1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
Product Name: Solo Smoke Detector Tester.
Trade Name: Solo A4 - XXX (XXX denotes customer variant).
CAS No.: Mixture.
EINECS No.: Mixture.

1.2 Recommended use of the chemical and restrictions on use
Identified Use(s): Smoke simulation.
Uses Advised Against: None known.

1.3 Details of the supplier of the safety data sheet
1.3.1 Distributor
Company Identification: SDi
1345 Campus Parkway, Suite A18
Wall Township, NJ 07753 6815
Telephone: (732) 751 9266
Fax: (732) 751 9241
E-mail: sales@sdifire.com

1.4 Emergency telephone number
Info Trac: 1-800-535-5053

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
2.1.1 US CFR 1910.1200
Gases under pressure: Liquefied gas; Contains gas under pressure; may explode if heated.
Causes serious eye irritation.

2.2 Label elements
Product Name: Solo Smoke Detector Tester.
Hazard Pictogram(s): GHS04, GHS07
Signal Word(s): Warning.
Hazard Statement(s): H280: Contains gas under pressure; may explode if heated.
H319: Causes serious eye irritation.
Precautionary Statement(s): P264: Wash hands thoroughly after handling.
P337+P313: If eye irritation persists: Get medical advice/attention.
P410+P403: Protect from sunlight. Store in a well-ventilated place.
Solo Smoke Detector Tester

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Additional Information

14.5 % by mass of the contents are flammable. Do not pierce or burn, even after use. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 122°F (50ºC). Keep out of the reach of children. Keep away from combustible material. Keep away from sources of ignition - No smoking.

2.3 Other hazards

High concentrations: May cause drowsiness and dizziness.

2.4 Additional Information

None.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Product as supplied: Aerosol.

3.1 Mixtures

<table>
<thead>
<tr>
<th>Hazardous ingredient(s)</th>
<th>CAS No.</th>
<th>%W/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-tetrafluoroethane</td>
<td>811-97-2</td>
<td>50 - 100</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>10 - 25</td>
</tr>
</tbody>
</table>

3.2 Additional Information

None.

4. SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, obtain medical attention.

Skin Contact

Wash with plenty of soap and water.

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.

Ingestion

Unlikely route of exposure.

4.2 Most important symptoms and effects, both acute and delayed

None anticipated.

4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically.
5. SECTION 5: FIRE-FIGHTING MEASURES

Pressurized container: May burst if heated.

5.1 Extinguishing Media

Suitable Extinguishing Media
Extinguish with carbon dioxide, dry chemical, foam or water spray.

Unsuitable Extinguishing Media
None known.

5.2 Special hazards arising from the substance or mixture

Heating may cause pressure rise with risk of bursting.

5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

The product is an aerosol. It is unlikely to present spillage or leakage hazard. In case of rupture, released content should be contained as any other solvent spill.

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid inhalation of high concentrations of vapors. Wear suitable gloves and eye/face protection.

6.2 Environmental precautions

Do not release large quantities into the surface water or into drains.

6.3 Methods and material for containment and cleaning up

Collect mechanically and dispose of according to Section 13. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a lidded container for disposal or recovery. Containers must not be punctured or destroyed by burning, even when empty.

6.4 Reference to other sections

See Also Section: 8, 13.

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Provide adequate ventilation. Avoid inhalation of high concentrations of vapors. Avoid contact with eyes. Avoid prolonged skin contact. Wear suitable gloves if prolonged skin contact is likely. See Section: 8. Do not eat, drink or smoke during work. Wash hands thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature
Ambient.

Storage life
Stable under normal conditions.

Incompatible materials
None anticipated.
## 8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### 8.1.1 Occupational Exposure Limits

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>CAS No.</th>
<th>LTEL (8 hr TWA ppm)</th>
<th>LTEL (8 hr TWA mg/m³)</th>
<th>STEL (ppm)</th>
<th>STEL (mg/m³)</th>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-tetrafluoroethane</td>
<td>811-97-2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Not established</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>400</td>
<td>980</td>
<td>500</td>
<td>1225</td>
<td>NIOSH</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PEL (OSHA)</td>
</tr>
</tbody>
</table>

Source:
NIOSH = National Institute of Occupational Safety & Health
OSHA = Occupational Safety and Health Administration

### 8.2 Appropriate engineering controls

Provide adequate ventilation.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

If eye contact is likely: Wear protective eyewear (goggles, face shield, or safety glasses).

#### Skin protection (Hand protection/ Other)

Wear suitable gloves if prolonged skin contact is likely. Gloves: Nitrile rubber, NBR.

#### Respiratory protection

No personal respiratory protective equipment normally required. Handling of larger amounts: In case of insufficient ventilation, wear suitable respiratory equipment.

#### Thermal hazards

Not applicable.

## 9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- **Appearance**: Aerosol.
- **Color**: Colorless.
- **Odor**: Characteristic.
- **Odor Threshold**: Not determined.
- **pH**: Not determined.
- **Melting Point/Freezing Point**: Not determined.
- **Initial boiling point and boiling range**: -14.8°F (-26 °C)
- **Flash Point**: 55.4°F (13 °C)
- **Evaporation Rate**: Not applicable.
- **Flammability (solid, gas)**: Non-flammable. Tested to CFR 1910.1200 Appendix B – B.3
- **Upper/lower flammability or explosive limits**: Explosive Limit Ranges: 2.0 – 12.0 Vol-%
- **Vapor pressure**: 60.7 psig (5.2 bar) @ 68°F
- **Density**: 70.67 lb/ft³ (1.132 g/cm³) @ 68°F
Solo Smoke Detector Tester

Vapor density
Relative density
Solubility
Partition coefficient: n-octanol/water
Ignition temperature
Auto-ignition temperature
Decomposition Temperature
Kinematic Viscosity
Explosive properties
Oxidizing properties

9.2 Other information
Organic solvents - Content
14.8%

10. SECTION 10: STABILITY AND REACTIVITY
10.1 Reactivity
10.2 Chemical stability
10.3 Possibility of hazardous reactions
10.4 Conditions to avoid
10.5 Incompatible materials
10.6 Hazardous decomposition product(s)

11. SECTION 11: TOXICOLOGICAL INFORMATION
11.1 Information on toxicological effects
Mixtures
Acute toxicity
Irritation
Corrosivity
Sensitization
Repeated dose toxicity
Carcinogenicity
Mutagenicity
Toxicity for reproduction
Aspiration hazard

11.2 Other information
None.

12. SECTION 12: ECOLOGICAL INFORMATION
12.1 Toxicity
12.2 Persistence and degradability
12.3 Bioaccumulative potential
12.4 Mobility in soil
12.5 Other adverse effects

13. SECTION 13: DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods
13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.
### 14. SECTION 14: TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number</td>
<td>ADR, IMDG, IATA, TDG</td>
<td>UN 1950</td>
</tr>
<tr>
<td>14.2 UN Proper Shipping Name</td>
<td>ADR, IMDG, TDG</td>
<td>AEROSOLS</td>
</tr>
<tr>
<td>IATA</td>
<td>AEROSOLS, Non-flammable</td>
<td></td>
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<tr>
<td>14.3 Transport hazard class(es)</td>
<td>ADR</td>
<td>Class / Classification: 2, 5A Gases.</td>
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<tr>
<td>IMDG, IATA, TDG</td>
<td>Label: 2.2</td>
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<tr>
<td>14.4 Packing Group</td>
<td>ADR, IMDG, IATA</td>
<td>None.</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>Marine Pollutant</td>
<td>No.</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td>Warning: Gases.</td>
<td></td>
</tr>
<tr>
<td>IMDG EMS</td>
<td>F-D, S-U</td>
<td></td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>14.8 Additional Information</td>
<td>ADR</td>
<td>Limited Quantity (LQ): 1 L</td>
</tr>
<tr>
<td>ADR Transport Category</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Tunnel Restriction Code</td>
<td>Not applicable in Limited Quantities.</td>
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<tr>
<td>IMDG, TDG</td>
<td>Limited Quantity (LQ): 1L</td>
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<tr>
<td>IATA, TDG</td>
<td>Limited Quantity (LQ): 1L</td>
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</tr>
<tr>
<td>UN Model Regulation</td>
<td>UN 1950, AEROSOLS, 2.2</td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>ORM-D when transported in limited quantities (&lt; 30kg or 66lb gross weight).</td>
<td></td>
</tr>
</tbody>
</table>
15. SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1 OSHA
- Toxic and hazardous substances (29 CFR 1910; Subpart Z)
  - All chemicals are not listed.
- National emission standards for hazardous air pollutants (40 CFR 61.01)
  - All chemicals are not listed.

15.1.2 Title III Consolidated List of Lists
- Listed: Propan-2-ol (CAS No.: 67-63-0)
  Sec 313 313

15.1.3 OSPAR List of Chemicals for Priority Action
- All chemicals are not listed.

15.1.4 State Right to Know Lists
- 1,1,1,2-tetrafluoroethane (CAS No.: 811-97-2):
  New Jersey, Pennsylvania, Massachusetts, Rhode Island.
- Propan-2-ol (CAS No.: 67-63-0):
  New Jersey, Pennsylvania, Massachusetts, California, Minnesota.

15.1.5 TSCA (Toxic Substance Control Act)
- All chemicals listed.

15.1.6 Proposition 65 (California)
- All chemicals are not listed.

15.1.7 CAA 602 - Ozone Depleting Substances (ODS)
- All chemicals are not listed.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 2, 3, 4, 8, 11, 16.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
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<tr>
<td>Health</td>
<td>1</td>
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<tr>
<td>Fire</td>
<td>0</td>
</tr>
<tr>
<td>Instability</td>
<td>1</td>
</tr>
</tbody>
</table>

**LEGEND**

- LTEL: Long Term Exposure Limit
- STEL: Short Term Exposure Limit
- NIOSH: National Institute of Occupational Safety & Health
- PEL: Permissible Exposure Limits
- CAA: Clean Air Act
- OSHA: Occupational Safety and Health Administration
- OSPAR: Oslo and Paris Convention
- ADR: Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- TDG: Transportation of Dangerous Goods

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