

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: ELECTRICAL CLEANER

Article number: R235

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

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Tygris Industrial
Unit 31
Kyle Road Industrial Estate
Irvine
Ayshire
KA12 8LE
Tel +44 (0) 1294 311 066
Fax +44 (0) 1294 277 115
Email technical@tygrisindustrial.com

Further information obtainable from: Technical Department

1.4 Emergency telephone number: Tel +44 (0) 1294 311 066

2. Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)	Physical and Chemical Hazards	Flam. Aerosol 1 - H222
	Human health	Eye Irrit. 2 - H319; STOT SE 3 - H336
	Environment	Not classified.

Classification (1999/45/EEC) Xi; R36. F+; R12. R67.

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

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008



Signal Word	Danger
Hazard Statements	H222 Extremely flammable aerosol. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
Precautionary Statements	P102 Keep out of reach of children. P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection. P261 Avoid breathing vapour/spray. P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+313 If eye irritation persists: Get medical advice/attention. P501 Dispose of contents/container in accordance with local regulations.
Supplementary Precautionary Statements	P211 Do not spray on an open flame or other ignition source. P251 Pressurized container: Do not pierce or burn, even after use. P264 Wash contaminated skin thoroughly after handling. P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P403+233 Store in a well-ventilated place. Keep container tightly closed. P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

2.3. Other hazards

3. Composition/information on ingredients

3.2. Mixtures

BUTANE	5-10%
Index No.	REACH Registration No.
CAS-No.: 106-97-8	EC No.: 203-448-7
Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Gas 1 - H220	F+;R12
ISOBUTANE	1-5%
Index No.	REACH Registration No.
CAS-No.: 75-28-5	EC No.: 200-857-2
Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Gas 1 - H220	F+;R12
PROPAN-2-OL	60-100%
Index No.	REACH Registration No.
CAS-No.: 67-63-0	EC No.: 200-661-7
Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Eye Irrit. 2 - H319	Xi;R36
STOT SE 3 - H336	R67
PROPANE	10-30%
Index No.	REACH Registration No.
CAS-No.: 74-98-6	EC No.: 200-827-9
Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Gas 1 - H220	F+;R12

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

4. First aid measures

4.1. Description of first aid measures

General information	Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.
Inhalation	Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention.
Ingestion	DO NOT INDUCE VOMITING! Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort continues.
Skin contact	Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.
Eye contact	Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. 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

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

5. Firefighting measures

5.1 Extinguishing Media

Extinguishing media Use: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

5.2. Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards Aerosol cans may explode in a fire.

5.3. Advice for firefighters

Special Fire Fighting Procedures Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapours.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.2. Environmental precautions

6.3. Methods and material for containment and cleaning up

Wear necessary protective equipment. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Let evaporate. Keep out of confined spaces because of explosion risk. If leakage cannot be stopped, evacuate area.

6.4. Reference to other sections

7. Handling and storage

7.1 Precautions for safe handling

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

7.2. Conditions for safe storage, including any incompatibilities

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

7.3. Specific end use(s)

8. Exposure controls/personal protection

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min	
BUTANE	WEL	600 ppm	1450 mg/m ³	750 ppm	1810 mg/m ³
ISOBUTANE	WEL	800 ppm		800 ppm	
PROPAN-2-OL	WEL	400 ppm	999 mg/m ³	500 ppm	1250 mg/m ³
PROPANE		Asphyxiating	Asphyxiating	Asphyxiating	Asphyxiating

WEL = Workplace Exposure Limits

8.2. Exposure controls

Protective equipment



Engineering measures

Provide adequate general and local exhaust ventilation.

Respiratory equipment

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit. Use chemical cartridge protection with appropriate cartridge.

Hand protection

Use protective gloves.

Eye protection

Use eye protection.

Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Aerosol
Colour	Colourless.
Odour	Characteristic.
Solubility	Slightly soluble in water.
Flammability Limit - Lower(%)	0.8
Flammability Limit - Upper(%)	9.0

9.2. Other information

10. Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid contact with: Strong oxidising agents. Strong alkalis. Strong mineral acids.

10.5. Incompatible materials

10.6. Hazardous decomposition products

Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂).

11. Toxicological information

11.1. Information on toxicological effects

Inhalation

May cause irritation to the respiratory system. Vapours may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system. Irritating to respiratory system.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting. Gastrointestinal symptoms, including upset stomach.

Skin contact

Prolonged or repeated exposure may cause severe irritation. Acts as a defatting agent on skin. May cause cracking of skin, and eczema. May cause allergic contact eczema. May cause sensitisation by skin contact. Irritating to skin.

Eye contact

Irritating to eyes. May cause chemical eye burns.

Route of entry

Inhalation. Skin and/or eye contact.

12. Ecological information

Ecotoxicity

Dangerous for the environment if discharged into watercourses.

12.1. Toxicity

12.2. Persistence and degradability

12.3. Bioaccumulative potential

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

13. Disposal considerations

13.1. Waste treatment methods

Empty containers must not be burned because of explosion hazard. Dispose of waste and residues in accordance with local authority requirements.

14. Transport information

14.1. UN number

UN No. (ADR/RID/ADN) 1950

UN No. (IMDG) 1950

UN No. (ICAO) 1950

14.2. UN proper shipping name

Proper Shipping Name AEROSOLS

14.3. Transport hazard class(es)

ADR/RID/ADN Class 2

ADR/RID/ADN Class Class 2: Gases

ADR Label No. 2.1

IMDG Class 2.1

ICAO Class/Division 2.1

Transport Labels



14.4. Packing group

Packing group Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant No

14.6. Special precautions for user

EMS F-D, S-U

Tunnel Restriction Code

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Uk Regulatory References The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002.
The Control of Substances Hazardous to Health Regulations 2002.

Statutory Instruments The Control of Substances Hazardous to Health Regulations 2002.
The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002.

Approved Code Of Practice Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes Workplace Exposure Limits EH40.
Introduction to Local Exhaust Ventilation HS(G)37.
CHIP for everyone HSG(108).

15.2. Chemical safety assessment

16. Other information

Risk Phrases In Full R12 Extremely flammable.
R11 Highly flammable
R36 Irritating to eyes.
R67 Vapours may cause drowsiness and dizziness.

Hazard Statements In Full H319 Causes serious eye irritation.
H222 Extremely flammable aerosol.
H220 Extremely flammable gas.
H225 Highly flammable liquid and vapour.
H336 May cause drowsiness or dizziness.

DISCLAIMER

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.