

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 06.03.2017

Version number 32

Revision: 06.03.2017

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

- **1.1 Product identifier**
- **Trade name:** *Electric Cleaner 2*
- **Article number:** 34621
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
FOR PROFESSIONAL AND INDUSTRIAL USE ONLY
- **Application of the substance / the mixture** *Solvent based electrical cleaner*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
KENT (United Kingdom) Ltd
Forsyth House
Pitreavie Drive
Pitreavie Business Park
Dunfermline
Fife
KY11 8US

Tel: +44 01383 723344 / 0800 136925 Monday - Thursday 8.30am - 5.30pm, Friday 9.00am - 3.00pm
Fax: +44 1383 620079
SDS@kenteurope.com
- **1.4 Emergency telephone number:**
Tel: +44 01383 723344 During normal office hours - Monday - Thursday 8.30am - 5.30pm, Friday 9.00am - 3.00pm

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Eye Irrit. 2	H319	Causes serious eye irritation.
STOT SE 3	H336	May cause drowsiness or dizziness.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02



GHS07



GHS09

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
pentane
- **Hazard statements**
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

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H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P251 Do not pierce or burn, even after use.
 P211 Do not spray on an open flame or other ignition source.
 P261 Avoid breathing mist/vapours/spray.
 P280 Wear protective gloves / eye 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.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards**Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Chemical characterisation: Mixtures**

• **Description:** Mixture of the substances listed below with harmless additions.

Dangerous components:

CAS: 68476-85-7 EINECS: 270-704-2	Petroleum gases, liquefied (contains less than 0.1 % w/w 1,3-butadiene (EINECS No 203-450-8)). ⚠ Flam. Gas 1, H220; Press. Gas L, H280	25-50%
CAS: 109-66-0 EINECS: 203-692-4 Reg.nr.: 01-2119459286-30	pentane ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336	10-25%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	Propan-2-ol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	10-25%
CAS: 78-78-4 EINECS: 201-142-8	methylbutane ⚠ Flam. Liq. 1, H224; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336	1-10%

• **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

• **After inhalation** Supply fresh air; consult doctor in case of symptoms.

• **After skin contact** Instantly wash with water and soap and rinse thoroughly.

• **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing

Rinse out mouth.

In case of persistent symptoms consult doctor.

• **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

• **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

• **Suitable extinguishing agents** CO₂, extinguishing powder or water haze. Fight larger fires with water haze or alcohol-resistant foam.

• **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

Formation of toxic gases is possible during heating or in case of fire.

Carbon monoxide and carbon dioxide

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5.3 Advice for firefighters**Protective equipment:**

Do not inhale explosion gases or combustion gases.
Wear self-contained breathing apparatus.

Additional information

Cool endangered containers with water spray jet.
Collect contaminated fire fighting water separately. It must not enter drains.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources

6.2 Environmental precautions:

Inform respective authorities in case product reaches water or sewage system.
Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up:

Allow material to evaporate.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable containers.
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage**7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.**Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
Do not spray on flames or red-hot objects.
Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities**Storage****Requirements to be met by storerooms and containers:**

Store in cool location.
Observe official regulations on storing packagings with pressurised containers.
Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.

7.3 Specific end use(s) No further relevant information available.**SECTION 8: Exposure controls/personal protection****Additional information about design of technical systems:** No further data; see item 7.**8.1 Control parameters****Components with limit values that require monitoring at the workplace:****68476-85-7 Petroleum gases, liquefied (contains less than 0.1 % w/w 1,3-butadiene (EINECS No 203-450-8)).**

WEL Short-term value: 2180 mg/m³, 1250 ppm
Long-term value: 1750 mg/m³, 1000 ppm
Carc (if LPG contains > 0.1% of buta-1.3-diene)

109-66-0 pentane

WEL Long-term value: 1800 mg/m³, 600 ppm

67-63-0 Propan-2-ol

WEL Short-term value: 1250 mg/m³, 500 ppm
Long-term value: 999 mg/m³, 400 ppm

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78-78-4 methylbutane

WEL Long-term value: 1800 mg/m³, 600 ppm

· DNELs

109-66-0 pentane

Oral	Long term systemic	214mg/kg bw/day (Consumer)
Dermal	Long term systemic	214mg/kg bw/day (Consumer)
		432mg/kg bw/day (Worker)
Inhalative	Long term systemic	643 mg/m3 (Consumer)
		3000 mg/m3 (Worker)

67-63-0 Propan-2-ol

Oral	Long term systemic	26 mg/kg bw/day (Consumer)
Dermal	Long term systemic	319mg/kg bw/day (Consumer)
		888mg/kg bw/day (Worker)
Inhalative	Long term systemic	89 mg/m3 (Consumer)
		500 mg/m3 (Worker)

78-78-4 methylbutane

Oral	Long term systemic	214 mg/kg/day (Consumer)
Dermal	Long term systemic	214 mg/kg (Consumer)
		432 mg/kg (Worker)
Inhalative	Long term systemic	643 mg/m³ (Consumer)
		3000 mg/m³ (Worker)

· PNECs

109-66-0 pentane

PNEC	0.23 mg/l (Aqua (freshwater))
	1.2 mg/kg (Freshwater sediment)
	3.60 mg/l (Sewage treatment plant)
	0.55 mg/kg (Soil)

67-63-0 Propan-2-ol

PNEC	140.9 mg/l (Aqua (freshwater))
	140.9 mg/l (Aqua (intermittent))
	140.9 mg/l (Aqua (marine water))
	552 mg/kg (Freshwater sediment)
	552 mg/kg (Marine water sediment)
	2251 mg/l (Sewage treatment plant) (Assessment factor 1)
	28 mg/kg (Soil)

· **Additional information:** The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

· Personal protective equipment

· General protective and hygienic measures

Keep away from foodstuffs, beverages and food.
Take off immediately all contaminated clothing
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

· Breathing equipment:

Only during spraying without adequate removal by suction.
Filter AX (EN 14387)

· Protection of hands:



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Wear suitable gloves tested to EN 374.

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Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

Value for the permeation: Level $\leq$ 480 min (level 6)

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Safety glasses (EN 166)

· **Body protection:** Protective work clothing. (EN-13034/6)

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	Aerosol
Colour:	Transparent
Odour:	Characteristic

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not applicable, as aerosol

· **Flash point:** Not applicable, as aerosol

· **Self-inflammability:** Product is not selfigniting.

· **Explosive properties:** Product is not explosive. However, formation of explosive air/steam mixtures is possible.

· **Critical values for explosion:**

Lower:	Not determined.
Upper:	Not determined.

· **Vapour pressure:** Not determined.

· **Density at 25 °C** 0.685 g/cm³

· **Solubility in / Miscibility with Water:** Not miscible or difficult to mix

· **Viscosity:**

dynamic:	Not determined.
kinematic:	Not determined.

· **Solvent content:**

Organic solvents: 452g/l VOC

· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

· **10.2 Chemical stability**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **10.3 Possibility of hazardous reactions** No dangerous reactions known

· **10.4 Conditions to avoid** Heat. Hot surfaces. Sources of ignition. Flames.

· **10.5 Incompatible materials:** No further relevant information available.

· **10.6 Hazardous decomposition products:**

Formation of toxic gases is possible during heating or in case of fire.

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Carbon monoxide and carbon dioxide

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SECTION 11: Toxicological information**11.1 Information on toxicological effects**

· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

109-66-0 pentane

Oral	LD50	2001.0 mg/kg (Rat)
Dermal	LD50	2001.0 mg/kg (Rat)

67-63-0 Propan-2-ol

Oral	LD50	4570 mg/kg (Rat)
Dermal	LD50	13400 mg/kg (Rabbit)
Inhalative	LC50 (4 hr)	30 mg/m3 (Rat)

· **Primary irritant effect:**

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

· **Serious eye damage/irritation**

Causes serious eye irritation.

· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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

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

· **STOT-single exposure**

May cause drowsiness or dizziness.

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

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

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:****109-66-0 pentane**

EC50	10.7 mg/l (Pseudokirchneriella subcapitata) (72 hours)
EC50 (48 hr)	2.7 mg/l (Daphnia magna)
LC50 (96 hr)	4.26 mg/l (Oncorhynchus mykiss)
NOEC (72 hr)	7.51 mg/l (Pseudokirchneriella subcapitata)

67-63-0 Propan-2-ol

EC50 (48 hr)	13299 mg/l (Daphnia magna)
LC50 (24 hr)	9714 mg/l (Daphnia magna)
LC50 (96 hr)	4200 mg/l (FSH) (dynamic)
	9640 mg/l (Pimephales promelas)
LOEC (8 days)	1000 mg/l (Algae)

78-78-4 methylbutane

EC50 (48 hr)	2.3 mg/l (Daphnia magna)
EC50 (72 hr)	10.7 mg/l (Selenastrum capricornutum)
LC50 (96 hr)	4.26 mg/l (Oncorhynchus mykiss)

· **12.2 Persistence and degradability** Biodegradable

· **12.3 Bioaccumulative potential** Does not accumulate in organisms

· **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system.

Danger to drinking water if even small quantities leak into soil.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

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- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

European waste catalogue

15 01 10*	packaging containing residues of or contaminated by hazardous substances
14 06 03*	other solvents and solvent mixtures

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
- **ADR** 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
- **IMDG** AEROSOLS, MARINE POLLUTANT
- **IATA** AEROSOLS, flammable
- **14.3 Transport hazard class(es)**
- **ADR**
-  
- **Class** 2 5F Gases.
- **Label** 2.1
- **IMDG**
-  
- **Class** 2.1
- **Label** 2.1
- **IATA**
- 
- **Class** 2.1
- **Label** 2.1
- **14.4 Packing group**
- **ADR, IMDG, IATA** Void
- **14.5 Environmental hazards:**
- **Marine pollutant:** Symbol (fish and tree)
- **Special marking (ADR):** Symbol (fish and tree)
- **14.6 Special precautions for user** Warning: Gases.

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· EMS Number:	2-13
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	B1D
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **National regulations**
- **Technical instructions (air):**

Class	Share in %
III	77.0
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
 H220 Extremely flammable gas.
 H224 Extremely flammable liquid and vapour.
 H225 Highly flammable liquid and vapour.
 H280 Contains gas under pressure; may explode if heated.
 H304 May be fatal if swallowed and enters airways.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H411 Toxic to aquatic life with long lasting effects.
- **Department issuing data specification sheet:** Environment protection department
- **Abbreviations and acronyms:**
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances

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ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Gas 1: Flammable gases – Category 1
Aerosol 1: Aerosols – Category 1
Press. Gas L: Gases under pressure – Liquefied gas
Flam. Liq. 1: Flammable liquids – Category 1
Flam. Liq. 2: Flammable liquids – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· **Data compared to the previous version altered.** *

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