

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 20.11.2015

Revision: 20.11.2015

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

- **1.1 Product identifier**
- **Trade name:** VpCI® Coolant/Antifreeze
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Coolant/Antifreeze
- **1.3 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:** regulatory@cortecvci.com
- **1.4 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)  
UK +(44)-870-8200418


### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The product is not classified according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**  
Safety data sheet available on request.
- **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 nonhazardous additions.

· **Ingredients:**

CAS: 107-21-1	ethane-1,2-diol	 Acute Tox. 4, H302	50-100%
EINECS: 203-473-3			

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

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### SECTION 4: First aid measures

- **4.1 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.  
No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Call for a doctor immediately.
- **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**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**  
Carbon monoxide (CO)  
Nitrogen oxides (NO<sub>x</sub>)  
Sulphur dioxide (SO<sub>2</sub>)

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Do not allow undiluted product to enter sewers/surface or ground water
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose 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 disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
No special measures required.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** None.

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· 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:

##### 107-21-1 ethane-1,2-diol (50-100%)

WEL	Short-term value: 104** mg/m <sup>3</sup> , 40** ppm
	Long-term value: 10* 52** mg/m <sup>3</sup> , 20** ppm
	Sk *particulate **vapour

##### 124-68-5 2-amino-2-methylpropanol (1.06%)

OEL	Short-term value: 22 mg/m <sup>3</sup> , 6 ppm
	Long-term value: 7,4 mg/m <sup>3</sup> , 2 ppm

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

#### · 8.2 Exposure controls

##### · Personal protective equipment

· General protective and hygienic measures Keep away from foodstuffs, beverages and feed.

##### · Breathing equipment:



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

##### · Protection of hands:

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

##### · 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: Goggles recommended during refilling.

· Body protection: Protective work clothing.

### SECTION 9: Physical and chemical properties

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

##### · General Information

##### · Appearance:

Form:	Liquid
Colour:	Amber coloured
Odour:	Characteristic
Odour threshold:	Not determined.

pH-value at 20 °C:	8.7-9.3 (1% water)
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##### · Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	undetermined

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· <b>Flash point:</b>	> 94 °C
· <b>Flammability (solid, gaseous)</b>	Not applicable.
· <b>Ignition temperature:</b>	410 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>Self igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
Lower:	3.2 Vol %
Upper:	53.0 Vol %
· <b>Vapour pressure at 20 °C:</b>	0.1 hPa
· <b>Density at 20 °C:</b>	1.1044-1.1164 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
dynamic:	Not determined.
kinematic:	Not determined.
· <b>9.2 Other information</b>	The above data are typical values and do not constitute a specification. Vapor pressure data are calculated unless otherwise noted.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** Reacts with acids.
- **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** No further relevant information available.
- **10.5 Incompatible materials:** Acids
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

### 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:

##### 107-21-1 ethane-1,2-diol

Oral	LD50	5840 mg/kg (rat)
Dermal	LD50	9530 mg/kg (rbt)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.

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- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenity, 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** Based on available data, the classification criteria are not met.
- **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:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 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.
- **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**

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 01 00	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 15	antifreeze fluids other than those mentioned in 16 01 14

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

### SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR** Void
- **ADN, IMDG, IATA** Not applicable
- **ADN, IMDG, IATA** Void

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- |  |                 |
|--|-----------------|
| <b>· 14.2 UN proper shipping name</b>  |                 |
| <b>· ADR, ADN, IMDG, IATA</b>  | Void            |
| <b>· 14.3 Transport hazard class(es)</b>   |                 |
| <b>· ADR, ADN, IMDG, IATA</b>  |                 |
| <b>· Class</b>   | Void            |
| <b>· 14.4 Packing group</b>  |                 |
| <b>· ADR, IMDG, IATA</b>   | Void            |
| <b>· 14.5 Environmental hazards:</b>   |                 |
| <b>· Marine pollutant:</b>   | No              |
| <b>· 14.6 Special precautions for user</b>                                       | Not applicable. |
| <b>· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable. |
| <b>· UN "Model Regulation":</b>  | Void            |

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Directive 2012/18/EU**
  - **Named dangerous substances - ANNEX I** None of the ingredients is listed.
  - **National regulations**
  - **Technical instructions (air):**
- | Class  | Share in % |
|--------|------------|
| Wasser | 3.2        |
| NK     | 1.0        |
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
  - **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 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.

- **Relevant phrases**  
H302 Harmful if swallowed.
- **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  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

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Acute Tox. 4: Acute toxicity, Hazard Category 4

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

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