UN1133, Adhesives, Class 3, PG II, ERG#127

SECTION 15 – REGULATORY INFORMATION

**Regulatory Data**

Ingredient Name: **Methyl Ethyl Ketone**

- SARA 313: Yes
- TSCA Inventory: Yes
- CERCLA RQ: 5,000 lb.
- RCRA Code: U159
Regulatory Data (cont.)

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<td>RCRA Code</td>
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SECTION 16 – OTHER INFORMATION

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made.

Consult RectorSeal for further information: (713) 263-8001