1. IDENTIFICATION

Product identifier
Product Name: RS-9 BLACK RUBBER SEALANT  1.5FLOZ TB

Other means of identification
Product Code: 80338
Synonyms: None

Recommended use of the chemical and restrictions on use
Recommended Use: Sealant
Uses advised against: No information available

Details of the supplier of the safety data sheet
Manufacturer and Distributed by: ITW Permatex
6875 Parkland Blvd.
Solon, OH 44139 USA
Company Phone Number: 1-87-Permatex
(877) 376-2839
May Also Be Distributed by: ITW Permatex Canada
35 Brownridge Road, Unit 1
Halton Hills, ON Canada L7G 0C6
Telephone: (800) 924-6994

24 Hour Emergency Phone Number
Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

E-mail address: mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Skin corrosion/irritation</th>
<th>Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Aspiration toxicity</td>
<td>Category 1</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Label elements

Emergency Overview

Danger

Causes skin irritation
Causes serious eye irritation
May cause drowsiness or dizziness
May be fatal if swallowed and enters airways
Highly flammable liquid and vapor
Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool

Precautionary Statements - Response
Specific treatment (see supplemental first aid instructions on this label)
Get medical advice/attention if you feel unwell

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
If skin irritation occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

3. COMPOSITION/INFORMATION ON INGREDIENTS

substance(s)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE (BUTANONE)</td>
<td>78-93-3</td>
<td>25-50</td>
<td>*</td>
</tr>
<tr>
<td>HEPTANE</td>
<td>142-82-5</td>
<td>25-50</td>
<td>*</td>
</tr>
</tbody>
</table>
**4. FIRST AID MEASURES**

**Description of first aid measures**

**General advice**
Get medical advice/attention if you feel unwell.

**Eye contact**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin contact**
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation persists, call a physician. Wash contaminated clothing before reuse.

**Inhalation**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

**Ingestion**
IF SWALLOWED: Call a physician or poison control center immediately. Rinse mouth.

**Self-protection of the first aider**
Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**
See section 2 for more information.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians**
Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**
Carbon dioxide (CO2), Dry chemical, Foam

**Unsuitable extinguishing media**
Do not use a solid water stream as it may scatter and spread fire.

**Specific hazards arising from the chemical**
Highly flammable.

**Explosion data**
- Sensitivity to Mechanical Impact: None.
- Sensitivity to Static Discharge: None.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Remove all sources of ignition. Use personal protective equipment as required.

**Environmental precautions**
Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological Information.
Methods and material for containment and cleaning up

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

Methods for cleaning up
Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling
Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities
Storage Conditions
Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Incompatible materials
Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE (BUTANONE) 78-93-3</td>
<td>STEL: 300 ppm TWA: 200 ppm</td>
<td>TWA: 200 ppm TWA: 590 mg/m³ (vacated) TWA: 200 ppm TWA: 590 mg/m³ (vacated) TWA: 300 ppm (vacated) STEL: 885 mg/m³</td>
<td>IDLH: 3000 ppm TWA: 200 ppm TWA: 590 mg/m³ STEL: 300 ppm STEL: 885 mg/m³</td>
</tr>
<tr>
<td>HEPTANE 142-82-5</td>
<td>STEL: 500 ppm TWA: 400 ppm</td>
<td>TWA: 500 ppm TWA: 2000 mg/m³ (vacated) TWA: 400 ppm (vacated) TWA: 1600 mg/m³ (vacated) STEL: 500 ppm (vacated) STEL: 2000 mg/m³</td>
<td>IDLH: 750 ppm Ceiling: 440 ppm 15 min Ceiling: 1800 mg/m³ 15 min TWA: 85 ppm TWA: 350 mg/m³</td>
</tr>
<tr>
<td>CYCLOHEXANE 110-82-7</td>
<td>TWA: 100 ppm</td>
<td>TWA: 300 ppm TWA: 1050 mg/m³ (vacated) TWA: 300 ppm (vacated) TWA: 1050 mg/m³</td>
<td>IDLH: 1300 ppm TWA: 300 ppm TWA: 1050 mg/m³</td>
</tr>
</tbody>
</table>

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information
Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls
Showers Eyewash stations Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin and body protection
Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.
Respiratory protection  Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations  Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Black</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Solvent</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>79 °C / 174 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>-4 °C / 25 °F</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>11.5%</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>1.1%</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>79 mm Hg</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>0.97</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Immiscible in water</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>215 °C / 419 °F</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

Other Information

| Softening point                | No information available   |
| Molecular weight               | No information available   |
| VOC Content (%)                | 57.6%                      |
| Density                        | No information available   |
| Bulk density                   | No information available   |

### 10. STABILITY AND REACTIVITY

Reactivity  No data available

Chemical stability  Stable under recommended storage conditions

Possibility of Hazardous Reactions  None under normal processing.

Conditions to avoid  Heat, flames and sparks.
Incompatible materials
Strong oxidizing agents

Hazardous Decomposition Products
Carbon oxides
Nitrogen oxides (NOₓ)
Hydrogen chloride

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation  May cause irritation of respiratory tract. May cause drowsiness or dizziness.

Eye contact  Contact with eyes may cause irritation. May cause redness and tearing of the eyes.

Skin contact  May cause skin irritation and/or dermatitis.

Ingestion  Potential for aspiration if swallowed. Aspiration may cause pulmonary edema and pneumonitis.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50 (mg/kg)</th>
<th>Dermal LD50 (mg/kg)</th>
<th>Inhalation LC50 (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE (BUTANONE) 78-93-3</td>
<td>= 2483 mg/kg (Rat) = 2737 mg/kg (Rat)</td>
<td>= 5000 mg/kg (Rabbit) = 6480 mg/kg (Rabbit)</td>
<td>= 11700 ppm (Rat) 4 h</td>
</tr>
<tr>
<td>HEPTANE 142-82-5</td>
<td>-</td>
<td>= 3000 mg/kg (Rabbit)</td>
<td>= 103 g/m³ (Rat) 4 h</td>
</tr>
<tr>
<td>CYCLOHEXANE 110-82-7</td>
<td>= 12705 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>= 13.9 mg/L (Rat) 4 h</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms  No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization  No information available.
Germ cell mutagenicity  No information available.
Carcinogenicity  No information available.
Target Organ Effects  Central nervous system, Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral)  228690 mg/kg
ATEmix (dermal)  5469 mg/kg
ATEmix (inhalation-vapor)  24417 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

42.4 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE (BUTANONE) 78-93-3</td>
<td>-</td>
<td>3130 - 3320: 96 h Pimephales promelas mg/L LC50 flow-through</td>
<td>4025 - 6440: 48 h Daphnia magna mg/L EC50 Static 5091: 48 h Daphnia magna mg/L EC50 520: 48 h Daphnia magna mg/L EC50</td>
</tr>
<tr>
<td>HEPTANE 142-82-5</td>
<td>-</td>
<td>375.0: 96 h Cichlid fish mg/L LC50</td>
<td>10: 24 h Daphnia magna mg/L EC50</td>
</tr>
<tr>
<td>CYCLOHEXANE 110-82-7</td>
<td>500: 72 h Desmodesmus subspicatus mg/L EC50</td>
<td>3.96 - 5.18: 96 h Pimephales promelas mg/L LC50 flow-through 23.03 - 42.07: 96 h Pimephales promelas mg/L LC50 static 24.99 - 44.69: 96 h Lepomis macrochirus</td>
<td>400: 24 h Daphnia magna mg/L EC50</td>
</tr>
</tbody>
</table>
Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility
No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE (BUTANONE)</td>
<td>0.3</td>
</tr>
<tr>
<td>78-93-3</td>
<td></td>
</tr>
<tr>
<td>HEPTANE</td>
<td>4.66</td>
</tr>
<tr>
<td>142-82-5</td>
<td></td>
</tr>
<tr>
<td>CYCLOHEXANE</td>
<td>3.44</td>
</tr>
<tr>
<td>110-82-7</td>
<td></td>
</tr>
</tbody>
</table>

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated packaging Do not reuse container.

US EPA Waste Number D001

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>RCRA</th>
<th>RCRA - Basis for Listing</th>
<th>RCRA - D Series Wastes</th>
<th>RCRA - U Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE (BUTANONE)</td>
<td>U159</td>
<td>Included in waste streams: F005, F039</td>
<td>200.0 mg/L regulatory level</td>
<td>U159</td>
</tr>
<tr>
<td>78-93-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CYCLOHEXANE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>U056</td>
</tr>
<tr>
<td>110-82-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This product contains one or more substances that are listed with the State of California as a hazardous waste.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE (BUTANONE)</td>
<td>Toxic Ignitable</td>
</tr>
<tr>
<td>78-93-3</td>
<td></td>
</tr>
<tr>
<td>HEPTANE</td>
<td>Toxic Ignitable</td>
</tr>
<tr>
<td>142-82-5</td>
<td></td>
</tr>
<tr>
<td>CYCLOHEXANE</td>
<td>Toxic Ignitable</td>
</tr>
<tr>
<td>110-82-7</td>
<td></td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

UN/ID no 1133

Proper shipping name: Adhesives, Limited Quantity (LQ)

Hazard Class 3

Packing Group II

Emergency Response Guide 128
80338 - RS-9 BLACK RUBBER SEALANT  1.5FLOZ

Number

IATA
- UN/ID no: ID8000
- Proper shipping name: Consumer commodity
- Hazard Class: 9
- ERG Code: 9L

IMDG
- UN/ID no: 1133
- Proper shipping name: Adhesives, Limited Quantity (LQ)
- Hazard Class: 3
- Packing Group: II
- EmS-No: F-E, S-D

15. REGULATORY INFORMATION

International Inventories
- TSCA: Complies
- DSL/NDSL: Complies
- EINECS/ELINCS: Not determined
- ENCS: Not determined
- IECSC: Not determined
- KECL: Not determined
- PICCS: Not determined
- AICS: Not determined

Legend:
- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYCLOHEXANE 110-82-7</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

- Acute health hazard: Yes
- Chronic Health Hazard: No
- Fire hazard: Yes
- Sudden release of pressure hazard: No
- Reactive Hazard: No

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYCLOHEXANE 110-82-7</td>
<td>1000 lb</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive
Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE (BUTANONE) 78-93-3</td>
<td>5000 lb</td>
<td></td>
<td>RQ 5000 lb final RQ RQ 2270 kg final RQ</td>
</tr>
<tr>
<td>CYCLOHEXANE 110-82-7</td>
<td>1000 lb</td>
<td>-</td>
<td>RQ 1000 lb final RQ RQ 454 kg final RQ</td>
</tr>
</tbody>
</table>

**US State Regulations**

**California Proposition 65**
This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE (BUTANONE) 78-93-3</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>HEPTANE 142-82-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>CYCLOHEXANE 110-82-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**U.S. EPA Label Information**
EPA Pesticide Registration Number  Not applicable

**WHMIS Hazard Class**
B2 - Flammable liquid, D2B - Toxic materials

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>B</td>
</tr>
</tbody>
</table>

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

**Revision Date**
07-Jun-2016

**Disclaimer**
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet