



SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture LPS® Revo 66
Registration number -
Synonyms None.
Part Number 04416, M04416
Issue date 28-December-2016
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

Classification R5, Xi;R36, R67

The full text for all R-phrases is displayed in section 16.

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

Physical hazards

| | | |
|----------|------------|--|
| Aerosols | Category 3 | H229 - Pressurized container: May burst if heated. |
|----------|------------|--|

Health hazards

| | | |
|--|-----------------------------|---|
| Serious eye damage/eye irritation | Category 2 | H319 - Causes serious eye irritation. |
| Specific target organ toxicity - single exposure | Category 3 narcotic effects | H336 - May cause drowsiness or dizziness. |

Hazard summary

Physical hazards Heating may cause an explosion.
Health hazards Irritating to eyes. Vapours may cause drowsiness and dizziness. Occupational exposure to the substance or mixture may cause adverse health effects.
Environmental hazards Not classified for hazards to the environment.
Specific hazards None known.
Main symptoms May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

2.2. Label elements

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

Contains: 1,2-trans-dichloroethylene, 2,3-Dihydroperfluoropentane, 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, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251 Pressurised container: Do not pierce or burn, even after use.
P261 Avoid breathing mist or vapour.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear eye/face protection.

Response

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTRE or doctor/physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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 known.

2.3. Other hazards None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

| Chemical name | % | CAS-No. / EC No. | REACH Registration No. | INDEX No. | Notes |
|--|---|-----------------------|------------------------|--------------|-------|
| 1,2-trans-dichloroethylene | 50 - 60 | 156-60-5 205-860-2 | - | 602-026-00-3 | |
| Classification: | DSD: F;R11, Xn;R20, R52/53 | | | | C |
| | CLP: Flam. Liq. 2;H225, Eye Irrit. 2;H319, Acute Tox. 4;H332, STOT SE 3;H336, Aquatic Chronic 3;H412 | | | | C |
| Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) | 20 - 30 | 811-97-2 212-377-0 | - | - | |
| Classification: | DSD: - | | | | |
| | CLP: Press. Gas;H280 | | | | |
| 2,3-Dihydroperfluoropentane | 5 - 10 | 138495-42-8 | - | - | |
| Classification: | DSD: - | | | | |
| | CLP: - | | | | |

| Chemical name | % | CAS-No. / EC No. | REACH Registration No. | INDEX No. | Notes |
|------------------------|--|----------------------|------------------------|--------------|-------|
| Isopropanol | 3 - 5 | 67-63-0 200-661-7 | - | 603-117-00-0 | |
| Classification: | DSD: F;R11, Xi;R36, R67 | | | | |
| | CLP: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336 | | | | |

List of abbreviations and symbols that may be used above

DSD: Directive 67/548/EEC.
 CLP: Regulation No. 1272/2008.
 #: This substance has been assigned Union workplace exposure limit(s).
 M: M-factor
 PBT: persistent, bioaccumulative and toxic substance.
 vPvB: very persistent and very bioaccumulative substance.

Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

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.

4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion In the unlikely event of swallowing contact a physician or poison control centre. Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards Not available.

5.1. Extinguishing media

Suitable extinguishing media Not available.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Containers should be cooled with water to prevent vapor pressure build up.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

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. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

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

6.2. Environmental precautions Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

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 use if spray button is missing or defective. 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 re-use empty containers. Avoid breathing gas. Avoid contact with eyes. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (GwV), BGI. II, no. 184/2001

| Components | Type | Value |
|---|------|--|
| 1,2-trans-dichloroethylene (CAS 156-60-5) | MAK | 790 mg/m ³ |
| | STEL | 200 ppm 3160 mg/m ³ |
| Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) (CAS 811-97-2) | MAK | 800 ppm 4200 mg/m ³ |
| | STEL | 1000 ppm 16800 mg/m ³ |
| Isopropanol (CAS 67-63-0) | MAK | 4000 ppm 500 mg/m ³ |
| | STEL | 200 ppm 2000 mg/m ³ 800 ppm |

Belgium. Exposure Limit Values.

| Components | Type | Value |
|---------------------------|------|----------------------------------|
| Isopropanol (CAS 67-63-0) | STEL | 1000 mg/m ³ |
| | | 400 ppm |
| | TWA | 500 mg/m ³ 200 ppm |

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

| Components | Type | Value |
|---------------------------|------|------------------------|
| Isopropanol (CAS 67-63-0) | STEL | 1225 mg/m ³ |
| | TWA | 980 mg/m ³ |

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

| Components | Type | Value |
|---|------|-----------------------------------|
| Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) (CAS 811-97-2) | MAC | 4240 mg/m ³ |
| | | 1000 ppm |
| Isopropanol (CAS 67-63-0) | MAC | 999 mg/m ³ |
| | STEL | 400 ppm 1250 mg/m ³ |

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09 Components

| Components | Type | Value |
|------------|------|-------|
|------------|------|-------|

500 ppm

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended. Components

| Components | Type | Value |
|---------------------------|------|----------------------|
| Isopropanol (CAS 67-63-0) | TWA | 980 mg/m3 400 ppm |

Czech Republic. OELs. Government Decree 361 Components

| Components | Type | Value |
|---------------------------|---------|------------|
| Isopropanol (CAS 67-63-0) | Ceiling | 1000 mg/m3 |
| | TWA | 500 mg/m3 |

Denmark. Exposure Limit Values Components

| Components | Type | Value |
|---|------|---------------------------------|
| 1,2-trans-dichloroethylene (CAS 156-60-5) | TLV | 790 mg/m3 |
| Isopropanol (CAS 67-63-0) | TLV | 200 ppm 490 mg/m3 200 ppm |

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001) Components

| Components | Type | Value |
|---------------------------|------|----------------------|
| Isopropanol (CAS 67-63-0) | STEL | 600 mg/m3 250 ppm |
| | TWA | 350 mg/m3 150 ppm |

Finland. Workplace Exposure Limits Components

| Components | Type | Value |
|---|------|---------------------------------|
| 1,2-trans-dichloroethylene (CAS 156-60-5) | STEL | 1000 mg/m3 |
| | TWA | 250 ppm 800 mg/m3 200 ppm |
| Isopropanol (CAS 67-63-0) | STEL | 620 mg/m3 250 ppm |
| | TWA | 500 mg/m3 200 ppm |

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984 Components

| Components | Type | Value |
|---------------------------|------|----------------------|
| Isopropanol (CAS 67-63-0) | VLE | 980 mg/m3 400 ppm |

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG) Components

| Components | Type | Value |
|---|------|----------------------------------|
| 1,2-trans-dichloroethylene (CAS 156-60-5) | TWA | 800 mg/m3 200 ppm |
| Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) (CAS 811-97-2) | TWA | 4200 mg/m3 |
| Isopropanol (CAS 67-63-0) | TWA | 1000 ppm 500 mg/m3 200 ppm |

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace Components

| Components | Type | Value |
|---|------|----------------------------------|
| Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) (CAS 811-97-2) | AGW | 4200 mg/m3 |
| Isopropanol (CAS 67-63-0) | AGW | 1000 ppm 500 mg/m3 200 ppm |

Greece. OELs (Decree No. 90/1999, as amended)

| Components | Type | Value |
|---------------------------|------|-----------------------|
| Isopropanol (CAS 67-63-0) | STEL | 1225 mg/m3 500 ppm |
| | TWA | 980 mg/m3 400 ppm |

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

| Components | Type | Value |
|---------------------------|------|------------|
| Isopropanol (CAS 67-63-0) | STEL | 2000 mg/m3 |
| | TWA | 500 mg/m3 |

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

| Components | Type | Value |
|--|------|----------------------|
| 1,2-trans-dichloroethylene (CAS 156-60-5) | TWA | 790 mg/m3 |
| | | 200 ppm |
| Isopropanol (CAS 67-63-0) | TWA | 490 mg/m3 200 ppm |

Ireland. Occupational Exposure Limits

| Components | Type | Value |
|---------------------------|------|---------|
| Isopropanol (CAS 67-63-0) | STEL | 400 ppm |
| | TWA | 200 ppm |

Italy. Occupational Exposure Limits

| Components | Type | Value |
|--|------|---------|
| 1,2-trans-dichloroethylene (CAS 156-60-5) | TWA | 200 ppm |
| | | |
| Isopropanol (CAS 67-63-0) | STEL | 400 ppm |
| | TWA | 200 ppm |

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

| Components | Type | Value |
|---------------------------|------|-----------|
| Isopropanol (CAS 67-63-0) | STEL | 600 mg/m3 |
| | TWA | 350 mg/m3 |

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

| Components | Type | Value |
|--|------|----------------------------------|
| Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) (CAS 811-97-2) | STEL | 3000 mg/m3 |
| | TWA | 750 ppm 2000 mg/m3 500 ppm |
| Isopropanol (CAS 67-63-0) | STEL | 600 mg/m3 250 ppm |
| | TWA | 350 mg/m3 150 ppm |

Norway. Administrative Norms for Contaminants in the Workplace

| Components | Type | Value |
|---------------------------|------|----------------------|
| Isopropanol (CAS 67-63-0) | TLV | 245 mg/m3 100 ppm |

Poland. MACs. Regulation regarding maximum permissible concentrations and intensities of harmful factors in the work environment, Annex 1

| Components | Type | Value |
|--|------|------------|
| 1,2-trans-dichloroethylene (CAS 156-60-5) | TWA | 700 mg/m3 |
| | | |
| Isopropanol (CAS 67-63-0) | STEL | 1200 mg/m3 |
| | TWA | 900 mg/m3 |

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

| Components | Type | Value |
|--|------|---------|
| 1,2-trans-dichloroethylene (CAS 156-60-5) | TWA | 200 ppm |
| | | |
| Isopropanol (CAS 67-63-0) | STEL | 400 ppm |

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

| Components | Type | Value |
|------------|------|---------|
| | TWA | 200 ppm |

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

| Components | Type | Value |
|---------------------------|------|----------------------|
| Isopropanol (CAS 67-63-0) | STEL | 500 mg/m3 203 ppm |
| | TWA | 200 mg/m3 81 ppm |

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

| Components | Type | Value |
|---------------------------|------|-----------------------|
| Isopropanol (CAS 67-63-0) | STEL | 1000 mg/m3 400 ppm |
| | TWA | 500 mg/m3 200 ppm |

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

| Components | Type | Value |
|---|------|------------------------|
| Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) (CAS 811-97-2) | TWA | 4200 mg/m3 1000 ppm |
| | TWA | 500 mg/m3 200 ppm |

Spain. Occupational Exposure Limits

| Components | Type | Value |
|---------------------------|------|-----------------------|
| Isopropanol (CAS 67-63-0) | STEL | 1000 mg/m3 400 ppm |
| | TWA | 500 mg/m3 200 ppm |

Sweden. Occupational Exposure Limit Values

| Components | Type | Value |
|---|------|-----------------------|
| Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) (CAS 811-97-2) | STEL | 3000 mg/m3 750 ppm |
| | TWA | 2000 mg/m3 500 ppm |
| Isopropanol (CAS 67-63-0) | STEL | 600 mg/m3 250 ppm |
| | TWA | 350 mg/m3 150 ppm |

Switzerland. SUVA Grenzwerte am Arbeitsplatz

| Components | Type | Value |
|---|------|------------------------|
| 1,2-trans-dichloroethylene (CAS 156-60-5) | STEL | 1580 mg/m3 400 ppm |
| | TWA | 790 mg/m3 200 ppm |
| Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) (CAS 811-97-2) | TWA | 4200 mg/m3 1000 ppm |
| | STEL | 1000 mg/m3 400 ppm |
| Isopropanol (CAS 67-63-0) | TWA | 500 mg/m3 200 ppm |

UK. EH40 Workplace Exposure Limits (WELs)

| Components | Type | Value |
|--|------|------------|
| Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) (CAS 811-97-2) | TWA | 4240 mg/m3 |
| Isopropanol (CAS 67-63-0) | STEL | 1000 ppm |
| | | 1250 mg/m3 |
| | TWA | 500 ppm |
| | | 999 mg/m3 |
| | | 400 ppm |

Biological limit values**Croatia. BLV. Dangerous Substance Exposure Limit Values at Workplace, Annexes 4 (as amended)**

| Components | Value | Determinant | Specimen | Sampling time |
|---------------------------|---------|-------------|----------|---------------|
| Isopropanol (CAS 67-63-0) | 50 mg/l | Acetone | Urine | * |
| | 50 mg/l | Acetone | Blood | * |

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

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

| Components | Value | Determinant | Specimen | Sampling time |
|---------------------------|---------|-------------|----------|---------------|
| Isopropanol (CAS 67-63-0) | 25 mg/l | Aceton | Urine | * |
| | 25 mg/l | Aceton | Blood | * |

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

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

| Components | Value | Determinant | Specimen | Sampling time |
|---------------------------|---------|-------------|----------|---------------|
| Isopropanol (CAS 67-63-0) | 40 mg/l | Acetona | Urine | * |

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

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

| Components | Value | Determinant | Specimen | Sampling time |
|---------------------------|---------|-------------|----------|---------------|
| Isopropanol (CAS 67-63-0) | 25 mg/l | Aceton | Urine | * |
| | 25 mg/l | Aceton | Blood | * |

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

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs) 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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

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

Skin protection

- Hand protection Wear appropriate chemical resistant gloves.

- Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

| | |
|---|--------------------------------------|
| Physical state | Gas. |
| Form | Aerosol |
| Colour | Clear colorless or nearly colorless. |
| Odour | Mild. |
| Odour threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | 42 °C (107,6 °F) |
| Flash point | Not applicable |
| Evaporation rate | < 1 BuAc |
| Flammability (solid, gas) | Not available. |

Upper/lower flammability or explosive limits

| | |
|--------------------------------|-----------------|
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Vapour pressure | 868 mm Hg @20°C |
| Vapour density | > 1 |
| Relative density | Not available. |

Solubility(ies)

| | |
|---|---------------------------|
| Solubility (water) | < 5 % |
| Solubility (other) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 460 °C (860 °F) estimated |
| Decomposition temperature | Not available. |
| Viscosity | < 3 cSt @25°C |
| Explosive properties | Not explosive. |
| Oxidising properties | Not oxidising. |

9.2. Other information

| | |
|------------------|--|
| Percent volatile | 100 % |
| Specific gravity | 1,2 - 1,3 @20°C |
| VOC | 64,7 % per US State and Federal Consumer Product Regulations |

SECTION 10: Stability and reactivity

| | |
|--|---|
| 10.1. Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| 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 | Contact with incompatible materials. |
| 10.5. Incompatible materials | Strong oxidising agents. |
| 10.6. Hazardous decomposition products | Carbon oxides. |

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

| | |
|--------------|--|
| Inhalation | May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Causes serious eye irritation. |

| | |
|------------------|---|
| Ingestion | May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure. |
| Symptoms | May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |

11.1. Information on toxicological effects

Acute toxicity Narcotic effects.

| Components | Species | Test results |
|---|---------|----------------------|
| 1,2-trans-dichloroethylene (CAS 156-60-5) | | |
| Acute | | |
| Oral | | |
| LD50 | Rat | 1235 mg/kg |
| Isopropanol (CAS 67-63-0) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | 16,4 ml/kg, 24 Hours |
| Oral | | |
| LD50 | Rat | 4,7 g/kg |

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory sensitisation Not a respiratory sensitizer.

Skin sensitisation This product is not expected to cause skin sensitisation.

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

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not likely, due to the form of the product.

Mixture versus substance information No information available.

Other information None known.

SECTION 12: Ecological information

12.1. Toxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Components | Species | Test results |
|---------------------------|--|-----------------------|
| Isopropanol (CAS 67-63-0) | | |
| Aquatic | | |
| Fish | LC50 Bluegill (<i>Lepomis macrochirus</i>) | > 1400 mg/l, 96 hours |

12.2. Persistence and degradability No data is available on the degradability of this product.

12.3. Bioaccumulative potential

Partition coefficient

n-octanol/water (log Kow)

| | |
|--|------|
| 1,2-trans-dichloroethylene | 2,06 |
| Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) | 1,06 |
| Isopropanol | 0,05 |

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

| | |
|---|--|
| 12.5. Results of PBT and vPvB assessment | Not available. |
| 12.6. Other adverse effects | The product contains volatile organic compounds which have a photochemical ozone creation potential. |

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 | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. 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. Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Special precautions | Dispose in accordance with all applicable regulations. |

SECTION 14: Transport information

ADR

| | |
|---|---|
| 14.1. UN number | UN1950 |
| 14.2. UN proper shipping name | Aerosols, asphyxiant |
| 14.3. Transport hazard class(es) | |
| Class | 2.2 |
| Subsidiary risk | - |
| Label(s) | 2.2 |
| Hazard No. (ADR) | Not available. |
| Tunnel restriction code | 3 (E) |
| 14.4. Packing group | Not applicable. |
| 14.5. Environmental hazards | No. |
| 14.6. Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |

RID

| | |
|---|---|
| 14.1. UN number | UN1950 |
| 14.2. UN proper shipping name | Aerosols, asphyxiant |
| 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 | Read safety instructions, SDS and emergency procedures before handling. |

ADN

| | |
|---|---|
| 14.1. UN number | UN1950 |
| 14.2. UN proper shipping name | Aerosols, asphyxiant |
| 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 | Read safety instructions, SDS and emergency procedures before handling. |

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 | - |
| Label(s) | 2.2 |

14.4. Packing group Not applicable.

14.5. Environmental hazards No.

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

| | |
|------------------------------|----------------------------|
| Passenger and cargo aircraft | Allowed with restrictions. |
| Cargo aircraft only | Allowed with restrictions. |

IMDG

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 | - |
| Label(s) | 2.2 |

14.4. Packing group Not applicable.

14.5. Environmental hazards

Marine pollutant No

EmS F-D, S-U

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

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

ADN; ADR; IATA; IMDG; RID



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.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

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.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

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.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

1,2-trans-dichloroethylene (CAS 156-60-5)

Isopropanol (CAS 67-63-0)

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations

Follow national regulation for work with chemical agents.

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

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if 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.
H280 Contains gas under pressure; may explode if heated.
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

This document has undergone significant changes and should be reviewed in its entirety.

Training information

Follow training instructions when handling this material.

Disclaimer

ITW Pro Brands cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. 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.