

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/18/2015

Reviewed on 03/18/2015

1 Identification

- **Product identifier**
- **Trade name:** ElectriCorr® VpCI®-248 Aerosol
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Corrosion inhibitors
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Cortec Corporation
4119 White Bear Parkway
St. Paul, MN 55110 USA
Phone (651) 429-1100
Fax (651) 429-1122
- **Information department:**
info@cortecvci.com
Product safety department.
- **Emergency telephone number:**
Spill, Leak, Fire, Exposure, or Accident
24 hour CHEMTREC contact:
USA and Canada 1-800-424-9300
International +1-703-527-3887 (collect calls accepted)

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 1A H350 May cause cancer.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Harmful

Harmful by inhalation.



Irritant

Irritating to eyes and skin.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms**

GHS07 GHS08

· **Signal word** Danger· **Hazard-determining components of labeling:**

3,3-Dichloro-1,1,1,2,2-pentafluoropropane
ethanol

· **Hazard statements**

Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause cancer.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Specific treatment (see on this label).
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system**· **NFPA ratings (scale 0-4)**

Health = 1
Fire = 1
Reactivity = 0

· **HMIS rating system (0-4)**

Health = 2
Flammability = 1
Reactivity = 0

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

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

Dangerous components:

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CAS: 422-56-0 EINECS: 207-016-9	3,3-Dichloro-1,1,1,2,2-pentafluoropropane Xn R20; Xi R36/38 Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	50-100%
CAS: 406-58-6 ELINCS: 430-250-1	1,1,1,3,3-pentafluorobutane F R11 Flam. Liq. 2, H225	2.5-10%
CAS: 64-17-5 EINECS: 200-578-6	ethanol F R11 Flam. Liq. 2, H225; Carc. 1A, H350	<1%

· **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

· Description of first aid measures

· General information

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably on side position for transportation.

· After skin contact

Rinse with warm water.

Immediately wash with water and soap and rinse thoroughly.

· After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing If symptoms persist consult doctor.

· Information for doctor

· Most important symptoms and effects, both acute and delayed No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

· Extinguishing media

· Suitable extinguishing agents

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· Special hazards arising from the substance or mixture

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

· Advice for firefighters

· Protective equipment: Mount respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Not required.



Wear protective equipment. Keep unprotected persons away.

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- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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 disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Do not store together with acids.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

Components with limit values that require monitoring at the workplace:

1,1,1,2-Tetrafluoroethane (10-25%)

WEEL Long-term value: 1000 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
Use suitable respiratory protective device only when aerosol or mist is formed.



Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:**
I.E., Nitrile, Viton, Neoprene
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed goggles.
- **Body protection:** Protective work clothing.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Aerosol
Color:	Light yellow
Odor:	Characteristic
Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	Not applicable, as aerosol

· Flash point: Not applicable, as aerosol

· Flammability (solid, gaseous) Not applicable.

· Ignition temperature:

Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapor pressure at 20 °C (68 °F): 5716 hPa (4287 mm Hg)

· Density at 20 °C (68 °F): 1.26-1.43 g/cm³ (10.515-11.933 lbs/gal)

· Relative density Not determined.

· Vapour density Not determined.

· Evaporation rate Not applicable.

· Solubility in / Miscibility with

Water: Fully miscible

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

dynamic:	Not determined.
kinematic:	Not determined.

· Solvent content:

Organic solvents: 0.9 %

Solids content: 7.0 %

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· **Other information**

The above data are typical values and do not constitute a specification.
Vapor pressure data are calculated unless otherwise noted.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

64-17-5 ethanol

1

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA** UN1950
- **UN proper shipping name**
- **DOT** Aerosols, non-flammable
- **ADR** 1950 Aerosols
- **IMDG** AEROSOLS
- **IATA** AEROSOLS, non-flammable

- **Transport hazard class(es)**

- **DOT**



- **Class** 2.2
- **Label** 2.2

- **ADR**



- **Class** 2 5A Gases
- **Label** 2.2

- **IMDG, IATA**



- **Class** 2.2

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· Label	2.2
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Gases
· Danger code (Kemler):	-
· EMS Number:	F-D,S-U
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN1950, Aerosols, 2.2

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15 Regulatory information

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

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

422-56-0 | 3,3-Dichloro-1,1,1,2,2-pentafluoropropane

· **TSCA (Toxic Substances Control Act) (Substances not listed)**

All ingredients are listed.

· **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **Canadian Domestic Substances List (DSL) (Substances not listed)**

3,3-Dichloro-1,1,1,2,2-pentafluoropropane

1,1,1,3,3-pentafluorobutane

· **Philippines Inventory of Chemicals and Chemical Substances (Substances not listed)**

1,1,1,3,3-pentafluorobutane

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· **Chinese Chemical Inventory of Existing Chemical Substances (Substances not listed)**

All ingredients are listed.

· **Australian Inventory of Chemical Substances (Substances not listed)**

1,1,1,3,3-pentafluorobutane

· **New Zealand Inventory of Chemicals (Substances not listed)**

All ingredients are listed.

· **Existing Chemical Substances (Substances not listed)**

All ingredients are listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

3,3-Dichloro-1,1,1,2,2-pentafluoropropane
ethanol

· **Hazard statements**

Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause cancer.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Specific treatment (see on this label).
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
NK	0.9

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
Cortec Corporation does not warranty any translation of this SDS not created by Cortec Corporation.

· **Date of preparation / last revision** 03/18/2015 / -

· **Abbreviations and acronyms:**

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
DOT: US Department of Transportation

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IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Carc. 1A: Carcinogenicity, Hazard Category 1A

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

USA