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1 Identification

· Product identifier

· Trade name: VpCI®-105/VpCI®-111

· 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:

Product safety department. info@cortecvci.com

· 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



Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

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



Harmful if swallowed.



Irritant

Irritating to eyes, respiratory system 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.

- · Additional information: Substance is packaged in a sealed container, cautions apply to powder inside.
- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

(Contd. of page 1)

Safety Data Sheet acc. to OSHA HCS

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Trade name: VpCI®-105/VpCI®-111

· Hazard pictograms



- · Signal word Warning
- · Hazard-determining components of labeling:

proprietary cyclic amino-carboxylate

Benzotriazole

· Hazard statements

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

· 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 = 1Fire = 1Reactivity = 0

· HMIS rating system (0-4)



1 Flammability = 1

- · 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:

(Contd. on page 3)

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		(Cont	d. of page 2)
		proprietary cyclic amino-carboxylate	25-50%
		Xn R22; Xi R36/37/38	
		Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	
CAS	S: 95-14-7	Benzotriazole	≤ 2.5%
EIN	ECS: 202-394-1	Xn R22	
		♦ Acute Tox. 3, H301	

· Additional information

Components are packaged in a sealed container, for ease of handling.

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 In case of unconsciousness place patient stably on side position for transportation.
- · After skin contact 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 swallowed, rinse mouth with water (only if the person is conscious)

Immediately call a 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 No further relevant information available.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: No special measures required.
- · Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· Reference to other sections

No dangerous substances are released.

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

USA

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(Contd. of page 3)

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: No special requirements.
- · 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:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · 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.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· Breathing equipment:



Use suitable respiratory protective device in case of insufficient ventilation.

· Protection of hands:

Protective gloves

I.E., Nitrile, Viton, Neoprene

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.

- · Eve protection: Tightly sealed goggles.
- · **Body protection:** Protective work clothing.

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(Contd. of page 4)

9 Physical and chemical proper	rties					
· Information on basic physical and · General Information	chemical properties					
· Appearance:						
Form:	Plastic cup with Tyvek lid					
Color:	Green					
· Odor:	Characteristic					
· Odour threshold:	Not determined.					
· pH-value:	Not applicable.					
· Change in condition						
Melting point/Melting range:	undetermined					
Boiling point/Boiling range:	undetermined					
· Flash point:	Not applicable					
· Flammability (solid, gaseous)	Not determined.					
· Ignition temperature:						
Decomposition temperature:	Not determined.					
· Auto igniting:	Product is not selfigniting.					
· Danger of explosion:	If container is comprimised, organic dusts may be released. As with all dusts, fine particles suspended in air in critical proprtions and in the presence of an ignition source may ignite and/or explode. Dust may be sensitive to ignition by electrostatic discharge, electrical arcs, sparks, welding torches, cigarettes, open flame, or other significant heat sources. As a precaution, implement standard safety measures for handling finely divided organic powders.					
· Explosion limits:						
Lower:	Not determined.					
Upper:	Not determined.					
· Vapor pressure:	Not applicable.					
· Density:	Not determined					
· Relative density	Not determined.					
· Vapour density	Not applicable.					
Evaporation rate	Not applicable.					
· Solubility in / Miscibility with						
Water:	Insoluble					
· Partition coefficient (n-octanol/water): Not determined.						
· Viscosity:						
dynamic:	Not applicable.					
kinematic:	Not applicable.					
· Solvent content:						
Organic solvents:	0.0 %					
Solids content:	99.5-100					
· Other information	The above data are typical values and do not constitute a specification.					

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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

	g	
· IARC (Into	ernational Agency for Research on Cancer)	
9002-88-	-4 Polyethylene Resin	3
112926-00-	-8 Silicon dioxide	3
· NTP (Natio	onal Toxicology Program)	
None of the	e ingredients is listed.	
· OSHA-Ca	(Occupational Safety & Health Administration)	
None of the	e 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: Not known to be hazardous to water.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

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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.

14 Transport information

	UN-	Num	ber
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· ADR, IMDG, IATA Not applicable

· UN proper shipping name

· IMDG, IATA Not applicable

- · Transport hazard class(es)
- · ADR, IMDG, IATA
- · Label Not applicable
- · Packing group Not applicable
- · Environmental hazards:
- · Marine pollutant: No
- · Special precautions for user Not applicable.
- · Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

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)

None of the ingredients is listed.

· 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.

- · Cancerogenity categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

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

None of the ingredients is listed.

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

proprietary cyclic amino-carboxylate

proprietary cyclic amino-carboxylate

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

proprietary cyclic amino-carboxylate

proprietary amine-alcohol salt

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

proprietary cyclic amino-carboxylate

proprietary cyclic amino-carboxylate

· Australian Inventory of Chemical Substances (Substances not listed)

All ingredients are listed.

· 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

· Signal word Warning

· Hazard-determining components of labeling:

proprietary cyclic amino-carboxylate

Benzotriazole

· Hazard statements

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

· 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.

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

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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.

 \cdot Date of preparation / last revision 04/23/2015 / -

· Abbreviations and acronyms:

ICAO: International Civil Aviation Organisation

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

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)

Acute Tox. 3: Acute toxicity, Hazard Category 3

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

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

* * Data compared to the previous version altered.

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