SAFETY DATA SHEET

AC Pro Auto Air-Con Cleaner

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended).

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

1.1. Product identifier

Product name AC Pro Auto Air-Con Cleaner

Product number 23150

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Refreshing and cleaning of automotive air conditioning and ventilation system.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier

Energizer Trading Ltd
Sword House
Totteridge Road
High Wycombe
HP13 6DG
UK
Tel: +44 845 602 1995
euregulatory@energizer.com

1.4. Emergency telephone number

Emergency telephone

+44 1495 350234
Monday - Thursday: 0830 - 1700
Friday: 0830 - 1530

National emergency telephone number Product information has been submitted to the UK National Poisons Information Service (NPIS) and is accessible to medical health professionals.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Aerosol 1 - H222, H229

Health hazards Eye Irrit. 2 - H319

Environmental hazards Aquatic Chronic 3 - H412

Physicochemical Containers can burst violently or explode when heated, due to excessive pressure build-up. When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited.

2.2. Label elements

AC Pro Auto Air-Con Cleaner

Hazard pictograms

Signal word	Danger
Hazard statements	EUH208 Contains tetramethyl acetyloctahydronaphthalenes, cedryl methyl ketone, hydroxyisohexyl 3-cyclohexene carboxaldehyde. May produce an allergic reaction. H222 Extremely flammable aerosol. H229 Pressurised container: may burst if heated. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.
Precautionary statements	P102 Keep out of reach of children. 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. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P501 Dispose of contents/ container in accordance with national regulations.
Detergent labelling	≥ 30% aliphatic hydrocarbons, ≥ 30% disinfectants, < 5% perfumes, Contains LINALOOL, HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE
Supplementary precautionary statements	P264 Wash contaminated skin thoroughly after handling. P337+P313 If eye irritation persists: Get medical advice/ attention.

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

Hydrocarbons, C3-4-rich, petroleum distillate **25 - <50%**

CAS number: 68512-91-4 EC number: 270-990-9

Classification
Flam. Gas 1A - H220
Press. Gas (Liq.) - H280

ethanol **25 - <50%**

CAS number: 64-17-5 EC number: 200-578-6 REACH registration number: 01-2119457610-43-XXXX

Classification
Flam. Liq. 2 - H225
Eye Irrit. 2 - H319

AC Pro Auto Air-Con Cleaner

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		**0.25 - <0.5%**
CAS number: 1222-05-5	EC number: 214-946-9	REACH registration number: 01-2119488227-29-XXXX
M factor (Acute) = 1	M factor (Chronic) = 1	

Classification
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

tetramethyl acetyloctahydronaphthalenes		**0.25 - <0.5%**
CAS number: 54464-57-2	EC number: 259-174-3	
M factor (Chronic) = 1		

Classification
Skin Irrit. 2 - H315
Skin Sens. 1 - H317
Aquatic Chronic 1 - H410

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		**0.025 - <0.25%**
CAS number: 1506-02-1	EC number: 216-133-4	REACH registration number: 01-2119539433-40-XXXX
M factor (Acute) = 1	M factor (Chronic) = 1	

Classification
Acute Tox. 4 - H302
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

cedryl methyl ketone		**0.025 - <0.25%**
CAS number: 32388-55-9	EC number: 251-020-3	REACH registration number: 01-2119969651-28-XXXX
M factor (Acute) = 1	M factor (Chronic) = 1	

Classification
Skin Sens. 1B - H317
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation 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.

AC Pro Auto Air-Con Cleaner

Ingestion Rinse mouth thoroughly with water. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Keep affected person under observation. Do not induce vomiting unless under the direction of medical personnel. Get medical attention if any discomfort continues.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Do not use organic solvents. Get medical attention if any discomfort continues.

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

Inhalation Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion May cause discomfort if swallowed.

Skin contact Prolonged skin contact may cause redness and irritation. May cause skin sensitisation or allergic reactions in sensitive individuals.

Eye contact Prolonged contact may cause redness and/or tearing.

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

Notes for the doctor The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with the following media: Dry chemicals, sand, dolomite etc. Carbon dioxide (CO2). Water spray, fog or mist.

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

Specific hazards 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: Oxides of carbon. Toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Use water to keep fire exposed containers cool and disperse vapours.

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

AC Pro Auto Air-Con Cleaner

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage. Eliminate all ignition sources if safe to do so. Do not touch or walk into spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Use only non-sparking tools. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

Reference to other sections See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from heat, sparks and open flame. Provide adequate ventilation.

Advice on general occupational hygiene Avoid contact with eyes and prolonged skin contact. Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in a cool and well-ventilated place. Store at temperatures not exceeding 50°C/122°F.

7.3. Specific end use(s)

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

Usage description Application:
1. Shake well before use. Start engine and set A/C onto internal circulation at full power. Open all vents.
2. Ensure front passenger seat is pushed and tilted as far forward as possible. Place can on the floor, two thirds from front passenger seat, with nothing obstructing the spray pattern.
3. Activate the can by pressing down on the valve.
4. Close the door and make sure all windows are also closed.
5. Wait 10 minutes until the can is empty. Then switch off the A/C system and engine.
6. Open all doors and windows to ventilate the vehicle.
IMPORTANT: REMOVE ALL PEOPLE/PETS FROM VEHICLE DURING PRODUCT USAGE.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Hydrocarbons, C3-4-rich, petroleum distillate

Long-term exposure limit (8-hour TWA): WEL 600 ppm 1450 mg/m³
Short-term exposure limit (15-minute): WEL 750 ppm 1810 mg/m³

ethanol

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³
WEL = Workplace Exposure Limit.

ethanol (CAS: 64-17-5)

AC Pro Auto Air-Con Cleaner

DNEL

Workers - Inhalation; Long term systemic effects: 950 mg/m³
Workers - Dermal; Long term systemic effects: 343 mg/kg/day
General population - Inhalation; Long term systemic effects: 114 mg/m³
General population - Dermal; Long term systemic effects: 206 mg/kg/day
General population - Oral; Long term systemic effects: 87 mg/kg/day

PNEC

Fresh water; 0.96 mg/l
marine water; 0.79 mg/l
STP; 580 mg/l
Sediment (Freshwater); 3.6 mg/kg
Sediment (Marinewater); 2.9 mg/kg
Soil; 0.63 mg/kg

2,6-Dimethyloct-7-en-2-ol (CAS: 18479-58-8)

DNEL

Workers - Inhalation; Long term systemic effects: 73.5 mg/m³
Workers - Dermal; Long term systemic effects: 20.8 mg/kg/day
General population - Inhalation; Long term systemic effects: 21.7 mg/m³
General population - Dermal; Long term systemic effects: 12.5 mg/kg/day
General population - Oral; Long term systemic effects: 12.5 mg/kg/day

PNEC

Fresh water; 0.0278 mg/l
marine water; 0.00278 mg/l
STP; 10 mg/l
Sediment (Freshwater); 0.594 mg/kg
Sediment (Marinewater); 0.059 mg/kg
Soil; 0.103 mg/kg
Oral; 111 mg/kg

cedryl methyl ketone (CAS: 32388-55-9)

DNEL

Workers - Inhalation; Long term systemic effects: 1.175 mg/m³
Workers - Dermal; Long term systemic effects: 0.333 mg/kg/day
General population - Inhalation; Long term systemic effects: 0.289 mg/m³
General population - Dermal; Long term systemic effects: 0.166 mg/kg/day
General population - Oral; Long term systemic effects: 0.166 mg/kg/day

PNEC

Fresh water; 0.00174 mg/l
marine water; 0.000174 mg/l
STP; 10 mg/l
Sediment (Freshwater); 24.4 mg/kg
Sediment (Marinewater); 2.44 mg/kg
Soil; 4.87 mg/kg

Linalool (CAS: 78-70-6)

AC Pro Auto Air-Con Cleaner

DNEL	Workers - Inhalation; Long term systemic effects: 2.8 mg/m³ Workers - Inhalation; Short term systemic effects: 16.5 mg/m³ Workers - Dermal; Long term systemic effects: 2.5 mg/kg/day Workers - Dermal; Short term systemic effects: 5 mg/kg/day Workers - Dermal; Long term local effects: 3 mg/cm² Workers - Dermal; Short term local effects: 3 mg/cm² General population - Inhalation; Long term systemic effects: 0.7 mg/m³ General population - Inhalation; Short term systemic effects: 4.1 mg/m³ General population - Dermal; Long term systemic effects: 1.25 mg/kg/day General population - Dermal; Short term systemic effects: 23.5 mg/kg/day General population - Dermal; Long term local effects: 1.5 mg/cm² General population - Dermal; Short term local effects: 1.5 mg/cm² General population - Oral; Long term systemic effects: 0.2 mg/kg/day General population - Oral; Short term systemic effects: 1.2 mg/kg/day
PNEC	Fresh water; 0.2 mg/l marine water; 0.02 mg/l STP; 10 mg/l Sediment (Freshwater); 2.22 mg/kg Sediment (Marinewater); 0.222 mg/kg Soil; 0.327 mg/kg Oral; 7.8 mg/kg

linalyl acetate (CAS: 115-95-7)

DNEL	Workers - Inhalation; Long term systemic effects: 2.75 mg/m³ Workers - Dermal; Long term systemic effects: 2.5 mg/kg/day Workers - Dermal; Long term local effects: 8 mg/cm² General population - Inhalation; Long term systemic effects: 0.68 mg/m³ General population - Dermal; Long term systemic effects: 1.25 mg/kg/day General population - Dermal; Long term local effects: 8 mg/cm² General population - Oral; Long term systemic effects: 0.2 mg/kg/day
PNEC	Fresh water; 0.011 mg/l marine water; 0.001 mg/l STP; 10 mg/l Sediment (Freshwater); 0.609 mg/kg Sediment (Marinewater); 0.061 mg/kg Soil; 0.115 mg/kg

8.2. Exposure controls

Appropriate engineering controls	Provide adequate ventilation. All handling should only take place in well-ventilated areas. Avoid inhalation of vapours and spray/mists. Use explosion-proof electrical, ventilating and lighting equipment.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Wear tight-fitting, chemical splash goggles or face shield.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Frequent changes are recommended.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.

AC Pro Auto Air-Con Cleaner

Hygiene measures	Do not smoke in work area. Wash promptly with soap and water if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Odour	Hydrocarbons. Characteristic.
Odour threshold	Not determined.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	Not determined.
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	Not determined.
Bulk density	600 - 700 kg/m³
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information

Other information	No information required.

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.

AC Pro Auto Air-Con Cleaner

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid exposing aerosol containers to high temperatures or direct sunlight. Avoid heat, flames and other sources of ignition. Avoid the accumulation of vapours in low or confined areas.

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 Does not decompose when used and stored as recommended. Decomposition at ambient temperatures may generate the following substances: Carbon dioxide (CO2). Carbon monoxide (CO). Acrid smoke or fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC_{50}) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Eye Irrit. 2 - H319

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

AC Pro Auto Air-Con Cleaner

Aspiration hazard

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

Toxicological information on ingredients.

Hydrocarbons, C3-4-rich, petroleum distillate

Germ cell mutagenicity

Genotoxicity - in vivo Chromosome aberration: Negative. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - fertility One-generation study - NOAEC 10000 ppm, Inhalation, Rat P REACH dossier information.

Reproductive toxicity - development Developmental toxicity: - NOAEC: 10426 ppm, Inhalation, Rat REACH dossier information.

ethanol

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg) 10,470.0

Species Rat

Notes (oral LD_{50}) REACH dossier information.

ATE oral (mg/kg) 10,470.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l) 124.7

Species Rat

Notes (inhalation LC_{50}) REACH dossier information.

ATE inhalation (vapours mg/l) 124.7

Skin corrosion/irritation

Animal data Dose: 0.2 ml, 24 hours, Rabbit Primary dermal irritation index: 0 / 8 REACH dossier information. Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Eye Irrit. 2 - H319 Causes serious eye irritation.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative. REACH dossier information.

Genotoxicity - in vivo Chromosome aberration: Negative. REACH dossier information.

Carcinogenicity

IARC carcinogenicity IARC Group 1 Carcinogenic to humans.

Reproductive toxicity

Reproductive toxicity - fertility Two-generation study - NOAEL 15 %, Oral, Mouse P REACH dossier information.

AC Pro Auto Air-Con Cleaner

Reproductive toxicity - development	Maternal toxicity: - NOAEL: 16000 ppm, Inhalation, Rat REACH dossier information.

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	4,640.0
Species	Rat
Notes (oral LD_{50})	REACH dossier information.
ATE oral (mg/kg)	4,640.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	10,000.0
Species	Rat
Notes (dermal LD_{50})	REACH dossier information.
ATE dermal (mg/kg)	10,000.0

Skin corrosion/irritation

Animal data	Dose: 0.5 ml, 1 hour, Rabbit Erythema/eschar score: Well defined erythema (2). Oedema score: Very slight oedema - barely perceptible (1). REACH dossier information. Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Dose: 0.1 ml, 7 days, Rabbit REACH dossier information. Not irritating.

Skin sensitisation

Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro	Chromosome aberration: Negative. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - development	Developmental toxicity: - NOAEL: 150 mg/kg/day, Oral, Rat Developmental toxicity: - LOAEL: 500 mg/kg/day, Oral, Rat REACH dossier information.

tetramethyl acetyloctahydronaphthalenes

Skin corrosion/irritation

Animal data	Skin Irrit. 2 - H315 Causes skin irritation.

Skin sensitisation

Skin sensitisation	Skin Sens. 1 - H317 May cause an allergic skin reaction.

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one

Acute toxicity - oral

AC Pro Auto Air-Con Cleaner

Acute toxicity oral (LD_{50} mg/kg)	920.0
Species	Rat
Notes (oral LD_{50})	REACH dossier information.
ATE oral (mg/kg)	920.0

Skin corrosion/irritation

Animal data	Dose: 0.5 g, 4 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). REACH dossier information. Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Dose: 0.1 g, 24 hours, Rabbit REACH dossier information. Slightly irritating. Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation	- Guinea pig: Not sensitising. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro	Bacterial reverse mutation test: Negative. REACH dossier information.

cedryl methyl ketone

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	4,500.0
Species	Rat
Notes (oral LD_{50})	REACH dossier information.
ATE oral (mg/kg)	4,500.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	5,001.0
Species	Rabbit
Notes (dermal LD_{50})	LD_{50} >5000 mg/kg, Dermal, Rabbit REACH dossier information.
ATE dermal (mg/kg)	5,001.0

Skin corrosion/irritation

Human skin model test	Dose: 10 µl, 15 ± 0.5 minutes, Cell Viability (76.2 ± 4.6%) REACH dossier information. Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Dose: 0.1 ml, 24 hours, Rabbit REACH dossier information. Not irritating.

Skin sensitisation

Skin sensitisation	Local Lymph Node Assay (LLNA) - Mouse: Sensitising. REACH dossier information.

Germ cell mutagenicity

AC Pro Auto Air-Con Cleaner

Genotoxicity - in vitro	Bacterial reverse mutation test: Negative. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - development	Developmental toxicity: - NOAEL: 100 mg/kg/day, Oral, Rat REACH dossier information.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.

Ecological information on ingredients.

Hydrocarbons, C3-4-rich, petroleum distillate

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 49.47 mg/l, Fish REACH dossier information. QSAR

ethanol

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 14200 mg/l, Pimephales promelas (Fat-head Minnow) REACH dossier information.
Acute toxicity - aquatic invertebrates	LC_{50}, 48 hours: 5012 mg/l, Ceriodaphnia dubia REACH dossier information.
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 11.5 mg/l, Chlorella vulgaris REACH dossier information.

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates	NOEC, 9 days: 9.6 mg/l, Daphnia magna REACH dossier information.

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

Acute aquatic toxicity

$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	NOEC, 21 days: 0.093 mg/l, Lepomis macrochirus (Bluegill) LOEC, 21 days: 0.182 mg/l, Lepomis macrochirus (Bluegill) LC_{50}, 96 hours: 1.36 mg/l, Lepomis macrochirus (Bluegill) REACH dossier information.
Acute toxicity - aquatic invertebrates	LC_{50}, 48 hours: 0.47 mg/l, Acartia tonsa REACH dossier information.
Acute toxicity - aquatic plants	NOEC, 72 hours: 0.201 mg/l, Pseudokirchneriella subcapitata LOEC, 72 hours: 0.466 mg/l, Pseudokirchneriella subcapitata EC_{50}, 72 hours: 0.723 mg/l, Pseudokirchneriella subcapitata REACH dossier information.

AC Pro Auto Air-Con Cleaner

Acute toxicity - terrestrial	NOEC, 56 days: 45 mg/kg, Eisenia Fetida (Earthworm) LOEC, 28 days: 105 mg/kg, Eisenia Fetida (Earthworm) NOEC, 28 days: 105 mg/kg, Eisenia Fetida (Earthworm) REACH dossier information.

Chronic aquatic toxicity

NOEC	0.01 < NOEC ≤ 0.1
Degradability	Non-rapidly degradable
M factor (Chronic)	1
Chronic toxicity - fish early life stage	NOEC, 21 days: 0.093 mg/l, Lepomis macrochirus (Bluegill) LOEC, 21 days: 0.182 mg/l, Lepomis macrochirus (Bluegill) LC_{50}, 21 days: 0.452 mg/l, Lepomis macrochirus (Bluegill) REACH dossier information.
Chronic toxicity - aquatic invertebrates	NOEC, 5.5 days: 0.0375 mg/l, Acartia tonsa LOEC, 5.5 days: 0.075 mg/l, Acartia tonsa EC_{50}, 5.5 days: 0.131 mg/l, Acartia tonsa REACH dossier information.

tetramethyl acetyloctahydronaphthalenes

Toxicity	Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.

Chronic aquatic toxicity

M factor (Chronic)	1

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one

Acute aquatic toxicity

$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 0.612 mg/l, Pseudokirchneriella subcapitata LOEC, 72 hours: 0.605 mg/l, Pseudokirchneriella subcapitata NOEC, 72 hours: 0.278 mg/l, Pseudokirchneriella subcapitata REACH dossier information.

Chronic aquatic toxicity

M factor (Chronic)	1
Chronic toxicity - aquatic invertebrates	EC_{50}, 21 days: 0.244 mg/l, Daphnia magna NOEC, 21 days: 0.196 mg/l, Daphnia magna LOEC, 21 days: 0.401 mg/l, Daphnia magna IC_{50}, 21 days: 0.3413 mg/l, Daphnia magna REACH dossier information.

cedryl methyl ketone

Acute aquatic toxicity

$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1

AC Pro Auto Air-Con Cleaner

Acute toxicity - fish	LC_{50}, 96 hours: 2.3 mg/l, Pimephales promelas (Fat-head Minnow) REACH dossier information.
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 0.86 mg/l, Daphnia magna REACH dossier information.
Acute toxicity - aquatic plants	EC_{10}, 96 hours: 0.49 mg/l, Selenastrum capricornutum EC_{50}, 96 hours: 2.8 mg/l, Selenastrum capricornutum NOEC, 96 hours: 1.07 mg/l, Selenastrum capricornutum REACH dossier information.
Chronic aquatic toxicity	
M factor (Chronic)	1
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.087 mg/l, Daphnia magna EC_{50}, 21 days: 0.29 - 0.32 mg/l, Daphnia magna REACH dossier information.

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

Hydrocarbons, C3-4-rich, petroleum distillate

Phototransformation	Water - DT_{50} : 1906 days REACH dossier information. Calculation method.
Biodegradation	Water - Degradation (100%): 385.5 hours REACH dossier information. The substance is readily biodegradable.

ethanol

Biodegradation	Water - Degradation (74%): 10 days REACH dossier information. The substance is readily biodegradable.
Chemical oxygen demand	1.99 g O_2/g substance REACH dossier information.

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

Phototransformation	Water - DT_{50} : 3.7 - 4.9 hours REACH dossier information.
Biodegradation	Water - Half-life : < 120 days Water - Degradation (60%): 28 days Water - Half-life : 100 hours Water - Degradation (~2%): 28 days REACH dossier information. No biodegradation observed under test conditions.
Biological oxygen demand	~ 3 g O_2/g substance REACH dossier information.

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one

AC Pro Auto Air-Con Cleaner

Biodegradation Water - ThOD (21%): 21 days
REACH dossier information.

cedryl methyl ketone

Biodegradation Water - Degradation (36%): 28 days
The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

Hydrocarbons, C3-4-rich, petroleum distillate

Partition coefficient log Pow: 2.3058 REACH dossier information. QSAR

ethanol

Partition coefficient log Pow: - 0.35 REACH dossier information.

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

Bioaccumulative potential BCF: 1584, Lepomis macrochirus (Bluegill) REACH dossier information.

Partition coefficient log Pow: 5.3 REACH dossier information.

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one

Partition coefficient log Pow: 5.7 REACH dossier information.

cedryl methyl ketone

Bioaccumulative potential BCF: 3920, Oncorhynchus mykiss (Rainbow trout) REACH dossier information.

Partition coefficient log Pow: 5.6 - 5.9 REACH dossier information.

12.4. Mobility in soil

Mobility The product is insoluble in water.

Ecological information on ingredients.

ethanol

Surface tension 24.5 mN/m @ 20°C/68°F REACH dossier information.

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

Adsorption/desorption coefficient Activated sludge - log Koc: 4.87 REACH dossier information.

cedryl methyl ketone

Adsorption/desorption coefficient Water - log Koc: 3.5 - 5.1 @ 25°C REACH dossier information.

12.5. Results of PBT and vPvB assessment

AC Pro Auto Air-Con Cleaner

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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Dispose of waste product or used containers in accordance with local regulations Do not puncture or incinerate, even when empty.

SECTION 14: Transport information

14.1. UN number

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

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AEROSOLS
Proper shipping name (IMDG)	AEROSOLS
Proper shipping name (ICAO)	AEROSOLS
Proper shipping name (ADN)	AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class	2.1
ADR/RID classification code	5F
ADR/RID label	2.1
IMDG class	2.1
ICAO class/division	2.1
ADN class	2.1

Transport labels

14.4. Packing group

ADR/RID packing group	None
IMDG packing group	None
ICAO packing group	None
ADN packing group	None

14.5. Environmental hazards

AC Pro Auto Air-Con Cleaner

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

EmS	F-D, S-U
ADR transport category	2
Tunnel restriction code	(D)

14.7. Transport in bulk according to Annex II of MARPOL 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	EH40/2005 Workplace exposure limits. The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended). The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended).
EU legislation	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). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. Council Directive of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers (75/324/EEC) (as amended). Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (as amended).
Explosives precursors	Regulated explosives precursor. Regulation (EU) No 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors: Contains a substance or substances listed in Annex II: acetone 25 - <50%

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

AC Pro Auto Air-Con Cleaner

Abbreviations and acronyms used in the safety data sheet	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. IMDG: International Maritime Dangerous Goods. IATA: International Air Transport Association. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. ATE: Acute Toxicity Estimate. DNEL: Derived No Effect Level. LC_{50}: Lethal Concentration to 50 % of a test population. LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose). PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative. BCF: Bioconcentration Factor.
Classification procedures according to Regulation (EC) 1272/2008	Aerosol 1 - H222, H229: Expert judgement. Eye Irrit. 2 - H319, Aquatic Chronic 3 - H412: Calculation method.
Revision comments	Product name change.
Revision date	11/11/2020
Revision	7
Supersedes date	11/08/2020
SDS number	595
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. H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. EUH208 Contains tetramethyl acetyloctahydronaphthalenes, cedryl methyl ketone, hydroxyisohexyl 3-cyclohexene carboxaldehyde. May produce an allergic reaction.