

Safety Data Sheet dated 10/2/2017, version 8 This version cancels and substitutes any previous version

SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1. Product identifier Mixture identification: Trade name: POWER CLEAN IN 1.2. Relevant identified uses of the substance or mixture and uses advised against Recommended use: HIGH PRESSURE CLEANSER FOR EVAPORATORS 1.3. Details of the supplier of the safety data sheet Company: ERRECOM SRL Via Industriale, 14 Corzano (BS) Italy Tel. +39 030/9719096 Competent person responsible for the safety data sheet: lab@errecom.it 1.4. Emergency telephone number +39 02-6610-1029 Poison Control Center Niguarda Ca' Granda - Milano - ITALY

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

Danger, Aerosols 1, Extremely flammable aerosol. Pressurized container: may burst if heated.

Warning, Eye Irrit. 2, Causes serious eye irritation.

Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements Hazard pictograms:



Danger

Hazard statements:

H222+H229 Extremely flammable aerosol. Pressurized container: may burst if heated. H319 Causes serious eye irritation.

H412 Harmful 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.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

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.

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Special Provisions:

None Special provisions according to Annex XVII of REACH and subsequent amendments: None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb	er	Classification
>= 25% - < 30%	propane	Index number:	601-003-00-5	2.2/1 Flam. Gas 1 H220
< 30 /0		CAS:	74-98-6	🔗 2.5 Press. Gas H280
		EC:	200-827-9	
>= 20% -	ethanol; ethyl alcohol	Index	603-002-00-5	2.6/2 Flam. Liq. 2 H225
< 25%		number:		
		CAS:	64-17-5	3.3/2 Eye Irrit. 2 H319
		EC:	200-578-6	<u>^</u>
>= 7% - < 10%	butane	Index number:	601-004-00-0	📀 2.2/1 Flam. Gas 1 H220
< 10 <i>7</i> 0		CAS:	106-97-8	🔗 2.5 Press. Gas H280
		EC:	203-448-7	
>= 2.5%	isobutane	Index	601-004-00-0	2.2/1 Flam. Gas 1 H220
- < 5%		number:	75 00 5	🔶 2.5 Press. Gas H280
		CAS: EC:	75-28-5 200-857-2	✓ 2.5 FIESS. Gas FI200
>= 2.5%	propan-2-ol; isopropyl	Index	603-117-00-0	
- < 5%	alcohol; isopropanol	number:	005-117-00-0	2.6/2 Flam. Liq. 2 H225
		CAS:	67-63-0	3.3/2 Eye Irrit. 2 H319
		EC:	200-661-7	🕚 3.8/3 STOT SE 3 H336
		REACH No.:	01-21194575	
	2 · 2 · 2 · 4 · 4 · 4		58-25-XXXX	
>= 0.25% -	Amines, C12-14 (even numbered)-alkyldimeth	CAS: EC:	308062-28-4 931-292-6	3.1/4/Oral Acute Tox. 4 H302
< 0.5%	yl, N-oxides	20.	001 202 0	3.2/2 Skin Irrit. 2 H315
				🤣 3.3/1 Eye Dam. 1 H318
				4.1/A1 Aquatic Acute 1 H400
				4.1/C2 Aquatic Chronic 2
				H411
>=	N,	CAS:	94667-33-1	3.1/4/Oral Acute Tox. 4 H302
0.02% - < 0.1%	N-didecyl-N-methyl-pol y (oxyethyl) ammonium		01-21199503 27-36-0000	🤣 3.2/1B Skin Corr. 1B H314
	propionate			4.1/A1 Aquatic Acute 1 H400
				M=10.
				4.1/C1 Aquatic Chronic 1
				H410 M=10.

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>= 0.001% -	ethanediol; ethylene glycol	Index number:	603-027-00-1	1/4/Oral Acute Tox. 4 H302
< 0.02%		CAS: EC:	107-21-1 203-473-3	

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

- 4.2. Most important symptoms and effects, both acute and delayed None
- 4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Treatment:

I reatme None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

CO2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

None in particular.

- 5.2. Special hazards arising from the substance or mixture Do not inhale explosion and combustion gases.
 - Burning produces heavy smoke.
- 5.3. Advice for firefighters
 - Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures Wear personal protection equipment.
 - Remove all sources of ignition.
 - Remove all sources of Ignit Remove persons to safety.
 - Remove persons to safety.
 - See protective measures under point 7 and 8.
- 6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

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Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water. 6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Avoid contact with skin and eyes, inhalation of vapours and mists.
- Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from food, drink and feed.

- Incompatible materials:
- None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters propane - CAS: 74-98-6 ACGIH - Notes: Asphyxia ethanol; ethyl alcohol - CAS: 64-17-5 ACGIH - STEL: 1000 ppm - Notes: A3 - URT irr butane - CAS: 106-97-8 ACGIH - STEL: 1000 ppm - Notes: CNS impair isobutane - CAS: 75-28-5 ACGIH - STEL: 1000 ppm - Notes: CNS impair propan-2-ol; isopropyl alcohol; isopropanol - CAS; 67-63-0 ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Notes: A4, BEI - Eye and URT irr, **CNS** impair ethanediol; ethylene glycol - CAS: 107-21-1 EU - TWA(8h): 52 mg/m3, 20 ppm - STEL: 104 mg/m3, 40 ppm - Notes: Skin ACGIH - STEL: Ceiling 100 mg/m3 - Notes: (H), A4 - URT and eye irr **DNEL Exposure Limit Values** Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides - CAS: 308062-28-4 Worker Professional: 11 mg/kg - Consumer: 5.5 mg/kg - Exposure: Human Dermal -Frequency: Long Term, systemic effects Worker Professional: 6.2 mg/m³ - Consumer: 1.53 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects Consumer: 0.44 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

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PNEC Exposure Limit Values

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides - CAS: 308062-28-4

Target: Fresh Water - Value: 0.0335 mg/l

Target: Marine water - Value: 0.00335 mg/l

Target: Freshwater sediments - Value: 5.24 mg/kg

Target: Marine water sediments - Value: 0.524 mg/kg

Target: Soil (agricultural) - Value: 1.02 mg/kg

Target: Aquatic, periodic release - Value: 0.0335 mg/l

Target: Microorganisms in sewage treatments - Value: 24 mg/kg

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and	
Appearance and colour:	liquid colorless
Odour:	characteristic perfumed
Odour threshold:	N.A.
pH:	N.A.
Melting point / freezing point:	N.A.
Initial boiling point and boiling ra	ange: N.A.
Solid/gas flammability:	N.A.
Upper/lower flammability or exp	losive limits: N.A.
Vapour density:	N.A.
Flash point:	< 0 ° C
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	0.85 g/mL @ 20 °C
Solubility in water:	N.A.
Solubility in oil:	N.A.
Partition coefficient (n-octanol/v	vater): N.A.
Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.
9.2. Other information	
Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant pro	perties N.A.
V.O.C. (w/w):	58 %

SECTION 10: Stability and reactivity 10.1. Reactivity Stable under normal conditions 10.2. Chemical stability Stable under normal conditions 10.3. Possibility of hazardous reactions None 10.4. Conditions to avoid Stable under normal conditions. 10.5. Incompatible materials Avoid contact with combustible materials. The product could catch fire. 10.6. Hazardous decomposition products None. **SECTION 11: Toxicological information** 11.1. Information on toxicological effects Toxicological information of the product: POWER CLEAN IN a) acute toxicity Classification: Not classified Considerations: Based on available data, the classification criteria are not met b) skin corrosion/irritation Classification: Not classified Considerations: Based on available data, the classification criteria are not met c) serious eye damage/irritation Classification: The product is classified: Eve Irrit. 2 H319 d) respiratory or skin sensitisation Classification: Not classified Considerations: Based on available data, the classification criteria are not met e) germ cell mutagenicity Classification: Not classified Considerations: Based on available data, the classification criteria are not met f) carcinogenicity Classification: Not classified Considerations: Based on available data, the classification criteria are not met g) reproductive toxicity Classification: Not classified Considerations: Based on available data, the classification criteria are not met h) STOT-single exposure Classification: Not classified Considerations: Based on available data, the classification criteria are not met i) STOT-repeated exposure Classification: Not classified Considerations: Based on available data, the classification criteria are not met i) aspiration hazard Classification: Not classified Considerations: Based on available data, the classification criteria are

not met

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Toxicological information of the main substances found in the product: ethanol; ethyl alcohol - CAS: 64-17-5 a) acute toxicity: Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg Test: LC50 - Route: Inhalation - Species: Rat 120 mg/l - Duration: 4h Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg Test: LC50 - Route: Inhalation - Species: Mouse > 20 mg/l - Duration: 4h propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0 a) acute toxicity: Test: LD50 - Route: Oral - Species: Rat 4710 mg/kg Test: LD50 - Route: Skin -Species: Rat 12800 mg/kg Test: LC50 - Route: Inhalation - Species: Rat 76.2 mg/l - Duration: 4h Test: LD50 - Route: Skin - Species: Rabbit 6290 mg/kg Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides - CAS: 308062-28-4 a) acute toxicity: Test: LD50 - Route: Oral - Species: Rat 1064 mg/kg Test: NOAEL - Route: Oral -Species: Rat 88 mg/kg/day Test: LOAEL - Route: Skin - Species: Mouse 0.045 mg/cm² b) skin corrosion/irritation: Test: Skin Irritant - Route: Skin Positive c) serious eye damage/irritation: Test: Eye Irritant Positive d) respiratory or skin sensitisation: Test: Skin Sensitization - Route: Skin Negative ethanol; ethyl alcohol - CAS: 64-17-5 LD50 (RABBIT) ORAL: 6300 MG/KG LD50 (RAT) ORAL SINGLE DOSE: 7060 MG/KG

SECTION 12: Ecological information

12.1. Toxicity Adopt good working practices, so that the product is not released into the environment. POWER CLEAN IN Classification: The product is classified: Aquatic Chronic 3 - H412 Data: propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0 a) Aquatic acute toxicity: Endpoint: EC0 - Species: Fish 10000 mg/l - Duration h: 48 - Notes: Pimephales promelas Endpoint: LC50 - Species: Fish > 1400 mg/l - Duration h: 96 - Notes: Lepomis macrochirus Endpoint: LC50 - Species: Fish 6550 mg/l - Duration h: 96 - Notes: Pimephales promelas Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides - CAS: 308062-28-4 a) Aquatic acute toxicity: Endpoint: LC50 - Species: Fish 2.67 mg/l Endpoint: EC50 - Species: Daphnia 3.1 mg/l Endpoint: IC50 - Species: Algae 0.143 mg/l b) Aquatic chronic toxicity: Endpoint: NOEC - Species: Algae 0.078 mg/l - Duration h: 72 N, N-didecyl-N-methyl-poly (oxyethyl) ammonium propionate - CAS: 94667-33-1 **POWER CLEAN IN/8**

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a) Aquatic acute toxicity:	
Endpoint: I C50 - Species: F	Fich

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Acute Toxicity;
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t
tes: Immobilization;
es: Growth inhibitor;
es: Inhibitor of
-28-4
A %: N.A Notes:
57-33-1
ns test - Duration: 28
Irm Test - Duration:
cient 0.350000
cient 0.05 -

SECTION 13: Disposal considerations

13.1. Waste treatment methods Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

orion in ransport mormation	
14.1. UN number	
ADR-UN number:	1950
IATA-Un number:	1950
IMDG-Un number:	1950
14.2. UN proper shipping name	
ADR-Shipping Name:	AEREOSOLS, flammable
IATA-Technical name:	AEREOSOLS, flammable
IMDG-Technical name:	AEREOSOLS, flammable (propane, ethanol)
14.3. Transport hazard class(es)	
ADR-Class:	2
ADR-Label:	2.1
IATA-Class:	2.1

IATA-Label:	2.1
IMDG-Class:	2.1
14.4. Packing group	
14.5. Environmental hazards	
14.6. Special precautions for user	
ADR-Tunnel Restriction Code:	D
IATA-Passenger Aircraft:	203
IATA-Cargo Aircraft:	203
IMDG-Technical name:	AEREOSOLS, flammable (propane, ethanol)
IMDG-EMS:	F-D, S-U
14.7. Transport in bulk according to A	nnex II of Marpol and the IBC Code
N.A.	

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture Dir. 98/24/EC (Risks related to chemical agents at work) Dir. 2000/39/EC (Occupational exposure limit values) Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013 Regulation (EU) 2015/830 Regulation (EU) n. 286/2011 (ATP 2 CLP) Regulation (EU) n. 618/2012 (ATP 3 CLP) Regulation (EU) n. 487/2013 (ATP 4 CLP) Regulation (EU) n. 944/2013 (ATP 5 CLP) Regulation (EU) n. 605/2014 (ATP 6 CLP) Regulation (EU) n. 2015/1221 (ATP 7 CLP) Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications: Restrictions related to the product: **Restriction 3 Restriction 40** Restrictions related to the substances contained: No restriction. Where applicable, refer to the following regulatory provisions : Directive 2012/18/EU (Seveso III) Regulation (EC) nr 648/2004 (detergents). Dir. 2004/42/EC (VOC directive) Provisions related to directive EU 2012/18 (Seveso III): N.A. 15.2. Chemical safety assessment No Chemical Safety Assessment has been carried out for the mixture. **SECTION 16: Other information**

Full text of phrases referred to in Section 3:

H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.

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H411 Toxic to aquatic life with long lasting effects. H314 Causes severe skin burns and eye damage. H410 Very toxic to aquatic life with long lasting effects.

Hazard class and	Code	Description
hazard category		
Flam. Gas 1	2.2/1	Flammable gas, Category 1
Aerosols 1	2.3/1	Aerosol, Category 1
Press. Gas	2.5	Gases under pressure
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure,
		Category 3
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

Paragraphs modified from the previous revision:

SECTION 3: Composition/information on ingredients SECTION 11: Toxicological information SECTION 12: Ecological information SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Aerosols 1, H222+H229	On basis of test data
Eye Irrit. 2, H319	Calculation method
Aquatic Chronic 3, H412	Calculation method

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of
	Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical
	Society).
CLP:	Classification, Labeling, Packaging.

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DNEL: EINECS: GefStoffVO: GHS:	Derived No Effect Level. European Inventory of Existing Commercial Chemical Substances. Ordinance on Hazardous Substances, Germany. Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Áviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.