

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

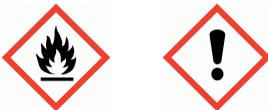
Classification

Physical hazards Aerosol 1 - H222, H229
Health hazards Eye Irrit. 2 - H319
Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) F+;R12.

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.

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Precautionary statements	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P211 Do not spray on an open flame or other ignition source.</p> <p>P251 Do not pierce or burn, even after use.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337+P313 If eye irritation persists: Get medical advice/attention.</p> <p>P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.</p> <p>P260 Do not breathe vapour/spray.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P280 Wear protective gloves, eye and face protection.</p> <p>P501 Dispose of contents/container in accordance with national regulations.</p>
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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

Ethyl alcohol	30-60%
CAS number: 64-17-5	EC number: 200-578-6
	REACH registration number: 01-2119457610-43-xxxx
Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225	F;R11
Eye Irrit. 2 - H319	
DIMETHYL ETHER	30-60%
CAS number: 115-10-6	EC number: 204-065-8
	REACH registration number: 01-2119472128-37
Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Gas 1 - H220	F+;R12
Press. Gas, Compressed - H280	
N-(3-AMINOPROPYL)-N-DODECYLPROPANE-1,3-DIAMINE	<1%
CAS number: 2372-82-9	EC number: 219-145-8
M factor (Acute) = 10	
Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 3 - H301	Xn;R48/22,R22. C;R35. N;R50.
Skin Corr. 1A - H314	
STOT RE 2 - H373	
Aquatic Acute 1 - H400	

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

SECTION 4: First aid measures

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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.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide or dry powder.
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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 (CO ₂). Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting	No specific firefighting precautions known.
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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.
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6.2. Environmental precautions

Environmental precautions	Do not discharge into drains or watercourses or onto the ground.
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6.3. Methods and material for containment and cleaning up

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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/m ³ Industry - Dermal; Long term : 343 mg/kg/day Industry - Inhalation; Long term : 950 mg/m ³ Consumer - Inhalation; Short term : 950 mg/m ³ Consumer - Dermal; Long term : 206 mg/kg/day Consumer - Inhalation; Long term : 114 mg/m ³ Consumer - Oral; Long term : 87 mg/kg/day

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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/m ³
	Consumer - Inhalation; Long term systemic effects: 471 mg/m ³

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 (Marinewater); 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

Other information Not determined.

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.

Ethyl alcohol

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,001.0

Species Rat

ATE oral (mg/kg) 2,001.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rabbit

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

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Acute toxicity inhalation 21.0
(LC₅₀ vapours mg/l)

Species Mouse

ATE inhalation (vapours 21.0
mg/l)

Serious eye damage/irritation

Serious eye Slightly irritating.
damage/irritation

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

Ecotoxicity 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 MARPOL73/78 and the IBC Code

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).
EU legislation	Commission Regulation (EU) No 453/2010 of 20 May 2010. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (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

Revision date	24/08/2015
Revision	2.0
Supersedes date	06/02/2013
SDS number	25118
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.