

## 1. PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

ROBINAIR POWER FLUSH SOLVENT

### OTHER NAMES

Product Number(s): 17565 & 17609

### PRODUCT USE & RESTRICTIONS

Refrigerant flush

### DISTRIBUTOR

Company: Service Solutions US LLC

Address: 655 Eisenhower Drive, Owatonna, MN 55060 USA

Telephone: (888) 533-6127

Emergency Telephone: (800) 535-5053

## 2. HAZARDS IDENTIFICATION

### HAZARD RATINGS

Health	1
Fire	2
Physical	1
Personal Protection	B



HARMFUL

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Common Name/Synonyms</u>	<u>CAS/EC Number</u>	<u>Mixture</u>
C9-C11 isoalkanes	68551-16-6	>90%
2,6-Dimethyl-7-ocent-2-ol	18479-58-8	5-10%

## 4. FIRST AID MEASURES

### INHALATION

Remove affected person to fresh air. Provide oxygen if breathing is difficult. If affected person is not breathing, administer CPR and seek emergency medical attention.

### SKIN CONTACT

Remove contaminated clothing. Wash affected area with soap and water. Launder contaminated clothing before reuse. If irritation persists, seek medical attention.

**EYE CONTACT**

Check for and remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open. If irritation persists, seek medical attention.

**INGESTION**

DO NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Seek immediate medical attention. Vomiting may be induced only under the supervision of a physician.

**SYMPTOMS**

<u>Route of Exposure</u>	<u>Sign and Symptom</u>	<u>Primary Route</u>
Inhalation	High concentrations are irritating to the respiratory tract. May cause headache, dizziness nausea, vomiting, and malaise.	Yes
Eye contact	High vapor concentration or contact may cause irritation and discomfort.	Yes
Skin contact	Brief contact may cause slight irritation. Prolonged contact may cause moderate irritation or dermatitis.	Yes
Ingestion	May result in vomiting. Aspiration of vomitus into the lungs must be avoided. DO NOT induce vomiting. Minute amounts aspirated into the lungs can produce severe lung injury, chemical pneumonitis, pulmonary edema, or death.	Yes

**5. FIREFIGHTING MEASURES**

**GENERAL HAZARDS**

Product is considered combustible. Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide.

**SUITABLE EXTINGUISHING MEDIA**

Carbon dioxide, water fog, dry chemical, chemical foam.

**SPECIFIC HAZARDS**

Closed containers can explode due to buildup of pressure when exposed to extreme heat. Do not use direct stream of water on pool fires as product may reignite on water surface.

**SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS**

Firefighters must wear full facepiece, self-contained breathing apparatus in positive pressure mode. Do not use solid stream of water because stream will scatter and spread fire. Fine water spray can be used to keep fire-exposed containers cool.

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## 6. ACCIDENTAL RELEASE MEASURES

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### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

Evacuate and ventilate area. Remove all sources of sparks, ignition, and open flames. Confine and absorb into approved absorbent. Place material into approved suitable, covered, labeled containers for disposal. Prevent spills from entering sewers, waterways, and soil.

### ENVIRONMENTAL PRECAUTIONS

This concentrated product should not be allowed to enter soil or surface water. Do not discharge in to lakes, ponds, streams, or public waters.

### METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Small spills may be absorbed with approved absorbent material and placed in suitable, covered, labeled containers. Prevent spills from entering sewers, waterways, and soil.

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## 7. HANDLING AND STORAGE

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### PRECAUTIONS FOR SAFE HANDLING

This material is combustible. It should be stored in tightly closed containers in a cool, well-ventilated area. Vapor may form explosive mixtures in air. All sources of ignition should be controlled. This material may be classified as flammable liquids, n.o.s. UN 1993 if transported by vessel or aircraft. Refer to 49 CFR 173.120. Keep this and other chemicals out of reach of children. Avoid inhaling concentrated fumes or vapors.

### CONDITIONS FOR SAFE STORAGE

Keep out of reach of children. Store tightly closed container upright in a cool, well-ventilated area. Vapor may form explosive mixtures in air. All sources of ignition should be controlled. Keep this and other chemicals out of reach of children. Avoid inhaling concentrated fumes or vapors. Protect from extreme temperatures. Protect containers from abuse. Do not re-use empty containers.

### INCOMPATIBILITIES

Strong oxidizers, strong acids.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### CONTROL PARAMETERS

Respiratory protection	None required while threshold limits are kept below maximum allowable concentrations. If TWA exceeds standard workplace limits, NIOSH approved respirator must be worn. Refer to 29 CFR 1910.134 or European Standard EN 149 for complete regulations.
Protective gloves	Neoprene, butyl, or nitrile rubber gloves with cuffs.
Eye protection	Chemical safety goggles. Refer to 29 CFR 1910.133 or European Standard

Work/hygienic practices EN 166.  
Practice safe workplace habits. Minimize body contact with all chemicals.  
Other personal protection Work where a safety eyewash station is nearby.

**ENGINEERING CONTROLS**

ND

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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**APPEARANCE**

Physical State: Liquid

Color: Colorless to pale yellow

**ODOR**

Mild, flora-like

**ODOR THRESHOLD**

ND

**pH**

ND

**MELTING POINT**

ND

**FREEZING POINT**

ND

**INITIAL BOILING POINT**

149°C (300°F)

**BOILING RANGE**

149–192°C (300–378°F)

**FLASH POINT**

39.4°C (102.9°F) TCC

**EVAPORATION RATE (WATER=1)**

< 1

**FLAMMABILITY**

Solid: ND

Gas: ND

**UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS**

LEL: ND

UEL: ND

**VAPOR PRESSURE (mmHg)**

>6 mmHg @ 38°C (100°F)

**VAPOR DENSITY (AIR=1)**

> 1

**RELATIVE DENSITY**

ND

**SOLUBILITY(IES)**

In water: Negligible

**PARTITION COEFFICIENT: N-OCTANOL/WATER**

ND

**AUTOIGNITION TEMPERATURE**

ND

**DECOMPOSITION TEMPERATURE**

ND

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**10. STABILITY AND REACTIVITY**

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**CHEMICAL STABILITY**

Stable

**POSSIBILITY OF HAZARDOUS REACTIONS**

Will not occur

**CONDITIONS TO AVOID**

Extreme temperatures, open flames

**INCOMPATIBLE MATERIALS**

Strong oxidizers, strong acids

**HAZARDOUS DECOMPOSITION PRODUCTS**

Decomposition will not occur if handled and stored properly. In case of fire, oxides of carbon, hydrocarbons, fumes or vapors, and smoke may be produced.

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**11. TOXICOLOGICAL INFORMATION**

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<u>Hazardous Component</u>	<u>CAS Number</u> <u>EINECS Number</u>	<u>LD<sub>50</sub> of Ingredient</u> <u>(Specify Species and Route)</u>	<u>LC<sub>50</sub> of Ingredient</u> <u>(Specify Species)</u>
C9-C11 isoalkanes	68551-16-6 271-365-3	>34,600 mg/kg Oral – rat	>1,215 ppm/6H Inhalation – rat
2,6-Dimethyl-7-ocent-2-ol	18479-58-8 242-362-4	3,600 mg/kg Oral – rat	Not established

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**12. ECOLOGICAL INFORMATION**

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**ECOTOXICITY**

Aquatic: ND

Terrestrial: ND

**PERSISTENCE AND DEGRADABILITY**

ND

**BIOACCUMULATIVE POTENTIAL**

ND

**MOBILITY IN SOIL**

ND

**OTHER ADVERSE EFFECTS**

ND

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**13. DISPOSAL CONSIDERATIONS**

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**PRODUCT DISPOSAL**

Dispose of in accordance with all local, state, and Federal regulations. This product may produce hazardous vapors in a closed disposal container creating a dangerous environment. Refer to "40 CFR Protection of Environment Parts 260 – 299" for complete waste disposal regulation. Consult local, state, or Federal Environmental Protection Agency before disposing of any chemical. Do not flush to sanitary sewer or waterway. According to the European Waste Catalogue, waste codes are application specific and should be assigned by the user based on the application for which the product is used.

**PACKAGING DISPOSAL**

Dispose of in accordance with all local, state, and Federal regulations.

#### 14. TRANSPORT INFORMATION

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**UN NUMBER**

UN 3295

**UN PROPER SHIPPING NAME**

Hydrocarbons, liquid, n.o.s. (isoalkanes)

**TRANSPORT HAZARD CLASS(ES)**

DOT hazard class/Pack group: 3/III

Reference: 49 CFR 173.150, 302, 242

IATA hazard class/Pack group: 3/III

IMDG hazard class: 3/III

RID/ADR dangerous goods code: 3

UN TDG class/Pack group: 3/III

**PACKING GROUP**

DOT hazard class/Pack group: 3/III

Reference: 49 CFR 173.150, 302, 242

IATA hazard class/Pack group: 3/III

IMDG hazard class: 3/III

RID/ADR dangerous goods code: 3

UN TDG class/Pack group: 3/III

**MARINE POLLUTANT (YES/NO)**

No

**SPECIAL PRECAUTIONS**

ND

#### 15. REGULATORY INFORMATION

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**TSCA**

All ingredients are listed on the TSCA inventory or are exempted from listing because a low volume or polymer exemption has been granted in accordance with 40 CFR 723.50.

**SARA 313**

311/312 Hazard categories: immediate health, fire hazard

313 Reportable ingredients: none

**CERCLA RQ**

NA

**RCRA CODE**

NA

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**16. OTHER INFORMATION**

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**CONTACT**

SPX Corporation

**LEGEND**

ND = Not determined

NA = Not applicable

The information provided herein is believed to be accurate and represents the best information currently available. However, SPX Corporation makes no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and assumes no liability resulting from use of (M)SDS information.

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review.

Resources used to assist in preparation of this document can be found at:

<http://www.brightsol.com/images/MSDS/bsl338EU.pdf>

The (M)SDS is a hazard communication tool and should be used to assist in risk assessment. Many factors determine whether the reported hazards are risks in the workplace or other settings. Risks may be determined by reference to exposures scenarios. Scale of use, frequency of use, and current or available engineering controls must be considered.

For detailed advice on personal protective equipment, refer to the following U.S. Regulations and Standards:

- OSHA Standards - 29 CFR:
- 1910.132 - Personal Protective Equipment - General requirements
- 1910.133 - Eye and face protection
- 1910.134 - Respiratory Protection
- 1910.136 - Occupational foot protection
- 1910.138 - Hand Protection
- Eye and face protection - ANSI Z87.1
- Foot protection - ANSI Z41

**RESPIRATORS MUST BE NIOSH APPROVED.**