SAFETY DATA SHEET
SINGLE SHOT AIR CO CLEANER

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

1.1. Product identifier
Product name: SINGLE SHOT AIR CO CLEANER
Product number: A5176
Internal identification: A5176

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Air Conditioner Treatment

1.3. Details of the supplier of the safety data sheet
Supplier: GARDX PROTECTION LTD
UNIT 7 CLOVELLY BUSINESS PARK
CLOVELLY ROAD
SOUTHBOURNE, EMSWORTH
HANTS
PO10 8PE
+44 (0)1243 376426
product@gardx.co.uk

1.4. Emergency telephone number
Emergency telephone: +44 (0) 777 8505 330 (24 hrs)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification
Physical hazards: Aerosol 1 - H222, H229
Health hazards: Eye Irrit. 2 - H319
Environmental hazards: Not Classified


2.2. Label elements
Pictogram

Signal word: Danger
Hazard statements: H229 Pressurised container: may burst if heated
H222 Extremely flammable aerosol.
H319 Causes serious eye irritation.
# SINGLE SHOT AIR CO CLEANER

## Precautionary statements
- **P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- **P211** Do not spray on an open flame or other ignition source.
- **P251** Do not pierce or burn, even after use.
- **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.
- **P410+P412** Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
- **P260** Do not breathe vapour/spray.
- **P271** Use only outdoors or in a well-ventilated area.
- **P280** Wear protective gloves, eye and face protection.
- **P501** Dispose of contents/container in accordance with national regulations.

## Contains
- DIMETHYL ETHER

## Detergent labelling
- < 5% disinfectants, < 5% perfumes, Contains AMYL CINNAMAL

## 2.3. Other hazards
This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
<th>CAS number</th>
<th>EC number</th>
<th>REACH registration number</th>
<th>Classification</th>
<th>Classification (67/548/EEC or 1999/45/EC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>30-60%</td>
<td>64-17-5</td>
<td>200-578-6</td>
<td>01-2119457610-43-xxxx</td>
<td>Flam. Liq. 2 - H225</td>
<td>F;R11</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2 - H319</td>
<td>Classification (67/548/EEC or 1999/45/EC)</td>
</tr>
<tr>
<td>DIMETHYL ETHER</td>
<td>30-60%</td>
<td>115-10-6</td>
<td>204-065-8</td>
<td>01-2119472128-37</td>
<td>Flam. Gas 1 - H220</td>
<td>F+;R12</td>
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<tr>
<td>N-(3-AMINOPROPYL)-N-DODECYLPROPANE-1,3-DIAMINE</td>
<td>&lt;1%</td>
<td>2372-82-9</td>
<td>219-145-8</td>
<td></td>
<td>Acute Tox. 3 - H301</td>
<td>Classification (67/548/EEC or 1999/45/EC)</td>
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<td>Skin Corr. 1A - H314</td>
<td>Xn;R48/22,R22, C;R35, N;R50.</td>
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<tr>
<td></td>
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<td></td>
<td>STOT RE 2 - H373</td>
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<td></td>
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<td></td>
<td>Aquatic Acute 1 - H400</td>
<td></td>
</tr>
</tbody>
</table>

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

## SECTION 4: First aid measures

2/11
SINGLE SHOT AIR CO CLEANER

4.1. Description of first aid measures

Inhalation  If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion  Rinse mouth thoroughly with water. Get medical attention.

Skin contact  Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eye contact  Rinse immediately with plenty of water. Get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation  Vapours may cause drowsiness and dizziness.

Ingestion  May cause discomfort if swallowed.

Skin contact  Product has a defatting effect on skin.

Eye contact  Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor  Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media  Extinguish with foam, carbon dioxide or dry powder.

5.2. Special hazards arising from the substance or mixture

Specific hazards  Extremely flammable aerosol. Containers can burst violently or explode when heated, due to excessive pressure build-up. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous combustion products  Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting  No specific firefighting precautions known.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions  Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not touch or walk into spilled material. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours. Provide adequate ventilation. Take care as floors and other surfaces may become slippery. Avoid contact with contaminated tools and objects. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Wash thoroughly after dealing with a spillage.

6.2. Environmental precautions

Environmental precautions  Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up
SINGLE SHOT AIR CO CLEANER

Methods for cleaning up
Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Eliminate all sources of ignition. Provide adequate ventilation. Absorb spillage with inert, damp, non-combustible material. Absorb small quantities with paper towels and evaporate in a safe place. Once evaporation is complete, place paper in a suitable waste disposal container and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections
Reference to other sections
For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Usage precautions
Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid contact with skin, eyes and clothing. Do not breathe vapour/spray. Do not expose to temperatures exceeding 50°C/122°F. Do not pierce or burn, even after use. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities
Storage precautions
Store at temperatures between 4°C and 40°C. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not expose to temperatures exceeding 50°C/122°F.

Storage class
Flammable compressed gas storage.

7.3. Specific end use(s)
Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters
Occupational exposure limits
Ethyl alcohol
Long-term exposure limit (8-hour TWA): WEL 1000 ppm  1920 mg/m³

DIMETHYL ETHER
Long-term exposure limit (8-hour TWA): WEL 400 ppm  766 mg/m³
Short-term exposure limit (15-minute):  WEL 500 ppm  985 mg/m³
WEL = Workplace Exposure Limit

ETHANOL (CAS: 64-17-5)

Ingredient comments
WEL = Workplace Exposure Limits
DNEL
Industry - Inhalation; Short term : 1900 mg/m³
Industry - Dermal; Long term : 343 mg/kg/day
Industry - Inhalation; Long term : 950 mg/m³
Consumer - Inhalation; Short term : 950 mg/m³
Consumer - Dermal; Long term : 206 mg/kg/day
Consumer - Inhalation; Long term : 114 mg/m³
Consumer - Oral; Long term : 87 mg/kg/day
SINGLE SHOT AIR CO CLEANER

PNEC
- Fresh water; 0.96 mg/l
- Marine water; 0.79 mg/l
- Soil; 0.62 mg/kg
- STP; 580 mg/l

DIMETHYL ETHER (CAS: 115-10-6)

DNEL
Workers - Inhalation; Long term systemic effects: 1894 mg/m³
Consumer - Inhalation; Long term systemic effects: 471 mg/m³

PNEC
- Fresh water; 0.155 mg/l
- Marine water; 0.016 mg/l
- Intermittent release; 1549 mg/l
- STP; 160 mg/l
- Sediment (Freshwater); 0.681 mg/l
- Sediment (Marine water); 0.069 mg/l
- Soil; 0.045 mg/l

8.2. Exposure controls

Protective equipment
Appropriate engineering controls
Provide adequate ventilation.

Eye/face protection
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. For exposure up to 4 hours, wear gloves made of the following material: Rubber (natural, latex). Nitrile rubber. Neoprene. Polyvinyl chloride (PVC). To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 4 hours. The breakthrough time for any glove material may be different for different glove manufacturers. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.

Hygiene measures
Wash hands thoroughly after handling.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance
Aerosol.

Colour
Colourless.

Odour
Fruity.

pH
Not applicable.

Solubility(ies)
Completely soluble in water.

9.2. Other information
SINGLE SHOT AIR CO CLEANER

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability
Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions Not determined.

10.4. Conditions to avoid
Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials
Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products
Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation Vapours may cause drowsiness and dizziness.

Ingestion Gastrointestinal symptoms, including upset stomach.

Skin contact Product has a defatting effect on skin.

Eye contact Causes serious eye irritation.

Toxicological information on ingredients.

<table>
<thead>
<tr>
<th>Ethyl alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - oral</td>
</tr>
<tr>
<td>Acute toxicity oral (LD₅₀ mg/kg)</td>
</tr>
<tr>
<td>Species</td>
</tr>
<tr>
<td>ATE oral (mg/kg)</td>
</tr>
<tr>
<td>Acute toxicity - dermal</td>
</tr>
<tr>
<td>Acute toxicity dermal (LD₅₀ mg/kg)</td>
</tr>
<tr>
<td>Species</td>
</tr>
<tr>
<td>ATE dermal (mg/kg)</td>
</tr>
<tr>
<td>Acute toxicity - inhalation</td>
</tr>
</tbody>
</table>
SINGLE SHOT AIR CO CLEANER

Acute toxicity inhalation (LC₅₀ vapours mg/l)  21.0
Species  Mouse
ATE inhalation (vapours mg/l)  21.0
Serious eye damage/irritation
Serious eye damage/irritation  Slightly irritating.
Specific target organ toxicity - repeated exposure
STOT - repeated exposure  NOAEL 1730 mg/kg, Oral,
Target organs  Gastro-intestinal tract Liver

Inhalation  Vapours in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.
Ingestion  Ingestion of large amounts may cause unconsciousness. May cause nausea, headache, dizziness and intoxication.
Skin contact  Repeated exposure may cause skin dryness or cracking.
Eye contact  Irritating to eyes.
Medical symptoms  EYES AND MUCOUS MEMBRANES. Irritation of eyes and mucous membranes. RESPIRATORY SYSTEM. Upper respiratory irritation. SKIN. Skin irritation. DIGESTIVE SYSTEM. Gastrointestinal symptoms, including upset stomach.

DIMETHYL ETHER

Inhalation  Vapours may cause drowsiness and dizziness.
Ingestion  Gastrointestinal symptoms, including upset stomach.
Skin contact  Repeated exposure may cause skin dryness or cracking.
Eye contact  Irritation of eyes and mucous membranes.

N-(3-AMINOPROPYL)-N-DODECYLPROPANE-1,3-DIAMINE

Acute toxicity - oral
ATE oral (mg/kg)  100.0

SECTION 12: Ecological Information

Ecotoxicity  The product is not expected to be toxic to aquatic organisms.
Ecological information on ingredients.

Ethyl alcohol  The product is not expected to be hazardous to the environment.

DIMETHYL ETHER
SINGLE SHOT AIR CO CLEANER

Ecotoxicity
The product is not expected to be toxic to aquatic organisms.

12.1. Toxicity

Acute toxicity - fish
Not determined.

Ecological information on ingredients.

Ethyl alcohol
Toxicity
Not considered toxic to fish.

Acute toxicity - fish
Not determined.

LC₅₀, 48 hours, 48 hours: > 100 mg/l, Leuciscus idus (Golden orfe)
LC₅₀, 96 hours: 11,000 mg/l, Fish

Acute toxicity - aquatic invertebrates
EC₅₀, 48 hours: 12.34 mg/l, Daphnia magna

Acute toxicity - aquatic plants
EC₅₀, hours: mg/l, Selenastrum capricornutum

DIMETHYL ETHER

Acute toxicity - fish
LC₅₀, 96 hour: 4001 mg/l, Poecilia reticulata (Guppy)

Acute toxicity - aquatic invertebrates
EC₅₀, 48 hour: 4001 mg/l, Daphnia magna
LC₅₀, 48 hour: 755549 mg/l, Daphnia magna

Acute toxicity - aquatic plants
LC₅₀, 96 hour: 154.9 mg/l, Algae

N-(3-AMINOPROPYL)-N-DODECYLPROPANE-1,3-DIAMINE

Acute aquatic toxicity
LE(C)₅₀
0.01 < L(E)C50 ≤ 0.1

M factor (Acute)
10

12.2. Persistence and degradability

Persistence and degradability
The product is expected to be biodegradable.

Ecological information on ingredients.

Ethyl alcohol

Persistence and degradability
The product is readily biodegradable.

Biodegradation
- Half-life : 1 - <10

DIMETHYL ETHER

Persistence and degradability
The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential
The product is not bioaccumulating.

Ecological information on ingredients.
SINGLE SHOT AIR CO CLEANER

Ethyl alcohol

Bioaccumulative potential: The product is not bioaccumulating.
Partition coefficient: -0.031

DIMETHYL ETHER

Bioaccumulative potential: The product does not contain any substances expected to be bioaccumulating.

12.4. Mobility in soil

Mobility: The product is soluble in water.

Ecological information on ingredients.

Ethyl alcohol

Mobility: The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

DIMETHYL ETHER

Mobility: The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment: This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

DIMETHYL ETHER

Results of PBT and vPvB assessment: This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects: Not determined.

Ecological information on ingredients.

Ethyl alcohol

Other adverse effects: Not known.

DIMETHYL ETHER

Other adverse effects: Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods: Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number
SINGLE SHOT AIR CO CLEANER

UN No. (ADR/RID) 1950
UN No. (IMDG) 1950
UN No. (ICAO) 1950

14.2. UN proper shipping name
Proper shipping name (ADR/RID) AEROSOLS
Proper shipping name (IMDG) AEROSOLS
Proper shipping name (ICAO) AEROSOLS

14.3. Transport hazard class(es)
ADR/RID class 2
IMDG class 2
ICAO class/division 2

Transport labels

14.4. Packing group
ADR/RID packing group 5F

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user
Tunnel restriction code (D)

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
National regulations Control of Substances Hazardous to Health Regulations 2002 (as amended).
Guidance Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

SECTION 16: Other information

Revision comments
NOTE: Lines within the margin indicate significant changes from the previous revision.
### SINGLE SHOT AIR CO CLEANER

<table>
<thead>
<tr>
<th>Revision date</th>
<th>24/08/2015</th>
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<tbody>
<tr>
<td>Revision</td>
<td>2.0</td>
</tr>
<tr>
<td>Supersedes date</td>
<td>06/02/2013</td>
</tr>
<tr>
<td>SDS number</td>
<td>25118</td>
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</table>
| Risk phrases in full| R11 Highly flammable.  
|                     | R12 Extremely flammable. |
| Hazard statements in full| H220 Extremely flammable gas. |
|                      | H222 Extremely flammable aerosol. |
|                      | H225 Highly flammable liquid and vapour. |
|                      | H229 Pressurised container: may burst if heated |
|                      | H280 Contains gas under pressure; may explode if heated. |
|                      | H301 Toxic if swallowed. |
|                      | H314 Causes severe skin burns and eye damage. |
|                      | H319 Causes serious eye irritation. |
|                      | H373 May cause damage to organs through prolonged or repeated exposure. |
|                      | H400 Very toxic to aquatic life. |

This 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. Such information is, to the best of the company’s knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.