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

1.1 Product identifier

Product Name: TRUSTEST SMOKE DETECTOR SENSITIVITY TESTER.
Trade Name: AERO 400-XXX (XXX denotes customer variant).
CAS No.:
EINECS No.:

1.2 Recommended use of the chemical and restrictions on use

Identified Use(s): Smoke simulation (for detector sensitivity tester).
Uses Advised Against: None known.

1.3 Details of the supplier of the safety data sheet

Distributor:
Company Identification: SDi
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

US CFR 1910.1200: Gases under pressure; Liquefied gas; Contains gas under pressure; may explode if heated. Aquatic Chronic 3; Harmful to aquatic life with long lasting effects.

2.2 Label elements

Product Name: TRUSTEST SMOKE DETECTOR SENSITIVITY TESTER.

Signal Word(s): Warning.
Hazard Statement(s):
- H280: Contains gas under pressure; may explode if heated.
- H412: Harmful to aquatic life with long lasting effects.

Precautionary Statement(s):
- P273: Avoid release to the environment.
- P410+P403: Protect from sunlight. Store in a well-ventilated place.
Additional Information

18.75 % 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. 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>Pentane</td>
<td>109-66-0</td>
<td>1 - 10</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>1 - 10</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

Flush eyes with water for at least 15 minutes while holding eyelids open.

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 preferably with dry chemical or alcohol foam.

Unsuitable Extinguishing Media

None known.
5.2 Special hazards arising from the substance or mixture
Decomposes in a fire giving off toxic fumes: Hydrofluoric acid, Fluorinated compounds. 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.

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation. Avoid inhalation of high concentrations of vapours.

6.2 Environmental precautions
Avoid release to the environment.

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. Provide adequate ventilation. Avoid inhalation of high concentrations of vapours.

7.2 Conditions for safe storage, including any incompatibilities
Storage temperature
Observe official regulations on storing packagings with pressurized containers. Protect from sunlight and do not expose to temperatures exceeding 122 °F.

Storage life
Incompatible materials
Stable under normal conditions.
Alkali metals, alkaline earth metals, magnesium, powdered metals.

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>Pentane</td>
<td>109-66-0</td>
<td>120</td>
<td>350</td>
<td>610</td>
<td>1800</td>
<td>NIOSH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000</td>
<td>2950</td>
<td>-</td>
<td>-</td>
<td>PEL (OSHA)</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>400</td>
<td>980</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 Not normally required.

Skin protection (Hand protection/ Other) Not normally required.

Respiratory protection No personal respiratory protective equipment normally required. In case of insufficient ventilation, wear suitable respiratory equipment. A suitable mask with filter type A (EN14387 or EN405) may be appropriate.

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 Slight hydrocarbon smell.
Odor Threshold Not determined.
Melting Point/Freezing Point Not determined.
Initial boiling point and boiling range -15.7°F (-26.5 °C)
Flash Point Not applicable.
Evaporation Rate Not applicable.
Flammability (solid, gas) Non-flammable.
Upper/lower flammability or explosive limits Not determined.
Vapor pressure 81.22 psig (5.6 bar) @ 77°F
Density 66.8 lb/ft³ @ 77°F
Vapor density 3.5
Relative density Not determined.
Solubility(ies) Slightly soluble in: Water. Soluble in most organic solvents.
Partition coefficient: n-octanol/water Not determined.
Auto-ignition temperature Not determined.
Decomposition Temperature Not determined.
Kinematic Viscosity Not determined.
Explosive properties Contains gas under pressure; may explode if heated.
Oxidizing properties Not oxidizing.

9.2 Other information None.

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity Stable under normal conditions.
10.2 Chemical stability Stable under normal conditions.
10.3 Possibility of hazardous reactions None known.
## Conditions to avoid

Heat and direct sunlight.

## Incompatible materials

Alkali metals, alkaline earth metals, magnesium, powdered metals.

## Hazardous decomposition product(s)

None known.

### 11. SECTION 11: TOXICOLOGICAL INFORMATION

#### Information on toxicological effects

**Mixtures**

- **Acute toxicity**: Low acute toxicity.
- **Irritation**: Non-irritant.
- **Corrosivity**: Not classified.
- **Sensitization**: It is not a skin sensitiser.
- **Repeated dose toxicity**: None anticipated.
- **Carcinogenicity**: No evidence of carcinogenicity.
- **Mutagenicity**: There is no evidence of mutagenic potential.
- **Toxicity for reproduction**: None anticipated.

**Relevant information**

- **Non-irritant**
- **Not classified**
- **It is not a skin sensitizer**
- **None anticipated**
- **No evidence of carcinogenicity**
- **There is no evidence of mutagenic potential**
- **None anticipated**

---

### 12. SECTION 12: ECOLOGICAL INFORMATION

- **Toxicity**: Aquatic Chronic 3; Harmful to aquatic life with long lasting effects.

**Persistence and degradability**

- No information available.

**Bioaccumulative potential**

- No information available.

**Mobility in soil**

- Slightly soluble in: Water. The product is predicted to have low mobility in soil.

**Other adverse effects**

- None.

---

### 13. SECTION 13: DISPOSAL CONSIDERATIONS

**Waste treatment methods**

Recycle only completely emptied packaging. Containers must not be punctured or destroyed by burning, even when empty. Non-emptied aerosol: Dispose of wastes in an approved waste disposal facility. Do NOT landfill.

**Additional Information**

Disposal should be in accordance with local, state or national legislation. Do not allow to enter drains, sewers or watercourses.

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### 14. SECTION 14: TRANSPORT INFORMATION

**UN number**(ADR, IMDG, IATA)

- UN 1950

**UN Proper Shipping Name**

- **ADR:** 1950 AEROSOLS
- **IMDG:** AEROSOLS
- **IATA:** AEROSOLS, Non-flammable

**Transport hazard class(es)**

**ADR**

- **Class / Classification:** 2 5A Gases
- **Label:** 2.2
14.4 Packing Group
ADR, IMDG, IATA
None.

14.5 Environmental hazards
Marine Pollutant
No.

14.6 Special precautions for user
Warning: Gases.
Kemler Code
IMDG EMS
F-D, S-U

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

14.8 Additional Information
ADR
Limited Quantity (LQ)
1 L

ADR Transport Category
3
Not applicable in Limited Quantities.

IMDG
Limited Quantity (LQ)
1 L

IATA
Limited Quantity (LQ)
1 L

UN Model Regulation
UN 1950, AEROSOLS, 2.2
US
ORM-D when transported in limited quantities (< 30kg or 66lb gross weight).

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
Propan-2-ol (CAS No.: 67-63-0) Sec 313: 313
Pentane (CAS No.: 109-66-0) CAA 112(r) TQ: 10000
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.

Pentane (CAS No.: 109-66-0): 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: 1-16.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
</tr>
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<tbody>
<tr>
<td>Health</td>
<td>0</td>
</tr>
<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
- 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
- OSHA: Occupational Safety and Health Administration
- OSPAR: Oslo and Paris Convention
- CAA: Clean Air Act
- NFPA: National Fire Protection Association
- HMIS: Hazardous Material Identification System

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