1. IDENTIFICATION

Product Identifier  
Product Name  United 198 PERMA-FLEX

Other means of identification  
SDS #  UNITED-198

Recommended use of the chemical and restrictions on use  
Recommended Use  Sealant and Adhesive – Black, Clear, Red, White
Uses Advised Against  For industrial and institutional use only.

Details of the supplier of the safety data sheet  
Supplier Address  United Laboratories, Inc.
320 37th Avenue 
St. Charles, IL 60174 
www.unitedlabsinc.com 
www.unitedlabsinc.ca

Emergency Telephone Number  
Company Phone Number  800-323-2594 (to reorder)
Emergency Telephone (24 hr)  INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

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

Classification  
| Serious eye damage/Irritation | Category 2 |
| Skin Corrosion/Irritation | Category 2 |

Label elements  
Signal word WARNING

Hazard statements  
Contains gas under pressure: may explode if heated.
Causes serious eye irritation.
Causes skin irritation.
**Appearance**  Gel that cures to a synthetic rubber available in black, clear, red, and white.

**Physical State**  Gel

**Odor**  Acetic Acid Scent

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**Emergency Overview**

**Precautionary Statements - General**
Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**Precautionary Statements - Prevention**
Wear protective gloves.
Wear eye or face protection.
Wash hands thoroughly after handling.

**Precautionary Statements - Response**
IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention.
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 attention.

**Precautionary Statements - Disposal**
Dispose of contents and container in accordance with local, state, and national regulations.

**Precautionary Statements - Storage**
Store according to local rules and regulations.
Store in a well-ventilated place.
Protect from sunlight.

**Hazards not otherwise classified (HNOC)**
None known

**Other Information**
None known

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triacetoxyethylsilane</td>
<td>17689-77-9</td>
<td>1-5</td>
</tr>
<tr>
<td>Methylsilanetriyl triacetate</td>
<td>4253-34-3</td>
<td>1-5</td>
</tr>
<tr>
<td>1,1-Difluoroethane</td>
<td>75-37-6</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.
4. FIRST-AID MEASURES

First Aid Measures

Eye Contact
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

Skin Contact
Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Ingestion
Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms and effects

Symptoms
No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
Treat symptomatically.

Acute Health Hazard

Eyes: Causes serious eye irritation.

Skin: Causes skin irritation.
Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion: Irritating to mouth, throat and stomach.

**Over-Exposure signs/symptoms**

**Eyes:** Adverse symptoms may include: pain or irritation, watering or redness.

**Skin:** Adverse symptoms may include the following: irritation or redness.

**Inhalation:** None known

**Ingestion:** None known

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Use an extinguishing agent suitable for surrounding fire.

**Unsuitable Extinguishing Media**
None known

**Specific Firefighting Procedure**
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Usual Fire and Explosion Hazards**
No specific fire or explosion hazard.

**Hazardous Decomposition Products**
Carbon dioxide, Carbon monoxide, Halogenated compounds, carbonyl halides, Metal oxide/oxides

### 6. ACCIDENTAL RELEASE MEASURES

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

**Personal Precautions**
No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For nonemergency personnel”.

**Environmental Precautions**
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and material for containment and cleaning up

Methods for Clean-Up
Move containers from spill area. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Do not dry sweep. Dispose of via licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Waste Disposal
Dispose of in accordance with federal, state, and local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling
Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Protect from sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Appropriate engineering controls

Engineering Control
Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental Exposure Controls
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or gases. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
Skin and Body Protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory Protection

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

General Hygiene Considerations

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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>pH</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Closed cup: &gt;100°C (&gt;212°F)</td>
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</tr>
<tr>
<td>Evaporation Rate</td>
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</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Extremely flammable aerosol</td>
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</tr>
<tr>
<td>Upper Flammability Limit</td>
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<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
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<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
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<td></td>
</tr>
<tr>
<td>Vapor Density</td>
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<tr>
<td>Relative Density</td>
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<td>(1=Water)</td>
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<tr>
<td>Specific Gravity</td>
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<td></td>
</tr>
<tr>
<td>Solids (%)</td>
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<tr>
<td>Water Solubility</td>
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<tr>
<td>Volatility including Water</td>
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<tr>
<td>Volatile Organic Compound</td>
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<tr>
<td>Solubility in other solvents</td>
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<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
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<td></td>
</tr>
<tr>
<td>Auto ignition Temperature</td>
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<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Values</td>
<td>Remarks • Method</td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
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<tr>
<td>Explosive Properties</td>
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<tr>
<td>Oxidizing Properties</td>
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</tr>
<tr>
<td>VOC Content</td>
<td>&lt;4%</td>
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</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity
None known

Chemical Stability
This product is stable.

Possibility of Hazardous Reactions
Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to Avoid
None known

Incompatible Materials
Reactive or incompatible with the following materials: oxidizing materials.

Hazardous Decomposition Products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Product Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylsilanetriyl triacetate</td>
<td>2062mg/kg (rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion
Silica: Eye-mild irritant-24hr 25mg (Rabbit)

Information on likely routes of exposure

Product Information

Eye Contact
Causes serious eye irritation. Adverse symptoms may include the following: pain or irritation, water or redness.

Skin Contact
Causes skin irritation. Adverse symptoms may include the following: irritation or redness.

Inhalation
Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion
Irritating to mouth, throat and stomach.

12. ECOLOGICAL INFORMATION

Ecotoxicity
No information available.

Persistence/Degradability
No information available.

Bioaccumulation
No information available.
13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

Note

This product exception requirements of Section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the “Consumer Commodity-ORM-D” marking may still be used in place of the new limited quantity diamond mark for packages of UN1950 aerosols. Limited quantities require the limited quantity diamond mark on the carton after 12/31/2020 and may be used now in place of the “Consumer Commodity ORM-D” marking and both may be displayed concurrently.

DOT

Proper Shipping Name: Aerosols, Flammable
UN No: UN1950
Hazard Class: 2.1
Packaging Group: N/A

IATA

Proper Shipping Name: Aerosols, Flammable
UN No: UN1950
Hazard Class: 2.1

IMDG

Proper Shipping Name: Aerosols, Flammable
UN No: UN1950
Hazard Class: 2.1

*Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
15. REGULATORY INFORMATION

US Federal Regulations

United States inventory (TSCA 8b)
All components are listed or exempt.

Clean Air Act (CAA) 112 regulated flammable substances
1,1-Difluoroethane

SARA 302/304
No products were found.

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Health Hazard Category</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain Chemical(s) which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

US State Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Massachusetts</th>
<th>New York</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1,1-Difluoroethane</td>
<td>X</td>
<td></td>
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<td></td>
</tr>
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</table>

California Proposition 65
No products were found.

16. OTHER INFORMATION

NFPA

<table>
<thead>
<tr>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Special Hazards</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
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HMIS

<table>
<thead>
<tr>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>B</td>
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Issue Date        06-Feb-2015
Revision Date:    01-Jul-2015
Revision Note     New format

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 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