SECTIONS 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Trade name or designation of the mixture: LPS® Plastic Safe Electrical Cleaner
Registration number: -
Synonyms: None.
Part Number: 04620, M04620
Issue date: 19-October-2015
Version number: 01

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses: An aerosol remover of dirt, moisture, dust, flux or oxides from the internal components of electronic or precision equipment.
Uses advised against: None known.

1.3. Details of the supplier of the safety data sheet
Supplier: Alsco Ltd
Company name: Unit 13 Hillmead Industrial Estate
Address: Marshall Road
Swindon, Wiltshire
United Kingdom SN5 5FZ
Telephone: +44 1793 733 900
In Case of Emergency: +001 703-527-3887
Manufacturer:
Company name: ITW Pro Brands
Address: 4647 Hugh Howell Rd., Tucker, GA 30084 (U.S.A.)
Website: http://www.lpslabs.com
e-mail: lpssds@itwprobrands.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended
This preparation does not meet the criteria for classification according to Directive 1999/45/EC as amended.

Classification: R5, Xi;R36, R67, R52/53

Classification according to Regulation (EC) No 1272/2008 as amended

- Physical hazards:
  - Aerosols: Category 3

- Health hazards:
  - Acute toxicity, inhalation: Category 4
  - Serious eye damage/eye irritation: Category 2
  - Specific target organ toxicity - single exposure: Category 3 narcotic effects

- Hazard summary:
  - Physical hazards: Heating may cause an explosion.
  - Health hazards: Irritating to eyes. Vapours may cause drowsiness and dizziness.
  - Environmental hazards: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - Specific hazards: Heating may cause an explosion. Irritating to eyes. Do not breathe gas, fumes, or vapour. May cause central nervous system effects.

- H229 - Pressurized container: May burst if heated.
- H319 - Causes serious eye irritation.
- H336 - May cause drowsiness or dizziness.
- H319 - Causes serious eye irritation.
- H336 - May cause drowsiness or dizziness.
Main symptoms
Causes serious eye damage. Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Narcosis. Decrease in motor functions. Behavioural changes.

2.2. Label elements
Label according to Regulation (EC) No. 1272/2008 as amended
Contains:
Ethane, 1,1,1,2-Tetrafluoro (HFC-134a), Isopropanol

Hazard pictograms

Signal word
Warning

Hazard statements
H229
Pressurized container: May burst if heated.
H319
Causes serious eye irritation.
H336
May cause drowsiness or dizziness.

Precautionary statements
Prevention
P210
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P210
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251
Do not pierce or burn, even after use.
P251
Pressurised container: Do not pierce or burn, even after use.
P264
Wash thoroughly after handling.
P271
Use only outdoors or in a well-ventilated area.
P280
Wear eye protection/face protection.

Response
P304 + P340
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312
Call a POISON CENTER/doctor if you feel unwell.
P337 + P313
If eye irritation persists: Get medical advice/attention.

Storage
P403 + P233
Store in a well-ventilated place. Keep container tightly closed.
P405
Store locked up.
P410 + P412
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal
P501
Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information
None.

2.3. Other hazards
None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>%</th>
<th>CAS-No. / EC No.</th>
<th>REACH Registration No.</th>
<th>INDEX No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethane, 1,1,1,2-Tetrafluoro (HFC-134a)</td>
<td>70 - 100</td>
<td>811-97-2</td>
<td>212-377-0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Classification:</td>
<td>DSD:</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CLP:</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2-Trans-Dichloroethylene</td>
<td>1 - 10</td>
<td>156-60-5</td>
<td>205-860-2</td>
<td>-</td>
<td>602-026-00-3</td>
</tr>
<tr>
<td>Classification:</td>
<td>DSD:</td>
<td>F;R11, Xn;R20, R52/53</td>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>CLP:</td>
<td>Flam. Liq. 2;H225, Acute Tox. 4;H302, Acute Tox. 4;H332, Aquatic Chronic 3;H412</td>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>1 - 5</td>
<td>67-63-0</td>
<td>200-861-7</td>
<td>-</td>
<td>603-117-00-0</td>
</tr>
<tr>
<td>Classification:</td>
<td>DSD:</td>
<td>F;R11, Xi;R36, R67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CLP:</td>
<td>Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
List of abbreviations and symbols that may be used above
DSD: Directive 67/548/EEC.
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.
#: This substance has been assigned Community workplace exposure limit(s).
M: M-factor

Composition comments
The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

4.1. Description of first aid measures

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Call a physician if symptoms develop or persist.

Skin contact
Remove contaminated clothing. Wash off with soap and water. For minor skin contact, avoid spreading material on unaffected skin. Get medical attention if irritation develops and persists.

Eye contact
Remove contact lenses, if present and easy to do. Rinse cautiously with water for several minutes. Get medical attention if irritation develops and persists.

Ingestion
IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

4.2. Most important symptoms and effects, both acute and delayed
Irritation of eyes and mucous membranes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause drowsiness or dizziness. Narcosis. Decrease in motor functions. Behavioural changes. Prolonged exposure may cause chronic effects.

4.3. Indication of any immediate medical attention and special treatment needed
In case of shortness of breath, give oxygen. Keep victim warm. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards
No unusual fire or explosion hazards noted.

5.1. Extinguishing media
Suitable extinguishing media
Extinguishing media - small fires Dry chemical powder. Extinguishing media - large fires Foam, water spray or fog.

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

5.2. Special hazards arising from the substance or mixture
Contents under pressure. Pressurised container may explode when exposed to heat or flame.

5.3. Advice for firefighters
Special protective equipment for firefighters
Firefighters should wear full protective clothing including self contained breathing apparatus.

Special fire fighting procedures
Containers should be cooled with water to prevent vapor pressure build up. Use water spray to cool unopened containers.

Specific methods
Cool containers exposed to flames with water until well after the fire is out.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Ensure adequate ventilation.

For emergency responders
Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions
No special environmental precautions required.

6.3. Methods and material for containment and cleaning up
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Refer to attached safety data sheets and/or instructions for use. Keep combustibles (wood, paper, oil etc) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Following product recovery, flush area with water. For waste disposal, see section 13.

6.4. Reference to other sections
Use personal protection recommended in Section 8 of the SDS. For waste disposal, see section 13.
SECTION 7: Handling and storage

7.1. Precautions for safe handling
Pressurised container: Do not pierce or burn, even after use. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not use if spray button is missing or defective. Do not re-use empty containers.

Do not taste or swallow. Use only in well-ventilated areas. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities
Contents under pressure. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Avoid exposure to long periods of sunlight. Keep out of the reach of children.

7.3. Specific end use(s)
Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Occupational exposure limits</th>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001</td>
<td>1,2-TRANS-DICHLOROETHYLANE (CAS 156-60-5)</td>
<td>MAK 790 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL 200 ppm</td>
</tr>
<tr>
<td></td>
<td>Ethane, 1,1,1,2-Tetrafluoroethane (HFC-134a) (CAS 811-97-2)</td>
<td>MAK 4200 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL 1000 ppm</td>
</tr>
<tr>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>MAK 500 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL 2000 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Belgium. Exposure Limit Values.</th>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL 1000 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 500 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work</th>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL 1225 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 980 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09</th>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ethane, 1,1,1,2-Tetrafluoroethane (HFC-134a) (CAS 811-97-2)</td>
<td>MAC 4240 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL 1000 ppm</td>
</tr>
<tr>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>MAC 999 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL 1250 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.</th>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>TWA 980 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceiling 1000 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Czech Republic. OELs. Government Decree 361</th>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>Ceiling 1000 mg/m3</td>
</tr>
<tr>
<td>Country</td>
<td>OELs/Decree</td>
<td>Components</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Government Decree 361</td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>Exposure Limit Values</td>
<td>1,2-TRANS-DICHLOROETHYLENE (CAS 156-60-5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estonia</td>
<td>Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)</td>
<td>Isopropanol (CAS 67-63-0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>Workplace Exposure Limits</td>
<td>1,2-TRANS-DICHLOROETHYLENE (CAS 156-60-5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984</td>
<td>Isopropanol (CAS 67-63-0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)</td>
<td>1,2-TRANS-DICHLOROETHYLENE (CAS 156-60-5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ethane, 1,1,1,2-Tetrafluoro(HFC-134a) (CAS 811-97-2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>TRGS 900, Limit Values in the Ambient Air at the Workplace</td>
<td>Ethane, 1,1,1,2-Tetrafluoro(HFC-134a) (CAS 811-97-2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>OELs (Decree No. 90/1999, as amended)</td>
<td>Isopropanol (CAS 67-63-0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Material name: LPS® Plastic Safe Electrical Cleaner - ITW Pro Brands (EU)
04620, M04620  Version #: 01  Issue date: 19-October-2015

SDS EU 5 / 13
<table>
<thead>
<tr>
<th>Country</th>
<th>OELs.</th>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hungary</td>
<td>Joint Decree on Chemical Safety of Workplaces</td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>2000 mg/m³</td>
<td>TWA</td>
<td>500 mg/m³</td>
</tr>
<tr>
<td>Iceland</td>
<td>Regulation 154/1999 on occupational exposure limits</td>
<td>1,2-TRANS-DICHLOROET HYLENE (CAS 156-60-5)</td>
<td>TWA</td>
<td>790 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>TWA</td>
<td>200 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>490 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>Occupational Exposure Limits</td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>400 ppm</td>
<td>TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td>Italy</td>
<td>Occupational Exposure Limits</td>
<td>1,2-TRANS-DICHLOROET HYLENE (CAS 156-60-5)</td>
<td>TWA</td>
<td>200 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>400 ppm</td>
<td>TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td>Latvia</td>
<td>Occupational exposure limit values of chemical substances in work environment</td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>600 mg/m³</td>
<td>TWA</td>
<td>350 mg/m³</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Limit Values for Chemical Substances, General Requirements</td>
<td>Ethane, 1,1,1,2-Tetrafluoro (HFC-134a) (CAS 811-97-2)</td>
<td>STEL</td>
<td>3000 mg/m³</td>
<td>TWA</td>
<td>750 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2000 mg/m³</td>
<td></td>
<td>500 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>600 mg/m³</td>
<td>TWA</td>
<td>250 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>350 mg/m³</td>
<td></td>
<td>150 ppm</td>
</tr>
<tr>
<td>Norway</td>
<td>Administrative Norms for Contaminants in the Workplace</td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>TLV</td>
<td>245 mg/m³</td>
<td></td>
<td>100 ppm</td>
</tr>
<tr>
<td>Poland</td>
<td>MACs. Regulation regarding maximum permissible concentrations and intensities of harmful factors in the work environment, Annex 1</td>
<td>1,2-TRANS-DICHLOROET HYLENE (CAS 156-60-5)</td>
<td>TWA</td>
<td>700 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>1200 mg/m³</td>
<td>TWA</td>
<td>900 mg/m³</td>
</tr>
<tr>
<td>Portugal</td>
<td>Norm on occupational exposure to chemical agents (NP 1796)</td>
<td>1,2-TRANS-DICHLOROET HYLENE (CAS 156-60-5)</td>
<td>TWA</td>
<td>200 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>400 ppm</td>
<td>TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td>Romania</td>
<td>Protection of workers from exposure to chemical agents at the workplace</td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>500 mg/m³</td>
<td>TWA</td>
<td>203 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200 mg/m³</td>
<td></td>
<td>200 mg/m³</td>
</tr>
<tr>
<td>Country</td>
<td>OELs.</td>
<td>Control measures for exposure to chemical agents at the workplace</td>
<td>Components</td>
<td>Type</td>
<td>Value</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-------</td>
<td>---------------------------------------------------------------</td>
<td>------------</td>
<td>------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>Romania</td>
<td>OELs.</td>
<td>Protection of workers from exposure to chemical agents at the workplace</td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>81 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA</td>
<td>400 ppm</td>
<td></td>
</tr>
<tr>
<td>Slovakia</td>
<td>OELs.</td>
<td>Regulation No. 300/2007 concerning protection of health in work with chemical agents</td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>1000 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA</td>
<td>500 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Slovenia</td>
<td>OELs.</td>
<td>Regulations concerning protection of workers against risks due to exposure to chemicals while working</td>
<td>Ethane, 1,1,1,2-Tetrafluoro (HFC-134a) (CAS 811-97-2)</td>
<td>TWA</td>
<td>4200 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>TWA</td>
<td>1000 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>500 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>OELs.</td>
<td>Occupational Exposure Limits</td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>1000 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA</td>
<td>500 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>OELs.</td>
<td>Occupational Exposure Limit Values</td>
<td>Ethane, 1,1,1,2-Tetrafluoro (HFC-134a) (CAS 811-97-2)</td>
<td>STEL</td>
<td>3000 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA</td>
<td>750 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>600 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA</td>
<td>250 ppm</td>
<td></td>
</tr>
<tr>
<td>Switzerland</td>
<td>SUVA</td>
<td>Grenzwerte am Arbeitsplatz</td>
<td>1,2-TRANS-DICHLOROET HYYLENE (CAS 156-60-5)</td>
<td>STEL</td>
<td>1580 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA</td>
<td>400 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ethane, 1,1,1,2-Tetrafluoro (HFC-134a) (CAS 811-97-2)</td>
<td>TWA</td>
<td>4200 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>1000 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA</td>
<td>500 mg/m3</td>
<td></td>
</tr>
<tr>
<td>UK. EH40 Workplace Exposure Limits (WELs)</td>
<td></td>
<td></td>
<td>Ethane, 1,1,1,2-Tetrafluoro (HFC-134a) (CAS 811-97-2)</td>
<td>TWA</td>
<td>4240 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>1250 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA</td>
<td>500 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>
Biological limit values

Germany. TRGS 903, BAT List (Biological Limit Values)

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol (CAS 67-63-0)</td>
<td>25 mg/l</td>
<td>Aceton</td>
<td>Urine</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>25 mg/l</td>
<td>Aceton</td>
<td>Blood</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol (CAS 67-63-0)</td>
<td>40 mg/l</td>
<td>Acetonan</td>
<td>Urine</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol (CAS 67-63-0)</td>
<td>25 mg/l</td>
<td>Aceton</td>
<td>Urine</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>25 mg/l</td>
<td>Aceton</td>
<td>Blood</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

**Recommended monitoring procedures**
Follow standard monitoring procedures.

**Derived no-effect level (DNEL)**
Not available.

**Predicted no effect concentrations (PNECs)**
Not available.

**8.2. Exposure controls**

**Appropriate engineering controls**
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

**General information**
Not available.

**Eye/face protection**
Avoid contact with eyes. Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.

**Skin protection**
- **Hand protection**
Chemical resistant gloves are recommended.
- **Other**
Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Avoid contact with the skin.
Wear appropriate chemical resistant clothing. Chemical resistant gloves.

**Respiratory protection**
If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Thermal hazards**
Not applicable.

**Hygiene measures**
Avoid contact with eyes. Avoid contact with skin. Wash hands after handling and before eating. Avoid contact with clothing. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practices.

**Environmental exposure controls**
Not available.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**Appearance**
Clear. Liquid.

**Physical state**
Not available.

**Form**
Aerosol

**Colour**
Colorless

**Odour**
Mild. Ether-like.

**Odour threshold**
Not available.

**pH**
Not available.

**Melting point/freezing point**
Not available.

**Initial boiling point and boiling range**
Not determined

**Flash point**
None. Method: TCC
Evaporation rate > 1 (Ethyl Ether =1)

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

| Flammability limit - lower (%) | Not available |
| Flammability limit - upper (%) | Not available |

Vapour pressure not determined
Vapour density Not available.
Relative density Not available.

Solubility(ies)

| Solubility (water) | < 5 % w/w |
| Solubility (other) | Not available |

Partition coefficient (n-octanol/water) < 1

Auto-ignition temperature not determined
Decomposition temperature Not available.
Viscosity < 3 cSt @ 25°C
Explosive properties Not available.
Oxidising properties Not available.

9.2. Other information

| Heat of combustion | < 20 kJ/g |
| Percent volatile | 100 % |
| Specific gravity | 1.34 @ 25°C |
| VOC (Weight %) | 30.6 % per California Consumer Product Regulations, 11.6% per other US State & Federal Consumer Product Regulations |

SECTION 10: Stability and reactivity

10.1. Reactivity None known.
10.2. Chemical stability Material is stable under normal conditions.
10.3. Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid Avoid heat, sparks, open flames and other ignition sources.

SECTION 11: Toxicological information

General information Not available.

Information on likely routes of exposure

| Inhalation | May be harmful if inhaled. |
| Skin contact | Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | May cause discomfort if swallowed. |


11.1. Information on toxicological effects

Acute toxicity May be harmful if inhaled.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Trans-Dichloroethylene (CAS 156-60-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute Inhalation</td>
<td>LC50 Mouse</td>
<td>21723 ppm, 6 Hours</td>
</tr>
<tr>
<td>Oral</td>
<td>LD50 Rat</td>
<td>1235 mg/kg</td>
</tr>
</tbody>
</table>
### Components

#### Isopropanol (CAS 67-63-0)

<table>
<thead>
<tr>
<th>Test results</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Vapour</strong></td>
<td>Rat</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td>Dog</td>
</tr>
<tr>
<td></td>
<td>Mouse</td>
</tr>
<tr>
<td></td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Skin corrosion/irritation
Based on available data, the classification criteria are not met.

#### Serious eye damage/eye irritation
Causes serious eye irritation.

#### Respiratory sensitisation
Based on available data, the classification criteria are not met.

#### Skin sensitisation
Based on available data, the classification criteria are not met.

#### Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

#### Carcinogenicity
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

##### ACGIH Carcinogens
- Isopropanol (CAS 67-63-0) Not classifiable as a human carcinogen. A4

#### Reproductive toxicity
Based on available data, the classification criteria are not met.

#### Specific target organ toxicity - single exposure
Narcotic effects.

#### Specific target organ toxicity - repeated exposure
Based on available data, the classification criteria are not met.

#### Aspiration hazard
Based on available data, the classification criteria are not met.

#### Mixture versus substance information
Not available.

#### Other information
Not available.

### SECTION 12: Ecological information

#### 12.1. Toxicity
Harmful to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol (CAS 67-63-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Bluegill (Lepomis macrochirus)</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability
Not inherently biodegradable.

#### 12.3. Bioaccumulative potential
Not available.

#### Partition coefficient n-octanol/water (log Kow)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Log Kow</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPS® Plastic Safe Electrical Cleaner</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>1,2-Trans-Dichloroethylene</td>
<td>2.06</td>
</tr>
<tr>
<td>Ethane, 1,1,1,2-Tetrafluoro (HFC-134a)</td>
<td>1.06</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>0.05</td>
</tr>
</tbody>
</table>

#### Bioconcentration factor (BCF)
Not available.

#### 12.4. Mobility in soil
Not available.

#### 12.5. Results of PBT and vPvB assessment
Not a PBT or vPvB substance or mixture.

#### 12.6. Other adverse effects
Not available.
SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste  Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging  Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

EU waste code  The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information  Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

ADR
14.1. UN number  UN1950
14.2. UN proper shipping name  AEROSOLS
14.3. Transport hazard class(es)
   Class  2.2
   Subsidiary risk  -
   Label(s)  2.2
   Hazard No. (ADR)  Not available.
   Tunnel restriction code  D
14.4. Packing group  Not applicable.
14.5. Environmental hazards  No.
14.6. Special precautions for user  Not available.

RID
14.1. UN number  UN1950
14.2. UN proper shipping name  AEROSOLS
14.3. Transport hazard class(es)
   Class  2.2
   Subsidiary risk  -
   Label(s)  2.2
14.4. Packing group  Not applicable.
14.5. Environmental hazards  No.
14.6. Special precautions for user  Not available.

ADN
14.1. UN number  UN1950
14.2. UN proper shipping name  Aerosols
14.3. Transport hazard class(es)
   Class  2.2
   Subsidiary risk  -
   Label(s)  2.2+6.1
14.4. Packing group  Not applicable.
14.5. Environmental hazards  No.
14.6. Special precautions for user  Not available.

IATA
14.1. UN number  UN1950
14.2. UN proper shipping name  Aerosols, non-flammable
14.3. Transport hazard class(es)
   Class  2.2
   Subsidiary risk  -
14.4. Packing group  Not applicable.
14.5. Environmental hazards  No.
   ERG Code  2L
14.6. Special precautions for user
Other information
  Passenger and cargo aircraft
  Allowed.
  Cargo aircraft only
  Allowed.

IMDG
14.1. UN number
  UN1950
14.2. UN proper shipping name
  Aerosols
14.3. Transport hazard class(es)
  Class
  2.2
  Subsidiary risk
  -
  Label(s)
  2.2
14.4. Packing group
  Not applicable.
14.5. Environmental hazards
  Marine pollutant
  No.
14.6. Special precautions for user
  Not available.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
  Not applicable.

SECTION 15: Regulatory information

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

EU regulations
  Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended
    Not listed.
    Not listed.
  Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended
    Not listed.
  Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended
    Not listed.
  Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended
    Not listed.
  Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended
    Not listed.
    Not listed.
  Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
    Not listed.

Authorisations
  Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended
    Not listed.

Restrictions on use
  Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
    Not listed.
Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended
Not listed.
Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended
Not listed.

Other EU regulations
Directive 2012/18/EU on major accident hazards involving dangerous substances
1,2-Trans-Dichloroethylene (CAS 156-60-5)
Isopropanol (CAS 67-63-0)

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended
1,2-Trans-Dichloroethylene (CAS 156-60-5)
Isopropanol (CAS 67-63-0)

Directive 94/33/EC on the protection of young people at work, as amended
Not listed.

Other regulations
The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations
Not available.

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations
Not available.

References
Not available.

Information on evaluation method leading to the classification of mixture
Not available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15
R11 Highly flammable.
R20 Harmful by inhalation.
R36 Irritating to eyes.
R5 Heating may cause an explosion.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67 Vapours may cause drowsiness and dizziness.
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Revision information
SECTION 2: Hazards identification: Hazard summary
SECTION 2: Hazards identification: Prevention
SECTION 2: Hazards identification: Response
Composition / Information on Ingredients: Disclosure Overrides

Training information
Not available.

Disclaimer
The information in the sheet was written based on the best knowledge and experience currently available.