



SPECIALISED LUBRICANTS & CLEANERS

Herschell EC Electronic Cleaner Flammable

Safety Data Sheet

According to SANS 10234:2008 and SANS 11014:2010

Date of issue:05/07/2019

Revision date:

Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
 Trade name : Herschell EC Electronic Cleaner Flammable
 Type of product : Cleaner
 Product group : Trade product

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

Use of the substance/mixture : Electronic cleaner

1.3. Supplier's details

Manufacturer

Swift Industrial (Pty)Ltd
 Molten Street
 Delville ext.4
 P.O. Box PO Box 23
 Germiston 1400 - South Africa
 T +27118275935 - F +27118242125
doug@swifts.co.za - www.swifts.co.za

1.4. Emergency telephone number

Emergency number : +27118275935

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Aerosol, Category 1	H222;H229
Skin corrosion/irritation, Category 2	H315
Reproductive toxicity, Category 2	H361
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Specific target organ toxicity — Repeated exposure, Category 2	H373
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment — Acute Hazard, Category 2	H401
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

Full text of H statements : see section 16

2.2. Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS-ZA) :



Signal word (GHS-ZA) :

Danger

Hazardous ingredients

Hexane; HEPTANE; PENTANE

Hazard statements (GHS-ZA)

H222 - Extremely flammable aerosol.
 H229 - Pressurised container: May burst if heated.
 H304 - May be fatal if swallowed and enters airways.
 H315 - Causes skin irritation.
 H336 - May cause drowsiness or dizziness.
 H361 - Suspected of damaging fertility or the unborn child.
 H373 - May cause damage to organs through prolonged or repeated exposure.
 H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS-ZA)

P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 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.
 P260 - Do not breathe spray, mist, gas.
 P261 - Avoid breathing spray, mist, gas.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P271 - Use only outdoors or in a well-ventilated area.

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P273 - Avoid release to the environment.
P280 - Wear protective clothing, eye protection, face protection.
P301+P310 - IF SWALLOWED: Immediately call a doctor, a POISON CENTER.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 - IF exposed or concerned: Get medical advice, medical attention.
P312 - Call a POISON CENTER, a doctor if you feel unwell.
P314 - Get medical attention, medical advice if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label)
P331 - Do NOT induce vomiting.
P332+P313 - If skin irritation occurs: Get medical attention, medical advice.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P501 - Dispose of contents and container to an approved waste disposal plant.

2.3. Other hazards

Adverse physicochemical, human health and environmental effects : Pressurised container: May burst if heated, Extremely flammable aerosol, Suspected of damaging fertility or the unborn child, May cause damage to organs through prolonged or repeated exposure, May cause drowsiness or dizziness, Causes skin irritation, May be fatal if swallowed and enters airways, Toxic to aquatic life, Toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
Hexane	(CAS-No.) 110-54-3	19 - 38	Flam. Liq. 2, H225 Acute Tox. Not classified (Oral) Acute Tox. 5 (Dermal), H313 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
HEPTANE	(CAS-No.) 142-82-5	9.5 - 19	Flam. Liq. 2, H225 Acute Tox. 5 (Oral), H303 Acute Tox. 4 (Dermal), H312 Acute Tox. Not classified (Inhalation:dust,mist) Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
PENTANE	(CAS-No.) 109-66-0	5.7 - 7.6	Flam. Liq. 2, H225 Acute Tox. 5 (Oral), H303 Acute Tox. Not classified (Inhalation:dust,mist) STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
METHYL ALCOHOL	(CAS-No.) 67-56-1	0.1 - 1	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331 STOT SE 1, H370 Aquatic Acute 3, H402 Aquatic Chronic Not classified
CHLOROTRIFLUOROPROPENE	(CAS-No.) 102687-65-0	> 0.98	Pyr. Gas Not classified Acute Tox. Not classified (Inhalation:gas) Aquatic Acute 3, H402
NITROGEN	(CAS-No.) 7727-37-9		Not classified
butane	(CAS-No.) 106-97-8		Pyr. Gas Not classified Flam. Gas 1, H220 Aquatic Acute 3, H402
isobutane	(CAS-No.) 75-28-5		Flam. Gas 1, H220
propane	(CAS-No.) 74-98-6		Flam. Gas 1, H220

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Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after ingestion	: Risk of lung oedema.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Dry powder. Foam. Carbon dioxide.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: Extremely flammable aerosol.
Explosion hazard	: Pressurised container: May burst if heated.

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe gas, mist, spray. Avoid contact with skin and eyes.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe gas, mist, spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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According to SANS 10234:2008 and SANS 11014:2010

Hexane (110-54-3)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	n-Hexane
OEL TWA (mg/m ³)	70 mg/m ³
OEL TWA (ppm)	20 ppm
Regulatory reference	Government Notice. R: 1179
HEPTANE (142-82-5)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	n-Heptane
OEL TWA (mg/m ³)	1600 mg/m ³
OEL TWA (ppm)	400 ppm
OEL STEL (mg/m ³)	2000 mg/m ³
OEL STEL (ppm)	500 ppm
Regulatory reference	Government Notice. R: 1179
PENTANE (109-66-0)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	Pentane
OEL TWA (mg/m ³)	1800 mg/m ³
OEL TWA (ppm)	600 ppm
OEL STEL (mg/m ³)	2250 mg/m ³
OEL STEL (ppm)	750 ppm
Regulatory reference	Government Notice. R: 1179
METHYL ALCOHOL (67-56-1)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	Methanol
OEL TWA (mg/m ³)	260 mg/m ³
OEL TWA (ppm)	200 ppm
OEL STEL (mg/m ³)	310 mg/m ³
OEL STEL (ppm)	250 ppm
Remark	Sk
Regulatory reference	Government Notice. R: 1179
butane (106-97-8)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	Butane
OEL TWA (mg/m ³)	1430 mg/m ³
OEL TWA (ppm)	600 ppm
OEL STEL (mg/m ³)	1780 mg/m ³
OEL STEL (ppm)	750 ppm
Regulatory reference	Government Notice. R: 1179

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : [In case of inadequate ventilation] wear respiratory protection.

8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : No data available
Colour : No data available

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Odour	: No data available
Odour threshold	: No data available
pH	: No data available
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Extremely flammable aerosol.
Vapour pressure	: No data available
Vapour pressure at 50 °C	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Relative density of saturated gas/air mixture	: No data available
Density	: 0.601 g/cm ³
Relative gas density	: No data available
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: 0.511 mm ² /s
Viscosity, dynamic	: 0.307 mPa·s calculated
Explosive properties	: Pressurised container: May burst if heated.
Oxidising properties	: No data available
Explosive limits	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

CHLOROTRIFLUOROPROPENE (102687-65-0)

LC50 inhalation rat (ppm)	120000 ppm/4h
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Hexane (110-54-3)

LD50 oral rat	24 - 49 ml/kg
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According to SANS 10234:2008 and SANS 11014:2010

Hexane (110-54-3)	
LD50 dermal rabbit	5 ml/kg
LC50 inhalation rat (ppm)	73860 ppm/4h
HEPTANE (142-82-5)	
LD50 oral rat	5000 mg/kg bodyweight ECHA, 2019
LD50 dermal rabbit	2000 mg/kg bodyweight ECHA, 2019
LC50 inhalation rat (mg/l)	29.29 - 73.5 mg/l/4h ECHA, 2019
PENTANE (109-66-0)	
LD50 oral rat	2000 - 5000 mg/kg bodyweight
LC50 inhalation rat (mg/l)	25.3 mg/l/4h
METHYL ALCOHOL (67-56-1)	
LD50 oral rat	1187 - 2769 mg/kg bodyweight
LC50 inhalation rat (mg/l)	115.9 - 130.7 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: May be fatal if swallowed and enters airways.

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Vaporizer	Aerosol
Viscosity, kinematic	0.511 mm ² /s

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	: Toxic to aquatic life.
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.

CHLOROTRIFLUOROPROPENE (102687-65-0)	
LC50 fish 1	38 mg/l
EC50 Daphnia 1	82 mg/l
EC50 72h algae (1)	215 mg/l
Log Pow	2.2

Hexane (110-54-3)	
Log Pow	4

HEPTANE (142-82-5)	
EC50 Daphnia 1	1.5 mg/l ECHA, 2019
Log Pow	4.5 ECHA, 2019

PENTANE (109-66-0)	
Log Pow	3.45

METHYL ALCOHOL (67-56-1)	
LC50 fish 1	15.4 g/l
NOEC chronic fish	446.7 mg/l 28 days
Log Pow	-0.77

butane (106-97-8)	
LC50 fish 1	24.11 - 147.54 mg/l
Log Pow	1.09 - 2.8

12.2. Persistence and degradability

Herschell EC Electronic Cleaner Flammable	
Persistence and degradability	No additional information available

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According to SANS 10234:2008 and SANS 11014:2010

12.3. Bioaccumulative potential

Herschell EC Electronic Cleaner Flammable	
Bioaccumulative potential	No additional information available
CHLOROTRIFLUOROPROPENE (102687-65-0)	
Log Pow	See section 12.1 on ecotoxicology
Hexane (110-54-3)	
Log Pow	See section 12.1 on ecotoxicology
HEPTANE (142-82-5)	
Log Pow	See section 12.1 on ecotoxicology
PENTANE (109-66-0)	
Log Pow	See section 12.1 on ecotoxicology
METHYL ALCOHOL (67-56-1)	
Log Pow	See section 12.1 on ecotoxicology
butane (106-97-8)	
Log Pow	See section 12.1 on ecotoxicology

12.4. Mobility in soil

Herschell EC Electronic Cleaner Flammable	
Mobility in soil	No additional information available
CHLOROTRIFLUOROPROPENE (102687-65-0)	
Log Pow	See section 12.1 on ecotoxicology
Hexane (110-54-3)	
Log Pow	See section 12.1 on ecotoxicology
HEPTANE (142-82-5)	
Log Pow	See section 12.1 on ecotoxicology
PENTANE (109-66-0)	
Log Pow	See section 12.1 on ecotoxicology
METHYL ALCOHOL (67-56-1)	
Log Pow	See section 12.1 on ecotoxicology
butane (106-97-8)	
Log Pow	See section 12.1 on ecotoxicology

12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available







SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. UN number		
1950	1950	1950
14.2. Proper Shipping Name		
AEROSOLS	AEROSOLS	Aerosols, flammable
14.3. Transport hazard class(es)		
2.1	2.1	2.1
 	 	 
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment : Yes	Dangerous for the environment : No	Dangerous for the environment : No

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According to SANS 10234:2008 and SANS 11014:2010

SANS	IMDG	IATA
	Marine pollutant : No	
No supplementary information available		

14.6. Special precautions for user

- SANS

Special provisions (SANS)	: 63, 190
Limited quantities (SANS)	: See SP277
Limited quantities (SANS)	: See SP277
Packagings, large packagings and IBCs	: P003
Packing instructions (SANS)	
Packagings, large packagings and IBCs Special packing instructions (SANS)	: PP17, PP87

- IMDG

Special provisions (IMDG)	: 63, 190, 277, 327, 344, 381, 959
Packing instructions (IMDG)	: P207, LP200
Special packing provisions (IMDG)	: PP87, L2
EmS-No. (Fire)	: F-D - FIRE SCHEDULE Delta - FLAMMABLE GASES
EmS-No. (Spillage)	: S-U - SPILLAGE SCHEDULE Uniform - GASES (FLAMMABLE, TOXIC OR CORROSIVE)
Stowage category (IMDG)	: None

- IATA

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Y203
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 203
PCA max net quantity (IATA)	: 75kg
CAO packing instructions (IATA)	: 203
CAO max net quantity (IATA)	: 150kg
Special provisions (IATA)	: A145, A167, A802
ERG code (IATA)	: 10L

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 national regulations specific for the product

Regulatory reference	: SANS 10234:2008; SANS 11014:2010; SANS 10228:2012; SANS 10229:2010; SANS 10232(1,2,4), SANS 10231:2018; Occupational Health and Safety Act 85 of 1993; National Road Traffic Act 93 of 1996.
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SECTION 16: Other information

Date of issue	: 05/07/2019
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Full text of H-statements:

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H303	May be harmful if swallowed
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H313	May be harmful in contact with skin
H315	Causes skin irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects.

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According to SANS 10234:2008 and SANS 11014:2010

H411	Toxic to aquatic life with long lasting effects.
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SDS South Africa

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.